STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

CONTRACT NUMBER
59912 O4

PAGE	ORDER DATE
1 OF 10	02/09/18
BUSINESS UNIT	**BUYER**
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER 1896057

WIPRO LLC
2 TOWER CENTER BLVD STE 2200
EAST BRUNSWICK NJ 08816-1100

THE CONTRACT PERIOD IS:

JULY 01, 2014 THROUGH JUNE 30, 2020

THIS SERVICE CONTRACT HAS BEEN AMENDED PER THE FOLLOWING INFORMATION:

THIS CONTRACT IS NOT AN EXCLUSIVE CONTRACT TO FURNISH THE SERVICES SHOWN BELOW, AND DOES NOT PRECLUDE THE PURCHASE OF SIMILAR SERVICES FROM OTHER SOURCES.

THE STATE RESERVES THE RIGHT TO EXTEND THE PERIOD OF THIS CONTRACT BEYOND THE TERMINATION DATE WHEN MUTUALLY AGREEABLE TO THE VENDOR/CONTRACTOR AND THE STATE OF NEBRASKA.

Original/Bid Document 4544 Z1

Contract to replace the functionality of the current Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (EES) that meets the CMS Seven Standard and Conditions for the State of Nebraska as per the attached specifications for a six (6) year period from date of award. The contract may be renewed for two (2) additional two (2) year periods when mutually agreeable to the vendor and the State of Nebraska.

Vendor Contact: Thomas Stockdale
Phone: 813-335-0084
Fax: 573-659-0201
E-Mail: Thomas.Stockdale@Wipro.com

(06/13/2014 ked)

AMENDMENT ONE(1) AS ATTACHED (03/25/2015 ld)

AMENDMENT TWO (2) AS ATTACHED (06/13/16 djo)

AMENDMENT THREE (3) AS ATTACHED (06/07/17 wc)

AMENDMENT FOUR (4) AS ATTACHED (2/8/18 sc)

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
1	PROJECT KICK OFF LABOR	1.0000	EA	713,234.5000	713,234.50
2	PROJECT KICK OFF HARDWARE	1.0000	EA	1,760,350.0000	1,760,350.00
3	PROJECT KICK OFF BASE SOFTWARE	6,216,895.0000	$	1.0000	6,216,895.00
5	RISK MANAGEMENT AND ISSUES RESOLUTION PLAN	1.0000	EA	370,627.2100	370,627.21
6	SCOPE MANAGEMENT PLAN F	1.0000	EA	296,501.7700	296,501.77

DHHS Division Director

2/22/18 Annette Walton 2/13/18
BUYER

MATERIEL ADMINISTRATOR

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
2 of 10	02/09/18
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
7	PROJECT MANAGEMENT PLAN P	1.0000	EA	370,627.2100	370,627.21
8	PROJECT SCHEDULE P	1.0000	EA	370,627.2100	370,627.21
9	CONCEPT OF OPERATION PLAN F	1.0000	EA	370,627.2100	370,627.21
10	COMMUNICATION PLAN F	1.0000	EA	370,627.2100	370,627.21
11	CONFIGURATION AND PERFORMANCE MANAGEMENT PLAN F	1.0000	EA	370,627.2100	370,627.21
12	MIGRATION PLAN F	1.0000	EA	119,551.6900	119,551.69
13	ARCHITECTURE DIAGRAMS AND DESIGN DOCUMENTS ENVIRONMENTS F	1.0000	EA	239,103.3800	239,103.38
14	BUSINESS PROCESS MODELS AND GAP ANALYSIS F	1.0000	EA	239,103.3800	239,103.38
15	PROJECT MANAGEMENT PLAN F	1.0000	EA	316,734.3400	316,734.34
16	PROJECT SCHEDULE F	1.0000	EA	158,367.1700	158,367.17
17	QUALITY MANAGEMENT PLAN	1.0000	EA	316,734.3400	316,734.34
18	CHANGE MANAGEMENT PLAN	1.0000	EA	395,917.9200	395,917.92
20	RELEASE PLAN F	1.0000	EA	158,367.1700	158,367.17
22	REQUIREMENTS DOCUMENT P	1.0000	EA	411,638.1900	411,638.19
23	DETAILED DESIGN DOCUMENTS P	1.0000	EA	205,819.1000	205,819.10
24	TECHNICAL DESIGN DOCUMENTS P	1.0000	EA	205,819.1000	205,819.10
25	INFORMATION SECURITY RISK ASSESSMENT P	1.0000	EA	205,819.1000	205,819.10
26	SYSTEM SECURITY PLAN P	1.0000	EA	205,819.1000	205,819.10
27	TEST PLAN P	1.0000	EA	205,819.1000	205,819.10
28	TECHNICAL ARCHITECTURE DIAGRAMS F	1.0000	EA	411,638.1900	411,638.19

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
3 of 10	02/09/18
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
29	LOGICAL DATA MODEL F	1.0000	EA	205,819.1000	205,819.10
30	REQUIREMENTS DOCUMENT I	1.0000	EA	280,053.7100	280,053.71
31	SYSTEM DESIGN DOCUMENT P	1.0000	EA	280,053.7100	280,053.71
32	INTERFACE CONTROL DOCUMENT P	1.0000	EA	280,053.7100	280,053.71
33	DATABASE DESIGN DOCUMENT P	1.0000	EA	280,053.7100	280,053.71
34	DATA MANAGEMENT PLAN P	1.0000	EA	280,053.7100	280,053.71
35	PHYSICAL DATA MODEL P	1.0000	EA	280,053.7100	280,053.71
36	DATA CONVERSION PLAN P	1.0000	EA	280,053.7100	280,053.71
37	REQUIREMENT DOCUMENT F	1.0000	EA	118,193.1500	118,193.15
38	SYSTEM DESIGN DOCUMENT F	1.0000	EA	118,193.1500	118,193.15
39	INTERFACE CONTROL DOCUMENT F	1.0000	EA	118,193.1500	118,193.15
40	DATABASE DESIGN DOCUMENT F	1.0000	EA	118,193.1500	118,193.15
41	DATA MANAGEMENT PLAN F	1.0000	EA	118,193.1500	118,193.15
42	PHYSICAL DATA MODEL F	1.0000	EA	118,193.1500	118,193.15
43	DATA CONVERSION PLAN F	1.0000	EA	118,193.1500	118,193.15
45	TEST PLAN F	1.0000	EA	65,210.0100	65,210.01
46	CONTINGENCY RECOVER PLAN P	1.0000	EA	65,210.0100	65,210.01
47	IMPLEMENTATION PLAN P	1.0000	EA	65,210.0100	65,210.01
48	USER MANUALS P	1.0000	EA	65,210.0100	65,210.01
49	O&M MANUALS P	1.0000	EA	65,210.0100	65,210.01
50	TRAINING PLAN P	1.0000	EA	130,420.0200	130,420.02
51	TEST REPORTS P	1.0000	EA	65,210.0100	65,210.01
52	SECURITY AGREEMENT P	1.0000	EA	65,210.0100	65,210.01
53	INFORMATION SECURITY RISK ASSESSMENT F	1.0000	EA	65,210.0100	65,210.01

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
4 of 10	02/09/18
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
54	SYSTEM SECURITY PLAN F	1.0000	EA	65,210.0100	65,210.01
55	AUTOMATED CODE REVIEW RESULTS F	1.0000	EA	65,210.0100	65,210.01
56	BUSINESS PRODUCT P	1.0000	EA	65,210.0100	65,210.01
57	TRAINING MATERIALS P	1.0000	EA	65,210.0100	65,210.01
58	CONTINGENCY RECOVER PLAN F	1.0000	EA	85,333.4100	85,333.41
59	IMPLEMENTATION PLAN F	1.0000	EA	85,333.4100	85,333.41
60	POST IMPLEMENTATION SUPPORT PLAN	1.0000	EA	85,333.4100	85,333.41
61	USER MANUALS F	1.0000	EA	85,333.4100	85,333.41
62	O&M MANUALS F	1.0000	EA	85,333.4100	85,333.41
63	TRAINING PLAN F	1.0000	EA	85,333.4100	85,333.41
64	TEST REPORTS F	1.0000	EA	85,333.4100	85,333.41
65	SECURITY AGREEMENT F	1.0000	EA	85,333.4100	85,333.41
66	BUSINESS PRODUCT F	1.0000	EA	85,333.4100	85,333.41
67	TRAINING MATERIALS F	1.0000	EA	85,333.4100	85,333.41
69	PROJECT COMPLETION REPORT F	1.0000	EA	85,333.4100	85,333.41
70	SLAS MOU	1.0000	EA	85,333.4100	85,333.41
72	POA AND M F	1.0000	EA	85,333.4100	85,333.41
73	AUTHORITY TO OPERATE F	1.0000	EA	85,333.4100	85,333.41
84	POST IMPLEMENTATION M&O FIRST 1ST TWELVE 12 MONTH PERIOD	1.0000	EA	2,654,883.0000	2,654,883.00
85	HOSTING AND DISASTER RECOVERY FIRST 1ST TWELVE 12 MONTH PERIOD	1.0000	EA	1,282,856.0000	1,282,856.00
86	POST IMPLEMENTATION M&O SECOND 2ND TWELVE 12 MONTH PERIOD	1.0000	EA	3,967,463.0000	3,967,463.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
5 of 10	02/09/18
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
87	HOSTING AND DISASTER RECOVERY SECOND 2ND TWELVE 12 MONTH PERIOD	1.0000	EA	1,282,856.0000	1,282,856.00
90	POST IMPLEMENTATION M AND O THIRD 3RD TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
91	HOSTING AND DISASTER RECOVERY THIRD 3RD TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00
92	POST IMPLEMENTATION WARRANTY FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
93	POST IMPLEMENTATION M AND O FOURTH 4TH TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
94	HOSTING AND DISASTER RECOVERY FOURTH 4TH TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00
95	POST IMPLEMENTATION WARRANTY SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
96	POST IMPLEMENTATION M AND O FIFTH 5TH TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
97	HOSTING AND DISASTER RECOVERY FIFTH 5TH TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00
98	POST IMPLEMENTATION WARRANTY THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
99	POST IMPLEMENTATION M AND O SIXTH 6TH TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
100	HOSTING AND DISASTER RECOVERY SIXTH 6TH TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
6 of 10	02/09/18
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
104	SOFTWARE AND HARDWARE 1ST ANNIVERSARY SUBSCRIPTION COST	1.0000	EA	1,068,747.0000	1,068,747.00
105	NON IBM SOFTWARE COST	1.0000	EA	206,478.0000	206,478.00
106	ENVIRONMENT READINESS SANDBOX	1.0000	EA	227,079.9300	227,079.93
107	ENVIRONMENT READINESS DEV DEVELOPMENT	1.0000	EA	38,023.3200	38,023.32
108	ENVIRONMENT READINESS SYSTEST SYSTEM TESTING	1.0000	EA	38,023.3200	38,023.32
109	ENVIRONMENT READINESS POC PROOF OF CONCEPT	1.0000	EA	38,023.3200	38,023.32
110	ENVIRONMENT READINESS INTTEST INTEGRATION TESTING	1.0000	EA	38,023.3200	38,023.32
111	ENVIRONMENT READINESS TRAINING	1.0000	EA	38,023.3200	38,023.32
112	ENVIRONMENT READINESS SHADOW PRODUCTION DRR SHADOW	1.0000	EA	38,023.3200	38,023.32
113	JAN 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
114	FEB 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
115	MARCH 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
116	APRIL 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
117	MAY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
118	JUNE 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
119	JULY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
120	AUGUST 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
121	SEPTEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
7 of 10	02/09/18
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
122	OCTOBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
123	NOVEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
124	DECEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
125	AR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	2,368,437.1100	2,368,437.11
126	PBR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	1,589,559.5200	1,589,559.52
127	FDDR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	529,853.1800	529,853.18
128	JAN 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
129	FEB 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
130	MARCH 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
131	APRIL 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
132	MAY 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
133	JUNE 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
134	JULY 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
135	AUGUST 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
136	SEPTEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
137	OCTOBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
138	NOVEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
8 of 10	02/09/18
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
139	DECEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
140	JAN 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
141	FEB 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
142	MARCH 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
143	APRIL 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
144	MAY 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
145	JUNE 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
146	JULY 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
147	AUGUST 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
148	SEPTEMBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
149	OCTOBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
150	NOVEMBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
151	DECEMBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
152	OPERATION READINESS REVIEW ORR	1.0000	EA	264,926.5800	264,926.58
153	SOFTWARE AND HARDWARE 2ND ANNIVERSARY SUBSCRIPTION COST	1.0000	EA	1,579,993.0300	1,579,993.03
154	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW DEC 2016	1.0000	EA	218,121.7900	218,121.79
155	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW JAN 2017	1.0000	EA	218,121.7900	218,121.79

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
9 of 10	02/09/18
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
156	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW FEB 2017	1.0000	EA	218,121.7900	218,121.79
157	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW MAR 2017	1.0000	EA	218,121.7900	218,121.79
158	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW APRIL 2017	1.0000	EA	218,121.7900	218,121.79
159	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW MAY 2017	1.0000	EA	218,121.7900	218,121.79
160	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW JUNE 2017	1.0000	EA	218,121.7900	218,121.79
161	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW JULY 2017	1.0000	EA	218,121.7900	218,121.79
162	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW AUG 2017	1.0000	EA	218,121.7900	218,121.79
163	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW SEPT 2017	1.0000	EA	218,121.7900	218,121.79
164	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW OCT 2017	1.0000	EA	218,121.7900	218,121.79
165	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW NOV 2017	1.0000	EA	218,121.7900	218,121.79
166	COMPLETION OF FDU 1 DESIGN	1.0000	EA	930,867.0000	930,867.00
167	COMPLETION OF FDU 2 DESIGN	1.0000	EA	930,867.0000	930,867.00
168	COMPLETION OF FDU 3 DESIGN	1.0000	EA	930,867.0000	930,867.00
169	COMPLETION OF FDU 4 DESIGN	1.0000	EA	930,867.0000	930,867.00
170	COMPLETION OF FDU 1 CODING	1.0000	EA	310,289.0000	310,289.00
171	COMPLETION OF FDU 2 CODING	1.0000	EA	310,289.0000	310,289.00
172	COMPLETION OF FDU 3 CODING	1.0000	EA	310,289.0000	310,289.00
173	COMPLETION OF FDU 4 CODING	1.0000	EA	310,289.0000	310,289.00
174	COMPLETION OF FDU 1 PRE USER TESTING	1.0000	EA	310,289.0000	310,289.00
175	COMPLETION OF FDU 2 PRE USER TESTING	1.0000	EA	310,289.0000	310,289.00
176	COMPLETION OF FDU 3 PRE USER TESTING	1.0000	EA	310,289.0000	310,289.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
10 of 10	02/09/18
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
177	COMPLETION OF FDU 4 PRE USER TESTING	1.0000	EA	310,289.0000	310,289.00
178	DESIGN APPROACH	1.0000	EA	930,867.0000	930,867.00
179	DESIGN IMS	1.0000	EA	618,589.6100	618,589.61
180	DEVELOPMENT APPROACH	1.0000	EA	211,988.9400	211,988.94
181	DEVELOPMENT IMS	1.0000	EA	211,988.9400	211,988.94
182	TESTING APPROACH	1.0000	EA	211,988.9400	211,988.94
183	TESTING IMS	1.0000	EA	211,988.9400	211,988.94
184	SECURITY APPROACH	1.0000	EA	211,988.9300	211,988.93
185	TRAINING APPROACH	1.0000	EA	211,988.9300	211,988.93
186	CHANGE IMPACT ASSESSMENT	1.0000	EA	211,988.9400	211,988.94
187	CHANGE IMPACT ASSESSMENT ACTION PLANS	1.0000	EA	211,988.9400	211,988.94
188	GO LIVE	1.0000	EA	203,526.5500	203,526.55
189	ENVIRONMENT READINESS PERFTEST PERFORMANCE LOAD AND STRESS T	1.0000	EA	38,023.3200	38,023.32
190	ENVIRONMENT READINESS UAT USER ACCEPTANCE TESTING	1.0000	EA	38,023.3200	38,023.32
191	ENVIRONMENT READINESS STAGING	1.0000	EA	38,023.3200	38,023.32
192	ENVIRONMENT READINESS PROD PRODUCTION	1.0000	EA	38,023.3200	38,023.32
193	ENVIRONMENT READINESS PMO PROJECT MANAGEMENT OFFICE	1.0000	EA	38,023.3200	38,023.32
194	ENVIRONMENT READINESS EMR EMERGENCY REPAIR AKA BREAK FIX	1.0000	EA	38,023.3200	38,023.32
195	ENVIRONMENT READINESS DATACON DATA CONVERSION	1.0000	EA	38,023.3200	38,023.32
	Total Order				**82,992,592.93**

BUYER INITIALS

AMENDMENT FOUR
59912 O4
Medicaid Eligibility and Enrollment (E&E) System for the State of Nebraska
Between
The State of Nebraska and Wipro LLC

This Amendment (the "Amendment") is made by the State of Nebraska and Wipro, LLC, parties to Contract 59912-O4 (the "Contract"), and upon mutual agreement and other valuable consideration the parties agree to and hereby amend the contract to add the following terms:

BUSINESS ASSOCIATE PROVISIONS

A. Business Associate. "Business Associate" shall generally have the same meaning as the term "business associate" at 45 CFR 160.103, and in reference to the party to this Contract, shall mean Contractor.

B. Covered Entity. "Covered Entity" shall generally have the same meaning as the term "covered entity" at 45 CFR 160.103, and in reference to the party to this contract, shall mean DHHS.

C. HIPAA Rules. "HIPAA Rules" shall mean the Privacy, Security, Breach Notification, and Enforcement Rules at 45 CFR Part 160 and Part 164.

D. Other Terms. The following terms shall have the same meaning as those terms in the HIPAA Rules: Breach, Data Aggregation, Designated Record Set, Disclosure, Health Care Operations, Individual, Minimum Necessary, Notice of Privacy Practices, Protected Health Information, Required By Law, Secretary, Security Incident, Subcontractor, Unsecured Protected Health Information, and Use.

E. The Contractor shall do the following:

1. Not use or disclose protected health information other than as permitted or required by this Contract, consistent with DHHS' minimum necessary policies and procedures, or as required by law.

2. Implement and maintain appropriate administrative, physical, and technical safeguards, and comply with Subpart C of 45 CFR Part 164 with respect to electronic protected health information, to prevent access to, use, or disclosure of protected health information other than as provided for by the Contract and assess potential risks and vulnerabilities to the individual health data in its care and custody and develop, implement, and maintain reasonable security measures.

3. Report to DHHS, within fifteen (15) days, any use or disclosure of protected health information not provided for by this Contract of which it becomes aware, including breaches of unsecured protected health information as required by 45 CFR 164.410, and any security incident of which it becomes aware. Contractor shall, as instructed by DHHS, take immediate steps to mitigate any harmful effect of such unauthorized disclosure of protected health information pursuant to the conditions of this Contract through the preparation and completion of a written Corrective Action Plan subject to the review and approval by the DHHS. The Contractor shall report any breach to the individuals affected

and to the HHS Office of Civil Rights, and if warranted the media, on behalf of the covered entity, as required by the HIPAA regulations.

4. In accordance with 45 CFR 164.502(e)(1)(ii) and 164.308(b)(2), if applicable, ensure that any subcontractors that create, receive, maintain, or transmit protected health information on behalf of the Contractor agree to the same restrictions, conditions, and requirements that apply to the Contractor with respect to such information;

5. Within fifteen (15) days:

    a. make available protected health information in a designated record set to DHHS as necessary to satisfy DHHS' obligations under 45 CFR 164.524;

    b. Make any amendment(s) to protected health information in a designated record set as directed or agreed to by DHHS pursuant to 45 CFR 164.526, or take other measures as necessary to satisfy DHHS' obligations under 45 CFR 164.526;

    c. Maintain and make available the information required to provide an accounting of disclosures to DHHS as necessary to satisfy DHHS' obligations under 45 CFR 164.528;

6. To the extent the Contractor is to carry out one or more of DHHS' obligation(s) under Subpart E of 45 CFR Part 164, comply with the requirements of Subpart E that apply to DHHS in the performance of such obligation(s); and

7. Make its internal practices, books, and records available to the Secretary for purposes of determining compliance with the HIPAA Rules.

F. The Contractor is permitted to use and disclose protected health information:

    1. As necessary to perform the services set forth in this Contract;

    2. As required by applicable law; and

    3. Consistent with DHHS' minimum necessary policies and procedures.

G. The Contractor may not use or disclose protected health information in a manner that would violate Subpart E of 45 CFR Part 164 if done by DHHS.

This amendment and any attachments hereto will become part of the Contract. Except as set forth in this Amendment, the Contract is unaffected and shall continue in full force and effect in accordance with its terms. If there is conflict between this amendment and the Contract or any earlier amendment, the terms of this amendment will prevail.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the date of execution by both parties below.

State of Nebraska

By: Douglas Wilken
(Signature)

Name: Douglas Wilken
(Printed)

Title: Materiel Administrator

Date: 22 FEB 18

Contractor: Wipro LLC

By: Anuj Kumar
(Signature)

Name: ANUJ KUMAR
(Printed)

Title: VICE PRESIDENT

Date: 02/01/2018

State of Nebraska DHHS

By: [signature]
(Signature)

Name: Thomas "Rocky" Thompson
(Printed)

Title: Interim Director

Date: 2-16-18

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
1 of 10	06/07/17
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

VENDOR ADDRESS:

WIPRO LLC
2 TOWER CENTER BLVD STE 2200
EAST BRUNSWICK NJ 08816-1100

CONTRACT NUMBER
59912 O4

AN AWARD HAS BEEN MADE TO THE VENDOR/CONTRACTOR NAMED ABOVE FOR THE SERVICES AS LISTED BELOW FOR THE PERIOD:

JULY 01, 2014 THROUGH JUNE 30, 2020

THIS CONTRACT IS NOT AN EXCLUSIVE CONTRACT TO FURNISH THE SERVICES SHOWN BELOW, AND DOES NOT PRECLUDE THE PURCHASE OF SIMILAR SERVICES FROM OTHER SOURCES.

THE STATE RESERVES THE RIGHT TO EXTEND THE PERIOD OF THIS CONTRACT BEYOND THE TERMINATION DATE WHEN MUTUALLY AGREEABLE TO THE VENDOR/CONTRACTOR AND THE STATE OF NEBRASKA.

Original/Bid Document 4544 Z1

Contract to replace the functionality of the current Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (EES) that meets the CMS Seven Standard and Conditions for the State of Nebraska as per the attached specifications for a six (6) year period from date of award. The contract may be renewed for two (2) additional two (2) year periods when mutually agreeable to the vendor and the State of Nebraska.

Vendor Contact: Thomas Stockdale
Phone: 813-335-0084
Fax: 573-659-0201
E-Mail: Thomas.Stockdale@Wipro.com

(06/13/2014 ked)

AMENDMENT ONE(1) AS ATTACHED (03/25/2015 ld)

AMENDMENT TWO (2) AS ATTACHED (06/13/16 djo)

AMENDMENT THREE (3) AS ATTACHED (06/07/17 wc)

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
1	PROJECT KICK OFF LABOR	1.0000	EA	713,234.5000	713,234.50
2	PROJECT KICK OFF HARDWARE	1.0000	EA	1,760,350.0000	1,760,350.00
3	PROJECT KICK OFF BASE SOFTWARE	6,216,895.0000	$	1.0000	6,216,895.00
5	RISK MANAGEMENT AND ISSUES RESOLUTION PLAN	1.0000	EA	370,627.2100	370,627.21
6	SCOPE MANAGEMENT PLAN F	1.0000	EA	296,501.7700	296,501.77

DHHS Division Director

6/9/17 KS/bgp

BUYER

MATERIEL ADMINISTRATOR

R43500|NISK0002|NISK0002 20150901

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
2 of 10	06/07/17
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
7	PROJECT MANAGEMENT PLAN P	1.0000	EA	370,627.2100	370,627.21
8	PROJECT SCHEDULE P	1.0000	EA	370,627.2100	370,627.21
9	CONCEPT OF OPERATION PLAN F	1.0000	EA	370,627.2100	370,627.21
10	COMMUNICATION PLAN F	1.0000	EA	370,627.2100	370,627.21
11	CONFIGURATION AND PERFORMANCE MANAGEMENT PLAN F	1.0000	EA	370,627.2100	370,627.21
12	MIGRATION PLAN F	1.0000	EA	119,551.6900	119,551.69
13	ARCHITECTURE DIAGRAMS AND DESIGN DOCUMENTS ENVIRONMENTS F	1.0000	EA	239,103.3800	239,103.38
14	BUSINESS PROCESS MODELS AND GAP ANALYSIS F	1.0000	EA	239,103.3800	239,103.38
15	PROJECT MANAGEMENT PLAN F	1.0000	EA	316,734.3400	316,734.34
16	PROJECT SCHEDULE F	1.0000	EA	158,367.1700	158,367.17
17	QUALITY MANAGEMENT PLAN	1.0000	EA	316,734.3400	316,734.34
18	CHANGE MANAGEMENT PLAN	1.0000	EA	395,917.9200	395,917.92
20	RELEASE PLAN F	1.0000	EA	158,367.1700	158,367.17
22	REQUIREMENTS DOCUMENT P	1.0000	EA	411,638.1900	411,638.19
23	DETAILED DESIGN DOCUMENTS P	1.0000	EA	205,819.1000	205,819.10
24	TECHNICAL DESIGN DOCUMENTS P	1.0000	EA	205,819.1000	205,819.10
25	INFORMATION SECURITY RISK ASSESSMENT P	1.0000	EA	205,819.1000	205,819.10
26	SYSTEM SECURITY PLAN P	1.0000	EA	205,819.1000	205,819.10
27	TEST PLAN P	1.0000	EA	205,819.1000	205,819.10
28	TECHNICAL ARCHITECTURE DIAGRAMS F	1.0000	EA	411,638.1900	411,638.19

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
3 of 10	06/07/17
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
29	LOGICAL DATA MODEL F	1.0000	EA	205,819.1000	205,819.10
30	REQUIREMENTS DOCUMENT I	1.0000	EA	280,053.7100	280,053.71
31	SYSTEM DESIGN DOCUMENT P	1.0000	EA	280,053.7100	280,053.71
32	INTERFACE CONTROL DOCUMENT P	1.0000	EA	280,053.7100	280,053.71
33	DATABASE DESIGN DOCUMENT P	1.0000	EA	280,053.7100	280,053.71
34	DATA MANAGEMENT PLAN P	1.0000	EA	280,053.7100	280,053.71
35	PHYSICAL DATA MODEL P	1.0000	EA	280,053.7100	280,053.71
36	DATA CONVERSION PLAN P	1.0000	EA	280,053.7100	280,053.71
37	REQUIREMENT DOCUMENT F	1.0000	EA	118,193.1500	118,193.15
38	SYSTEM DESIGN DOCUMENT F	1.0000	EA	118,193.1500	118,193.15
39	INTERFACE CONTROL DOCUMENT F	1.0000	EA	118,193.1500	118,193.15
40	DATABASE DESIGN DOCUMENT F	1.0000	EA	118,193.1500	118,193.15
41	DATA MANAGEMENT PLAN F	1.0000	EA	118,193.1500	118,193.15
42	PHYSICAL DATA MODEL F	1.0000	EA	118,193.1500	118,193.15
43	DATA CONVERSION PLAN F	1.0000	EA	118,193.1500	118,193.15
45	TEST PLAN F	1.0000	EA	65,210.0100	65,210.01
46	CONTINGENCY RECOVER PLAN P	1.0000	EA	65,210.0100	65,210.01
47	IMPLEMENTATION PLAN P	1.0000	EA	65,210.0100	65,210.01
48	USER MANUALS P	1.0000	EA	65,210.0100	65,210.01
49	O&M MANUALS P	1.0000	EA	65,210.0100	65,210.01
50	TRAINING PLAN P	1.0000	EA	130,420.0200	130,420.02
51	TEST REPORTS P	1.0000	EA	65,210.0100	65,210.01
52	SECURITY AGREEMENT P	1.0000	EA	65,210.0100	65,210.01
53	INFORMATION SECURITY RISK ASSESSMENT F	1.0000	EA	65,210.0100	65,210.01

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
4 of 10	06/07/17
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
54	SYSTEM SECURITY PLAN F	1.0000	EA	65,210.0100	65,210.01
55	AUTOMATED CODE REVIEW RESULTS F	1.0000	EA	65,210.0100	65,210.01
56	BUSINESS PRODUCT P	1.0000	EA	65,210.0100	65,210.01
57	TRAINING MATERIALS P	1.0000	EA	65,210.0100	65,210.01
58	CONTINGENCY RECOVER PLAN F	1.0000	EA	85,333.4100	85,333.41
59	IMPLEMENTATION PLAN F	1.0000	EA	85,333.4100	85,333.41
60	POST IMPLEMENTATION SUPPORT PLAN	1.0000	EA	85,333.4100	85,333.41
61	USER MANUALS F	1.0000	EA	85,333.4100	85,333.41
62	O&M MANUALS F	1.0000	EA	85,333.4100	85,333.41
63	TRAINING PLAN F	1.0000	EA	85,333.4100	85,333.41
64	TEST REPORTS F	1.0000	EA	85,333.4100	85,333.41
65	SECURITY AGREEMENT F	1.0000	EA	85,333.4100	85,333.41
66	BUSINESS PRODUCT F	1.0000	EA	85,333.4100	85,333.41
67	TRAINING MATERIALS F	1.0000	EA	85,333.4100	85,333.41
69	PROJECT COMPLETION REPORT F	1.0000	EA	85,333.4100	85,333.41
70	SLAS MOU	1.0000	EA	85,333.4100	85,333.41
72	POA AND M F	1.0000	EA	85,333.4100	85,333.41
73	AUTHORITY TO OPERATE F	1.0000	EA	85,333.4100	85,333.41
84	POST IMPLEMENTATION M&O FIRST 1ST TWELVE 12 MONTH PERIOD	1.0000	EA	2,654,883.0000	2,654,883.00
85	HOSTING AND DISASTER RECOVERY FIRST 1ST TWELVE 12 MONTH PERIOD	1.0000	EA	1,282,856.0000	1,282,856.00
86	POST IMPLEMENTATION M&O SECOND 2ND TWELVE 12 MONTH PERIOD	1.0000	EA	3,967,463.0000	3,967,463.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
5 of 10	06/07/17
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
87	HOSTING AND DISASTER RECOVERY SECOND 2ND TWELVE 12 MONTH PERIOD	1.0000	EA	1,282,856.0000	1,282,856.00
90	POST IMPLEMENTATION M AND O THIRD 3RD TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
91	HOSTING AND DISASTER RECOVERY THIRD 3RD TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00
92	POST IMPLEMENTATION WARRANTY FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
93	POST IMPLEMENTATION M AND O FOURTH 4TH TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
94	HOSTING AND DISASTER RECOVERY FOURTH 4TH TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00
95	POST IMPLEMENTATION WARRANTY SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
96	POST IMPLEMENTATION M AND O FIFTH 5TH TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
97	HOSTING AND DISASTER RECOVERY FIFTH 5TH TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00
98	POST IMPLEMENTATION WARRANTY THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
99	POST IMPLEMENTATION M AND O SIXTH 6TH TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
100	HOSTING AND DISASTER RECOVERY SIXTH 6TH TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
6 of 10	06/07/17
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
104	SOFTWARE AND HARDWARE 1ST ANNIVERSARY SUBSCRIPTION COST	1.0000	EA	1,068,747.0000	1,068,747.00
105	NON IBM SOFTWARE COST	1.0000	EA	206,478.0000	206,478.00
106	ENVIRONMENT READINESS SANDBOX	1.0000	EA	227,079.9300	227,079.93
107	ENVIRONMENT READINESS DEV DEVELOPMENT	1.0000	EA	38,023.3200	38,023.32
108	ENVIRONMENT READINESS SYSTEST SYSTEM TESTING	1.0000	EA	38,023.3200	38,023.32
109	ENVIRONMENT READINESS POC PROOF OF CONCEPT	1.0000	EA	38,023.3200	38,023.32
110	ENVIRONMENT READINESS INTTEST INTEGRATION TESTING	1.0000	EA	38,023.3200	38,023.32
111	ENVIRONMENT READINESS TRAINING	1.0000	EA	38,023.3200	38,023.32
112	ENVIRONMENT READINESS SHADOW PRODUCTION DRR SHADOW	1.0000	EA	38,023.3200	38,023.32
113	JAN 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
114	FEB 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
115	MARCH 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
116	APRIL 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
117	MAY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
118	JUNE 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
119	JULY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
120	AUGUST 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
121	SEPTEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
7 of 10	06/07/17
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
122	OCTOBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
123	NOVEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
124	DECEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
125	AR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	2,368,437.1100	2,368,437.11
126	PBR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	1,589,559.5200	1,589,559.52
127	FDDR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	529,853.1800	529,853.18
128	JAN 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
129	FEB 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
130	MARCH 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
131	APRIL 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
132	MAY 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
133	JUNE 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
134	JULY 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
135	AUGUST 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
136	SEPTEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
137	OCTOBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
138	NOVEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
8 of 10	06/07/17
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
139	DECEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
140	JAN 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
141	FEB 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
142	MARCH 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
143	APRIL 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
144	MAY 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
145	JUNE 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
146	JULY 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
147	AUGUST 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
148	SEPTEMBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
149	OCTOBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
150	NOVEMBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
151	DECEMBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
152	OPERATION READINESS REVIEW ORR	1.0000	EA	264,926.5800	264,926.58
153	SOFTWARE AND HARDWARE 2ND ANNIVERSARY SUBSCRIPTION COST	1.0000	EA	1,579,993.0300	1,579,993.03
154	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW DEC 2016	1.0000	EA	218,121.7900	218,121.79
155	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW JAN 2017	1.0000	EA	218,121.7900	218,121.79

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
9 of 10	06/07/17
BUSINESS UNIT 25670281	BUYER ANNETTE WALTON (AS)
VENDOR NUMBER: 1896057	

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
156	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW FEB 2017	1.0000	EA	218,121.7900	218,121.79
157	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW MAR 2017	1.0000	EA	218,121.7900	218,121.79
158	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW APRIL 2017	1.0000	EA	218,121.7900	218,121.79
159	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW MAY 2017	1.0000	EA	218,121.7900	218,121.79
160	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW JUNE 2017	1.0000	EA	218,121.7900	218,121.79
161	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW JULY 2017	1.0000	EA	218,121.7900	218,121.79
162	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW AUG 2017	1.0000	EA	218,121.7900	218,121.79
163	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW SEPT 2017	1.0000	EA	218,121.7900	218,121.79
164	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW OCT 2017	1.0000	EA	218,121.7900	218,121.79
165	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW NOV 2017	1.0000	EA	218,121.7900	218,121.79
166	COMPLETION OF FDU 1 DESIGN	1.0000	EA	930,867.0000	930,867.00
167	COMPLETION OF FDU 2 DESIGN	1.0000	EA	930,867.0000	930,867.00
168	COMPLETION OF FDU 3 DESIGN	1.0000	EA	930,867.0000	930,867.00
169	COMPLETION OF FDU 4 DESIGN	1.0000	EA	930,867.0000	930,867.00
170	COMPLETION OF FDU 1 CODING	1.0000	EA	310,289.0000	310,289.00
171	COMPLETION OF FDU 2 CODING	1.0000	EA	310,289.0000	310,289.00
172	COMPLETION OF FDU 3 CODING	1.0000	EA	310,289.0000	310,289.00
173	COMPLETION OF FDU 4 CODING	1.0000	EA	310,289.0000	310,289.00
174	COMPLETION OF FDU 1 PRE USER TESTING	1.0000	EA	310,289.0000	310,289.00
175	COMPLETION OF FDU 2 PRE USER TESTING	1.0000	EA	310,289.0000	310,289.00
176	COMPLETION OF FDU 3 PRE USER TESTING	1.0000	EA	310,289.0000	310,289.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
10 of 10	06/07/17
BUSINESS UNIT	BUYER
25670281	ANNETTE WALTON (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
177	COMPLETION OF FDU 4 PRE USER TESTING	1.0000	EA	310,289.0000	310,289.00
178	DESIGN APPROACH	1.0000	EA	930,867.0000	930,867.00
179	DESIGN IMS	1.0000	EA	618,589.6100	618,589.61
180	DEVELOPMENT APPROACH	1.0000	EA	211,988.9400	211,988.94
181	DEVELOPMENT IMS	1.0000	EA	211,988.9400	211,988.94
182	TESTING APPROACH	1.0000	EA	211,988.9400	211,988.94
183	TESTING IMS	1.0000	EA	211,988.9400	211,988.94
184	SECURITY APPROACH	1.0000	EA	211,988.9300	211,988.93
185	TRAINING APPROACH	1.0000	EA	211,988.9300	211,988.93
186	CHANGE IMPACT ASSESSMENT	1.0000	EA	211,988.9400	211,988.94
187	CHANGE IMPACT ASSESSMENT ACTION PLANS	1.0000	EA	211,988.9400	211,988.94
188	GO LIVE	1.0000	EA	203,526.5500	203,526.55
189	ENVIRONMENT READINESS PERFTEST PERFORMANCE LOAD AND STRESS T	1.0000	EA	38,023.3200	38,023.32
190	ENVIRONMENT READINESS UAT USER ACCEPTANCE TESTING	1.0000	EA	38,023.3200	38,023.32
191	ENVIRONMENT READINESS STAGING	1.0000	EA	38,023.3200	38,023.32
192	ENVIRONMENT READINESS PROD PRODUCTION	1.0000	EA	38,023.3200	38,023.32
193	ENVIRONMENT READINESS PMO PROJECT MANAGEMENT OFFICE	1.0000	EA	38,023.3200	38,023.32
194	ENVIRONMENT READINESS EMR EMERGENCY REPAIR AKA BREAK FIX	1.0000	EA	38,023.3200	38,023.32
195	ENVIRONMENT READINESS DATACON DATA CONVERSION	1.0000	EA	38,023.3200	38,023.32
	Total Order				**82,992,592.93**

BUYER INITIALS

AMENDMENT THREE
59912 O4
Medicaid Eligibility and Enrollment System for the State of Nebraska
Between
The State of Nebraska and Wipro, LLC

This Amendment (the "Amendment") is made by the State of Nebraska and Wipro, LLC, parties to Contract 59912 O4 (the "Contract"). Upon mutual agreement and other valuable consideration the parties agree to the following amendments effective March 1, 2017:

Lines 12, 16, 20, 23-27, 29-49, 51-73, 88-91, 93-94, 96-97, 99-100, 107-110, 112, 127 are replaced and superseded, and lines 143-195 are added to realign payable deliverables as follows:

Line Number	Description	Quantity	UOM	Unit Price
12	MIGRATION PLAN F	1	EA	$119,551.69
16	PROJECT SCHEDULE F	1	EA	$158,367.17
20	RELEASE PLAN F	1	EA	$158,367.17
23	DETAILED DESIGN DOCUMENTS P	1	EA	$205,819.10
24	TECHNICAL DESIGN DOCUMENTS P	1	EA	$205,819.10
25	INFORMATION SECURITY RISK ASSESSMENT P	1	EA	$205,819.10
26	SYSTEM SECURITY PLAN P	1	EA	$205,819.10
27	TEST PLAN P	1	EA	$205,819.10
29	LOGICAL DATA MODEL F	1	EA	$205,819.10
30	REQUIREMENTS DOCUMENT I	1	EA	$280,053.71
31	SYSTEM DESIGN DOCUMENT P	1	EA	$280,053.71
32	INTERFACE CONTROL DOCUMENT P	1	EA	$280,053.71
33	DATABASE DESIGN DOCUMENT P	1	EA	$280,053.71
34	DATA MANAGEMENT PLAN P	1	EA	$280,053.71
35	PHYSICAL DATA MODEL P	1	EA	$280,053.71
36	DATA CONVERSION PLAN P	1	EA	$280,053.71
37	REQUIREMENT DOCUMENT F	1	EA	$118,193.15
38	SYSTEM DESIGN DOCUMENT F	1	EA	$118,193.15
39	INTERFACE CONTROL DOCUMENT F	1	EA	$118,193.15
40	DATABASE DESIGN DOCUMENT F	1	EA	$118,193.15
41	DATA MANAGEMENT PLAN F	1	EA	$118,193.15
42	PHYSICAL DATA MODEL F	1	EA	$118,193.15
43	DATA CONVERSION PLAN F	1	EA	$118,193.15
44	DELETED	1	EA	$
45	TEST PLAN F	1	EA	$65,210.01
46	CONTINGENCY RECOVER PLAN P	1	EA	$65,210.01
47	IMPLEMENTATION PLAN P	1	EA	$65,210.01
48	USER MANUALS P	1	EA	$65,210.01
49	O&M MANUALS P	1	EA	$65,210.01
51	TEST REPORTS P	1	EA	$65,210.01
52	SECURITY AGREEMENT P	1	EA	$65.210.01
53	INFORMATION SECURITY RISK ASSESSMENT F	1	EA	$65,210.01

54	SYSTEM SECURITY PLAN F	1	EA	$65,210.01
55	AUTOMATED CODE REVIEW RESULTS F	1	EA	$65,210.01
56	BUSINESS PRODUCT P	1	EA	$65,210.01
57	TRAINING MATERIALS P	1	EA	$65,210.01
58	CONTINGENCY RECOVER PLAN F	1	EA	$85,333.41
59	IMPLEMENTATION PLAN F	1	EA	$85,333.41
60	POST IMPLEMENTATION SUPPORT PLAN	1	EA	$85,333.41
61	USER MANUALS F	1	EA	$85,333.41
62	O&M MANUALS F	1	EA	$85,333.41
63	TRAINING PLAN F	1	EA	$85,333.41
64	TEST REPORTS F	1	EA	$85,333.41
65	SECURITY AGREEMENT F	1	EA	$85,333.41
66	BUSINESS PRODUCT F	1	EA	$85,333.41
67	TRAINING MATERIALS F	1	EA	$85,333.41
68	DELETED	1	EA	$
69	PROJECT COMPLETION REPORT F	1	EA	$85,333.41
70	SLAS MOU	1	EA	$85,333.41
72	POA and M F	1	EA	$85,333.41
73	AUTHORITY TO OPERATE F	1	EA	$85,333.41
88	DELETED	1	EA	$
89	DELETED	1	EA	$
90	POST IMPLEMENTATION M&O THIRD 3RD TWELVE 12 MONTH PERIOD	1	EA	$3,941,806.00
91	HOSTING AND DISASTER RECOVERY THIRD 3RD TWELVE 12 MONTH PERIOD	1	EA	$1,308,513.00
93	POST IMPLEMENTATION M&O FOURTH 4TH TWELVE 12 MONTH PERIOD	1	EA	$3,941,806.00
94	HOSTING AND DISASTER RECOVERY FOURTH 4TH TWELVE 12 MONTH PERIOD	1	EA	$1,308,513.00
96	POST IMPLEMENTATION M&O FIFTH 5TH TWELVE 12 MONTH PERIOD	1	EA	$3,941,806.00
97	HOSTING AND DISASTER RECOVERY FIFTH 5TH TWELVE 12 MONTH PERIOD	1	EA	$1,308,513.00
99	POST IMPLEMENTATION M&O SIXTH 6TH TWELVE 12 MONTH PERIOD	1	EA	$3,941,806.00
100	HOSTING AND DISASTER RECOVERY SIXTH 6TH TWELVE 12 MONTH PERIOD	1	EA	$1,308,513.00
107	ENVIRONMENT READINESS DEV DEVELOPMENT	1	EA	$38,023.32
108	ENVIRONMENT READINESS SYSTEST SYSTEM TESTING	1	EA	$38,023.32
109	ENVIRONMENT READINESS POC PROOF OF CONCEPT	1	EA	$38,023.32

110	ENVIRONMENT READINESS INTTEST INTEGRATION TESTING	1	EA	$38,023.32
112	ENVIRONMENT READINESS SHADOW PRODUCTION DRR SHADOW	1	EA	$38,023.32
127	FDDR CONDUCT CMS STAGE GATE REVIEW	1	EA	$529,853.18

Line Number	Description	Quantity	Unit of Measure	Unit Cost
143	APRIL 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	$327,182.68
144	MAY 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	$327,182.68
145	JUNE 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	$327,182.68
146	JULY 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	$327,182.68
147	AUGUST 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	$327,182.68
148	SEPTEMBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	$327,182.68
149	OCTOBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	$327,182.68
150	NOVEMBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	$327,182.68
151	DECEMBER 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	$327,182.68
152	OPERATION READINESS REVIEW ORR	1	EA	$264,926.58
153	SOFTWARE AND HARDWARE 2ND ANNIVERSARY SUBSCRIPTION COST	1	EA	$1,579,993.03
154	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW DEC 2016	1	EA	$218,121.79
155	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW JAN 2017	1	EA	$218,121.79
156	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW FEB 2017	1	EA	$218,121.79
157	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW MAR 2017	1	EA	$218,121.79
158	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW APRIL 2017	1	EA	$218,121.79
159	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW MAY 2017	1	EA	$218,121.79
160	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW JUNE 2017	1	EA	$218,121.79
161	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW JULY 2017	1	EA	$218,121.79
162	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW AUG 2017	1	EA	$218,121.79
163	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW SEPT 2017	1	EA	$218,121.79
164	COMPLETION OF WORK PRODUCTS	1	EA	$218,121.79

	FOR ORC REVIEW OCT 2017			
165	COMPLETION OF WORK PRODUCTS FOR ORC REVIEW NOV 2017	1	EA	$218,121.79
166	COMPLETION OF FDU 1 DESIGN	1	EA	$930,867.00
167	COMPLETION OF FDU 2 DESIGN	1	EA	$930,867.00
168	COMPLETION OF FDU 3 DESIGN	1	EA	$930,867.00
169	COMPLETION OF FDU 4 DESIGN	1	EA	$930,867.00
170	COMPLETION OF FDU 1 CODING	1	EA	$310,289.00
171	COMPLETION OF FDU 2 CODING	1	EA	$310,289.00
172	COMPLETION OF FDU 3 CODING	1	EA	$310,289.00
173	COMPLETION OF FDU 4 CODING	1	EA	$310,289.00
174	COMPLETION OF FDU 1 PRE USER TESTING	1	EA	$310,289.00
175	COMPLETION OF FDU 2 PRE USER TESTING	1	EA	$310,289.00
176	COMPLETION OF FDU 3 PRE USER TESTING	1	EA	$310,289.00
177	COMPLETION OF FDU 4 PRE USER TESTING	1	EA	$310,289.00
178	DESIGN APPROACH	1	EA	$930,867.00
179	DESIGN IMS	1	EA	$618,589.61
180	DEVELOPMENT APPROACH	1	EA	$211,988.94
181	DEVELOPMENT IMS	1	EA	$211,988.94
182	TESTING APPROACH	1	EA	$211,988.94
183	TESTING IMS	1	EA	$211,988.94
184	SECURITY APPROACH	1	EA	$211,988.93
185	TRAINING APPROACH	1	EA	$211,988.93
186	CHANGE IMPACT ASSESSMENT	1	EA	$211,988.94
187	CHANGE IMPACT ASSESSMENT ACTION PLANS	1	EA	$211,988.94
188	GO LIVE	1	EA	$203,526.55
189	ENVIRONMENT READINESS PERFTEST PERFORMANCE, LOAD, AND STRESS TEST	1	EA	$38,023.32
190	ENVIRONMENT READINESS UAT USER ACCEPTANCE TESTING	1	EA	$38,023.32
191	ENVIRONMENT READINESS STAGING	1	EA	$38,023.32
192	ENVIRONMENT READINESS PROD PRODUCTION	1	EA	$38,023.32
193	ENVIRONMENT READINESS PMO PROJECT MANAGEMENT OFFICE	1	EA	$38,023.32
194	ENVIRONMENT READINESS EMR EMERGENCY REPAIR AKA BREAK FIX	1	EA	$38,023.32
195	ENVIRONMENT READINESS DATACON DATA CONVERSION	1	EA	$38,023.32

This amendment and any attachments hereto will become part of the Contract. Except as set forth in this Amendment, the Contract is unaffected and shall continue in full force and effect in accordance with its terms. If there is conflict between this amendment and the Contract or any earlier amendment, the terms of this amendment will prevail.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the date of execution by both parties below.

State of Nebraska

By: _____

Name: Bo Botelho

Title: Materiel Administrator

Date: 6/9/17

Contractor: WIPRO LLC

By: Anuj Kumar

Name: ANUJ KUMAR

Title: VICE PRESIDENT

Date: 05/30/2017

State of Nebraska Department of Health and Human Services

By: _____

Name: Thomas "Rocky" Thompson

Title: Interim Director

Date: June 8, 2017

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

CONTRACT NUMBER
59912 O4

PAGE	ORDER DATE
1 of 9	06/14/16
BUSINESS UNIT	BUYER
25670163	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

VENDOR ADDRESS:

WIPRO LLC
2 TOWER CENTER BLVD STE 2200
EAST BRUNSWICK NJ 08816-1100

THE CONTRACT PERIOD IS:

JULY 01, 2014 THROUGH JUNE 30, 2020

THIS SERVICE CONTRACT HAS BEEN AMENDED PER THE FOLLOWING INFORMATION:

THIS CONTRACT IS NOT AN EXCLUSIVE CONTRACT TO FURNISH THE SERVICES SHOWN BELOW, AND DOES NOT PRECLUDE THE PURCHASE OF SIMILAR SERVICES FROM OTHER SOURCES.

THE STATE RESERVES THE RIGHT TO EXTEND THE PERIOD OF THIS CONTRACT BEYOND THE TERMINATION DATE WHEN MUTUALLY AGREEABLE TO THE VENDOR/CONTRACTOR AND THE STATE OF NEBRASKA.

Original/Bid Document 4544 Z1

Contract to replace the functionality of the current Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (EES) that meets the CMS Seven Standard and Conditions for the State of Nebraska as per the attached specifications for a six (6) year period from date of award. The contract may be renewed for two (2) additional two (2) year periods when mutually agreeable to the vendor and the State of Nebraska.

Vendor Contact: Thomas Stockdale
Phone: 813-335-0084
Fax: 573-659-0201
E-Mail: Thomas.Stockdale@Wipro.com

(06/13/2014 ked)

AMENDMENT ONE(1) AS ATTACHED (03/25/2015 ld)

AMENDMENT TWO (2) AS ATTACHED (06/13/16 djo)

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
1	PROJECT KICK OFF LABOR	1.0000	EA	713,234.5000	713,234.50
2	PROJECT KICK OFF HARDWARE	1.0000	EA	1,760,350.0000	1,760,350.00
3	PROJECT KICK OFF BASE SOFTWARE	6,216,895.0000	$	1.0000	6,216,895.00
5	RISK MANAGEMENT AND ISSUES RESOLUTION PLAN	1.0000	EA	370,627.2100	370,627.21

DHHS DIVISION DIRECTOR

6/20/16 pk Jennifer Crouse 6-15-16
BUYER

6-21-16
MATERIEL ADMINISTRATOR

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
2 of 9	06/14/16
BUSINESS UNIT	BUYER
25670163	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
6	SCOPE MANAGEMENT PLAN F	1.0000	EA	296,501.7700	296,501.77
7	PROJECT MANAGEMENT PLAN P	1.0000	EA	370,627.2100	370,627.21
8	PROJECT SCHEDULE P	1.0000	EA	370,627.2100	370,627.21
9	CONCEPT OF OPERATION PLAN F	1.0000	EA	370,627.2100	370,627.21
10	COMMUNICATION PLAN F	1.0000	EA	370,627.2100	370,627.21
11	CONFIGURATION AND PERFORMANCE MANAGEMENT PLAN F	1.0000	EA	370,627.2100	370,627.21
12	MIGRATION PLAN F	1.0000	EA	239,103.3800	239,103.38
13	ARCHITECTURE DIAGRAMS AND DESIGN DOCUMENTS ENVIRONMENTS F	1.0000	EA	239,103.3800	239,103.38
14	BUSINESS PROCESS MODELS AND GAP ANALYSIS F	1.0000	EA	239,103.3800	239,103.38
15	PROJECT MANAGEMENT PLAN F	1.0000	EA	316,734.3400	316,734.34
16	PROJECT SCHEDULE F	1.0000	EA	316,734.3400	316,734.34
17	QUALITY MANAGEMENT PLAN	1.0000	EA	316,734.3400	316,734.34
18	CHANGE MANAGEMENT PLAN	1.0000	EA	395,917.9200	395,917.92
20	RELEASE PLAN F	1.0000	EA	316,734.3400	316,734.34
22	REQUIREMENTS DOCUMENT P	1.0000	EA	411,638.1900	411,638.19
23	DETAILED DESIGN DOCUMENTS P	1.0000	EA	411,638.1900	411,638.19
24	TECHNICAL DESIGN DOCUMENTS P	1.0000	EA	411,638.1900	411,638.19
25	INFORMATION SECURITY RISK ASSESSMENT P	1.0000	EA	411,638.1900	411,638.19
26	SYSTEM SECURITY PLAN P	1.0000	EA	411,638.1900	411,638.19

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
3 of 9	06/14/16
BUSINESS UNIT	BUYER
25670163	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
27	TEST PLAN P	1.0000	EA	411,638.1900	411,638.19
28	TECHNICAL ARCHITECTURE DIAGRAMS F	1.0000	EA	411,638.1900	411,638.19
29	LOGICAL DATA MODEL F	1.0000	EA	411,638.1900	411,638.19
30	REQUIREMENTS DOCUMENT I	1.0000	EA	560,107.4200	560,107.42
31	SYSTEM DESIGN DOCUMENT P	1.0000	EA	560,107.4200	560,107.42
32	INTERFACE CONTROL DOCUMENT P	1.0000	EA	560,107.4200	560,107.42
33	DATABASE DESIGN DOCUMENT P	1.0000	EA	560,107.4200	560,107.42
34	DATA MANAGEMENT PLAN P	1.0000	EA	560,107.4200	560,107.42
35	PHYSICAL DATA MODEL P	1.0000	EA	560,107.4200	560,107.42
36	DATA CONVERSION PLAN P	1.0000	EA	560,107.4200	560,107.42
37	REQUIREMENT DOCUMENT F	1.0000	EA	236,386.2900	236,386.29
38	SYSTEM DESIGN DOCUMENT F	1.0000	EA	236,386.2900	236,386.29
39	INTERFACE CONTROL DOCUMENT F	1.0000	EA	236,386.2900	236,386.29
40	DATABASE DESIGN DOCUMENT F	1.0000	EA	236,386.2900	236,386.29
41	DATA MANAGEMENT PLAN F	1.0000	EA	236,386.2900	236,386.29
42	PHYSICAL DATA MODEL F	1.0000	EA	236,386.2900	236,386.29
43	DATA CONVERSION PLAN F	1.0000	EA	236,386.2900	236,386.29
44	SYSTEM OF RECORD NOTICE P	1.0000	EA	236,386.2900	236,386.29
45	TEST PLAN F	1.0000	EA	130,420.0200	130,420.02
46	CONTINGENCY/RECOVER PLAN P	1.0000	EA	130,420.0200	130,420.02
47	IMPLEMENTATION PLAN P	1.0000	EA	130,420.0200	130,420.02
48	USER MANUALS P	1.0000	EA	130,420.0200	130,420.02

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
4 of 9	06/14/16
BUSINESS UNIT	BUYER
25670163	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
49	O&M MANUALS P	1.0000	EA	130,420.0200	130,420.02
50	TRAINING PLAN P	1.0000	EA	130,420.0200	130,420.02
51	TEST REPORTS P	1.0000	EA	130,420.0200	130,420.02
52	SECURITY AGREEMENT P	1.0000	EA	130,420.0200	130,420.02
53	INFORMATION SECURITY RISK ASSESSMENT F	1.0000	EA	130,420.0200	130,420.02
54	SYSTEM SECURITY PLAN F	1.0000	EA	130,420.0200	130,420.02
55	AUTOMATED CODE REVIEW RESULTS F	1.0000	EA	130,420.0200	130,420.02
56	BUSINESS PRODUCT P	1.0000	EA	130,420.0200	130,420.02
57	TRAINING MATERIALS P	1.0000	EA	130,420.0200	130,420.02
58	CONTINGENCY/RECOVER PLAN F	1.0000	EA	170,666.8200	170,666.82
59	IMPLEMENTATION PLAN F	1.0000	EA	170,666.8200	170,666.82
60	POST-IMPLEMENTATION SUPPORT PLAN	1.0000	EA	170,666.8200	170,666.82
61	USER MANUALS F	1.0000	EA	170,666.8200	170,666.82
62	O&M MANUALS F	1.0000	EA	170,666.8200	170,666.82
63	TRAINING PLAN F	1.0000	EA	170,666.8200	170,666.82
64	TEST REPORTS F	1.0000	EA	170,666.8200	170,666.82
65	SECURITY AGREEMENT F	1.0000	EA	170,666.8200	170,666.82
66	BUSINESS PRODUCTS F	1.0000	EA	170,666.8200	170,666.82
67	TRAINING MATERIALS F	1.0000	EA	170,666.8200	170,666.82
68	SYSTEM OF RECORD NOTICE F	1.0000	EA	170,666.8200	170,666.82
69	PROJECT COMPLETION REPORT F	1.0000	EA	170,666.8200	170,666.82

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
5 of 9	06/14/16
BUSINESS UNIT	BUYER
25670163	JENNIFER CROUSE (AS)
VENDOR NUMBER: 1896057	

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
70	SLAS/MOU	1.0000	EA	170,666.8200	170,666.82
72	POA&M F	1.0000	EA	170,666.8200	170,666.82
73	AUTHORITY TO OPERATE F	1.0000	EA	170,666.8200	170,666.82
84	POST IMPLEMENTATION M&O FIRST 1ST TWELVE 12 MONTH PERIOD	1.0000	EA	2,654,883.0000	2,654,883.00
85	HOSTING AND DISASTER RECOVERY FIRST 1ST TWELVE 12 MONTH PERIOD	1.0000	EA	1,282,856.0000	1,282,856.00
86	POST IMPLEMENTATION M&O SECOND 2ND TWELVE 12 MONTH PERIOD	1.0000	EA	3,967,463.0000	3,967,463.00
87	HOSTING AND DISASTER RECOVERY SECOND 2ND TWELVE 12 MONTH PERIOD	1.0000	EA	1,282,856.0000	1,282,856.00
88	POST IMPLEMENTATION M&O THIRD 3RD NINE 9 MONTH PERIOD	1.0000	EA	2,975,597.2500	2,975,597.25
89	HOSTING AND DISASTER RECOVERY THIRD 3RD NINE 9 MONTH PERIOD	1.0000	EA	962,142.0000	962,142.00
90	POST IMPLEMENTATION M&O FOURTH 4TH TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
91	HOSTING AND DISASTER RECOVERY FOURTH 4TH TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00
92	POST IMPLEMENTATION WARRANTY FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING	1.0000	EA	105,006.0000	105,006.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
6 of 9	06/14/16
BUSINESS UNIT	BUYER
25670163	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
	MAINTENANCE AND OPERATION				
93	POST IMPLEMENTATION M&O FIFTH 5TH TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
94	HOSTING AND DISASTER RECOVERY FIFTH 5TH TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00
95	POST IMPLEMENTATION WARRANTY SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
96	POST IMPLEMENTATION M&O SIXTH 6TH TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
97	HOSTING AND DISASTER RECOVERY SIXTH 6TH TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00
98	POST IMPLEMENTATION WARRANTY THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
99	POST IMPLEMENTATION M&O SEVENTH 7TH TWELVE 12 MONTH PERIOD	1.0000	EA	3,941,806.0000	3,941,806.00
100	HOSTING AND DISASTER RECOVERY SEVENTH 7TH TWELVE 12 MONTH PERIOD	1.0000	EA	1,308,513.0000	1,308,513.00
104	SOFTWARE AND HARDWARE 1ST ANNIVERSARY SUBSCRIPTION COST	1.0000	EA	1,068,747.0000	1,068,747.00
105	NON IBM SOFTWARE COST	1.0000	EA	206,478.0000	206,478.00
106	ENVIRONMENT READINESS	1.0000	EA	227,079.9300	227,079.93

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
7 of 9	06/14/16
BUSINESS UNIT	BUYER
25670163	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
	SANDBOX				
107	ENVIRONMENT READINESS DEV	1.0000	EA	38,023.3200	38,023.32
108	ENVIRONMENT READINESS TEST	1.0000	EA	38,023.3200	38,023.32
109	ENVIRONMENT READINESS QUALITY	1.0000	EA	38,023.3200	38,023.32
110	ENVIRONMENT READINESS PRODUCTION	1.0000	EA	38,023.3200	38,023.32
111	ENVIRONMENT READINESS TRAINING	1.0000	EA	38,023.3200	38,023.32
112	ENVIRONMENT READINESS DISASTER RECOVERY	1.0000	EA	38,023.3200	38,023.32
113	JAN 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
114	FEB 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
115	MARCH 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
116	APRIL 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
117	MAY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
118	JUNE 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
119	JULY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
120	AUGUST 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
121	SEPTEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
8 of 9	06/14/16
BUSINESS UNIT	BUYER
25670163	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
122	OCTOBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
123	NOVEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
124	DECEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
125	AR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	2,368,437.1100	2,368,437.11
126	PBR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	1,589,559.5200	1,589,559.52
127	FDDR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	1,059,706.3500	1,059,706.35
128	JAN 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
129	FEB 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
130	MARCH 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
131	APRIL 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
132	MAY 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
133	JUNE 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
134	JULY 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
135	AUGUST 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
136	SEPTEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
9 of 9	06/14/16
BUSINESS UNIT	BUYER
25670163	JENNIFER CROUSE (AS)
VENDOR NUMBER: 1896057	

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
137	OCTOBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
138	NOVEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
139	DECEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
140	JAN 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
141	FEB 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
142	MARCH 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
	Total Order				**76,975,491.73**

BUYER INITIALS

NEBRASKA
Administrative Services

Byron Diamond
Director

Pete Ricketts, Governor

AMENDMENT TWO
59912 O4
Medicaid Eligibility and Enrollment (E&E) System for the State of Nebraska
Between
The State of Nebraska and Wipro, LLC

This Amendment (the "Amendment") is made by the State of Nebraska and Wipro, LLC, parties to Contract 59912 O4 (the "Contract"), and upon mutual agreement and other valuable consideration the parties agree to and hereby amend the contract as follows:

1. Vendor information is hereby superseded and replaced by:

   Vendor Name: Wipro, LLC

2. The following contract lines will be amended per Attachment A upon signing of Contract Amendment:
   a. Lines 101-103 are hereby deleted.
   b. Lines 84-100 and 107-112 are hereby amended.
   c. Lines 128 - 142 are hereby added.

This amendment and any attachments hereto will become part of the Contract. Except as set forth in this Amendment, the Contract is unaffected and shall continue in full force and effect in accordance with its terms. If there is conflict between this amendment and the Contract or any earlier amendment, the terms of this amendment will prevail.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the date of execution by both parties below.

State of Nebraska

By: _____

Name: Bo Botelho

Title: Materiel Administrator

Date: 6-21-16

Contractor: Wipro, LLC

By: M.E. Haque

Name: Mohd E. Haque

Title: Vice President

Date: 6/9/16

State of Nebraska Department of Health and Human Services

By: _____

Name: Calder Lynch

Title: Director, Medicaid & Long-Term Care

Date: 6/17/16

Attachment A to Amendment 2

59912 O4

The lines of Contract 59912 O4 are hereby replaced and superseded as follows:

Line Number	Description	Quantity	Unit of Measure	Unit Price	Extended Price
1	PROJECT KICK OFF LABOR	1	EA	713,234.5000	713,234.50
2	PROJECT KICK OFF HARDWARE	1	EA	1,760,350.0000	1,760,350.00
3	PROJECT KICK OFF BASE SOFTWARE	6216895	$	1.0000	6,216,895.00
5	RISK MANAGEMENT AND ISSUES RESOLUTION PLAN	1	EA	370,627.2100	370,627.21
6	SCOPE MANAGEMENT PLAN F	1	EA	296,501.7700	296,501.77
7	PROJECT MANAGEMENT PLAN P	1	EA	370,627.2100	370,627.21
8	PROJECT SCHEDULE P	1	EA	370,627.2100	370,627.21
9	CONCEPT OF OPERATION PLAN F	1	EA	370,627.2100	370,627.21
10	COMMUNICATION PLAN F	1	EA	370,627.2100	370,627.21
11	CONFIGURATION AND PERFORMANCE MANAGEMENT PLAN F	1	EA	370,627.2100	370,627.21
12	MIGRATION PLAN F	1	EA	239,103.3800	239,103.38
13	ARCHITECTURE DIAGRAMS AND DESIGN DOCUMENTS ENVIRONMENTS F	1	EA	239,103.3800	239,103.38
14	BUSINESS PROCESS MODELS AND GAP ANALYSIS F	1	EA	239,103.3800	239,103.38
15	PROJECT MANAGEMENT PLAN F	1	EA	316,734.3400	316,734.34
16	PROJECT SCHEDULE F	1	EA	316,734.3400	316,734.34
17	QUALITY MANAGEMENT PLAN	1	EA	316,734.3400	316,734.34
18	CHANGE MANAGEMENT PLAN	1	EA	395,917.9200	395,917.92
20	RELEASE PLAN F	1	EA	316,734.3400	316,734.34
22	REQUIREMENTS DOCUMENT P	1	EA	411,638.1900	411,638.19
23	DETAILED DESIGN DOCUMENTS P	1	EA	411,638.1900	411,638.19
24	TECHNICAL DESIGN DOCUMENTS P	1	EA	411,638.1900	411,638.19
25	INFORMATION SECURITY RISK ASSESSMENT P	1	EA	411,638.1900	411,638.19
26	SYSTEM SECURITY PLAN P	1	EA	411,638.1900	411,638.19
27	TEST PLAN P	1	EA	411,638.1900	411,638.19
28	TECHNICAL ARCHITECTURE DIAGRAMS F	1	EA	411,638.1900	411,638.19
29	LOGICAL DATA MODEL F	1	EA	411,638.1900	411,638.19
30	REQUIREMENTS DOCUMENT I	1	EA	560,107.4200	560,107.42
31	SYSTEM DESIGN DOCUMENT P	1	EA	560,107.4200	560,107.42
32	INTERFACE CONTROL DOCUMENT P	1	EA	560,107.4200	560,107.42
33	DATABASE DESIGN DOCUMENT P	1	EA	560,107.4200	560,107.42
34	DATA MANAGEMENT PLAN P	1	EA	560,107.4200	560,107.42
35	PHYSICAL DATA MODEL P	1	EA	560,107.4200	560,107.42

Attachment A to Amendment 2

59912 O4

Line Number	Description	Quantity	Unit of Measure	Unit Price	Extended Price
36	DATA CONVERSION PLAN P	1	EA	560,107.4200	560,107.42
37	REQUIREMENT DOCUMENT F	1	EA	236,386.2900	236,386.29
38	SYSTEM DESIGN DOCUMENT F	1	EA	236,386.2900	236,386.29
39	INTERFACE CONTROL DOCUMENT F	1	EA	236,386.2900	236,386.29
40	DATABASE DESIGN DOCUMENT F	1	EA	236,386.2900	236,386.29
41	DATA MANAGEMENT PLAN F	1	EA	236,386.2900	236,386.29
42	PHYSICAL DATA MODEL F	1	EA	236,386.2900	236,386.29
43	DATA CONVERSION PLAN F	1	EA	236,386.2900	236,386.29
44	SYSTEM OF RECORD NOTICE P	1	EA	236,386.2900	236,386.29
45	TEST PLAN F	1	EA	130,420.0200	130,420.02
46	CONTINGENCY/RECOVER PLAN P	1	EA	130,420.0200	130,420.02
47	IMPLEMENTATION PLAN P	1	EA	130,420.0200	130,420.02
48	USER MANUALS P	1	EA	130,420.0200	130,420.02
49	O&M MANUALS P	1	EA	130,420.0200	130,420.02
50	TRAINING PLAN P	1	EA	130,420.0200	130,420.02
51	TEST REPORTS P	1	EA	130,420.0200	130,420.02
52	SECURITY AGREEMENT P	1	EA	130,420.0200	130,420.02
53	INFORMATION SECURITY RISK ASSESSMENT F	1	EA	130,420.0200	130,420.02
54	SYSTEM SECURITY PLAN F	1	EA	130,420.0200	130,420.02
55	AUTOMATED CODE REVIEW RESULTS F	1	EA	130,420.0200	130,420.02
56	BUSINESS PRODUCT P	1	EA	130,420.0200	130,420.02
57	TRAINING MATERIALS P	1	EA	130,420.0200	130,420.02
58	CONTINGENCY/RECOVER PLAN F	1	EA	170,666.8200	170,666.82
59	IMPLEMENTATION PLAN F	1	EA	170,666.8200	170,666.82
60	POST-IMPLEMENTATION SUPPORT PLAN	1	EA	170,666.8200	170,666.82
61	USER MANUALS F	1	EA	170,666.8200	170,666.82
62	O&M MANUALS F	1	EA	170,666.8200	170,666.82
63	TRAINING PLAN F	1	EA	170,666.8200	170,666.82
64	TEST REPORTS F	1	EA	170,666.8200	170,666.82
65	SECURITY AGREEMENT F	1	EA	170,666.8200	170,666.82
66	BUSINESS PRODUCTS F	1	EA	170,666.8200	170,666.82
67	TRAINING MATERIALS F	1	EA	170,666.8200	170,666.82
68	SYSTEM OF RECORD NOTICE F	1	EA	170,666.8200	170,666.82
69	PROJECT COMPLETION REPORT F	1	EA	170,666.8200	170,666.82
70	SLAS/MOU	1	EA	170,666.8200	170,666.82
72	POA&M F	1	EA	170,666.8200	170,666.82
73	AUTHORITY TO OPERATE F	1	EA	170,666.8200	170,666.82
84	POST IMPLEMENTATION M&O FIRST 1ST TWELVE 12 MONTH PERIOD	1	EA	2,654,883.0000	2,654,883.00

Attachment A to Amendment 2

59912 O4

Line Number	Description	Quantity	Unit of Measure	Unit Price	Extended Price
85	HOSTING AND DISASTER RECOVERY FIRST 1ST TWELVE 12 MONTH PERIOD	1	EA	1,282,856.0000	1,282,856.00
86	POST IMPLEMENTATION M&O SECOND 2ND TWELVE 12 MONTH PERIOD	1	EA	3,967,463.0000	3,967,463.00
87	HOSTING AND DISASTER RECOVERY SECOND 2ND TWELVE 12 MONTH PERIOD	1	EA	1,282,856.0000	1,282,856.00
88	POST IMPLEMENTATION M&O THIRD 3RD NINE 9 MONTH PERIOD	1	EA	2,975,597.2500	2,975,597.25
89	HOSTING AND DISASTER RECOVERY THIRD 3RD NINE 9 MONTH PERIOD	1	EA	962,142.0000	962,142.00
90	POST IMPLEMENTATION M&O FOURTH 4TH TWELVE 12 MONTH PERIOD	1	EA	3,941,806.0000	3,941,806.00
91	HOSTING AND DISASTER RECOVERY FOURTH 4TH TWELVE 12 MONTH PERIOD	1	EA	1,308,513.0000	1,308,513.00
92	POST IMPLEMENTATION WARRANTY FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1	EA	105,006.0000	105,006.00
93	POST IMPLEMENTATION M&O FIFTH 5TH TWELVE 12 MONTH PERIOD	1	EA	3,941,806.0000	3,941,806.00
94	HOSTING AND DISASTER RECOVERY FIFTH 5TH TWELVE 12 MONTH PERIOD	1	EA	1,308,513.0000	1,308,513.00
95	POST IMPLEMENTATION WARRANTY SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1	EA	105,006.0000	105,006.00
96	POST IMPLEMENTATION M&O SIXTH 6TH TWELVE 12 MONTH PERIOD	1	EA	3,941,806.0000	3,941,806.00
97	HOSTING AND DISASTER RECOVERY SIXTH 6TH TWELVE 12 MONTH PERIOD	1	EA	1,308,513.0000	1,308,513.00
98	POST IMPLEMENTATION WARRANTY THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1	EA	105,006.0000	105,006.00

Attachment A to Amendment 2

59912 O4

Line Number	Description	Quantity	Unit of Measure	Unit Price	Extended Price
99	POST IMPLEMENTATION M&O SEVENTH 7TH TWELVE 12 MONTH PERIOD	1	EA	3,941,806.0000	3,941,806.00
100	HOSTING AND DISASTER RECOVERY SEVENTH 7TH TWELVE 12 MONTH PERIOD	1	EA	1,308,513.0000	1,308,513.00
~~101~~	~~POST IMPLEMENTATION WARRANTY FOURTH 4TH TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION~~	~~1~~	~~EA~~	~~105,006.0000~~	~~105,006.00~~
~~102~~	~~POST IMPLEMENTATION M&O EIGHTH 8TH TWELVE 12 MONTH PERIOD FOLLOWING VVS~~	~~1~~	~~EA~~	~~3,941,806.0000~~	~~3,941,806.00~~
~~103~~	~~HOSTING AND DISASTER RECOVERY EIGHTH 8TH TWELVE 12 MONTH PERIOD FOLLOWING VVS~~	~~1~~	~~EA~~	~~1,308,513.0000~~	~~1,308,513.00~~
104	SOFTWARE AND HARDWAR 1ST ANNIVERSARY SUBSCRIPTION COST	1	EA	1,068,747.0000	1,068,747.00
105	NON IBM SOFTWARE COST	1	EA	206,478.0000	206,478.00
106	ENVIRONMENT READINESS SANDBOX	1	EA	227,079.9300	227,079.93
107	ENVIRONMENT READINESS DEV	1	EA	38,023.3200	38,023.32
108	ENVIRONMENT READINESS TEST	1	EA	38,023.3200	38,023.32
109	ENVIRONMENT READINESS QUALITY	1	EA	38,023.3200	38,023.32
110	ENVIRONMENT READINESS PRODUCTION	1	EA	38,023.3200	38,023.32
111	ENVIRONMENT READINESS TRAINING	1	EA	38,023.3200	38,023.32
112	ENVIRONMENT READINESS DISASTER RECOVERY	1	EA	38,023.3200	38,023.32
113	JAN 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
114	FEB 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
115	MARCH 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
116	APRIL 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
117	MAY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
118	JUNE 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
119	JULY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
120	AUGUST 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
121	SEPTEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68

Attachment A to Amendment 2

59912 O4

Line Number	Description	Quantity	Unit of Measure	Unit Price	Extended Price
122	OCTOBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
123	NOVEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
124	DECEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
125	AR CONDUCT CMS STAGE GATE REVIEW	1	EA	2,368,437.1100	2,368,437.11
126	PBR CONDUCT CMS STAGE GATE REVIEW	1	EA	1,589,559.5200	1,589,559.52
127	FDDR CONDUCT CMS STAGE GATE REVIEW	1	EA	1,059,706.3500	1,059,706.35
128	JAN 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
129	FEB 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
130	MARCH 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
131	APRIL 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
132	MAY 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
133	JUNE 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
134	JULY 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
135	AUGUST 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
136	SEPTEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
137	OCTOBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
138	NOVEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
139	DECEMBER 2016 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
140	JAN 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
141	FEB 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
142	MARCH 2017 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508
Telephone: (402) 471-6500
Fax: (402) 471-2089

CONTRACT NUMBER
59912 O4

PAGE	ORDER DATE
1 of 10	05/18/15
BUSINESS UNIT	BUYER
25670081	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

VENDOR ADDRESS:

WIPRO LIMITED
2 TOWER CENTER BLVD STE 2200
EAST BRUNSWICK NJ 08816-1100

THE CONTRACT PERIOD IS:

JULY 01, 2014 THROUGH JUNE 30, 2020

THIS SERVICE CONTRACT HAS BEEN AMENDED PER THE FOLLOWING INFORMATION:

THIS CONTRACT IS NOT AN EXCLUSIVE CONTRACT TO FURNISH THE SERVICES SHOWN BELOW, AND DOES NOT PRECLUDE THE PURCHASE OF SIMILAR SERVICES FROM OTHER SOURCES.

THE STATE RESERVES THE RIGHT TO EXTEND THE PERIOD OF THIS CONTRACT BEYOND THE TERMINATION DATE WHEN MUTUALLY AGREEABLE TO THE VENDOR/CONTRACTOR AND THE STATE OF NEBRASKA.

Original Contract/Bid Document 4544 Z1

Contract to replace the functionality of the current Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (EES) that meets the CMS Seven Standard and Conditions for the State of Nebraska as per the attached specifications for a six (6) year period from date of award. The contract may be renewed for two (2) additional two (2) year periods when mutually agreeable to the vendor and the State of Nebraska. The State reserves the right to extend the period of this contract beyond the termination date when mutually agreeable to the vendor and the State of Nebraska.

The State may request that payment be made electronically instead of by state warrant. ACH/EFT Enrollment Form can be found at: http://www.das.state.ne.us/accounting/forms/achenrol.pdf

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of employees physically performing services within the State of Nebraska. A federal immigration verification system mean the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Responsibility Act of 1996, 8 U.S.C. 1324a, known as E-Verify Program, or an equivalent federal program designed by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

The contractor, by signature to the Request For Proposal, certifies that the contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from participating in transactions (debarred). The contractor also agrees to include the above requirements in any and all subcontracts into which it enters. The contractor shall immediately notify the Department if, during the term of this contract, contractor becomes debarred. The Department may immediately terminate this contract by providing contractor written notice if contractor becomes debarred during the term of this contract.

If the Contractor is an individual or sole proprietorship, the following applies:
1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at: <http://das.nebraska.gov/lb403/attestation_form.pdf>
2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation require to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

Courtney Phillips
Chief Executive Officer
Department of Health and Human Services

5/21/15 PK Jennifer Crouse 5-21-15 RH
BUYER
5/29/15
MATERIEL ADMINISTRATOR

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
2 of 10	05/18/15
BUSINESS UNIT	BUYER
25670081	JENNIFER CROUSE (AS)
VENDOR NUMBER: 1896057	

CONTRACT NUMBER
59912 O4

3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

The contract resulting from the Request for Proposal shall incorporate the following documents:
1. Amendment to Contract Award with the most recent dated amendment having the highest priority;
2. Contract Award and any attached Addenda;
3. The signed Request for Proposal form and the Contractor' s proposal;
4. Amendments to RFP and any Questions and Answers; and
5. The original RFP document and any Addenda.

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to Contract Award with the most recent dated amendment having the highest priority, 2) Contract Award and any attached Addenda, 3) the signed Request For Proposal form and the Contractor' s proposal 4) Amendments to RFP and any Questions and Answers, 5) the original RFP document and any Addenda.

Any ambiguity in any provision of this contract which shall be discovered after its execution shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

Once Requests For Proposal are opened they become the property of the State of Nebraska and will not be returned.

It is understood by the parties that in the State of Nebraska' s opinion, any limitation on the contractor' s liability is unconstitutional under the Nebraska State Constitution, Article XIII, Section III and that any limitation of liability shall not be binding on the State of Nebraska despite inclusion of such language in documents supplied by the contractor' s bid response.

Vendor Contact: Thomas Stockdale
Phone: 813-335-0084
Fax: 573-659-0201
E-Mail: Thomas.Stockdale@Wipro.com

(06/13/2014 ked)

AMENDMENT ONE(1) AS ATTACHED (03/25/2015 ld)

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
1	PROJECT KICK OFF LABOR	1.0000	EA	713,234.5000	713,234.50
2	PROJECT KICK OFF HARDWARE	1.0000	EA	1,760,350.0000	1,760,350.00
3	PROJECT KICK OFF BASE SOFTWARE	6,216,895.0000	$	1.0000	6,216,895.00
5	RISK MANAGEMENT AND ISSUES RESOLUTION PLAN	1.0000	EA	370,627.2100	370,627.21

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
3 of 10	05/18/15
BUSINESS UNIT	BUYER
25670081	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
6	SCOPE MANAGEMENT PLAN F	1.0000	EA	296,501.7700	296,501.77
7	PROJECT MANAGEMENT PLAN P	1.0000	EA	370,627.2100	370,627.21
8	PROJECT SCHEDULE P	1.0000	EA	370,627.2100	370,627.21
9	CONCEPT OF OPERATION PLAN F	1.0000	EA	370,627.2100	370,627.21
10	COMMUNICATION PLAN F	1.0000	EA	370,627.2100	370,627.21
11	CONFIGURATION AND PERFORMANCE MANAGEMENT PLAN F	1.0000	EA	370,627.2100	370,627.21
12	MIGRATION PLAN F	1.0000	EA	239,103.3800	239,103.38
13	ARCHITECTURE DIAGRAMS AND DESIGN DOCUMENTS ENVIRONMENTS F	1.0000	EA	239,103.3800	239,103.38
14	BUSINESS PROCESS MODELS AND GAP ANALYSIS F	1.0000	EA	239,103.3800	239,103.38
15	PROJECT MANAGEMENT PLAN F	1.0000	EA	316,734.3400	316,734.34
16	PROJECT SCHEDULE F	1.0000	EA	316,734.3400	316,734.34
17	QUALITY MANAGEMENT PLAN	1.0000	EA	316,734.3400	316,734.34
18	CHANGE MANAGEMENT PLAN	1.0000	EA	395,917.9200	395,917.92
20	RELEASE PLAN F	1.0000	EA	316,734.3400	316,734.34
22	REQUIREMENTS DOCUMENT P	1.0000	EA	411,638.1900	411,638.19
23	DETAILED DESIGN DOCUMENTS P	1.0000	EA	411,638.1900	411,638.19
24	TECHNICAL DESIGN DOCUMENTS P	1.0000	EA	411,638.1900	411,638.19
25	INFORMATION SECURITY RISK ASSESSMENT P	1.0000	EA	411,638.1900	411,638.19
26	SYSTEM SECURITY PLAN P	1.0000	EA	411,638.1900	411,638.19

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
4 of 10	05/18/15
BUSINESS UNIT	BUYER
25670081	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
27	TEST PLAN P	1.0000	EA	411,638.1900	411,638.19
28	TECHNICAL ARCHITECTURE DIAGRAMS F	1.0000	EA	411,638.1900	411,638.19
29	LOGICAL DATA MODEL F	1.0000	EA	411,638.1900	411,638.19
30	REQUIREMENTS DOCUMENT I	1.0000	EA	560,107.4200	560,107.42
31	SYSTEM DESIGN DOCUMENT P	1.0000	EA	560,107.4200	560,107.42
32	INTERFACE CONTROL DOCUMENT P	1.0000	EA	560,107.4200	560,107.42
33	DATABASE DESIGN DOCUMENT P	1.0000	EA	560,107.4200	560,107.42
34	DATA MANAGEMENT PLAN P	1.0000	EA	560,107.4200	560,107.42
35	PHYSICAL DATA MODEL P	1.0000	EA	560,107.4200	560,107.42
36	DATA CONVERSION PLAN P	1.0000	EA	560,107.4200	560,107.42
37	REQUIREMENT DOCUMENT F	1.0000	EA	236,386.2900	236,386.29
38	SYSTEM DESIGN DOCUMENT F	1.0000	EA	236,386.2900	236,386.29
39	INTERFACE CONTROL DOCUMENT F	1.0000	EA	236,386.2900	236,386.29
40	DATABASE DESIGN DOCUMENT F	1.0000	EA	236,386.2900	236,386.29
41	DATA MANAGEMENT PLAN F	1.0000	EA	236,386.2900	236,386.29
42	PHYSICAL DATA MODEL F	1.0000	EA	236,386.2900	236,386.29
43	DATA CONVERSION PLAN F	1.0000	EA	236,386.2900	236,386.29
44	SYSTEM OF RECORD NOTICE P	1.0000	EA	236,386.2900	236,386.29
45	TEST PLAN F	1.0000	EA	130,420.0200	130,420.02
46	CONTINGENCY/RECOVER PLAN P	1.0000	EA	130,420.0200	130,420.02
47	IMPLEMENTATION PLAN P	1.0000	EA	130,420.0200	130,420.02
48	USER MANUALS P	1.0000	EA	130,420.0200	130,420.02

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

PAGE	ORDER DATE
5 of 10	05/18/15
BUSINESS UNIT	BUYER
25670081	JENNIFER CROUSE (AS)
VENDOR NUMBER: 1896057	

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508
Telephone: (402) 471-6500
Fax: (402) 471-2089

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
49	O&M MANUALS P	1.0000	EA	130,420.0200	130,420.02
50	TRAINING PLAN P	1.0000	EA	130,420.0200	130,420.02
51	TEST REPORTS P	1.0000	EA	130,420.0200	130,420.02
52	SECURITY AGREEMENT P	1.0000	EA	130,420.0200	130,420.02
53	INFORMATION SECURITY RISK ASSESSMENT F	1.0000	EA	130,420.0200	130,420.02
54	SYSTEM SECURITY PLAN F	1.0000	EA	130,420.0200	130,420.02
55	AUTOMATED CODE REVIEW RESULTS F	1.0000	EA	130,420.0200	130,420.02
56	BUSINESS PRODUCT P	1.0000	EA	130,420.0200	130,420.02
57	TRAINING MATERIALS P	1.0000	EA	130,420.0200	130,420.02
58	CONTINGENCY/RECOVER PLAN F	1.0000	EA	170,666.8200	170,666.82
59	IMPLEMENTATION PLAN F	1.0000	EA	170,666.8200	170,666.82
60	POST-IMPLEMENTATION SUPPORT PLAN	1.0000	EA	170,666.8200	170,666.82
61	USER MANUALS F	1.0000	EA	170,666.8200	170,666.82
62	O&M MANUALS F	1.0000	EA	170,666.8200	170,666.82
63	TRAINING PLAN F	1.0000	EA	170,666.8200	170,666.82
64	TEST REPORTS F	1.0000	EA	170,666.8200	170,666.82
65	SECURITY AGREEMENT F	1.0000	EA	170,666.8200	170,666.82
66	BUSINESS PRODUCTS F	1.0000	EA	170,666.8200	170,666.82
67	TRAINING MATERIALS F	1.0000	EA	170,666.8200	170,666.82
68	SYSTEM OF RECORD NOTICE F	1.0000	EA	170,666.8200	170,666.82
69	PROJECT COMPLETION REPORT F	1.0000	EA	170,666.8200	170,666.82

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
6 of 10	05/18/15
BUSINESS UNIT	BUYER
25670081	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
70	SLAS/MOU	1.0000	EA	170,666.8200	170,666.82
72	POA&M F	1.0000	EA	170,666.8200	170,666.82
73	AUTHORITY TO OPERATE F	1.0000	EA	170,666.8200	170,666.82
84	POST IMPLEMENTATION M&O FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	2,654,883.0000	2,654,883.00
85	HOSTING AND DISASTER RECOVERY (FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,282,856.0000	1,282,856.00
86	POST IMPLEMENTATION M&O SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,967,463.0000	3,967,463.00
87	HOSTING AND DISASTER RECOVERY SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,282,856.0000	1,282,856.00
88	POST IMPLEMENTATION M&O THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,967,463.0000	3,967,463.00
89	HOSTING AND DISASTER RECOVERY THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,282,856.0000	1,282,856.00
90	POST IMPLEMENTATION M&O FOURTH 4TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,967,463.0000	3,967,463.00
91	HOSTING AND DISASTER RECOVERY FOURTH 4TH TWELVE 12	1.0000	EA	1,282,856.0000	1,282,856.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
7 of 10	05/18/15
BUSINESS UNIT	BUYER
25670081	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
	MONTH PERIOD FOLLOWING VVS				
92	POST IMPLEMENTATION WARRANTY FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
93	POST IMPLEMENTATION M&O FIFTH 5TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,941,806.0000	3,941,806.00
94	HOSTING AND DISASTER RECOVERY FIFTH 5TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,308,513.0000	1,308,513.00
95	POST IMPLEMENTATION WARRANTY SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
96	POST IMPLEMENTATION M&O SIXTH 6TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,941,806.0000	3,941,806.00
97	HOSTING AND DISASTER RECOVERY SIXTH 6TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,308,513.0000	1,308,513.00
98	POST IMPLEMENTATION WARRANTY THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
99	POST IMPLEMENTATION M&O SEVENTH 7TH TWELVE 12	1.0000	EA	3,941,806.0000	3,941,806.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

PAGE	ORDER DATE
8 of 10	05/18/15
BUSINESS UNIT	BUYER
25670081	JENNIFER CROUSE (AS)
VENDOR NUMBER: 1896057	

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508
Telephone: (402) 471-6500
Fax: (402) 471-2089

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
	MONTH PERIOD FOLLOWING VVS				
100	HOSTING AND DISASTER RECOVERY SEVENTH 7TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,308,513.0000	1,308,513.00
101	POST IMPLEMENTATION WARRANTY FOURTH 4TH TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
102	POST IMPLEMENTATION M&O EIGHTH 8TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,941,806.0000	3,941,806.00
103	HOSTING AND DISASTER RECOVERY EIGHTH 8TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,308,513.0000	1,308,513.00
104	SOFTWARE AND HARDWARE 1ST ANNIVERSARY SUBSCRIPTION COST	1.0000	EA	1,068,747.0000	1,068,747.00
105	NON IBM SOFTWARE COST	1.0000	EA	206,478.0000	206,478.00
106	ENVIRONMENT READINESS SANDBOX	1.0000	EA	227,079.9300	227,079.93
107	ENVIRONMENT READINESS DEV	1.0000	EA	227,079.9300	227,079.93
108	ENVIRONMENT READINESS TEST	1.0000	EA	227,079.9300	227,079.93
109	ENVIRONMENT READINESS QUALITY	1.0000	EA	227,079.9300	227,079.93
110	ENVIRONMENT READINESS PRODUCTION	1.0000	EA	227,079.9300	227,079.93
111	ENVIRONMENT READINESS TRAINING	1.0000	EA	227,079.9300	227,079.93

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

PAGE	ORDER DATE
9 of 10	05/18/15
BUSINESS UNIT	BUYER
25670081	JENNIFER CROUSE (AS)
VENDOR NUMBER: 1896057	

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508
Telephone: (402) 471-6500
Fax: (402) 471-2089

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
112	ENVIRONMENT READINESS DISASTER RECOVERY	1.0000	EA	227,079.9300	227,079.93
113	JAN 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
114	FEB 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
115	MARCH 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
116	APRIL 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
117	MAY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
118	JUNE 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
119	JULY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
120	AUGUST 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
121	SEPTEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
122	OCTOBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
123	NOVEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
124	DECEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1.0000	EA	327,182.6800	327,182.68
125	AR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	2,368,437.1100	2,368,437.11
126	PBR CONDUCT CMS STAGE	1.0000	EA	1,589,559.5200	1,589,559.52

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AMENDMENT

PAGE	ORDER DATE
10 of 10	05/18/15
BUSINESS UNIT	BUYER
25670081	JENNIFER CROUSE (AS)
VENDOR NUMBER: 1896057	

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508
Telephone: (402) 471-6500
Fax: (402) 471-2089

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
	GATE REVIEW				
127	FDDR CONDUCT CMS STAGE GATE REVIEW	1.0000	EA	1,059,706.3500	1,059,706.35
	Total Order				**79,869,995.94**



BUYER INITIALS

NEBRASKA
AdministrativeServices

Byron Diamond
Director

Pete Ricketts, Governor

AMENDMENT ONE
59912 O4
Medicaid Eligibility and Enrollment (E&E) System for the State of Nebraska
Between
The State of Nebraska and Wipro Limited

This Amendment (the "Amendment") is made by the State of Nebraska and Wipro Limited, parties to Contract 59912 O4 (the "Contract"), and upon mutual agreement and other valuable consideration the parties agree to and hereby amend the contract as follows:

1. The following contract lines will be amended per Attachment A upon signing of Contract Amendment:
   a. Lines 4, 19, 21, 71, and 74 – 83 are hereby deleted.
   b. Lines 3, 6, 12-17, 20, 22-70, and 72-73 are hereby amended.
   c. Lines 104 - 127 are hereby added.

This amendment and any attachments hereto will become part of the Contract. Except as set forth in this Amendment, the Contract is unaffected and shall continue in full force and effect in accordance with its terms. If there is conflict between this amendment and the Contract or any earlier amendment, the terms of this amendment will prevail.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the date of execution by both parties below.

State of Nebraska

By: _____

Name: Bo Botelho

Title: Materiel Administrator

Date: 5/29/15

Contractor: Wipro Limited

By: M.E.Haque

Name: Mohd Ehteshamul Haque

Title: Vice President

Date: 04/01/2015

State of Nebraska Department of Health and Human Services

By: _____

Name: Courtney Phillips

Title: Chief Executive Officer

Date: 5/26/15

Attachment A to Amendment 1

59912 O4

The lines of Contract 59912 O4 are hereby replaced and superseded as follows:

Line Number	Description	Quantity	Unit of Measure	Unit Price	Extended Price
1	PROJECT KICK OFF LABOR	1	EA	713,234.5000	713,234.50
2	PROJECT KICK OFF HARDWARE	1	EA	1,760,350.0000	1,760,350.00
3	PROJECT KICK OFF BASE SOFTWARE	6216895	$	1.0000	6,216,895.00
4	~~ACQUISITION PLAN~~	~~1~~	~~EA~~	~~370,627.2100~~	~~370,627.21~~
5	RISK MANAGEMENT AND ISSUES RESOLUTION PLAN	1	EA	370,627.2100	370,627.21
6	SCOPE MANAGEMENT PLAN F	1	EA	296,501.7700	296,501.77
7	PROJECT MANAGEMENT PLAN P	1	EA	370,627.2100	370,627.21
8	PROJECT SCHEDULE P	1	EA	370,627.2100	370,627.21
9	CONCEPT OF OPERATION PLAN F	1	EA	370,627.2100	370,627.21
10	COMMUNICATION PLAN F	1	EA	370,627.2100	370,627.21
11	CONFIGURATION AND PERFORMANCE MANAGEMENT PLAN F	1	EA	370,627.2100	370,627.21
12	MIGRATION PLAN F	1	EA	239,103.3800	239,103.38
13	ARCHITECTURE DIAGRAMS AND DESIGN DOCUMENTS ENVIRONMENTS F	1	EA	239,103.3800	239,103.38
14	BUSINESS PROCESS MODELS AND GAP ANALYSIS F	1	EA	239,103.3800	239,103.38
15	PROJECT MANAGEMENT PLAN F	1	EA	316,734.3400	316,734.34
16	PROJECT SCHEDULE F	1	EA	316,734.3400	316,734.34
17	QUALITY MANAGEMENT PLAN	1	EA	316,734.3400	316,734.34
18	CHANGE MANAGEMENT PLAN	1	EA	395,917.9200	395,917.92
~~19~~	~~PROJECT PROCESS AGREEMENT F~~	~~1~~	~~EA~~	~~395,917.9200~~	~~395,917.92~~
20	RELEASE PLAN F	1	EA	316,734.3400	316,734.34
~~21~~	~~PRIVACY IMPACT ASSESSMENT P~~	~~1~~	~~EA~~	~~395,917.9200~~	~~395,917.92~~
22	REQUIREMENTS DOCUMENT P	1	EA	411,638.1900	411,638.19
23	DETAILED DESIGN DOCUMENTS P	1	EA	411,638.1900	411,638.19
24	TECHNICAL DESIGN DOCUMENTS P	1	EA	411,638.1900	411,638.19
25	INFORMATION SECURITY RISK ASSESSMENT P	1	EA	411,638.1900	411,638.19
26	SYSTEM SECURITY PLAN P	1	EA	411,638.1900	411,638.19
27	TEST PLAN P	1	EA	411,638.1900	411,638.19
28	TECHNICAL ARCHITECTURE DIAGRAMS F	1	EA	411,638.1900	411,638.19
29	LOGICAL DATA MODEL F	1	EA	411,638.1900	411,638.19
30	REQUIREMENTS DOCUMENT I	1	EA	560,107.4200	560,107.42
31	SYSTEM DESIGN DOCUMENT P	1	EA	560,107.4200	560,107.42
32	INTERFACE CONTROL DOCUMENT P	1	EA	560,107.4200	560,107.42

Attachment A to Amendment 1

59912 O4

Line Number	Description	Quantity	Unit of Measure	Unit Price	Extended Price
33	DATABASE DESIGN DOCUMENT P	1	EA	560,107.4200	560,107.42
34	DATA MANAGEMENT PLAN P	1	EA	560,107.4200	560,107.42
35	PHYSICAL DATA MODEL P	1	EA	560,107.4200	560,107.42
36	DATA CONVERSION PLAN P	1	EA	560,107.4200	560,107.42
37	REQUIREMENT DOCUMENT F	1	EA	236,386.2900	236,386.29
38	SYSTEM DESIGN DOCUMENT F	1	EA	236,386.2900	236,386.29
39	INTERFACE CONTROL DOCUMENT F	1	EA	236,386.2900	236,386.29
40	DATABASE DESIGN DOCUMENT F	1	EA	236,386.2900	236,386.29
41	DATA MANAGEMENT PLAN F	1	EA	236,386.2900	236,386.29
42	PHYSICAL DATA MODEL F	1	EA	236,386.2900	236,386.29
43	DATA CONVERSION PLAN F	1	EA	236,386.2900	236,386.29
44	SYSTEM OF RECORD NOTICE P	1	EA	236,386.2900	236,386.29
45	TEST PLAN F	1	EA	130,420.0200	130,420.02
46	CONTINGENCY/RECOVER PLAN P	1	EA	130,420.0200	130,420.02
47	IMPLEMENTATION PLAN P	1	EA	130,420.0200	130,420.02
48	USER MANUALS P	1	EA	130,420.0200	130,420.02
49	O&M MANUALS P	1	EA	130,420.0200	130,420.02
50	TRAINING PLAN P	1	EA	130,420.0200	130,420.02
51	TEST REPORTS P	1	EA	130,420.0200	130,420.02
52	SECURITY AGREEMENT P	1	EA	130,420.0200	130,420.02
53	INFORMATION SECURITY RISK ASSESSMENT F	1	EA	130,420.0200	130,420.02
54	SYSTEM SECURITY PLAN F	1	EA	130,420.0200	130,420.02
55	AUTOMATED CODE REVIEW RESULTS F	1	EA	130,420.0200	130,420.02
56	BUSINESS PRODUCT P	1	EA	130,420.0200	130,420.02
57	TRAINING MATERIALS P	1	EA	130,420.0200	130,420.02
58	CONTINGENCY/RECOVER PLAN F	1	EA	170,666.8200	170,666.82
59	IMPLEMENTATION PLAN F	1	EA	170,666.8200	170,666.82
60	POST-IMPLEMENTATION SUPPORT PLAN	1	EA	170,666.8200	170,666.82
61	USER MANUALS F	1	EA	170,666.8200	170,666.82
62	O&M MANUALS F	1	EA	170,666.8200	170,666.82
63	TRAINING PLAN F	1	EA	170,666.8200	170,666.82
64	TEST REPORTS F	1	EA	170,666.8200	170,666.82
65	SECURITY AGREEMENT F	1	EA	170,666.8200	170,666.82
66	BUSINESS PRODUCTS F	1	EA	170,666.8200	170,666.82
67	TRAINING MATERIALS F	1	EA	170,666.8200	170,666.82
68	SYSTEM OF RECORD NOTICE F	1	EA	170,666.8200	170,666.82
69	PROJECT COMPLETION REPORT F	1	EA	170,666.8200	170,666.82
70	SLAS/MOU	1	EA	170,666.8200	170,666.82
~~71~~	~~PRIVACY IMPACT ASSESSMENT F~~	~~1~~	~~EA~~	~~213,333.5300~~	~~213,333.53~~
72	POA&M F	1	EA	170,666.8200	170,666.82

Attachment A to Amendment 1

59912 O4

Line Number	Description	Quantity	Unit of Measure	Unit Price	Extended Price
73	AUTHORITY TO OPERATE F	1	EA	170,666.8200	170,666.82
~~74~~	~~VERIFICATION, VALIDATION AND STABILIZATION 1~~	~~1~~	~~EA~~	~~583,040.9000~~	~~583,040.90~~
~~75~~	~~EES LICENSE~~	~~1~~	~~EA~~	~~1,068,747.0000~~	~~1,068,747.00~~
~~76~~	~~VERIFICATION, VALIDATION AND STABILIZATION 2~~	~~1~~	~~EA~~	~~583,040.9000~~	~~583,040.90~~
~~77~~	~~VERIFICATION, VALIDATION AND STABILIZATION 3~~	~~1~~	~~EA~~	~~583,040.9000~~	~~583,040.90~~
~~78~~	~~VERIFICATION, VALIDATION AND STABILIZATION 4~~	~~1~~	~~EA~~	~~583,040.9000~~	~~583,040.90~~
~~79~~	~~VERIFICATION, VALIDATION AND STABILIZATION 5~~	~~1~~	~~EA~~	~~583,040.9000~~	~~583,040.90~~
~~80~~	~~VERIFICATION, VALIDATION AND STABILIZATION 6~~	~~1~~	~~EA~~	~~583,040.9000~~	~~583,040.90~~
~~81~~	~~VERIFICATION, VALIDATION AND STABILIZATION 7~~	~~1~~	~~EA~~	~~583,040.9000~~	~~583,040.90~~
~~82~~	~~VERIFICATION, VALIDATION AND STABILIZATION 8~~	~~1~~	~~EA~~	~~583,040.9000~~	~~583,040.90~~
~~83~~	~~VERIFICATION, VALIDATION AND STABILIZATION 9~~	~~1~~	~~EA~~	~~583,040.9000~~	~~583,040.90~~
84	POST IMPLEMENTATION M&O FIRST 1ST TWELVE 12	1	EA	2,654,883.0000	2,654,883.00
85	HOSTING AND DISASTER RECOVERY FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	1,282,856.0000	1,282,856.00
86	POST IMPLEMENTATION M&O SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	3,967,463.0000	3,967,463.00
87	HOSTING AND DISASTER RECOVERY SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	1,282,856.0000	1,282,856.00
88	POST IMPLEMENTATION M&O THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	3,967,463.0000	3,967,463.00
89	HOSTING AND DISASTER RECOVERY THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	1,282,856.0000	1,282,856.00
90	POST IMPLEMENTATION M&O FOURTH 4TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	3,967,463.0000	3,967,463.00
91	HOSTING AND DISASTER RECOVERY FOURTH 4TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	1,282,856.0000	1,282,856.00

Attachment A to Amendment 1

59912 O4

Line Number	Description	Quantity	Unit of Measure	Unit Price	Extended Price
92	POST IMPLEMENTATION WARRANTY FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1	EA	105,006.0000	105,006.00
93	POST IMPLEMENTATION M&O FIFTH 5TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	3,941,806.0000	3,941,806.00
94	HOSTING AND DISASTER RECOVERY FIFTH 5TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	1,308,513.0000	1,308,513.00
95	POST IMPLEMENTATION WARRANTY SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1	EA	105,006.0000	105,006.00
96	POST IMPLEMENTATION M&O SIXTH 6TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	3,941,806.0000	3,941,806.00
97	HOSTING AND DISASTER RECOVERY SIXTH 6TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	1,308,513.0000	1,308,513.00
98	POST IMPLEMENTATION WARRANTY THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1	EA	105,006.0000	105,006.00
99	POST IMPLEMENTATION M&O SEVENTH 7TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	3,941,806.0000	3,941,806.00
100	HOSTING AND DISASTER RECOVERY SEVENTH 7TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	1,308,513.0000	1,308,513.00
101	POST IMPLEMENTATION WARRANTY FOURTH 4TH TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1	EA	105,006.0000	105,006.00
102	POST IMPLEMENTATION M&O EIGHTH 8TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	3,941,806.0000	3,941,806.00
103	HOSTING AND DISASTER RECOVERY EIGHTH 8TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1	EA	1,308,513.0000	1,308,513.00
104	SOFTWARE AND HARDWAR 1ST ANNIVERSARY SUBSCRIPTION COST	1	EA	1,068,747.0000	1,068,747.00
105	NON IBM SOFTWARE COST	1	EA	206,478.0000	206,478.00
106	ENVIRONMENT READINESS SANDBOX	1	EA	227,079.9300	227,079.93
107	ENVIRONMENT READINESS DEV	1	EA	227,079.9300	227,079.93

Attachment A to Amendment 1

59912 O4

Line Number	Description	Quantity	Unit of Measure	Unit Price	Extended Price
108	ENVIRONMENT READINESS TEST	1	EA	227,079.9300	227,079.93
109	ENVIRONMENT READINESS QUALITY	1	EA	227,079.9300	227,079.93
110	ENVIRONMENT READINESS PRODUCTION	1	EA	227,079.9300	227,079.93
111	ENVIRONMENT READINESS TRAINING	1	EA	227,079.9300	227,079.93
112	ENVIRONMENT READINESS DISASTER RECOVERY	1	EA	227,079.9300	227,079.93
113	JAN 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
114	FEB 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
115	MARCH 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
116	APRIL 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
117	MAY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
118	JUNE 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
119	JULY 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
120	AUGUST 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
121	SEPTEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
122	OCTOBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
123	NOVEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
124	DECEMBER 2015 PROJECT BOARD AND STEERING COMMITTEE REPORTS	1	EA	327,182.6800	327,182.68
125	AR CONDUCT CMS STAGE GATE REVIEW	1	EA	2,368,437.1100	2,368,437.11
126	PBR CONDUCT CMS STAGE GATE REVIEW	1	EA	1,589,559.5200	1,589,559.52
127	FDDR CONDUCT CMS STAGE GATE REVIEW	1	EA	1,059,706.3500	1,059,706.35

STATE OF NEBRASKA SERVICE CONTRACT AWARD

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Telephone: (402) 471-6500
Fax: (402) 471-2089

CONTRACT NUMBER
59912 O4

PAGE	ORDER DATE
1 of 8	06/13/14
BUSINESS UNIT	BUYER
25710178	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

VENDOR ADDRESS:

WIPRO LIMITED
2 TOWER CENTER BLVD STE 2200
EAST BRUNSWICK NEW JERSEY 08816-1100

AN AWARD HAS BEEN MADE TO THE VENDOR/CONTRACTOR NAMED ABOVE FOR THE SERVICES AS LISTED BELOW FOR THE PERIOD:

JULY 01, 2014 THROUGH JUNE 30, 2020

THIS CONTRACT IS NOT AN EXCLUSIVE CONTRACT TO FURNISH THE SERVICES SHOWN BELOW, AND DOES NOT PRECLUDE THE PURCHASE OF SIMILAR SERVICES FROM OTHER SOURCES.

THE STATE RESERVES THE RIGHT TO EXTEND THE PERIOD OF THIS CONTRACT BEYOND THE TERMINATION DATE WHEN MUTUALLY AGREEABLE TO THE VENDOR/CONTRACTOR AND THE STATE OF NEBRASKA.

Original/Bid Document 4544 Z1

Contract to replace the functionality of the current Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (EES) that meets the CMS Seven Standard and Conditions for the State of Nebraska as per the attached specifications for a six (6) year period from date of award. The contract may be renewed for two (2) additional two (2) year periods when mutually agreeable to the vendor and the State of Nebraska. The State reserves the right to extend the period of this contract beyond the termination date when mutually agreeable to the vendor and the State of Nebraska.

The State may request that payment be made electronically instead of by state warrant. ACH/EFT Enrollment Form can be found at: http://www.das.state.ne.us/accounting/forms/achenrol.pdf

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of employees physically performing services within the State of Nebraska. A federal immigration verification system mean the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Responsibility Act of 1996, 8 U.S.C. 1324a, known as E-Verify Program, or an equivalent federal program designed by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

The contractor, by signature to the Request For Proposal, certifies that the contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from participating in transactions (debarred). The contractor also agrees to include the above requirements in any and all subcontracts into which it enters. The contractor shall immediately notify the Department if, during the term of this contract, contractor becomes debarred. The Department may immediately terminate this contract by providing contractor written notice if contractor becomes debarred during the term of this contract.

If the Contractor is an individual or sole proprietorship, the following applies:
1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at: <http://das.nebraska.gov/lb403/attestation_form.pdf>
2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation require to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.
3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

7/21/2014
CHIEF EXECUTIVE OFFICER
DEPARTMENT OF HEALTH AND HUMAN SERVICES

7/22/14
BUYER

7/22/14
MATERIEL ADMINISTRATOR

STATE OF NEBRASKA SERVICE CONTRACT AWARD

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
2 of 8	06/13/14
BUSINESS UNIT	BUYER
25710178	JENNIFER CROUSE (AS)
VENDOR NUMBER: 1896057	

CONTRACT NUMBER
59912 O4

The contract resulting from the Request for Proposal shall incorporate the following documents:
1. Amendment to Contract Award with the most recent dated amendment having the highest priority;
2. Contract Award and any attached Addenda;
3. The signed Request for Proposal form and the Contractor' s proposal;
4. Amendments to RFP and any Questions and Answers; and
5. The original RFP document and any Addenda.

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to Contract Award with the most recent dated amendment having the highest priority, 2) Contract Award and any attached Addenda, 3) the signed Request For Proposal form and the Contractor' s proposal 4) Amendments to RFP and any Questions and Answers, 5) the original RFP document and any Addenda.

Any ambiguity in any provision of this contract which shall be discovered after its execution shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

Once Requests For Proposal are opened they become the property of the State of Nebraska and will not be returned.

It is understood by the parties that in the State of Nebraska' s opinion, any limitation on the contractor' s liability is unconstitutional under the Nebraska State Constitution, Article XIII, Section III and that any limitation of liability shall not be binding on the State of Nebraska despite inclusion of such language in documents supplied by the contractor' s bid response.

Vendor Contact: Thomas Stockdale
Phone: 813-335-0084
Fax: 573-659-0201
E-Mail: Thomas.Stockdale@Wipro.com

(06/13/2014 ked)

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
1	PROJECT KICK OFF LABOR	1.0000	EA	713,234.5000	713,234.50
2	PROJECT KICK OFF HARDWARE	1.0000	EA	1,760,350.0000	1,760,350.00
3	PROJECT KICK OFF BASE SOFTWARE	1.0000	EA	6,423,373.0000	6,423,373.00
4	ACQUISITION PLAN	1.0000	EA	370,627.2100	370,627.21
5	RISK MANAGEMENT AND ISSUES RESOLUTION PLAN	1.0000	EA	370,627.2100	370,627.21
6	SCOPE MANAGEMENT PLAN F	1.0000	EA	370,627.2100	370,627.21

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AWARD

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
3 of 8	06/13/14
BUSINESS UNIT	BUYER
25710178	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
7	PROJECT MANAGEMENT PLAN P	1.0000	EA	370,627.2100	370,627.21
8	PROJECT SCHEDULE P	1.0000	EA	370,627.2100	370,627.21
9	CONCEPT OF OPERATION PLAN F	1.0000	EA	370,627.2100	370,627.21
10	COMMUNICATION PLAN F	1.0000	EA	370,627.2100	370,627.21
11	CONFIGURATION AND PERFORMANCE MANAGEMENT PLAN F	1.0000	EA	370,627.2100	370,627.21
12	MIGRATION PLAN F	1.0000	EA	298,879.2200	298,879.22
13	ARCHITECTURE DIAGRAMS AND DESIGN DOCUMENTS ENVIRONMENTS F	1.0000	EA	298,879.2200	298,879.22
14	BUSINESS PROCESS MODELS AND GAP ANALYSIS F	1.0000	EA	298,879.2200	298,879.22
15	PROJECT MANAGEMENT PLAN F	1.0000	EA	395,917.9200	395,917.92
16	PROJECT SCHEDULE F	1.0000	EA	395,917.9200	395,917.92
17	QUALITY MANAGEMENT PLAN	1.0000	EA	395,917.9200	395,917.92
18	CHANGE MANAGEMENT PLAN	1.0000	EA	395,917.9200	395,917.92
19	PROJECT PROCESS AGREEMENT F	1.0000	EA	395,917.9200	395,917.92
20	RELEASE PLAN F	1.0000	EA	395,917.9200	395,917.92
21	PRIVACY IMPACT ASSESSMENT P	1.0000	EA	395,917.9200	395,917.92
22	REQUIREMENTS DOCUMENT P	1.0000	EA	514,547.7400	514,547.74
23	DETAILED DESIGN DOCUMENTS P	1.0000	EA	514,547.7400	514,547.74
24	TECHNICAL DESIGN DOCUMENTS P	1.0000	EA	514,547.7400	514,547.74
25	INFORMATION SECURITY RISK ASSESSMENT P	1.0000	EA	514,547.7400	514,547.74
26	SYSTEM SECURITY PLAN P	1.0000	EA	514,547.7400	514,547.74
27	TEST PLAN P	1.0000	EA	514,547.7400	514,547.74

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AWARD

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
4 of 8	06/13/14
BUSINESS UNIT	BUYER
25710178	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
28	TECHNICAL ARCHITECTURE DIAGRAMS F	1.0000	EA	514,547.7400	514,547.74
29	LOGICAL DATA MODEL F	1.0000	EA	514,547.7400	514,547.74
30	REQUIREMENTS DOCUMENT I	1.0000	EA	700,134.2700	700,134.27
31	SYSTEM DESIGN DOCUMENT P	1.0000	EA	700,134.2700	700,134.27
32	INTERFACE CONTROL DOCUMENT P	1.0000	EA	700,134.2700	700,134.27
33	DATABASE DESIGN DOCUMENT P	1.0000	EA	700,134.2700	700,134.27
34	DATA MANAGEMENT PLAN P	1.0000	EA	700,134.2700	700,134.27
35	PHYSICAL DATA MODEL P	1.0000	EA	700,134.2700	700,134.27
36	DATA CONVERSION PLAN P	1.0000	EA	700,134.2700	700,134.27
37	REQUIREMENT DOCUMENT F	1.0000	EA	295,482.8600	295,482.86
38	SYSTEM DESIGN DOCUMENT F	1.0000	EA	295,482.8600	295,482.86
39	INTERFACE CONTROL DOCUMENT F	1.0000	EA	295,482.8600	295,482.86
40	DATABASE DESIGN DOCUMENT F	1.0000	EA	295,482.8600	295,482.86
41	DATA MANAGEMENT PLAN F	1.0000	EA	295,482.8600	295,482.86
42	PHYSICAL DATA MODEL F	1.0000	EA	295,482.8600	295,482.86
43	DATA CONVERSION PLAN F	1.0000	EA	295,482.8600	295,482.86
44	SYSTEM OF RECORD NOTICE P	1.0000	EA	295,482.8600	295,482.86
45	TEST PLAN F	1.0000	EA	163,025.0300	163,025.03
46	CONTINGENCY/RECOVER PLAN P	1.0000	EA	163,025.0300	163,025.03
47	IMPLEMENTATION PLAN P	1.0000	EA	163,025.0300	163,025.03
48	USER MANUALS P	1.0000	EA	163,025.0300	163,025.03
49	O&M MANUALS P	1.0000	EA	163,025.0300	163,025.03

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AWARD

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
5 of 8	06/13/14
BUSINESS UNIT	BUYER
25710178	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
50	TRAINING PLAN P	1.0000	EA	163,025.0300	163,025.03
51	TEST REPORTS P	1.0000	EA	163,025.0300	163,025.03
52	SECURITY AGREEMENT P	1.0000	EA	163,025.0300	163,025.03
53	INFORMATION SECURITY RISK ASSESSMENT F	1.0000	EA	163,025.0300	163,025.03
54	SYSTEM SECURITY PLAN F	1.0000	EA	163,025.0300	163,025.03
55	AUTOMATED CODE REVIEW RESULTS F	1.0000	EA	163,025.0300	163,025.03
56	BUSINESS PRODUCT P	1.0000	EA	163,025.0300	163,025.03
57	TRAINING MATERIALS P	1.0000	EA	163,025.0300	163,025.03
58	CONTINGENCY/RECOVER PLAN F	1.0000	EA	213,333.5300	213,333.53
59	IMPLEMENTATION PLAN F	1.0000	EA	213,333.5300	213,333.53
60	POST-IMPLEMENTATION SUPPORT PLAN	1.0000	EA	213,333.5300	213,333.53
61	USER MANUALS F	1.0000	EA	213,333.5300	213,333.53
62	O&M MANUALS F	1.0000	EA	213,333.5300	213,333.53
63	TRAINING PLAN F	1.0000	EA	213,333.5300	213,333.53
64	TEST REPORTS F	1.0000	EA	213,333.5300	213,333.53
65	SECURITY AGREEMENT F	1.0000	EA	213,333.5300	213,333.53
66	BUSINESS PRODUCTS F	1.0000	EA	213,333.5300	213,333.53
67	TRAINING MATERIALS F	1.0000	EA	213,333.5300	213,333.53
68	SYSTEM OF RECORD NOTICE F	1.0000	EA	213,333.5300	213,333.53
69	PROJECT COMPLETION REPORT F	1.0000	EA	213,333.5300	213,333.53
70	SLAS/MOU	1.0000	EA	213,333.5300	213,333.53
71	PRIVACY IMPACT ASSESSMENT F	1.0000	EA	213,333.5300	213,333.53
72	POA&M F	1.0000	EA	213,333.5300	213,333.53

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AWARD

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
6 of 8	06/13/14
BUSINESS UNIT	BUYER
25710178	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
73	AUTHORITY TO OPERATE F	1.0000	EA	213,333.5300	213,333.53
74	VERIFICATION, VALIDATION AND STABILIZATION 1	1.0000	EA	583,040.9000	583,040.90
75	EES LICENSE	1.0000	EA	1,068,747.0000	1,068,747.00
76	VERIFICATION, VALIDATION AND STABILIZATION 2	1.0000	EA	583,040.9000	583,040.90
77	VERIFICATION, VALIDATION AND STABILIZATION 3	1.0000	EA	583,040.9000	583,040.90
78	VERIFICATION, VALIDATION AND STABILIZATION 4	1.0000	EA	583,040.9000	583,040.90
79	VERIFICATION, VALIDATION AND STABILIZATION 5	1.0000	EA	583,040.9000	583,040.90
80	VERIFICATION, VALIDATION AND STABILIZATION 6	1.0000	EA	583,040.9000	583,040.90
81	VERIFICATION, VALIDATION AND STABILIZATION 7	1.0000	EA	583,040.9000	583,040.90
82	VERIFICATION, VALIDATION AND STABILIZATION 8	1.0000	EA	583,040.9000	583,040.90
83	VERIFICATION, VALIDATION AND STABILIZATION 9	1.0000	EA	583,040.9000	583,040.90
84	POST IMPLEMENTATION M&O FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	2,654,883.0000	2,654,883.00
85	HOSTING AND DISASTER RECOVERY (FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,282,856.0000	1,282,856.00
86	POST IMPLEMENTATION M&O SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,967,463.0000	3,967,463.00
87	HOSTING AND DISASTER RECOVERY SECOND 2ND TWELVE 12	1.0000	EA	1,282,856.0000	1,282,856.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AWARD

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
7 of 8	06/13/14
BUSINESS UNIT	BUYER
25710178	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
	MONTH PERIOD FOLLOWING VVS				
88	POST IMPLEMENTATION M&O THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,967,463.0000	3,967,463.00
89	HOSTING AND DISASTER RECOVERY THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,282,856.0000	1,282,856.00
90	POST IMPLEMENTATION M&O FOURTH 4TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,967,463.0000	3,967,463.00
91	HOSTING AND DISASTER RECOVERY FOURTH 4TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,282,856.0000	1,282,856.00
92	POST IMPLEMENTATION WARRANTY FIRST 1ST TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
93	POST IMPLEMENTATION M&O FIFTH 5TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,941,806.0000	3,941,806.00
94	HOSTING AND DISASTER RECOVERY FIFTH 5TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,308,513.0000	1,308,513.00
95	POST IMPLEMENTATION WARRANTY SECOND 2ND TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
96	POST IMPLEMENTATION M&O SIXTH 6TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,941,806.0000	3,941,806.00
97	HOSTING AND DISASTER RECOVERY SIXTH 6TH TWELVE 12	1.0000	EA	1,308,513.0000	1,308,513.00

BUYER INITIALS

STATE OF NEBRASKA SERVICE CONTRACT AWARD

State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Telephone: (402) 471-6500
Fax: (402) 471-2089

PAGE	ORDER DATE
8 of 8	06/13/14
BUSINESS UNIT	BUYER
25710178	JENNIFER CROUSE (AS)

VENDOR NUMBER: 1896057

CONTRACT NUMBER
59912 O4

Line	Description	Quantity	Unit of Measure	Unit Price	Extended Price
	MONTH PERIOD FOLLOWING VVS				
98	POST IMPLEMENTATION WARRANTY THIRD 3RD TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
99	POST IMPLEMENTATION M&O SEVENTH 7TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,941,806.0000	3,941,806.00
100	HOSTING AND DISASTER RECOVERY SEVENTH 7TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,308,513.0000	1,308,513.00
101	POST IMPLEMENTATION WARRANTY FOURTH 4TH TWELVE 12 MONTH PERIOD FOLLOWING MAINTENANCE AND OPERATION	1.0000	EA	105,006.0000	105,006.00
102	POST IMPLEMENTATION M&O EIGHTH 8TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	3,941,806.0000	3,941,806.00
103	HOSTING AND DISASTER RECOVERY EIGHTH 8TH TWELVE 12 MONTH PERIOD FOLLOWING VVS	1.0000	EA	1,308,513.0000	1,308,513.00
	Total Order				**79,869,995.94**

JC 6/17
BUYER INITIALS

ADDENDUM ONE to Contract Award
Terms and Conditions
Contract 59912 O4 to replace the functionality of the current Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (EES) that meets the CMS Seven Standard and Conditions
Between
The State of Nebraska and Wipro LLC

The following Terms and Conditions, Addendum One of Contract 59912 O4 have been reviewed and agreed upon between Wipro LLC "Contractor" and the State of Nebraska "State". This addendum will become part of the contract to replace the functionality of the current Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (EES) that meets the CMS Seven Standard and Conditions. The terms and conditions of this Addendum shall supersede, prevail and govern in the case of any inconsistencies with the Terms and Conditions indicated in Section III of the Request for Proposal.

By signing this Addendum the Contractor guarantees compliance with the provisions stated herein, agrees to the terms and conditions and certifies Contractor maintains a drug free work place environment.

A. GENERAL

The contract resulting from this Request for Proposal shall incorporate the following documents:

1. Amendment to Contract Award with the most recent dated amendment having the highest priority;
2. Contract Award and any attached Addenda;
3. The signed Request for Proposal form and the Contractor's Proposal;
4. Amendments to RFP and any Questions and Answers; and
5. The original RFP document and any Addenda.

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to Contract Award with the most recent dated amendment having the highest priority, 2) Contract Award and any attached Addenda, 3) the signed Request for Proposal form and the Contractor's Proposal, 4) Amendments to RFP and any Questions and Answers, 5) the original RFP document and any Addenda.

Any ambiguity in any provision of this contract which shall be discovered after its execution shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

Once proposals are opened they become the property of the State of Nebraska and will not be returned.

B. AWARD

All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part, and at its discretion, may withdraw or amend the Request for Proposal at any time. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State. The Request for Proposal does not commit the State to award a contract. If, in the opinion of the State, revisions or amendments will require substantive changes in proposals, the due date may be extended.

By submitting a proposal in response to this Request for Proposal, the bidder grants to the State the right to contact or arrange a visit in person with any or all of the bidder's clients.

Once an intent to award decision has been determined, it will be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm

Grievance and protest procedure is available on the Internet at: http://www.das.state.ne.us/materiel/purchasing/agencyservicesprocurementmanual/ProtestGrievanceProcedureForServices.doc

Any protests must be filed by a vendor within ten (10) calendar days after the intent to award decision is posted to the Internet.

C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION

The contractor shall comply with all applicable local, State and Federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits contractors of the State of Nebraska, and their subcontractors, from discriminating against any employee or applicant for employment, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin (Neb. Rev. Stat. §48-1101 to 48-1125). The contractor guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this Request for Proposal.

D. PERMITS, REGULATIONS, LAWS

The contractor shall procure and pay for all permits, licenses and approvals necessary for the execution of the contract. The contractor shall comply with all applicable local, state, and federal laws, ordinances, rules, orders and regulations.

E. OWNERSHIP OF INFORMATION AND DATA

The State of Nebraska shall have the unlimited right to publish, duplicate, use and disclose all information and data developed or derived by the contractor specifically for the State of Nebraska pursuant to this contract.

The contractor must guarantee that it has the full legal right to the materials, supplies, equipment, and other rights or titles (e.g. rights to licenses transfer or assign deliverables) necessary to execute this contract. The contract price shall, without exception, include compensation for all royalties and costs arising from patents, trademarks and copyrights that

are in any way involved in the contract. It shall be the responsibility of the contractor to pay for all royalties and costs, and the State must be held harmless from any such claims.

Retained Rights. Each Party owns, and will continue to own all right, title and interest in and to any inventions however embodied, know how, works in any media, software, information, trade secrets, materials, property or proprietary interest, that it owned prior to this Agreement, or that it created or acquired independently of its obligations pursuant to this Agreement, and in respect of any modifications or enhancements made thereto (collectively, "Retained Rights"). All Retained Rights not expressly transferred or licensed herein are reserved to the respective owner.

F. INSURANCE REQUIREMENTS

The contractor shall not commence work under this contract until he or she has obtained all the insurance required hereunder and such insurance has been approved by the State. If contractor will be utilizing any subcontractors, the contractor is responsible for obtaining the certificate(s) of insurance required herein under from any and all subcontractor(s). Contractor is also responsible for ensuring subcontractor(s) maintain the insurance required until completion of the contract requirements. The contractor shall not allow any subcontractor to commence work on his or her subcontract until all similar insurance required of the subcontractor has been obtained and approved by the contractor. Approval of the insurance by the State shall not limit, relieve or decrease the liability of the contractor hereunder.

If by the terms of any insurance a mandatory deductible is required, or if the contractor elects to increase the mandatory deductible amount, the contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

1. WORKERS' COMPENSATION INSURANCE

The contractor shall take out and maintain during the life of this contract the statutory Workers' Compensation and Employer's Liability Insurance for all of the contactors' employees to be engaged in work on the project under this contract and, in case any such work is sublet, the contractor shall require the subcontractor similarly to provide Worker's Compensation and Employer's Liability Insurance for all of the subcontractor's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the state in which the work is to be performed, including Occupational Disease. This policy shall include a waiver of subrogation in favor of the State. The amounts of such insurance shall not be less than the limits stated hereinafter.

2. COMMERCIAL GENERAL LIABILITY INSURANCE AND COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The contractor shall take out and maintain during the life of this contract such Commercial General Liability Insurance and Commercial Automobile Liability Insurance as shall protect contractor and any subcontractor performing work covered by this contract from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this contract, whether such operation be by the contractor or by any subcontractor or by anyone directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than limits stated hereinafter.

The Commercial General Liability Insurance shall be written on an occurrence basis, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury and Contractual Liability coverage. The policy shall include the State, and others as required by the Contract Documents, as an Additional Insured. This policy shall be primary, and any insurance or self-insurance carried by the State shall be considered excess and non-contributory. The Commercial Automobile Liability Insurance shall be written to cover all Owned, Non-owned and Hired vehicles.

3. INSURANCE COVERAGE AMOUNTS REQUIRED

a. WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY

Coverage A	Statutory
Coverage B	
Bodily Injury by Accident	$100,000 each accident
Bodily Injury by Disease	$500,000 policy limit
Bodily Injury by Disease	$100,000 each employee

b. COMMERCIAL GENERAL LIABILITY

General Aggregate	$2,000,000
Products/Completed Operations Aggregate	$2,000,000
Personal/Advertising Injury	$1,000,000 any one person
Bodily Injury/Property Damage	$1,000,000 per occurrence
Fire Damage	$50,000 any one fire
Medical Payments	$5,000 any one person

c. COMMERCIAL AUTOMOBILE LIABILITY

Bodily Injury/Property Damage	$1,000,000 combined single limit

d. UMBRELLA/EXCESS LIABILITY

Over Primary Insurance	$1,000,000 per occurrence

4. EVIDENCE OF COVERAGE

The contractor should furnish the State, with their proposal response, a certificate of insurance coverage complying with the above requirements to the attention of Buyer Name, Administrative Services, State Purchasing Bureau, 1526 K Street, Suite 130, Lincoln, NE 68508 (facsimile 402-471-2089). These certificates or the cover sheet shall reference the RFP number, and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration and amounts and types of coverage afforded. If the State is damaged by the failure of the contractor to maintain such insurance, then the contractor shall be responsible for all reasonable costs properly attributable thereto.

Notice of cancellation of any required insurance policy must be submitted to Buyer Name, Administrative Services State Purchasing Bureau when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

G. COOPERATION WITH OTHER CONTRACTORS

The State may already have in place or choose to award supplemental contracts for work related to this Request for Proposal, or any portion thereof.

1. The State reserves the right to award the contract jointly between two or more potential contractors, if such an arrangement is in the best interest of the State.
2. The contractor shall agree to cooperate with such other contractors, and shall not commit or permit any act which may interfere with the performance of work by any other contractor.

H. INDEPENDENT CONTRACTOR

It is agreed that nothing contained herein is intended or should be construed in any manner as creating or establishing the relationship of partners between the parties hereto. The contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under the contract. The contractor's employees and other persons engaged in work or services required by the contractor under the contract shall have no contractual relationship with the State; they shall not be considered employees of the State.

All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination against the contractor, its officers or its agents) shall in no way be the responsibility of the State. The contractor will hold the State harmless from any and all such claims. Such personnel or other persons shall not require nor be entitled to any compensation, rights or benefits from the State including without limit, tenure rights, medical and hospital care, sick and vacation leave, severance pay or retirement benefits.

I. CONTRACTOR RESPONSIBILITY

The contractor is solely responsible for fulfilling the contract, with responsibility for all services offered and products to be delivered as stated in the Request for Proposal, the contractor's proposal, and the resulting contract. The contractor shall be the sole point of contact regarding all contractual matters.

If the contractor intends to utilize any subcontractors' services, the subcontractors' level of effort, tasks and time allocation must be clearly defined in the contractor's proposal. The contractor shall agree that it will not utilize any subcontractors not specifically included in its proposal, in the performance of the contract, without the prior written authorization of the State. Following execution of the contract, the contractor shall proceed diligently with all services and shall perform such services with qualified personnel in accordance with the contract.

The Contractor's failure to perform or delay in performing its contractual responsibilities (in whole or in part), to perform any part of the Services (whether in conformance with the Contract or at all), or to meet any agreed service levels shall be excused if and to the extent the Contractor's non-performance is solely attributable to the State's act or omission to act, delay, wrongful action, failure to provide inputs or approvals, or failure to perform its obligations under the Contract.

J. CONTRACTOR PERSONNEL

The contractor warrants that all persons assigned to the project shall be employees of the contractor or specified subcontractors, and shall be fully qualified to perform the work required herein. Personnel employed by the contractor to fulfill the terms of the contract shall remain under the sole direction and control of the contractor. The contractor shall include a similar provision in any contract with any subcontractor selected to perform work on the project.

Personnel commitments made in the contractor's proposal shall not be changed without the prior written approval of the State. Replacement of key personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

The State reserves the right to require the contractor to reassign or remove from the project any contractor or subcontractor employee.

In respect to its employees, the contractor agrees to be responsible for the following:

1. any and all employment taxes and/or other payroll withholding;
2. any and all vehicles used by the contractor's employees, including all insurance required by state law;
3. damages incurred by contractor's employees within the scope of their duties under the contract;
4. maintaining workers' compensation and health insurance and submitting any reports on such insurance to the extent required by governing State law; and
5. determining the hours to be worked and the duties to be performed by the contractor's employees.

Notice of cancellation of any required insurance policy must be submitted to the State when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION

The contractor shall not, at any time, recruit or employ any State employee or agent who has worked on the Request for Proposal or project, or who had any influence on decisions affecting the Request for Proposal or project.

The State agrees that for the term of this Contract and for a period of one (1) year thereafter, the State will not directly or indirectly, recruit, solicit, discuss employment with, hire, employ or engage any of the Contractor's personnel then assigned to provide any aspect of the Services to the State or who were so assigned within the previous one (1) year period, or induce any such individual to leave the employ of the Contractor.

Contractor may waive the aforementioned restriction by providing written notice allowing the State to recruit, solicit, discuss employment with, hire, employ or engage Contractor's personnel

L. CONFLICT OF INTEREST

By submitting a proposal, bidder certifies that there does not now exist any relationship between the bidder and any person or entity which is or gives the appearance of a conflict of interest related to this Request for Proposal or project.

The bidder certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its services hereunder or which creates an actual or appearance of conflict of interest.
The bidder certifies that it will not employ any individual known by bidder to have a conflict of interest.

M. PROPOSAL PREPARATION COSTS

The State shall not incur any liability for any costs incurred by bidders in replying to this Request for Proposal, in the demonstrations, or oral presentations, or in any other activity related to bidding on this Request for Proposal.

N. ERRORS AND OMISSIONS

The bidder shall not take advantage of any errors and/or omissions in this Request for Proposal or resulting contract. The bidder must promptly notify the State of any errors and/or omissions that are discovered.

O. BEGINNING OF WORK

The bidder shall not commence any billable work until a valid contract has been fully executed by the State and the successful contractor. The contractor will be notified in writing when work may begin.

P. ASSIGNMENT BY THE STATE

The State shall have the right to assign or transfer the contract or any of its interests herein to any agency, board, commission, or political subdivision of the State of Nebraska. There shall be no charge to the State for any assignment hereunder.

Q. ASSIGNMENT BY THE CONTRACTOR

The contractor may not assign, voluntarily or involuntarily, the contract or any of its rights or obligations hereunder (including without limitation rights and duties of performance) to any third party, without the prior written consent of the State, which will not be unreasonably withheld.

R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL

The requirements contained in the Request for Proposal become a part of the terms and conditions of the contract resulting from this Request for Proposal. Any deviations from the Request for Proposal must be clearly defined by the bidder in its proposal and, if accepted by the State, will become part of the contract. Any specifically defined deviations must not be in conflict with the basic nature of the Request for Proposal or mandatory requirements. "Deviation", for the purposes of this RFP, means any proposed changes or alterations to either the contractual language or deliverables within the scope of this RFP. The State discourages deviations and reserves the right to reject proposed deviations.

S. GOVERNING LAW

The contract shall be governed in all respects by the laws and statutes of the State of Nebraska. Any legal proceedings against the State of Nebraska regarding this Request for Proposal or any resultant contract shall be brought in the State of Nebraska administrative or judicial forums as defined by State law. The contractor must be in compliance with all Nebraska statutory and regulatory law.

T. ATTORNEY'S FEES

In the event of any litigation, appeal or other legal action to enforce any provision of the contract, the contractor agrees to pay all expenses of such action, as permitted by law, including attorney's fees and costs, if the State is the prevailing party.

U. ADVERTISING

The contractor agrees not to refer to the contract award in advertising in such a manner as to state or imply that the company or its services are endorsed or preferred by the State. News releases pertaining to the project shall not be issued without prior written approval from the State.

V. STATE PROPERTY

The contractor shall be responsible for the proper care and custody of any State-owned property which is furnished for the contractor's use during the performance of the contract. The contractor shall reimburse the State for any loss or damage of such property, normal wear and tear is expected.

W. SITE RULES AND REGULATIONS

The contractor shall use its best efforts to ensure that its employees, agents and subcontractors comply with site rules and regulations while on State premises. If the contractor must perform on-site work outside of the daily operational hours set forth by the State, it must make arrangements with the State to ensure access to the facility and the equipment has been arranged. No additional payment will be made by the State on the basis of lack of access, unless the State fails to provide access as agreed to between the State and the contractor.

X. NOTIFICATION

During the bid process, all communication between the State and a bidder shall be between the bidder's representative clearly noted in its proposal and the buyer noted in Section II, A. Procuring Office and Contact Person of this RFP. After the award of the contract, all notices under the contract shall be deemed duly given upon delivery to the staff designated as the point of contact for this Request for Proposal, in person, or upon delivery by U.S. Mail, facsimile, or e-mail. Each bidder should provide in its proposal the name, title and complete address of its designee to receive notices.

1. Except as otherwise expressly specified herein, all notices, requests or other communications shall be in writing and shall be deemed to have been given if delivered personally or mailed, by U.S. Mail, postage prepaid, return receipt requested, to the parties at their respective addresses set forth above, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or three (3) days following deposit in the mail.

2. Whenever the contractor encounters any difficulty which is delaying or threatens to delay its timely performance under the contract, the contractor shall immediately give notice thereof in writing to the State reciting all relevant information with respect thereto. Such notice shall not in any way constitute a basis for an extension of the delivery schedule or be construed as a waiver by the State of any of its rights or remedies to which it is entitled by law or equity or pursuant to the provisions of the contract. Failure to give such notice, however, may be grounds for denial of any request for an extension of the delivery schedule because of such delay.

Either party may change its address for notification purposes by giving notice of the change, and setting forth the new address and an effective date.

For the duration of the contract, all communication between contractor and the State regarding the contract shall take place between the contractor and individuals specified by the State in writing. Communication about the contract between contractor and individuals not designated as points of contact by the State is strictly forbidden.

Y. EARLY TERMINATION

The contract may be terminated as follows:

1. The State and the contractor, by mutual written agreement, may terminate the contract at any time.

2. The State, in its sole discretion, may terminate the contract for any reason upon 30 days written notice to the contractor. Such termination shall not relieve the contractor of warranty or other service obligations incurred under the terms of the contract. In the event of cancellation the contractor shall be entitled to payment, determined on a pro rata basis, for products or services satisfactorily performed or provided.

3. The State may terminate the contract immediately for the following reasons:

   a. if directed to do so by statute;
   b. contractor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;
   c. a trustee or receiver of the contractor or of any substantial part of the contractor's assets has been appointed by a court;
   d. fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its contractor, its employees, officers, directors or shareholders;
   e. an involuntary proceeding has been commenced by any party against the contractor under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) days; or (ii) the contractor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the contractor has been decreed or adjudged a debtor;
   f. a voluntary petition has been filed by the contractor under any of the chapters of Title 11 of the United States Code;
   g. contractor intentionally discloses confidential information;
   h. contractor has or announces it will discontinue support of the deliverable;

i. second or subsequent documented "vendor performance report" form deemed acceptable by the State Purchasing Bureau.

Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS

The State may terminate the contract, in whole or in part, in the event funding is no longer available. The State's obligation to pay amounts due for fiscal years following the current fiscal year is contingent upon legislative appropriation of funds for the contract. Should said funds not be appropriated, the State may terminate the contract with respect to those payments for the fiscal years for which such funds are not appropriated. The State will give the contractor written notice thirty (30) days prior to the effective date of any termination, and advise the contractor of the location (address and room number) of any related equipment. All obligations of the State to make payments after the termination date will cease and all interest of the State in any related equipment will terminate. The contractor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date. In no event shall the contractor be paid for a loss of anticipated profit.

AA. BREACH BY CONTRACTOR

The State may terminate the contract, in whole or in part, if the contractor fails to perform its obligations under the contract in a timely and proper manner. The State may, by providing a written notice of default to the contractor, allow the contractor to cure a failure or breach of contract within a period of thirty (30) days (or longer at State's discretion considering the gravity and nature of the default) prior to the effective date of termination. Said notice shall be delivered by Certified Mail, Return Receipt Requested or in person with proof of delivery. Allowing the contractor time to cure a failure or breach of contract does not waive the State's right to immediately terminate the contract for the same or different contract breach which may occur at a different time. In case of default of the contractor, the State may contract the service from other sources and hold the contractor responsible for any excess cost occasioned thereby.

In the event of breach or default by the contractor, the State agrees to use or purchase services similar to the services provided by the contractor and will mitigate or minimize the costs associated with such recovery or replacement system.

BB. ASSURANCES BEFORE BREACH

If any document or deliverable required pursuant to the contract does not fulfill the requirements of the Request for Proposal/resulting contract, upon written notice from the State, the contractor shall deliver assurances in the form of additional contractor resources at no additional cost to the project in order to complete the deliverable, and to ensure that other project schedules will not be adversely affected.

CC. PENALTY

In the event that the contractor fails to perform any substantial obligation under the contract, the State may withhold all monies due and payable to the contractor, without penalty, until such failure is cured or otherwise adjudicated. Failure to meet the dates stipulated in the contract for the deliverables may result in an assessment of penalty due the State of $1,000 dollars per day, until the deliverables are approved. Contractor will be notified in writing when penalty will commence.

DD. PERFORMANCE BOND

The selected contractor will be required to supply a certified check or a bond executed by a corporation authorized to contract surety in the State of Nebraska, payable to the State of Nebraska, which shall be valid for the life of the contract to include any renewal and/or extension periods. The amount of the certified check or bond must be the dollar amount of $15,000,000.00. The check or bond will guarantee that the selected contractor will faithfully perform all requirements, terms and conditions of the contract. Failure to comply shall be grounds for forfeiture of the check or bond as liquidated damages. Amount of forfeiture will be determined by the agency based on loss to the State. The bond or certified check will be returned when the service has been satisfactorily completed as solely determined by the State, after termination or expiration of the contract.

EE. FORCE MAJEURE

Neither party shall be liable for any costs or damages resulting from its inability to perform any of its obligations under the contract due to a natural disaster, or other similar event outside the control and not the fault of the affected party ("Force Majeure Event"). A Force Majeure Event shall not constitute a breach of the contract. The party so affected shall immediately give notice to the other party of the Force Majeure Event. The State may grant relief from performance of the contract if the contractor is prevented from performance by a Force Majeure Event. The burden of proof for the need for such relief shall rest upon the contractor. To obtain release based on a Force Majeure Event, the contractor shall file a written request for such relief with the State Purchasing Bureau. Labor disputes with the impacted party's own employees will not be considered a Force Majeure Event and will not suspend performance requirements under the contract.

FF. PROHIBITION AGAINST ADVANCE PAYMENT

Payments shall not be made until contractual deliverable(s) are received and accepted by the State in accordance with the specific terms and conditions in the contract payment schedule.

GG. PAYMENT

State will render payment to contractor when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the contractor as solely determined by the State. Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408). The State may require the contractor to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any services provided by the contractor prior to the Effective Date, and the contractor hereby waives any claim or cause of action for any such services.

HH. INVOICES

Invoices for payments must be submitted by the contractor to the agency requesting the services with sufficient detail to support payment. Invoices must be submitted to: Medicaid and Long-Term Care Division, P.O. Box 95026, Lincoln, NE 68509. The terms and conditions included in the contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract.

II. AUDIT REQUIREMENTS

All contractor books, records and documents relating to work performed or monies received under the contract (except the contractor's internal cost and payroll records) shall be subject to audit at any reasonable time upon the provision of reasonable notice by the State. These records shall be maintained for a period of five (5) full years from the date of final payment, or until all issues related to an audit, litigation or other action are resolved, whichever is longer. All records shall be maintained in accordance with generally accepted accounting principles.

In addition to, and in no way in limitation of any obligation in the contract, the contractor shall agree that it will be held liable for any State audit exceptions, and shall return to the State all payments made under the contract for which an exception has been taken or which has been disallowed because of such an exception. The contractor agrees to correct immediately any material weakness or condition reported to the State in the course of an audit.

JJ. TAXES

The State is not required to pay taxes of any kind and assumes no such liability as a result of this solicitation. Any property tax payable on the contractor's equipment which may be installed in a state-owned facility is the responsibility of the contractor.

KK. INSPECTION AND APPROVAL

Final inspection and approval of all work required under the contract shall be performed by the designated State officials. The State and/or its authorized representatives shall have the right to enter any premises where the contractor or subcontractor duties under the contract are being performed, and to inspect, monitor or otherwise evaluate the work being performed. All inspections and evaluations shall be at reasonable times and in a manner that will not unreasonably delay work.

LL. CHANGES IN SCOPE/CHANGE ORDERS

The State may, at any time with written notice to the contractor, make changes within the general scope of the contract. Changes in scope shall only be conducted with the written approval of the State's designee as so defined by the State from time to time. (The State retains the right to employ the services of a third party to perform any change order(s)).

The State may, at any time work is in progress, by written order, make alterations in the terms of work as shown in the specifications, require the performance of extra work, decrease the quantity of work, or make such other changes as the State may find necessary or desirable. The contractor shall not claim forfeiture of contract by reasons of such changes by the State. Changes in work and the amount of compensation to be paid to the contractor for any extra work so ordered shall be determined in accordance with the applicable unit prices of the contractor's proposal.

Corrections of any deliverable services or performance of work required pursuant to the contract shall not be deemed a modification requiring a change order.

The contractor may propose changes within the scope of the contract to address any alterations in the scope of work, or other impact to the services. Such changes shall only be approved with the written approval of the State's designee as so defined by the State from time to time.

MM. SEVERABILITY

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

NN. CONFIDENTIALITY

All materials and information provided by the State or acquired by the contractor on behalf of the State shall be regarded as confidential information. All materials and information provided by the State or acquired by the contractor on behalf of the State shall be handled in accordance with Federal and State Law, and ethical standards. The contractor must ensure the confidentiality of such materials or information. Should said confidentiality be breached by a contractor; contractor shall notify the State immediately of said breach and take immediate corrective action.

It is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable to contractors by 5 U.S.C. 552a (m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

OO. PROPRIETARY INFORMATION

Data contained in the proposal and all documentation provided therein, become the property of the State of Nebraska and the data becomes public information upon opening the proposal. If the bidder wishes to have any information withheld from the public, such information must fall within the definition of proprietary information contained within Nebraska's public record statutes. All proprietary information the bidder wishes the State to withhold must be submitted in a sealed package, which is separate from the remainder of the proposal. The separate package must be clearly marked PROPRIETARY on the outside of the package. Bidders may not mark their entire Request for Proposal as proprietary. Bidder's cost proposals may not be marked as proprietary information. Failure of the bidder to follow the instructions for submitting proprietary and copyrighted information may result in the information being viewed by other bidders and the public. Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, bidders submitting information as proprietary may be required to prove specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive. Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State's definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information.

PP. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING

By submission of this proposal, the bidder certifies, that he or she is the party making the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham proposal, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the proposal price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the proposal are true; and further that the bidder has not, directly or indirectly, submitted his or her proposal price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

QQ. PRICES

All prices, costs, terms and conditions outlined in the proposal shall remain fixed and valid commencing on the opening date of the proposal until an award is made (and for bidder receiving award prices shall remain as bid for the duration of the contract unless otherwise so stated in the contract) or the Request for Proposal is cancelled.

Contractor also represents and warrants that all prices set forth in the contract and all prices in addition, which the contractor may charge under the terms of the contract, do not and will not violate any existing federal, state or municipal law or regulations concerning price discrimination and/or price fixing. Contractor agrees to hold the State harmless from any such violation. Prices quoted shall not be subject to increase throughout the contract period unless specifically allowed by these specifications.

RR. BEST AND FINAL OFFER

The State will compile the final scores for all parts of each proposal. The award may be granted to the highest scoring responsive and responsible bidder. Alternatively, the highest scoring bidder or bidders may be requested to submit best and final offers. If best and final offers are requested by the State and submitted by the bidder, they will be evaluated (using the stated criteria), scored and ranked by the Evaluation Committee. The award will then be granted to the highest scoring bidder. However, a bidder should provide its best offer in its original proposal. Bidders should not expect that the State will request a best and final offer.

SS. ETHICS IN PUBLIC CONTRACTING

No bidder shall pay or offer to pay, either directly or indirectly, any fee, commission compensation, gift, gratuity, or anything of value to any State officer, legislator or employee based on the understanding that the receiving person's vote, actions or judgment will be influenced thereby. No bidder shall give any item of value to any employee of the State Purchasing Bureau.

Bidders shall be prohibited from utilizing the services of lobbyists, attorneys, political activists, or consultants to secure the contract. It is the intent of this provision to assure that the prohibition of state contact during the procurement process is not subverted through the use

of lobbyists, attorneys, political activists, or consultants. It is the intent of the State that the process of evaluation of proposals and award of the contract be completed without external influence. It is not the intent of this section to prohibit bidders from seeking professional advice, for example consulting legal counsel, regarding terms and conditions of this Request for Proposal or the format or content of their proposal.

If the bidder is found to be in non-compliance with this section of the Request for Proposal, they may forfeit the contract if awarded to them or be disqualified from the selection process.

TT. INDEMNIFICATION

1. GENERAL

The contractor agrees to defend, indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State due to third party claims, arising directly and proximately out of, the willful misconduct, negligence, error, or omission of the contractor, its employees, subcontractors, consultants, representatives, and agents, except to the extent such contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

2. INTELLECTUAL PROPERTY

The contractor agrees it will at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all third party claims, to the extent such claims arise out of, result from, or are attributable to the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the contractor or its employees, subcontractors, consultants, representatives, and agents; provided, however, the State gives the contractor prompt notice in writing of the claim. The contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the contractor has indemnified the State, the contractor shall at the contractor's option and sole cost and expense promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality. At the State's election, the actual judgment may be treated as a breach of warranty by the contractor, and the State may receive the remedies provided under this RFP.

3. PERSONNEL

The contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any third party claim with respect to withholding taxes, worker's compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel provided by the contractor.

UU. NEBRASKA TECHNOLOGY ACCESS STANDARDS

Contractor shall review the Nebraska Technology Access Standards, found at http://nitc.nebraska.gov/standards/2-101.html and ensure that products and/or services provided under the contract comply with the applicable standards. In the event such standards change during the contractor's performance, the State may create an amendment to the contract to request that contract comply with the changed standard at a cost mutually acceptable to the parties.

VV. ANTITRUST

The contractor hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

WW. DISASTER RECOVERY/BACK UP PLAN

The contractor shall have a disaster recovery and back-up plan, of which a copy should be provided to the State, which includes, but is not limited to equipment, personnel, facilities, and transportation, in order to continue services as specified under these specifications in the event of a disaster.

XX. TIME IS OF THE ESSENCE

Time is of the essence in this contract. The acceptance of late performance with or without objection or reservation by the State shall not waive any rights of the State nor constitute a waiver of the requirement of timely performance of any obligations on the part of the contractor remaining to be performed.

YY. RECYCLING

Preference will be given to items which are manufactured or produced from recycled material or which can be readily reused or recycled after their normal use as per state statute (Neb. Rev. Stat. §81-15, 159).

ZZ. DRUG POLICY

Contractor certifies it maintains a drug free work place environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State.

AAA. EMPLOYEE WORK ELIGIBILITY STATUS

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a hired employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us.

2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

BBB. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY

The contractor, by signature to this RFP, certifies that the contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from participating in transactions (debarred). The contractor also agrees to include the above requirements in any and all subcontracts into which it enters. The contractor shall immediately notify the State of Nebraska if, during the term of this contract, contractor becomes debarred. The State of Nebraska may immediately terminate this contract by providing contractor written notice if contractor becomes debarred during the term of this contract.

IN WITNESS WHEREOF, the parties have executed this Addendum as of the date of execution by both parties below.

"State"

By: _____

Name: Bo Botelho

Title: Materiel Administrator

Date: 7/22/14

"Contractor"

By: M. E. Haque

Name: Mohd Ehteshamul Haque

Title: Vice President

Date: May 22, 2014

Department of Health and Human Services

By: _____

Name: Kerry Winterer

Title: Chief Executive Officer

Date: 7/21/2014

For public information purposes only; not part of contract.

Request for Proposal Number 4544 Z1
Contract Number 59912 O4
Proposal Opening: January 21, 2014

In accordance with Nebraska Revised Statutes §84.712.05(3), the following material(s) has not been included due to it being marked proprietary.

WIPRO, LLC

1. None

In accordance with Federal U.S. Copyright Law Title 17 U.S.C. Section 101 et seq., Title 18 U.S.C. 2319, the following material(s) has not been included due to them being copyrighted.

WIPRO, LLC

1. Technical Proposal (Binder 2 of 3)

- **a.** Cúram Medical Assistance with Spend Down Guide
- **b.** Date Warehouse and DataMart Entity Relationship Diagrams (ERD's)



Proposal to Provide Nebraska Medicaid Eligibility and Enrollment Solution

Prepared for:

State of Nebraska Administrative Services
Material Division Purchasing Bureau

Submitted in Response to RFP: 4544Z1
January 21, 2014

Prepared by: Wipro LLC

– ORIGINAL –

Technical Proposal Volume 1 of 3
(FORMS, EXEC SUMMARY, OVERVIEW)

WIPRO
Applying Thought

January 20, 2013

State of Nebraska
State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508

Attn: Mr. Peter A Kroll & Mr. Robert Thompson

Subject: RFP 4544Z1 Medicaid Eligibility and Enrollment System Procurement

Wipro LLC. is pleased to submit the attached proposal in response to the State of Nebraska's Request for Proposal (RFP) No. 4544Z1 for the Medicaid Eligibility and Enrollment System procurement.

To meet the requirements and needs of the Nebraska Medicaid and Long Term Care program (MLTC), Wipro and IBM are pleased to propose the ***SmartPro-MedEE*** solution. This offering comprises of services through the Wipro and IBM partnership, software & hardware product implementation and ongoing hosting, support, and maintenance services. The ***SmartPro-MedEE*** solution offers Nebraska world class integration, configuration, implementation and deployment experts with the superior Cúram solution and expertise dedicated to project. Applying the knowledge and experience of our extensive healthcare IT; Wipro and IBM together will establish a firm foundation to support both immediate needs for Medicaid eligibility and enrollment modernization as well as the ability to leverage this foundation to build other Medicaid functions and agency needs in the future.

Our first-hand knowledge, experience and expertise across all facets of Medicaid and healthcare programs, as well enterprise solution architecting, deployment, hosting and operations capability, the Wipro IBM partnership represents world class systems and services delivered by proven organizations for Nebraska's Medicaid eligibility and enrollment health solution initiatives.

We look forward to this relationship to support the State of Nebraska's MLTC Eligibility and Enrollment strategy. We eagerly anticipate your response to our proposal in support of your new and exciting vision.

Warm Regards:

Rajeshwar Dayal Mitra
Vice President
Wipro LLC.
2 Tower Center Blvd, Suite 2200
East Brunswick, NJ 08816

Table of Contents

Table of Contents

Table of Contents i
List of Figures v
List of Tables xi
List of Exhibits and Samples xiii
I. Proposal Forms I-1
II. Executive Summary II-1
III. Corporate Overview III-1
A. Bidder Identification and Information III-1
B. Financial Statements III-1
C. Change of Ownership III-3
D. Office Location III-4
E. Relationships with The State III-4
F. Bidder's Employee Relationships to the State III-5
G. Contract Performance III-5
H. Summary of Bidder's Corporate Experience III-6
1. Wipro Corporate Experience III-6
2. IBM Corporate Experience III-7
I. Summary of Bidder's Proposed Personnel/ Management Approach III-13
1. Key Staff Resumes and References III-14
2. State of Nebraska Staffing III-18
J. Subcontractors III-43
IV. Technical Approach IV-1
A. Understanding of the Project Requirements IV-1
B. Proposed Development Approach IV-9
i. Functional Requirements IV-15
ii. Non-Functional Requirements IV-111
1. Key Assumptions IV-111
2. Proposal Requirements IV-111
a. Architecture and Policy IV-111
b. System Administration and Support IV-119
c. System Security and Disaster Recovery IV-144
d. System Performance, Availability and Capacity IV-153
e. Technical Components IV-164
f. Software and Hardware Components IV-186
g. Environmental Installation and Configuration IV-194
h. Design, Development and Customization IV-198
i. Deployment IV-198
iii Requirements Traceability Matrix IV-201
a. Functional RTM – Appendix B IV-203
b. Non-Functional RTM – Appendix C IV-205
c. Requirements Gap Analysis – Appendix D IV-207
iv. Project Planning and Management IV-209

1. Project Management Plan IV-209
2. Scope Management IV-216
3. Requirements Traceability and Management IV-220
4. Issue Resolution Management IV-225
5. Risk Management and Resolution IV-228
6. Configuration Management IV-232
7. Project Performance Management IV-240
8. Communications Management IV-246
9. System Development Life Cycle (SDLC) IV-248
10. Project Initiation IV-256
11. Requirements Validation IV-258
12. Business Rules Configuration IV-270
13. System Design IV-274
14. Development IV-280
15. Testing IV-293
16. Data Conversion Task IV-336
17. Operational Readiness Review Task IV-348

v. Business Process Reengineering IV-352
vi. Organizational Change Management IV-364
vii. Training IV-379
viii. Knowledge Transfer IV-396
ix. Reporting IV-401
x. Documentation IV-413
xi. Implementation IV-415
xii. Post Implementation Support IV-420

1. System Hosting IV-420
2. Equipment Summary IV-423
3. Network IV-423
4. IT Service Desk IV-425
5. Software Configuration Management IV-429
6. Change and Release Mgmt IV-430
7. Data Retention and Archiving IV-431
8. System Performance Monitoring and Reporting IV-432
9. Compliance with Federal HIPAA, HI-TECH and State of Nebraska Confidentiality Law IV-438
10. Data System Access IV-439
11. Safeguard Publications IV-440
12. Warranty IV-441
13. Software Maintenance and Operations (M&O) IV-443
14. Hosting and Disaster Recovery Services IV-461
15. Development Environments IV-463
16. Production Environment IV-466
17. Disaster Recovery Environments IV-467

xiii. Turnover IV-469
xiv. Service Level Requirements IV-474
xv. Deliverable Approval Process IV-477
xvi. Value Add Options IV-477

C. Technical Considerations IV-480
D. Draft Project Work Plan IV-493
E. Milestones and Deliverables IV-495
Form C-1 Nebraska Milestones & Deliverables IV-495
Form C-2 Milestones and Deliverables Mapping and Schedule IV-499
Form C-3 Milestones & Deliverables Payment Percentage IV-505
F. Personnel Management and Planning IV-507
Exhibits and Samples ..... Exhibits and Samples-1

Page Left Intentionally Blank

List of Figures

Figure II-1: SmartPro MedEE Architecture II-3
Figure III-1: Wipro Financial Statement as of September 2013 ..... III-2
Figure III-2: IBM Annual Report/Audited Financial Statements III-3
Figure IV-1: Gartner's Magic Quadrant for MDM of Customer Data Solutions, October 2012 ..... IV-8
Figure IV-2: MDM Building Blocks IV-8
Figure IV-3: Nebraska's Enterprise-Ready Medicaid Eligibility and Enrollment System IV-10
Figure IV-4: Proposed Production Infrastructure IV-12
Figure IV-5: Processes and Tools Engineered for Rapid, On-Time Delivery: IV-13
Figure IV-6: Sample Self-Service Account Home Page IV-17
Figure IV-7: Sample Services Map IV-18
Figure IV-8: Sample of Collecting Home Relationships Information During Screening IV-19
Figure IV-9: Sample Life Events Page IV-21
Figure IV-10: Sample Online Application Home Page IV-24
Figure IV-11: Healthcare Application IV-25
Figure IV-12: Pre-Registration Person Search IV-32
Figure IV-13: Client Registration Page IV-33
Figure IV-14: Person Home Page View IV-34
Figure IV-15: Cúram Integrated Case Home Page IV-37
Figure IV-16: IBM Cúram Illustration IV-44
Figure IV-17: Common Life Events IV-51
Figure IV-18: Communication Template Examples IV-55
Figure IV-19: Communications Screen IV-56
Figure IV-20: Example External Screen IV-58
Figure IV-21: Integrated Case Home Page IV-61
Figure IV-22: Citizen Context Viewer IV-63
Figure IV-23: Supervisor Workspace Home Page IV-74
Figure IV-24: Sample User Workspace IV-75
Figure IV-25: Sample Case Workspace IV-76
Figure IV-26: Sample Organization Unit Workspace IV-76
Figure IV-27: Sample Unit Workspace IV-77
Figure IV-28 Sample Work Queue Workspace IV-78
Figure IV-29: Hearing Case Home Page IV-81
Figure IV-30: Capturing Appellant and Respondent Details IV-83
Figure IV-31: Creating a Hearing Case IV-84
Figure IV-32: Example Hearing Case Home Page IV-85
Figure IV-33: Reporting Architecture (High Level) IV-87
Figure IV-34: Information Delivery Architecture (Detailed) IV-88
Figure IV-35: Cognos Security Architecture IV-91
Figure IV-36: Example Task Home Page IV-99
Figure IV-37: Workflow Process Home Page IV-101
Figure IV-38: Graphical Representation of a Sample Workflow IV-102
Figure IV-39: Cúram Express Rules Editor IV-104
Figure IV-40: Rate Table Example IV-105

Figure IV-41: Example Page Showing Smart Panel IV-106
Figure IV-42: Sample Case Audit Configuration IV-109
Figure IV-43: Sample Audit Plan for a QC Review IV-110
Figure IV-44: Service Mediation Pattern IV-113
Figure IV-45: Example of Real-Time End-to-End Requirements Management Dashboard IV-117
Figure IV-46: Performance Reporting in Cognos IV-117
Figure IV-47: Common Life Events IV-119
Figure IV-48: Wipro's Ticket Escalation Process IV-124
Figure IV-49: Wipro Security Operations Center Portal IV-127
Figure IV-50: Example Network LAN Design IV-128
Figure IV-51: Logical View of a Typical Customer Network IV-129
Figure IV-52: Wipro WAN Diagram IV-130
Figure IV-53: Effective Dated Version Tracking IV-132
Figure IV-54: Meeting MLTC Requirements IV-156
Figure IV-55: PureApplication Virtual Application Builder IV-157
Figure IV-56: Cúram Architecture Model Describing the Upgrade Protocol. IV-158
Figure IV-57: *SmartPro MedEE* is SOA-Based and Architected for the Enterprise IV-165
Figure IV-58: Nebraska's Eligibility Solution – Cloud-Like, Flexible, Highly Available IV-166
Figure IV-59: Wipro's Missouri Medicaid Operation Utilizes an IBM Enterprise Service Bus IV-167
Figure IV-60: Reporting Architecture (High Level) IV-168
Figure IV-61: Information Delivery Architecture (Detailed) IV-171
Figure IV-62: The CER Editor, with Rules Diagram IV-173
Figure IV-63: The CER Editor, With Decision Table. IV-173
Figure IV-64: The CER Rules Search Function IV-174
Figure IV-65: CER Rule Doc IV-175
Figure IV-66: CER Decision Summary IV-175
Figure IV-67: Rules Trace Output IV-176
Figure IV-68: Rules Trace Output IV-177
Figure IV-69: Test Coverage Report IV-178
Figure IV-70: Network Connectivity IV-192
Figure IV-71: PureApplication Server Deployment IV-193
Figure IV-72: Network Topology IV-194
Figure IV-73: Project Management Methodology Processes IV-210
Figure IV-74: Work Patterns IV-211
Figure IV-75: Tasks and Activities in Delivery of the EES IV-214
Figure IV-76: Program Roadmap Processes IV-219
Figure IV-77: Rational Requirement Composer IV-220
Figure IV-78: Change Management Process IV-221
Figure IV-79: Versioning of a Requirement IV-222
Figure IV-80: Issue Management Procedure IV-227
Figure IV-81: Risk Assessment Matrix IV-229
Figure IV-82: Risk Management Plan Process IV-230
Figure IV-83: Risk Management Process IV-232
Figure IV-84: RTC Change Sets IV-233
Figure IV-85: RTC Streams IV-234
Figure IV-86: Move and Rename Tracking IV-234
Figure IV-87: Configuration Management Process IV-236

Figure IV-88: Change Management Procedure Process....IV-237
Figure IV-89: Release Management Procedure Process....IV-237
Figure IV-90: Overall Organization Structure....IV-239
Figure IV-91: Weekly Status Reporting....IV-240
Figure IV-92: Sample Weekly Status Report....IV-241
Figure IV-93: Sample Dashboard....IV-242
Figure IV-94: PM Tools....IV-243
Figure IV-95: IMP/IMS Planning Approach....IV-244
Figure IV-96: High-level View of Overall Organization Structure....IV-245
Figure IV-97: Sample Escalation Process....IV-247
Figure IV-98: CMS Enterprise Lifecycle (ELC)....IV-248
Figure IV-99: *SmartPro MedEE* Methodology....IV-250
Figure IV-100: Overall Organization Structure....IV-254
Figure IV-101: Stakeholder Collaboration Strategy....IV-259
Figure IV-102: Real-Time Dashboard and Collaboration Capabilities Example....IV-262
Figure IV-103: Sample Interface for Requirements Orientation....IV-267
Figure IV-104: Graphical Relationship of Rational Requirements Composer to Requirements....IV-268
Figure IV-105: CER Rules Editor....IV-271
Figure IV-106: Stages in Deploying Rules using the *SmartPro MedEE* solution....IV-271
Figure IV-107: Configuration Transport Manager Example....IV-273
Figure IV-108: Quality Gates....IV-276
Figure IV-109: Technological Overview....IV-278
Figure IV-110: SDLC Phases....IV-281
Figure IV-111: *SmartPro MedEE* Methodology....IV-282
Figure IV-112: Integration Testing Approach....IV-284
Figure IV-113: Business Process Management Approach....IV-285
Figure IV-114: Test Environment Topology....IV-286
Figure IV-115: SOA Integration Testing Topology....IV-288
Figure IV-116: DeepCheck....IV-293
Figure IV-117: Views of Wipro as a Testing Provider....IV-294
Figure IV-118: Wipro's Testing Methodology....IV-297
Figure IV-119: Integration Testing Approach....IV-298
Figure IV-120: Business Process Testing Phases....IV-299
Figure IV-121: System Testing Topology....IV-300
Figure IV-122: SOA Integration Testing Topology....IV-302
Figure IV-123: System Integration Testing Key Functionalities....IV-303
Figure IV-124: Performance Testing Methodology....IV-306
Figure IV-125: Automation Approach....IV-307
Figure IV-126: Automation Roadmap in Testing Lifecycle....IV-312
Figure IV-127: Establish Traceability Between Requirements and Test Cases....IV-313
Figure IV-128: Associate Test Plan with Existing Requirements....IV-313
Figure IV-129: Parallel Testing Methodology....IV-314
Figure IV-130: Approach to Parallel Testing....IV-315
Figure IV-131: Approach for Data Conversion and Migration....IV-317
Figure IV-132: Testing Organization....IV-320
Figure IV-133: Organizational Structure and Management for Testing....IV-320
Figure IV-134: Joint Methodology of Acceptance Testing....IV-321
Figure IV-135: Ideal V Model....IV-322

Figure IV-136: Bottom Up Approach IV-323
Figure IV-137: Automation Tool Framework IV-324
Figure IV-138: SOA Test Tool Chain IV-325
Figure IV-139: Validation and Verification of Services IV-326
Figure IV-140: Middleware System Test Topology IV-328
Figure IV-141: SOA Integration Testing Topology IV-330
Figure IV-142: Performance Testing Methodology IV-333
Figure IV-143: Connectors of the Overall *SmartPro MedEE* Architecture IV-335
Figure IV-144: Graphical Representation of a Sample Workflow IV-336
Figure IV-145: The *SmartPro MedEE* SOA-Based Solution IV-337
Figure IV-146: Conceptual Data Migration Reference Architecture IV-340
Figure IV-147: Data Cleansing Approaches and Options IV-343
Figure IV-148: Using BPR to Maximize Nebraska's Investment in *SmartPro MedEE* IV-353
Figure IV-149: As-Is Assessment IV-354
Figure IV-150:To-Be Assessment IV-356
Figure IV-151: Gap Analysis IV-359
Figure IV-152: BPR Study IV-361
Figure IV-153: Change Masters Achieved Doubled Project Success Rates IV-365
Figure IV-154: Four Attributes to Become "Change Masters" IV-365
Figure IV-155: IBM's Better Change Method IV-366
Figure IV-156: Communications Approach IV-370
Figure IV-157: Industry Awards and Recognition IV-380
Figure IV-158: IBM's Training Methodology IV-381
Figure IV-159: IBM's Training Methodology IV-382
Figure IV-160: IBM's Four-Tier Learning Model IV-383
Figure IV-161: Learning is Not a One-Time Event IV-386
Figure IV-162: IBM's ROSA Approach Aligns Right Training to Right End User Group IV-388
Figure IV-163: Training Menu Example IV-391
Figure IV-164: Team Wipro/IBM's Integrated Continuous Resource Management Model IV-393
Figure IV-165: Overview of Approach to Knowledge Acquisition IV-396
Figure IV-166: Reporting Architecture (High Level) IV-402
Figure IV-167: Information Delivery Architecture (Detailed) IV-403
Figure IV-168: Cognos Security Architecture IV-406
Figure IV-169: Salient Points of Report Migration Solution Phase and Components IV-411
Figure IV-170: *SmartPro MedEE* PureApp Appliance IV-422
Figure IV-171: DCS Network LAN Design is Fault-Tolerant and Highly Available IV-424
Figure IV-172: Problem Management Process Overview IV-426
Figure IV-173: Wipro's Mature Ticket Escalation Process IV-433
Figure IV-174: Graphical Operations Reports Available Through Wipro's SOC Portal IV-436
Figure IV-175: Support Engagement Divided into Core and Flex Teams IV-444
Figure IV-176: Ticket Resolution Methodology IV-445
Figure IV-177: EIS Production Support Dashboard IV-446
Figure IV-178: Capacity Management Process IV-448
Figure IV-179: Defect Management Process IV-449
Figure IV-180: Defect Management Lifecycle IV-451
Figure IV-181: Jazz Technology Platform IV-452
Figure IV-182: DR Architecture IV-462

Figure IV-183: SLM Methodology.....IV-475
Figure IV-184: Disaster Recovery Design.....IV-487
Figure IV-185: MDM Building Blocks.....IV-491

Page Left Intentionally Blank

List of Tables

Table II-1: *SmartPro MedEE* Aligns with MITA Framework 3.0 ..... II-6
Table III-1: *SmartPro MedEE* Solution Experience in State Programs III-9
Table III-2: Key Staff Roles and Qualifications III-15
Table III-3: Key Resources Ability to Meet Recommended Requirements III-16
Table III-4: Anticipated State of Nebraska Key Personnel Requirements III-18
Table III-5: Resume References III-42
Table III-6: IBM Contact Information III-43
Table III-7: Staffing Levels as Percentage of Full Sub-Team Hours by Phase III-44
Table IV-1: *SmartPro MedEE* Complies with MITA 3.0 and CMS' Standards IV-2
Table IV-2: Core Functional Components of the EES IV-4
Table IV-3: Core Non-Functional Components of the EES IV-5
Table IV-4: Attributes Maintained for Persons IV-34
Table IV-5: Attributes Maintained for Cases IV-37
Table IV-6: IBM Cúram Match to CMS Critical Success Factors IV-45
Table IV-7: Case Maintenance Features IV-64
Table IV-8: *SmartPro MedEE* Aligns with CMS' Seven Conditions and Standards IV-115
Table IV-9: Typical Security and Operations Reports IV-126
Table IV-10: Data Center Shared Services Management Tools IV-133
Table IV-11: Description of System Environments IV-138
Table IV-12: Environment Characteristics (Summary) IV-140
Table IV-13: Recommended Network Performance Design IV-160
Table IV-14: Server and Operating System Configuration IV-187
Table IV-15: PureApplication Server Software IV-188
Table IV-16: Application Software and Middleware IV-188
Table IV-17: *SmartPro MedEE* Tools (PMO/SDLC) IV-189
Table IV-18: Data Center Shared Services Management Tools IV-190
Table IV-19: Development Environments IV-196
Table IV-20: Project Management Plan Activities IV-212
Table IV-21: Deliverables IV-215
Table IV-22: Requirements Traceability Activities IV-225
Table IV-23: Additional Status Reports IV-241
Table IV-24: Example of Wipro/IBM Stakeholder Collaboration Strategy Cycle IV-261
Table IV-25: Team Role Identification IV-264
Table IV-26: Reports Included with Rational Requirements Composer IV-265
Table IV-27: System Design Deliverables IV-277
Table IV-28: Performance Testing Considerations IV-304
Table IV-29: Type Performance Tests IV-305
Table IV-30: Performance Testing Methodology Details IV-306
Table IV-31: Test Tools IV-309
Table IV-32: RACI Matrix IV-316
Table IV-33: Data Conversion and Migration Testing Activities IV-317
Table IV-34: Defect Metrics IV-318
Table IV-35: Distribution of Responsibility Across Layers IV-320

Table IV-36: SOA Test Tool Chain Description IV-325
Table IV-37: Performance Testing Approach IV-331
Table IV-38: Types of Performance Testing IV-332
Table IV-39: Performance Testing Methodology Details IV-333
Table IV-40: Data Migration Key Considerations and Inputs IV-339
Table IV-41: Data Migration Activity Tools IV-347
Table IV-42: Enabler Descriptions IV-366
Table IV-43: Benefit to the DCH's IES Program IV-384
Table IV-44: Training Materials IV-389
Table IV-45: Training Delivery Methods IV-389
Table IV-46: Training Methods IV-392
Table IV-47: Risk Analysis of a Single-Phased Implementation Approach IV-417
Table IV-48: A Cúram Single-Implementation Example – Key Facts IV-418
Table IV-49: Success Factors Contributing to a Successful Rollout IV-419
Table IV-50: Wipro Key Process to Support Highly Mature Service Delivery Capabilities IV-425
Table IV-51: Support Model Design Principles IV-428
Table IV-52: Wipro's Infrastructure and Key Role Mapping to Support Outstanding Service IV-428
Table IV-53: Security and Operational Reports – SOC IV-435
Table IV-54: Performance Standards IV-436
Table IV-55: Production Defect Severity IV-441
Table IV-56: Wipro's approach to Issue Management IV-457
Table IV-57: Development Environments IV-464
Table IV-58: Production Environments IV-467
Table IV-59: Criticality or Severity Levels IV-474
Table IV-60: Possible SLAs IV-476
Table IV-61: Data Center Tier Requirements IV-483

List of Exhibits and Samples

1. Wipro Limited and Subsidiaries Condensed Consolidated Interim Financial Statements Under IFRS.....Page 1
2. IBM 2012 Annual Report.....Page 3
3. Sample Training Course Map and Syllabuses.....Page 5
4. Sample Documentation .....Page 7
5. Date Warehouse and DataMart Entity Relationship Diagrams (ERD's) .....Page 9

Page Left Intentionally Blank

Proposal Forms

I. Proposal Forms

REQUEST FOR PROPOSAL FORM

Page Left Intentionally Blank

State of Nebraska (State Purchasing Bureau)
REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM

RETURN TO:
State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Phone: 402-471-2401
Fax: 402-471-2089

SOLICITATION NUMBER	RELEASE DATE
RFP 4544Z1	**October 31, 2013**
OPENING DATE AND TIME	PROCUREMENT CONTACT
January 7, 2014 2:00 p.m. Central Time	**Peter A. Kroll** **Robert Thompson**

This form is part of the specification package and must be signed and returned, along with proposal documents, by the opening date and time specified.

PLEASE READ CAREFULLY!

SCOPE OF SERVICE

The State of Nebraska, Administrative Services (AS), Materiel Division, Purchasing Bureau, is issuing this Request for Proposal, RFP Number 4544Z1 for the purpose of selecting a qualified contractor to replace the functionality of the current Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (EES) that meets the CMS Seven Standard and Conditions.

Written questions are due no later than November 12, 2013, and should be submitted via e-mail to as.materielpurchasing@nebraska.gov. Written questions may also be sent by facsimile to (402) 471-2089.

Bidder should submit one (1) original and one (1) hard copy of the Technical Proposal and one (1) original and one (1) hard copy of the Cost Proposal. In the event of any inconsistencies among the proposals, the language contained in the original proposal shall govern. Proposals must be submitted by the proposal due date and time.

PROPOSALS MUST MEET THE REQUIREMENTS OUTLINED IN THIS REQUEST FOR PROPOSAL TO BE CONSIDERED VALID. PROPOSALS WILL BE REJECTED IF NOT IN COMPLIANCE WITH THESE REQUIREMENTS.

1. Sealed proposals must be received in State Purchasing by the date and time of proposal opening indicated above. No late proposals will be accepted. No electronic, e-mail, fax, voice, or telephone proposals will be accepted.
2. This form "REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES" MUST be manually signed, in ink, and returned by the proposal opening date and time along with bidder's proposal and any other requirements as specified in the Request for Proposal in order to be considered for an award.
3. It is the responsibility of the bidder to check the website for all information relevant to this solicitation to include addenda and/or amendments issued prior to the opening date. Website address is as follows: http://das.nebraska.gov/materiel/purchasing/rfp.htm
4. It is understood by the parties that in the State of Nebraska's opinion, any limitation on the contractor's liability is unconstitutional under the Nebraska State Constitution, Article XIII, Section 3, and that any limitation of liability shall not be binding on the State of Nebraska despite inclusion of such language in documents supplied with the contractor's bid or in the final contra

BIDDER MUST COMPLETE THE FOLLOWING

By signing this Request For Proposal For Contractual Services form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions (see Section III) and certifies bidder maintains a drug free work place environment.

_____ I hereby certify that I am a Resident disabled veteran or business located in a designated enterprise zone in accordance with Neb. Rev Stat §73-107 and wish to have preference, if applicable, considered in the award of this contract.

FIRM: Wipro LLC

COMPLETE ADDRESS: 2 Tower Center Blvd, Suite 2200 East Brunswick, NJ 08816

TELEPHONE NUMBER: (732) 509 1500 FAX NUMBER: (732) 514 0860

SIGNATURE: _____ DATE: January 20, 2014

TYPED NAME & TITLE OF SIGNER: Rajeshwar Dayal Mitra Vice President

Form A

Bidder Contact Sheet

Request for Proposal Number 4544Z1

Form A should be completed and submitted with each response to this Request for Proposal. This is intended to provide the State with information on the bidder's name and address, and the specific person(s) who are responsible for preparation of the bidder's response.

Preparation of Response Contact Information	
Bidder Name:	Wipro LLC
Bidder Address:	2 Tower Center Blvd East Brunswick, NJ 08816
Contact Person & Title:	Anuj Kumar, General Manager
E-mail Address:	Anuj.Kumar25@Wipro.com
Telephone Number (Office):	573.635.2434
Telephone Number (Cellular):	573.353.0482
Fax Number:	573.659.0201

Each bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Communication with the State Contact Information	
Bidder Name:	Wipro LLC
Bidder Address:	2 Tower Center Blvd East Brunswick, NJ 08816
Contact Person & Title:	Thomas Stockdale, Business Development
E-mail Address:	Thomas.Stockdale@Wipro.com
Telephone Number (Office):	813.335.0084
Telephone Number (Cellular):	813.335.0084
Fax Number:	573,659.0201

Page Left Intentionally Blank

I. TERMS AND CONDITIONS

By signing the "Request For Proposal For Contractual Services" form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions and certifies bidder maintains a drug free work place environment.

Bidders are expected to closely read the Terms and Conditions and provide a binding signature of intent to comply with the Terms and Conditions; provided, however, a bidder may indicate any exceptions to the Terms and Conditions by (1) clearly identifying the term or condition by subsection, (2) including an explanation for the bidder's inability to comply with such term or condition which includes a statement recommending terms and conditions the bidder would find acceptable. Rejection in whole or in part of the Terms and Conditions may be cause for rejection of a bidder's proposal.

A. GENERAL



Accept (Initial) _____ **Reject (Initial)** _____ **Reject and Provide Alternative within RFP Response (Initial)**

The contract resulting from this Request for Proposal shall incorporate the following documents:

1. Amendment to Contract Award with the most recent dated amendment having the highest priority;
2. Contract Award and any attached Addenda;
3. The signed Request for Proposal form and the Contractor's Proposal;
4. Amendments to RFP and any Questions and Answers; and
5. The original RFP document and any Addenda.

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to Contract Award with the most recent dated amendment having the highest priority, 2) Contract Award and any attached Addenda, 3) the signed Request for Proposal form and the Contractor's Proposal, 4) Amendments to RFP and any Questions and Answers, 5) the original RFP document and any Addenda.

Any ambiguity in any provision of this contract which shall be discovered after its execution shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

Once proposals are opened they become the property of the State of Nebraska and will not be returned.

B. AWARD

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part, and at its discretion, may withdraw or amend the Request for Proposal at any time. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State. The Request for Proposal does not commit the State to award a contract. If, in the opinion of the State, revisions or amendments will require substantive changes in proposals, the due date may be extended.

By submitting a proposal in response to this Request for Proposal, the bidder grants to the State the right to contact or arrange a visit in person with any or all of the bidder's clients.

Once an intent to award decision has been determined, it will be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm

Grievance and protest procedure is available on the Internet at: http://www.das.state.ne.us/materiel/purchasing/agencyservicesprocurementmanual/ProtestGrievanceProcedureForServices.doc

Any protests must be filed by a vendor within ten (10) calendar days after the intent to award decision is posted to the Internet.

C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

The contractor shall comply with all applicable local, State and Federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits contractors of the State of Nebraska, and their subcontractors, from discriminating against any employee or applicant for employment, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin (Neb. Rev. Stat. §48-1101 to 48-1125). The contractor guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this Request for Proposal.

D. PERMITS, REGULATIONS, LAWS

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

The contractor shall procure and pay for all permits, licenses and approvals necessary for the execution of the contract. The contractor shall comply with all applicable local, state, and federal laws, ordinances, rules, orders and regulations.

E. OWNERSHIP OF INFORMATION AND DATA

_____ Accept (Initial) _____ Reject (Initial) Reject and Provide Alternative within RFP Response (Initial)

The State of Nebraska shall have the unlimited right to publish, duplicate, use and disclose all information and data developed or derived by the contractor pursuant to this contract.

The contractor must guarantee that it has the full legal right to the materials, supplies, equipment, and other rights or titles (e.g. rights to licenses transfer or assign deliverables) necessary to execute this contract. The contract price shall, without exception, include compensation for all royalties and costs arising from patents, trademarks and copyrights that are in any way involved in the contract. It shall be the responsibility of the contractor to pay for all royalties and costs, and the State must be held harmless from any such claims.

F. INSURANCE REQUIREMENTS

_____Accept (Initial) _____Reject (Initial)  Reject and Provide Alternative within RFP Response (Initial)

The contractor shall not commence work under this contract until he or she has obtained all the insurance required hereunder and such insurance has been approved by the State. If contractor will be utilizing any subcontractors, the contractor is responsible for obtaining the certificate(s) of insurance required herein under from any and all subcontractor(s). Contractor is also responsible for ensuring subcontractor(s) maintain the insurance required until completion of the contract requirements. The contractor shall not allow any subcontractor to commence work on his or her subcontract until all similar insurance required of the subcontractor has been obtained and approved by the contractor. Approval of the insurance by the State shall not limit, relieve or decrease the liability of the contractor hereunder.

If by the terms of any insurance a mandatory deductible is required, or if the contractor elects to increase the mandatory deductible amount, the contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

1. WORKERS' COMPENSATION INSURANCE

The contractor shall take out and maintain during the life of this contract the statutory Workers' Compensation and Employer's Liability Insurance for all of the contactors' employees to be engaged in work on the project under this contract and, in case any such work is sublet, the contractor shall require the subcontractor similarly to provide Worker's Compensation and Employer's Liability Insurance for all of the subcontractor's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the state in which the work is to be performed, including Occupational Disease. This policy shall include a waiver of subrogation in favor of the State. The amounts of such insurance shall not be less than the limits stated hereinafter.

2. COMMERCIAL GENERAL LIABILITY INSURANCE AND COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The contractor shall take out and maintain during the life of this contract such Commercial General Liability Insurance and Commercial Automobile Liability Insurance as shall protect contractor and any subcontractor performing work covered by this contract from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this contract, whether such operation be by the contractor or by any subcontractor or by anyone directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than limits stated hereinafter.

The Commercial General Liability Insurance shall be written on an occurrence basis, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury and Contractual Liability coverage. The policy shall include the State, and others as required by the Contract Documents, as an Additional

Insured. This policy shall be primary, and any insurance or self-insurance carried by the State shall be considered excess and non-contributory. The Commercial Automobile Liability Insurance shall be written to cover all Owned, Non-owned and Hired vehicles.

3. INSURANCE COVERAGE AMOUNTS REQUIRED

a. WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY

Coverage A	Statutory
Coverage B	
Bodily Injury by Accident	$100,000 each accident
Bodily Injury by Disease	$500,000 policy limit
Bodily Injury by Disease	$100,000 each employee

b. COMMERCIAL GENERAL LIABILITY

General Aggregate	$2,000,000
Products/Completed Operations Aggregate	$2,000,000
Personal/Advertising Injury	$1,000,000 any one person
Bodily Injury/Property Damage	$1,000,000 per occurrence
Fire Damage	$50,000 any one fire
Medical Payments	$5,000 any one person

c. COMMERCIAL AUTOMOBILE LIABILITY

Bodily Injury/Property Damage	$1,000,000 combined single limit

d. UMBRELLA/EXCESS LIABILITY

Over Primary Insurance	$1,000,000 per occurrence

4. EVIDENCE OF COVERAGE

The contractor should furnish the State, with their proposal response, a certificate of insurance coverage complying with the above requirements to the attention of Buyer Name, Administrative Services, State Purchasing Bureau, 1526 K Street, Suite 130, Lincoln, NE 68508 (facsimile 402-471-2089). These certificates or the cover sheet shall reference the RFP number, and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration and amounts and types of coverage afforded. If the State is damaged by the failure of the contractor to maintain such insurance, then the contractor shall be responsible for all reasonable costs properly attributable thereto.

Notice of cancellation of any required insurance policy must be submitted to Buyer Name, Administrative Services State Purchasing Bureau when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

G. COOPERATION WITH OTHER CONTRACTORS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may already have in place or choose to award supplemental contracts for work related to this Request for Proposal, or any portion thereof.

1. The State reserves the right to award the contract jointly between two or more potential contractors, if such an arrangement is in the best interest of the State.
2. The contractor shall agree to cooperate with such other contractors, and shall not commit or permit any act which may interfere with the performance of work by any other contractor.

H. INDEPENDENT CONTRACTOR


Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

It is agreed that nothing contained herein is intended or should be construed in any manner as creating or establishing the relationship of partners between the parties hereto. The contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under the contract. The contractor's employees and other persons engaged in work or services required by the contractor under the contract shall have no contractual relationship with the State; they shall not be considered employees of the State.

All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination against the contractor, its officers or its agents) shall in no way be the responsibility of the State. The contractor will hold the State harmless from any and all such claims. Such personnel or other persons shall not require nor be entitled to any compensation, rights or benefits from the State including without limit, tenure rights, medical and hospital care, sick and vacation leave, severance pay or retirement benefits.

I. CONTRACTOR RESPONSIBILITY

_____Accept (Initial) _____Reject (Initial) 
Reject and Provide Alternative within RFP Response (Initial)

The contractor is solely responsible for fulfilling the contract, with responsibility for all services offered and products to be delivered as stated in the Request for Proposal, the contractor's proposal, and the resulting contract. The contractor shall be the sole point of contact regarding all contractual matters.

If the contractor intends to utilize any subcontractors' services, the subcontractors' level of effort, tasks and time allocation must be clearly defined in the contractor's proposal. The contractor shall agree that it will not utilize any subcontractors not specifically included in its proposal, in the performance of the contract, without the prior written authorization of the State. Following execution of the contract, the contractor shall proceed diligently with all services and shall perform such services with qualified personnel in accordance with the contract.

J. CONTRACTOR PERSONNEL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor warrants that all persons assigned to the project shall be employees of the contractor or specified subcontractors, and shall be fully qualified to perform the work required herein. Personnel employed by the contractor to fulfill the terms of the contract shall remain under the sole direction and control of the contractor. The contractor shall include a similar provision in any contract with any subcontractor selected to perform work on the project.

Personnel commitments made in the contractor's proposal shall not be changed without the prior written approval of the State. Replacement of key personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

The State reserves the right to require the contractor to reassign or remove from the project any contractor or subcontractor employee.

In respect to its employees, the contractor agrees to be responsible for the following:

1. any and all employment taxes and/or other payroll withholding;
2. any and all vehicles used by the contractor's employees, including all insurance required by state law;
3. damages incurred by contractor's employees within the scope of their duties under the contract;
4. maintaining workers' compensation and health insurance and submitting any reports on such insurance to the extent required by governing State law; and
5. determining the hours to be worked and the duties to be performed by the contractor's employees.

Notice of cancellation of any required insurance policy must be submitted to the State when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall not, at any time, recruit or employ any State employee or agent who has worked on the Request for Proposal or project, or who had any influence on decisions affecting the Request for Proposal or project.

L. CONFLICT OF INTEREST

Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

By submitting a proposal, bidder certifies that there does not now exist any relationship between the bidder and any person or entity which is or gives the appearance of a conflict of interest related to this Request for Proposal or project.

The bidder certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its services hereunder or which creates an actual or appearance of conflict of interest.
The bidder certifies that it will not employ any individual known by bidder to have a conflict of interest.

M. PROPOSAL PREPARATION COSTS

Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State shall not incur any liability for any costs incurred by bidders in replying to this Request for Proposal, in the demonstrations, or oral presentations, or in any other activity related to bidding on this Request for Proposal.

N. ERRORS AND OMISSIONS

Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The bidder shall not take advantage of any errors and/or omissions in this Request for Proposal or resulting contract. The bidder must promptly notify the State of any errors and/or omissions that are discovered.

O. BEGINNING OF WORK

Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The bidder shall not commence any billable work until a valid contract has been fully executed by the State and the successful contractor. The contractor will be notified in writing when work may begin.

P. ASSIGNMENT BY THE STATE

Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State shall have the right to assign or transfer the contract or any of its interests herein to any agency, board, commission, or political subdivision of the State of Nebraska. There shall be no charge to the State for any assignment hereunder.

Q. ASSIGNMENT BY THE CONTRACTOR

_____Accept (Initial) _____Reject (Initial) ____Reject and Provide Alternative within RFP Response (Initial)

The contractor may not assign, voluntarily or involuntarily, the contract or any of its rights or obligations hereunder (including without limitation rights and duties of performance) to any third party, without the prior written consent of the State, which will not be unreasonably withheld.

R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL

____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The requirements contained in the Request for Proposal become a part of the terms and conditions of the contract resulting from this Request for Proposal. Any deviations from the Request for Proposal must be clearly defined by the bidder in its proposal and, if accepted by the State, will become part of the contract. Any specifically defined deviations must not be in conflict with the basic nature of the Request for Proposal or mandatory requirements. "Deviation", for the purposes of this RFP, means any proposed changes or alterations to either the contractual language or deliverables within the scope of this RFP. The State discourages deviations and reserves the right to reject proposed deviations.

S. GOVERNING LAW

____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract shall be governed in all respects by the laws and statutes of the State of Nebraska. Any legal proceedings against the State of Nebraska regarding this Request for Proposal or any resultant contract shall be brought in the State of Nebraska administrative or judicial forums as defined by State law. The contractor must be in compliance with all Nebraska statutory and regulatory law.

T. ATTORNEY'S FEES

_____Accept (Initial) _____Reject (Initial) ____Reject and Provide Alternative within RFP Response (Initial)

In the event of any litigation, appeal or other legal action to enforce any provision of the contract, the contractor agrees to pay all expenses of such action, as permitted by law, including attorney's fees and costs, if the State is the prevailing party.

U. ADVERTISING

____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor agrees not to refer to the contract award in advertising in such a manner as to state or imply that the company or its services are endorsed or preferred by the State. News releases pertaining to the project shall not be issued without prior written approval from the State.

V. STATE PROPERTY

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

The contractor shall be responsible for the proper care and custody of any State-owned property which is furnished for the contractor's use during the performance of the contract. The contractor shall reimburse the State for any loss or damage of such property, normal wear and tear is expected.

W. SITE RULES AND REGULATIONS

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

The contractor shall use its best efforts to ensure that its employees, agents and subcontractors comply with site rules and regulations while on State premises. If the contractor must perform on-site work outside of the daily operational hours set forth by the State, it must make arrangements with the State to ensure access to the facility and the equipment has been arranged. No additional payment will be made by the State on the basis of lack of access, unless the State fails to provide access as agreed to between the State and the contractor.

X. NOTIFICATION

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

During the bid process, all communication between the State and a bidder shall be between the bidder's representative clearly noted in its proposal and the buyer noted in Section II, A. Procuring Office and Contact Person of this RFP. After the award of the contract, all notices under the contract shall be deemed duly given upon delivery to the staff designated as the point of contact for this Request for Proposal, in person, or upon delivery by U.S. Mail, facsimile, or e-mail. Each bidder should provide in its proposal the name, title and complete address of its designee to receive notices.

1. Except as otherwise expressly specified herein, all notices, requests or other communications shall be in writing and shall be deemed to have been given if delivered personally or mailed, by U.S. Mail, postage prepaid, return receipt requested, to the parties at their respective addresses set forth above, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or three (3) days following deposit in the mail.

2. Whenever the contractor encounters any difficulty which is delaying or threatens to delay its timely performance under the contract, the contractor shall immediately give notice thereof in writing to the State reciting all relevant information with respect thereto. Such notice shall not in any way constitute a basis for an extension of the delivery schedule or be construed as a waiver by the State of any of its rights or remedies to which it is entitled by law or equity or pursuant to the provisions of the contract. Failure to give such notice, however, may be grounds for denial of any request for an extension of the delivery schedule because of such delay.

Either party may change its address for notification purposes by giving notice of the change, and setting forth the new address and an effective date.

For the duration of the contract, all communication between contractor and the State regarding the contract shall take place between the contractor and individuals specified by the State in writing. Communication about the contract between contractor and individuals not designated as points of contact by the State is strictly forbidden.

Y. EARLY TERMINATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract may be terminated as follows:

1. The State and the contractor, by mutual written agreement, may terminate the contract at any time.

2. The State, in its sole discretion, may terminate the contract for any reason upon 30 days written notice to the contractor. Such termination shall not relieve the contractor of warranty or other service obligations incurred under the terms of the contract. In the event of cancellation the contractor shall be entitled to payment, determined on a pro rata basis, for products or services satisfactorily performed or provided.

3. The State may terminate the contract immediately for the following reasons:

- **a.** if directed to do so by statute;
- **b.** contractor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;
- **c.** a trustee or receiver of the contractor or of any substantial part of the contractor's assets has been appointed by a court;
- **d.** fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its contractor, its employees, officers, directors or shareholders;
- **e.** an involuntary proceeding has been commenced by any party against the contractor under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) days; or (ii) the contractor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the contractor has been decreed or adjudged a debtor;
- **f.** a voluntary petition has been filed by the contractor under any of the chapters of Title 11 of the United States Code;
- **g.** contractor intentionally discloses confidential information;
- **h.** contractor has or announces it will discontinue support of the deliverable;
- **i.** second or subsequent documented "vendor performance report" form deemed acceptable by the State Purchasing Bureau.

Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may terminate the contract, in whole or in part, in the event funding is no longer available. The State's obligation to pay amounts due for fiscal years following the current fiscal year is contingent upon legislative appropriation of funds for the contract. Should said funds not be appropriated, the State may terminate the contract with respect to those payments for the fiscal years for which such funds are not appropriated. The State will give the contractor written notice thirty (30) days prior to the effective date of any termination, and advise the contractor of the location (address and room number) of any related equipment. All obligations of the State to make payments after the termination date will cease and all interest of the State in any related equipment will terminate. The contractor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date. In no event shall the contractor be paid for a loss of anticipated profit.

AA. BREACH BY CONTRACTOR

_____Accept (Initial) _____Reject (Initial)  Reject and Provide Alternative within RFP Response (Initial)

The State may terminate the contract, in whole or in part, if the contractor fails to perform its obligations under the contract in a timely and proper manner. The State may, by providing a written notice of default to the contractor, allow the contractor to cure a failure or breach of contract within a period of thirty (30) days (or longer at State's discretion considering the gravity and nature of the default). Said notice shall be delivered by Certified Mail, Return Receipt Requested or in person with proof of delivery. Allowing the contractor time to cure a failure or breach of contract does not waive the State's right to immediately terminate the contract for the same or different contract breach which may occur at a different time. In case of default of the contractor, the State may contract the service from other sources and hold the contractor responsible for any excess cost occasioned thereby.

BB. ASSURANCES BEFORE BREACH

 Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

If any document or deliverable required pursuant to the contract does not fulfill the requirements of the Request for Proposal/resulting contract, upon written notice from the State, the contractor shall deliver assurances in the form of additional contractor resources at no additional cost to the project in order to complete the deliverable, and to ensure that other project schedules will not be adversely affected.

CC. PENALTY

_____Accept (Initial) _____Reject (Initial)  Reject and Provide Alternative within RFP Response (Initial)

In the event that the contractor fails to perform any substantial obligation under the contract, the State may withhold all monies due and payable to the contractor, without penalty, until such failure is cured or otherwise adjudicated. Failure to meet the dates stipulated in the contract for the deliverables may result in an assessment of penalty due the State of $1,000 dollars per day, until the deliverables are approved. Contractor will be notified in writing when penalty will commence.

DD. PERFORMANCE BOND

_____Accept (Initial) _____Reject (Initial) ____Reject and Provide Alternative within RFP Response (Initial)

The selected contractor will be required to supply a certified check or a bond executed by a corporation authorized to contract surety in the State of Nebraska, payable to the State of Nebraska, which shall be valid for the life of the contract to include any renewal and/or extension periods. The amount of the certified check or bond must be the dollar amount of $15,000,000.00. The check or bond will guarantee that the selected contractor will faithfully perform all requirements, terms and conditions of the contract. Failure to comply shall be grounds for forfeiture of the check or bond as liquidated damages. Amount of forfeiture will be determined by the agency based on loss to the State. The bond or certified check will be returned when the service has been satisfactorily completed as solely determined by the State, after termination or expiration of the contract.

EE. FORCE MAJEURE

____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Neither party shall be liable for any costs or damages resulting from its inability to perform any of its obligations under the contract due to a natural disaster, or other similar event outside the control and not the fault of the affected party ("Force Majeure Event"). A Force Majeure Event shall not constitute a breach of the contract. The party so affected shall immediately give notice to the other party of the Force Majeure Event. The State may grant relief from performance of the contract if the contractor is prevented from performance by a Force Majeure Event. The burden of proof for the need for such relief shall rest upon the contractor. To obtain release based on a Force Majeure Event, the contractor shall file a written request for such relief with the State Purchasing Bureau. Labor disputes with the impacted party's own employees will not be considered a Force Majeure Event and will not suspend performance requirements under the contract.

FF. PROHIBITION AGAINST ADVANCE PAYMENT

_____Accept (Initial) _____Reject (Initial) ____Reject and Provide Alternative within RFP Response (Initial)

Payments shall not be made until contractual deliverable(s) are received and accepted by the State.

GG. PAYMENT

_____Accept (Initial) _____Reject (Initial) ____Reject and Provide Alternative within RFP Response (Initial)

State will render payment to contractor when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the contractor as solely determined by the State. Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408). The State may require the contractor to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or

liable to pay for any services provided by the contractor prior to the Effective Date, and the contractor hereby waives any claim or cause of action for any such services.

HH. INVOICES


Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Invoices for payments must be submitted by the contractor to the agency requesting the services with sufficient detail to support payment. Invoices must be submitted to: Medicaid and Long-Term Care Division, P.O. Box 95026, Lincoln, NE 68509. The terms and conditions included in the contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract.

II. AUDIT REQUIREMENTS

_____Accept (Initial) _____Reject (Initial) 
Reject and Provide Alternative within RFP Response (Initial)

All contractor books, records and documents relating to work performed or monies received under the contract shall be subject to audit at any reasonable time upon the provision of reasonable notice by the State. These records shall be maintained for a period of five (5) full years from the date of final payment, or until all issues related to an audit, litigation or other action are resolved, whichever is longer. All records shall be maintained in accordance with generally accepted accounting principles.

In addition to, and in no way in limitation of any obligation in the contract, the contractor shall agree that it will be held liable for any State audit exceptions, and shall return to the State all payments made under the contract for which an exception has been taken or which has been disallowed because of such an exception. The contractor agrees to correct immediately any material weakness or condition reported to the State in the course of an audit.

JJ. TAXES


Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State is not required to pay taxes of any kind and assumes no such liability as a result of this solicitation. Any property tax payable on the contractor's equipment which may be installed in a state-owned facility is the responsibility of the contractor.

KK. INSPECTION AND APPROVAL


Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Final inspection and approval of all work required under the contract shall be performed by the designated State officials. The State and/or its authorized representatives shall have the right to enter any premises where the contractor or subcontractor duties under the contract are being performed, and to inspect, monitor or otherwise evaluate the work being performed. All inspections and evaluations shall be at reasonable times and in a manner that will not unreasonably delay work.

LL. CHANGES IN SCOPE/CHANGE ORDERS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may, at any time with written notice to the contractor, make changes within the general scope of the contract. Changes in scope shall only be conducted with the written approval of the State's designee as so defined by the State from time to time. (The State retains the right to employ the services of a third party to perform any change order(s)).

The State may, at any time work is in progress, by written order, make alterations in the terms of work as shown in the specifications, require the performance of extra work, decrease the quantity of work, or make such other changes as the State may find necessary or desirable. The contractor shall not claim forfeiture of contract by reasons of such changes by the State. Changes in work and the amount of compensation to be paid to the contractor for any extra work so ordered shall be determined in accordance with the applicable unit prices of the contractor's proposal.

Corrections of any deliverable services or performance of work required pursuant to the contract shall not be deemed a modification requiring a change order.

MM. SEVERABILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

NN. CONFIDENTIALITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All materials and information provided by the State or acquired by the contractor on behalf of the State shall be regarded as confidential information. All materials and information provided by the State or acquired by the contractor on behalf of the State shall be handled in accordance with Federal and State Law, and ethical standards. The contractor must ensure the confidentiality of such materials or information. Should said confidentiality be breached by a contractor; contractor shall notify the State immediately of said breach and take immediate corrective action.

It is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable to contractors by 5 U.S.C. 552a (m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

OO. PROPRIETARY INFORMATION


Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Data contained in the proposal and all documentation provided therein, become the property of the State of Nebraska and the data becomes public information upon opening the proposal. If the bidder wishes to have any information withheld from the public, such information must fall within the definition of proprietary information contained within Nebraska's public record statutes. All proprietary information the bidder wishes the State to withhold must be submitted in a sealed package, which is separate from the remainder of the proposal. The separate package must be clearly marked PROPRIETARY on the outside of the package. Bidders may not mark their entire Request for Proposal as proprietary. Bidder's cost proposals may not be marked as proprietary information. Failure of the bidder to follow the instructions for submitting proprietary and copyrighted information may result in the information being viewed by other bidders and the public. Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, bidders submitting information as proprietary may be required to prove specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive. Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State's definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information.

PP. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING


Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

By submission of this proposal, the bidder certifies, that he or she is the party making the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham proposal, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the proposal price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the proposal are true; and further that the bidder has not, directly or indirectly, submitted his or her proposal price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

QQ. PRICES

_____Accept (Initial) _____Reject (Initial) ____Reject and Provide Alternative within RFP Response (Initial)

All prices, costs, terms and conditions outlined in the proposal shall remain fixed and valid commencing on the opening date of the proposal until an award is made (and for bidder receiving award prices shall remain as bid for the duration of the contract unless otherwise so stated in the contract) or the Request for Proposal is cancelled.

Contractor represents and warrants that all prices for services, now or subsequently specified are as low as and no higher than prices which the contractor has charged or intends to charge customers other than the State for the same or similar products and services of the same or equivalent quantity and quality for delivery or performance during the same periods of time. If, during the term of the contract, the contractor shall reduce any and/or all prices charged to any customers other than the State for the same or similar products or services specified herein, the contractor shall make an equal or equivalent reduction in corresponding prices for said specified products or services.

Contractor also represents and warrants that all prices set forth in the contract and all prices in addition, which the contractor may charge under the terms of the contract, do not and will not violate any existing federal, state or municipal law or regulations concerning price discrimination and/or price fixing. Contractor agrees to hold the State harmless from any such violation. Prices quoted shall not be subject to increase throughout the contract period unless specifically allowed by these specifications.

RR. BEST AND FINAL OFFER

____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State will compile the final scores for all parts of each proposal. The award may be granted to the highest scoring responsive and responsible bidder. Alternatively, the highest scoring bidder or bidders may be requested to submit best and final offers. If best and final offers are requested by the State and submitted by the bidder, they will be evaluated (using the stated criteria), scored and ranked by the Evaluation Committee. The award will then be granted to the highest scoring bidder. However, a bidder should provide its best offer in its original proposal. Bidders should not expect that the State will request a best and final offer.

SS. ETHICS IN PUBLIC CONTRACTING

____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

No bidder shall pay or offer to pay, either directly or indirectly, any fee, commission compensation, gift, gratuity, or anything of value to any State officer, legislator or employee based on the understanding that the receiving person's vote, actions or judgment will be influenced thereby. No bidder shall give any item of value to any employee of the State Purchasing Bureau.

Bidders shall be prohibited from utilizing the services of lobbyists, attorneys, political activists, or consultants to secure the contract. It is the intent of this provision to assure that the prohibition of state contact during the procurement process is not subverted through the use of lobbyists, attorneys, political activists, or consultants. It is the intent of

the State that the process of evaluation of proposals and award of the contract be completed without external influence. It is not the intent of this section to prohibit bidders from seeking professional advice, for example consulting legal counsel, regarding terms and conditions of this Request for Proposal or the format or content of their proposal.

If the bidder is found to be in non-compliance with this section of the Request for Proposal, they may forfeit the contract if awarded to them or be disqualified from the selection process.

TT. INDEMNIFICATION

_____Accept (Initial) _____Reject (Initial) ___X___Reject and Provide Alternative within RFP Response (Initial)

1. GENERAL

The contractor agrees to defend, indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State, arising out of, resulting from, or attributable to the willful misconduct, negligence, error, or omission of the contractor, its employees, subcontractors, consultants, representatives, and agents, except to the extent such contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

2. INTELLECTUAL PROPERTY

The contractor agrees it will at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all claims, to the extent such claims arise out of, result from, or are attributable to the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the contractor or its employees, subcontractors, consultants, representatives, and agents; provided, however, the State gives the contractor prompt notice in writing of the claim. The contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the contractor has indemnified the State, the contractor shall at the contractor's sole cost and expense promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality. At the State's election, the actual or anticipated judgment may be treated as a breach of warranty by the contractor, and the State may receive the remedies provided under this RFP.

3. PERSONNEL

The contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any claim with respect to withholding taxes, worker's

compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel provided by the contractor.

UU. NEBRASKA TECHNOLOGY ACCESS STANDARDS

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

Contractor shall review the Nebraska Technology Access Standards, found at http://nitc.nebraska.gov/standards/2-101.html and ensure that products and/or services provided under the contract comply with the applicable standards. In the event such standards change during the contractor's performance, the State may create an amendment to the contract to request that contract comply with the changed standard at a cost mutually acceptable to the parties.

VV. ANTITRUST

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

The contractor hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

WW. DISASTER RECOVERY/BACK UP PLAN

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

The contractor shall have a disaster recovery and back-up plan, of which a copy should be provided to the State, which includes, but is not limited to equipment, personnel, facilities, and transportation, in order to continue services as specified under these specifications in the event of a disaster.

XX. TIME IS OF THE ESSENCE

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

Time is of the essence in this contract. The acceptance of late performance with or without objection or reservation by the State shall not waive any rights of the State nor constitute a waiver of the requirement of timely performance of any obligations on the part of the contractor remaining to be performed.

YY. RECYCLING

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

Preference will be given to items which are manufactured or produced from recycled material or which can be readily reused or recycled after their normal use as per state statute (Neb. Rev. Stat. §81-15, 159).

ZZ. DRUG POLICY

Accept (Initial) _____ Reject (Initial) _____ Reject and Provide Alternative within RFP Response (Initial)

Contractor certifies it maintains a drug free work place environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State.

AAA. EMPLOYEE WORK ELIGIBILITY STATUS

Accept (Initial) _____ **Reject (Initial)** _____ **Reject and Provide Alternative within RFP Response (Initial)**

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a hired employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us.

2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

BBB. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY

Accept (Initial) _____ **Reject (Initial)** _____ **Reject and Provide Alternative within RFP Response (Initial)**

The contractor, by signature to this RFP, certifies that the contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from participating in transactions (debarred). The contractor also agrees to include the above requirements in any and all subcontracts into which it enters. The contractor shall immediately notify the State of Nebraska if, during the term of this contract, contractor becomes debarred. The State of Nebraska may immediately terminate this contract by providing contractor written notice if contractor becomes debarred during the term of this contract.

State of Nebraska RFP
Alternative proposals for Part III - Terms and Conditions

1. Section E – Wipro requests some modification to the clause, so as to have protection for pre-existing Intellectual Property Rights of Wipro:

   The State of Nebraska shall have the unlimited right to publish, duplicate, use and disclose all information and data developed or derived by the contractor ***specifically for the State of Nebraska as a deliverable*** *pursuant to this contract*

   Retained Rights. Each Party owns, and will continue to own all right, title and interest in and to any inventions however embodied, know how, works in any media, software, information, trade secrets, materials, property or proprietary interest, that it owned prior to this Agreement, or that it created or acquired independently of its obligations pursuant to this Agreement, and in respect of any modifications or enhancements made thereto (collectively, "Retained Rights"). All Retained Rights not expressly transferred or licensed herein are reserved to the respective owner.

2. Section F – While Wipro is generally in agreement with all insurance requirements under this section, Wipro would like to remove the requirement for Commercial Automobile Liability Insurance, since such insurance is not relevant to the scope of services under this RFP.

3. Section I – While Wipro is in agreement with the Section, Wipro requests an addition of the below provision to the Section, to provide for circumstances where Wipro is prevented or delayed from performance of Wipro's obligations due to a failure or delay on the part of the State:

   The Contractor's failure to perform or delay in performing its contractual responsibilities (in whole or in part), to perform any part of the Services (whether in conformance with the Contract or at all), or to meet any agreed service levels shall be excused if and to the extent the Contractor's non-performance is contributed to by the State's act or omission to act, delay, wrongful action, failure to provide inputs or approvals, or failure to perform its obligations under the Contract. The State shall in this regard also be responsible for the acts and omissions of its officers and other suppliers and contractors.

4. Section K – While Wipro is in agreement with the Section, Wipro requests an addition of the below provision to the Section to make the obligations under Section K mutual, as Wipro, being a service provider, is dependent on it's personnel and would like to protect against it's personnel being hired away to avoid any impact to the services and to Wipro as a whole:

   The State agrees that for the term of this Contract and for a period of one (1) year thereafter, the State will not directly or indirectly, recruit, solicit, discuss employment with, hire, employ or engage any of the Contractor's personnel then assigned to provide any aspect of the Services to the State or who were so assigned within the previous one (1) year period, or induce any such individual to leave the employ of the Contractor.

5. Section Q - While Wipro is in agreement with the Section, Wipro requests an addition of the below provision to the Section to permit Wipro to assign its receivables under the contract to a financial institution in order to make working capital arrangements. Such assignment would only be to the extent of the receivables to Wipro under the Contract and will not

affect any of the obligations and terms of the Contract, which would remain Wipro's responsibility and the State would have all the rights under the Contract to enforce the same against Wipro:
The Contractor may assign the benefit of its rights of payment to a third party as part of its debt factoring or other legitimate business arrangements. Such assignment shall not affect any of the Contractor's responsibilities under the Contract which shall continue unabated.

6. Section T – Wipro requests making this section mutually applicable, with the below modifications:

In the event of any litigation, appeal or other legal action to enforce any provision of the contract, the contractor agrees to pay all expenses of such action, as permitted by law, including attorney's fees and costs, if the State is the prevailing party. ***Similarly, in the event of any litigation, appeal or other legal action to enforce any provision of the contract, the State agrees to pay all expenses of such action, as permitted by law, including attorney's fees and costs, if the Contractor is the prevailing party.***

7. Section AA – Wipro requests the below modifications to the Section, so as to provide some equitable protection to Wipro in the stated circumstances:

The State may terminate the contract, in whole or in part, if the contractor fails to perform its obligations under the contract in a timely and proper manner. The State ~~may~~ will, by providing a written notice of default to the contractor, allow the contractor to cure a failure or breach of contract within a period of thirty (30) days (or longer at State's discretion considering the gravity and nature of the default) ***prior to the effective date of termination****.* ***The contractor may, by providing a written notice of default to the State with an opportunity to cure within a period of forty five (45) days, terminate the contract in the event of non-payment of undisputed due charges to the contractor by the State. (****Said notice shall be delivered by Certified Mail, Return Receipt Requested or in person with proof of delivery. Allowing the contractor time to cure a failure or breach of contract does not waive the State's right to immediately terminate the contract for the same or different contract breach which may occur at a different time. In case of default of the contractor, the State may contract the service from other sources and hold the contractor responsible for any excess cost occasioned thereby,* ***subject to a maximum amount of the value of the milestones which were not achieved under the terminated contract****.*

8. Section CC – While Wipro is in agreement with the clause, Wipro requests the below modification to provide for a maximum cap on the amount of penalty, since the State would nonetheless have a right to terminate the contract in the event of a continuing default:

*In the event that the contractor fails to perform any substantial obligation under the contract, the State may withhold all monies due and payable to the contractor, without penalty, until such failure is cured or otherwise adjudicated. Failure to meet the dates stipulated in the contract for the deliverables may result in an assessment of penalty due the State of $1,000 dollars per day, until the deliverables are approved****, subject to a maximum amount of $ 100,000 (Dollars One Hundred Thousand)****. Contractor will be notified in writing when penalty will commence.*

9. Section DD – Wipro would like to propose the below section as an alternative to the requirement of filing a performance bond:

Retention Amount: The State will be entitled to withhold ten percent (10%) of the payment due to the contractor under the contract as a retention amount. The entire retention amount will be payable upon successful completion of the project. Upon completion of the project, the contractor will invoice the State for any outstanding work and for the retention amount. The State may dispute the final invoice by identifying the specific reasons for such rejection in writing to the contractor within five (5) business days of receipt of the final invoice. Otherwise, the project will be considered as accepted and the State will release the final payment and retention amount in accordance with invoicing terms under the contract.

10. Section FF –Wipro would like to clarify that the invoicing terms would be based on a milestone basis and not on the basis of completion of activity/deliverable, as stated in Wipro's proposal, hence request the below modification:

    Payments shall ***be made on the basis of milestones achieved by the contractor as stated in this Contract*** ~~*not be made until contractual deliverable(s) are received and accepted by the State*~~

11. Section GG - Wipro would like to clarify that the invoicing terms would be based on a milestone basis and not on the basis of completion of activity/deliverable, as stated in Wipro's proposal, hence request the below modification:

    State will render payment to contractor ***within thirty days from the date of the invoice raised by the Contractor in accordance with the payment milestones agreed under the Contract*** ~~*when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the contractor as solely determined by the State*~~*. Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408). The State may require the contractor to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any services provided by the contractor prior to the Effective Date, and the contractor hereby waives any claim or cause of action for any such services.*

12. Section II – While Wipro is in agreement with this clause, we request the below modifications to reflect the general practice in Wipro:

    All contractor books, records and documents relating to work performed or monies received under the contract ***(except the contractor's internal cost and payroll records)*** *shall be subject to audit at any reasonable time upon the provision of reasonable notice by the State. These records shall be maintained for a period of five (5) full years from the date of final payment , or until all issues related to an audit, litigation or other action are resolved, whichever is longer. All records shall be maintained in accordance with generally accepted accounting principles. In addition to, and in no way in limitation of any obligation in the contract, the contractor shall agree that it will be held liable for any State audit exceptions, and shall return to the State all payments made under the contract for which an exception has been taken or which has been disallowed because of such an exception. The contractor agrees to correct immediately any material weakness or condition reported to the State in the course of an audit.*

13. Section LL - While Wipro is in agreement with the Section, Wipro requests an addition of the below provision to the Section to permit Wipro to propose changes to the contract:

The contractor may propose changes within the general scope of the contract to address any alterations in the scope of work or other impact to the services. Such changes shall only be approved with the written approval of the State's designee as so defined by the State from time to time.

14. Section QQ – Wipro requests the below changes to this Section:

All prices, costs, terms and conditions outlined in the proposal shall remain fixed and valid commencing on the opening date of the proposal until an award is made (and for bidder receiving award prices shall remain as bid for the duration of the contract unless otherwise so stated in the contract) or the Request for Proposal is cancelled.
~~Contractor represents and warrants that all prices for services, now or subsequently specified are as low as and no higher than prices which the contractor has charged or intends to charge customers other than the State for the same or similar products and services of the same or equivalent quantity and quality for delivery or performance during the same periods of time. If, during the term of the contract, the contractor shall reduce any and/or all prices charged to any customers other than the State for the same or similar products or services specified herein, the contractor shall make an equal or equivalent reduction in corresponding prices for said specified products or services.~~
Contractor also represents and warrants that all prices set forth in the contract and all prices in addition, which the contractor may charge under the terms of the contract, do not and will not violate any existing federal, state or municipal law or regulations concerning price discrimination and/or price fixing. Contractor agrees to hold the State harmless from any such violation. Prices quoted shall not be subject to increase throughout the contract period unless specifically allowed by these specifications.

15. Section TT – Wipro requests the below modifications to this Section:

GENERAL
The contractor agrees to defend, indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State **due to third party claims**, arising **directly and proximately** out of~~, resulting from, or attributable to~~ the willful misconduct **or**~~,~~ **gross** negligence~~, error, or omission~~ of the contractor, its employees, subcontractors, consultants, representatives, and agents, except to the extent such contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

INTELLECTUAL PROPERTY
The contractor agrees it will at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all **third party** claims, to the extent such claims arise out of, result from, or are attributable to the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the contractor or its employees, subcontractors, consultants, representatives, and agents; provided, however, the State gives the contractor prompt notice in writing of the claim. The contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the contractor has indemnified the State, the contractor shall at the contractor's **option and** sole cost and expense promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality. At the State's election, the actual ~~or anticipated~~ judgment may be treated as a breach of warranty by the contractor, and the State may receive the remedies provided under this RFP.

The State agrees it will at its sole cost and expense, defend, indemnify, and hold harmless the contractor from and against any and all third party claims of intellectual property infringement arising out of the contractor's access or use of any software or materials provided by the State to the contractor under this contract

PERSONNEL

The contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any **third party** claim with respect to withholding taxes, worker's compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel provided by the contractor.

16. Wipro requests inclusion of the below clauses to the contract to avoid ambiguity and to ensure clarity on the expectations under the contract for the performance of the services by the contractor:

    a. *Acceptance. Following submission of any Deliverable(s) by Contractor, testing and review will be performed by the State in accordance with previously agreed testing standards and procedures, with such testing to be completed within a time agreed by the Parties in the contract, or in the absence of a prescribed period within fifteen (15) days from the date of submission. The standard of review of the Deliverable(s) shall be material conformance with the agreed specifications. By the expiration of such review period, The State will submit a written statement (a "Deliverable Review Statement") to the Contractor Project Manager indicating acceptance of the Deliverable(s) ("Acceptance") or specifying in detail how the submitted Deliverable(s) fails to materially conform to the agreed specification, in which case Contractor shall be afforded a commercially reasonable period of time not less than thirty (30) days to correct any nonconformities, whereupon the review cycle will recommence. Deliverables will be considered to be fully and finally accepted by the State in the event the State has not submitted a Deliverable Review Statement to Contractor before the expiration of the applicable review period, or when the State uses the Deliverable in its business, whichever occurs first ("Deemed Acceptance").*

    b. *Except for the warranties stated in this contract, the contractor excludes and disclaims all warranties, conditions or statements, whether express, implied or statutory, including, without limitation, the implied warranties of merchantability or fitness for a particular purpose.*

Page Left Intentionally Blank

CERTIFICATE OF GOOD STANDING

STATE OF NEBRASKA

United States of America, } ss.
State of Nebraska }

Secretary of State
State Capitol
Lincoln, Nebraska

I, John A. Gale, Secretary of State of the State of Nebraska, do hereby certify that

WIPRO USA, LLC

a limited liability company filed a Certificate of Organization on August 29, 2013.

I further certify that attached is a true and correct copy of the above mentioned Certificate of Organization as filed in this office and all amendments thereto.

This certificate is not to be construed as an endorsement, recommendation, or notice of approval of the entity's financial condition or business activities and practices.

In Testimony Whereof,

I have hereunto set my hand and affixed the Great Seal of the State of Nebraska on this date of

January 17, 2014

John A. Gale
Secretary of State

STATE OF NEBRASKA

United States of America, } ss.
State of Nebraska }

Secretary of State
State Capitol
Lincoln, Nebraska

I, John A. Gale, Secretary of State of the State of Nebraska, do hereby certify that

WIPRO USA, LLC

A Delaware limited liability company, filed an Application for Certificate of Authority on August 29, 2013 and is hereby authorized to transact business in the state of Nebraska as of the date of this certificate.

This certificate is not to be construed as an endorsement, recommendation, or notice of approval of the entity's financial condition or business activities and practices.

In Testimony Whereof,

I have hereunto set my hand and affixed the Great Seal of the State of Nebraska on this date of

August 29, 2013

John A. Gale

Secretary of State

STATE OF NEBRASKA

United States of America, } ss.
State of Nebraska }

Secretary of State
State Capitol
Lincoln, Nebraska

I, John A. Gale, Secretary of State of the State of Nebraska, do hereby certify that

WIPRO, LLC

Alternate name adopted:

WIPRO USA, LLC

a Delaware limited liability company filed an Application for Certificate of Authority on August 29, 2013, has paid all fees, taxes and penalties to the Secretary of State; the most recent biennial report required has been filed; the Secretary of State has not filed a notice of cancellation and the certificate of authority to transact business has not been revoked by the Secretary of State and said foreign limited liability company is authorized to transact business as of the date of this certificate.

This certificate is not to be construed as an endorsement, recommendation, or notice of approval of the entity's financial condition or business activities and practices.

In Testimony Whereof,

I have hereunto set my hand and affixed the Great Seal of the State of Nebraska on this date of

January 17, 2014

John A. Gale

Secretary of State

Page Left Intentionally Blank

NE Sec of State John A Gale - CORP FCA
1001237561 Pgs: 3
WIPRO USA, LLC
Filed: 08/29/2013 03:24 PM

APPLICATION FOR CERTIFICATE OF AUTHORITY FOREIGN LIMITED LIABILITY COMPANY

Submit in Duplicate

John A. Gale, Secretary of State
Room 1301 State Capitol, P.O. Box 94608
Lincoln, NE 68509
(402) 471-4079
http://www.sos.ne.gov

An original certificate of existence from the appropriate authority in the jurisdiction or state under whose laws the limited liability company was organized must be filed with this document.
NOTE: A certified copy of the company's certificate of organization may not be filed in lieu of a certificate of existence.

Name of Limited Liability Company Wipro, LLC

Alternate Name Wipro USA, LLC
(complete only if actual name is unavailable for use or does not comply with Nebraska law)

Name and address of registered agent in Nebraska:

Registered Agent Name: CSC-Lawyers Incorporating Service Company

Registered Agent Address: 233 South 13th Street, Suite 1900, Lincoln NE 68508
Street Address and Mailing Address and Post Office Box Number (if any) City State Zip

Address of Principal Office:

2 Tower Center Blvd., 2200, East Brunswick, NJ 08816
Street and Mailing Address City State Zip

If required by state or jurisdiction of organization, office maintained in that jurisdiction;

Street and Mailing Address City State Zip

Organized under the laws of the State or Jurisdiction of Delaware

Nature of the Business, purposes to be conducted or promoted in this state or professional services being rendered:
IT (information technology) consulting

Effective date if other than the date filed _____

Signature of Authorized Representative

Sridhar Ramasubbu
Printed name of Authorized Representative

FILING FEE: $120.00
January 1, 2011

Neb. Rev. Stat. 21-156

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "WIPRO, LLC" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE TWENTY-FOURTH DAY OF JULY, A.D. 2013.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE BEEN PAID TO DATE.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "WIPRO, LLC" WAS FORMED ON THE SEVENTH DAY OF JULY, A.D. 1998.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL REPORTS HAVE BEEN FILED TO DATE.



Jeffrey W. Bullock, Secretary of State

2917922 8300

AUTHENTICATION: 0611868

130913398

DATE: 07-24-13

You may verify this certificate online at corp.delaware.gov/authver.shtml

CERTIFICATE OF INSURANCE COVERAGE

CERTIFICATE OF LIABILITY INSURANCE	DATE (MM/DD/YY) 12/16/2013
PRODUCER Aon Global Insurance Brokers Private Limited B-9 | Malik's Embassy| Union Street Off Infantry Road| Bangalore – 560 001 | India |	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
	INSURERS AFFORDING COVERAGE
INSURED Wipro Limited Doddakannelli, Sarjapur Road Bangalore - 560035, INDIA	INSURER A: **TATA AIG GENERAL INSURANCE COMPANY LIMITED** INSURER B: **ICICI LOMBARD GENERAL INSURANCE COMPANY LIMITED** INSURER C: INSURER D:

COVERAGES This Certificate supersedes & replaces any previously issued certificate for the policy period noticed below.

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN,THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	EVIDENCE	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS (in USD)	
		GENERAL LIABILITY				**Public Liability**	
		X COMMERCIAL GENERAL LIABILITY				Any One Occurrence	
		CLAIMS MADE X OCCURRENCE				In Aggregate	
						Product Liability	
						Any One Occurrence	
		GEN'L AGGREGATE LIMIT APPLIES PER:				In Aggregate	
		X POLICY LOCATION					
A	X	**EXCESS/UMBRELLA LIABILITY** **(In Excess of)**	301001601	09/16/2013	09/15/2014	Any One Occurrence In Aggregate	$ 1,000,000 $ 1,000,000
		CLAIMS MADE X OCCURRENCE					
		General Liability Premises Operations - Any One Occurrence USD 1Mn					
		Non Owned & Hired Auto Liability - Bodily Injury & Property Damage Per Accident Limit - USD 1 Mn excl owned / leased autos					
		Employers Liability-Any One Occurrence USD 1Mn					
		Umbrella Product Liability in excess of Product Liability - USD 1Mn Any One Occurrence		09/16/2013	09/15/2014	Any One Occurrence In Aggregate	$ 1,000,000 $ 1,000,000
		COMMERCIAL CRIME				Any One Occurrence	
		OCCUR X CLAIMS MADE				In Aggregate	
		ERRORS & OMISSIONS				Any One Occurrence	
		OCCUR X CLAIMS MADE				In Aggregate	
	OTHER		NA	NA	NA		

Evidence of Insurance only. All coverages as per current policy wordings terms and conditions only.

CERTIFICATE HOLDER

Nebraska **Administrative Services, State Purchasing** **1526 K Street, Suite 130** **Lincoln, NE 68508**	Should any of the policies be cancelled before the expiration date thereof, Notice will be delivered in accordance with the policy provisions AUTHORISED REPRESENTATIVE **Ravi Subramanian - Executive Vice President**

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 12/16/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Jeff Elman
Mogil Organization LLC 116 East 27th Street 9th Floor New York NY 10016-8942	PHONE (A/C, No, Ext): (212) 252-7100 FAX (A/C, No): (212) 252-7115 E-MAIL ADDRESS: JElman@mogil.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Great Northern Ins. Co.	20303
INSURER B: Pacific Indemnity Co	20346
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
Infocrossing, Inc.
Att: Ron Green
2 Christie Heights Street
Leonia NJ 07605

Page Left Intentionally Blank

COVERAGES **CERTIFICATE NUMBER:** 2013 GL Vendors **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC			35840416	12/31/2012	12/31/2013	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ $ $ $ $ $	1,000,000 1,000,000 10,000 1,000,000 2,000,000 2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS			73539579	12/31/2012	12/31/2013	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Underinsured motorist	$ $ $ $ $	1,000,000
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $						EACH OCCURRENCE AGGREGATE	$ $ $	
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		71710541	12/31/2012	12/31/2013	WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $	1,000,000 1,000,000 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

Nebraska
Administrative Services, State Purchasing
1526 K Street, Suite 130
Lincoln, NE 68508

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Jeff Elman/JE

ACORD 25 (2010/05) INS025 (201005) 01

© 1988-2010 ACORD CORPORATION. All rights reserved.
The ACORD name and logo are registered marks of ACORD

Executive
Summary

II. Executive Summary

The Executive Summary shall condense and highlight the contents of the solution being proposed by the bidder in such a way as to provide the Evaluation Committee with a broad understanding of the Contractor's Technical Proposal.

Bidders must present their understanding of the problems being addressed by implementing a new system, the objectives and intended results of the project, and the scope of work. Bidders shall summarize how their Technical Proposal meets the requirements of the Request for Proposal, and why they are best qualified to perform the work required herein.

Wipro and IBM have joined together in partnership to offer the Nebraska Medicaid and Long Term Care program (MLTC), the ***SmartPro MedEE*** eligibility and enrollment solution designed specifically to meet the needs of Nebraska MLTC. At the heart of ***SmartPro MedEE*** is IBM **Cúram**, the leading and only true built-for-purpose, commercial off-the-shelf (COTS) social program management solution designed specifically for government social program eligibility and enrollment management. The ***SmartPro MedEE*** design integrates a complete suite of applications for robust business intelligence analytics, reporting and web service components to create the ***SmartPro MedEE*** solution architecture.

The implementation and perfection of any eligibility system requires expert knowledge in multiple practice areas with the experience, core product knowledge, subject matter, and implementation expertise to deliver. Our Nebraska ***SmartPro MedEE*** approach is based on a shared Wipro/IBM vision, partnership, and commitment for Nebraska's success. Our partnership combines the resources of IBM, the IBM Cúram application, eligibility and configuration professionals with Wipro project management, implementation, solution design and operations experts. The partnership is more than a relationship between a system integrator and software manufacturer; it is our shared commitment to the vision, goals and objectives of MLTC which provide the foundation for all Nebraska Medicaid stakeholders to realize the benefits of the ***IBM Cúram*** solution.

Our approach uniquely provides the Nebraska MLTC program with unparalleled expertise from IBM centers that leverage and apply their experience implementing over 80 global IBM **Cúram** projects and over 10 Medicaid eligibility projects in the United States.

Wipro

- **25 years of service to Missouri Medicaid**
- **Omaha, NE Data center hosting**
- **$6B Global Systems Integrator**
- **140,000 Professionals Worldwide**
- **Centers of Excellence**
  - **Enterprise Security**
  - **Analytics**
  - **Business Applications Services**
  - **Consulting**
  - **Project Management**
  - **Data Center Hosting**

To position Nebraska to effectively respond to and manage the challenges resulting from the Affordable Care Act, Wipro and IBM have joined forces to deliver the IBM Cúram-based solution that meets and exceeds Nebraska's Medicaid eligibility and enrollment requirements, now and into the future. This Wipro/IBM partnership combines our extensive

Medicaid and Cúram expertise, offering the Division of Medicaid and Long Term Care (MLTC) the most advanced, purpose-built technical eligibility and enrollment solution, implemented by product and integration experts backed by the full corporate resources of both companies.

Nebraska, like most states, faces urgent pressure brought on by the national economic situation, new federal healthcare mandates and the Affordable Care Act, to find ways to control Medicaid costs by increasing efficiency and decreasing costs all while serving an expanding Medicaid population.

Nebraska determined that the increasing volume and complexity of Medicaid eligibility and enrollment management could not be met by modification of the existing N-FOCUS system and that business process efficiencies nor client self-service enablement would be realized with the existing system. The adoption of newer eligibility and enrollment technologies offers Nebraska an opportunity to obtain increased efficiencies to better serve the increasing Medicaid case load cost effectively through advanced workflow automation, expanded enrollment application pathways, configurable business rules, improved and more responsive reporting capabilities as well allow MLTC to focus more on applicant and client customer service to improve the total customer experience. This solution will alleviate the full dependency on the Information Technology staff by enabling skilled business users to make policy changes within the IBM Cúram solution.

In addition, MLTC seeks an EES that is deployed and supported by a contractor who can bring experienced and knowledgeable project personnel, processes, approaches, and tools to realize the benefits of a modern, integrated eligibility and enrollment solution. The Wipro/IBM partnership and proposal enables MLTC to obtain the solution and expert resources to realize the benefits of a new technical foundation. Only the Wipro/IBM team offers expert product, infrastructure, and integration and deployment resources drawn from all practice areas in both companies.

THE WIPRO/IBM SMARTPRO MEDEE TEAM

The Wipro/IBM team proposes the ***SmartPro MedEE*** solution to support the MLTC eligibility and enrollment initiative. We selected ***SmartPro MedEE*** as the name of the solution to emphasize our partnership. The solution is built on the leading global COTS product for health and human services, IBM Cúram. It leverages world-class business processes and rules for determining eligibility based on client feedback, input of subject matter experts, and a global product development team, a team that specializes in social services and is dedicated to the ongoing enhancement of IBM Cúram. We have created a team that leverages the skills and expertise of both Wipro and IBM. The ***SmartPro MedEE*** solution strategy is summarized below in four major elements: the application stack, infrastructure, implementation and project management, and data center services.

Figure II-1 ***SmartPro MedEE*** Architecture below, displays the overall architecture of the technical solution.

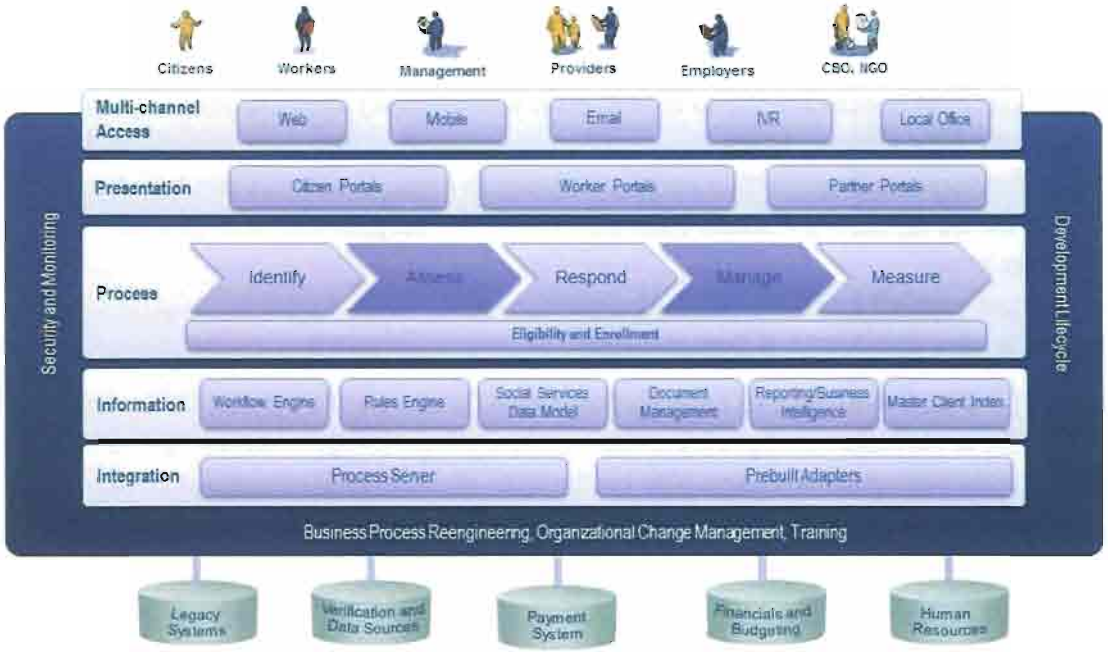


Figure II-1: SmartPro MedEE Architecture

COTS Application Stack: At the heart of ***SmartPro MedEE*** is IBM Cúram. Most functional EES components are native to this application and it is supplemented with integrated applications for robust business intelligence analytics, reporting and web service components to create the complete system. The IBM Cúram platform is the market-leading health and human services Commercial Off-the-Shelf (COTS) software package designed to support government social program eligibility, case management, and enrollment processes. IBM Cúram is a true COTS application, not a transfer from other states that is composed of small COTS components or a transfer turned "COTS" and implementable by only one systems integrator. IBM Cúram was one of the very first COTS applications to achieve SOA certification and web-enable its services to simplify integration with other tools and legacy applications.

As reported by the Gartner Group, IBM Cúram is purpose-built to enable an enterprise strategy. It offers the following key benefits:

- The only COTS solution with out-of-the-box prebuilt MAGI and non-MAGI eligibility business rules.
- Allows for incremental modernization, meeting the needs of MLTC while providing a common health and human services data model and case structure for future expansion
- Established commercially available training curriculum and certification program will allow Nebraska to maintain as much or as little of the application on their own as desired
- Multiple partners with experience in implementing IBM Cúram enables staffing flexibility for Nebraska post implementation
- Over 80 successful implementations. States including North Carolina, Missouri, Minnesota, New Jersey, Maryland, Arkansas, Washington DC and South Carolina are using IBM Cúram.

- Strong user community with CMS participation, to prioritize product features and enhancements and share project assets to speed project implementation timelines. This includes user conferences specific to IBM Cúram where project implementation lessons are shared by the IBM Cúram clients.
- Product development organization which continues to enhance IBM Cúram based on customer feedback, CMS guidance, ongoing analysis of best practices, and general technology trends
- Web services enabled and SOA certified
- Rigorous review with MITA 3.0 compliance

Infrastructure: The ***SmartPro MedEE*** technical infrastructure is anchored by IBM PureSystems which accelerate the deployment of applications and analytics from weeks to days or hours with the built-in expertise and integration by design. The key benefits of the IBM PureSystems environment include:

- Cutting months off of the typical system design and procurement cycle time because PureSystems are predesigned to support the unique memory, I/O, networking, storage, and related performance requirements of specific applications and middleware workloads. Streamlining day-to-day management processes/tooling and significantly reducing downtime due to built-in analytics and the ability to dynamically shift workloads and automatically reassign resources based on changing requirements and predictive failure analysis.
- Reducing the time and cost associated with support and upgrades by providing single system–level fixes/patches/upgrades.

By consolidating the typical system design and deployment cycle time using IBMs PureSystems, every day saved waiting for a system change, update or modification, results in faster time to implement changes and direct improvement to operations. This infrastructure approach is key to the 12 month implementation timeline we propose.

Implementation and Project Management Services: Our approach to implementation and project management starts with collaboration with MLTC to establish a strong and transparent working relationship. Our project management approach is based on a Methodology that includes concepts and practices from industry leading frameworks including:

- Project Management Institute (PMI) PM Body of Knowledge 4th Edition (PMBOK)
- Carnegie Mellon Software Engineering Institute (SEI)
- International Standards Organization (ISO)
- Earned Value Management System (EVMS)

The Wipro/IBM team proposes implementation in 12 months after contract execution. Implementation in this time frame will be accomplished through a responsible and a thoughtfully developed schedule based on our understanding of the scope of this project measured against our experience in over 80 implementations.

Our approach includes leveraging Wipro and IBM practices of business and analytics, data management, server and hardware technology, architecture, integration, testing and business

applications practices. This schedule will allow MLTC to realize the benefits of the ***SmartPro MedEE*** solution ahead of your allowed schedule with lower risk. This schedule is possible because our approach includes:

- Significant number of MAGI and non-MAGI business rules out-of-the-box including evidence and verification workflow logic
- As a COTS product, IBM Cúram is an SOA certified application built for reuse with configuration rules, workflow, screens and a data model that can be leveraged across the enterprise but still meet or exceed the Nebraska EES requirements.
- IBM Cúram Product Development organization is an extension of your project team, providing application support including regular product releases, patches and enhancements.
- An established training curriculum for Nebraska team members who will be participating in the project
- Leverage of project artifacts developed from other Medicaid and MAGI projects allowing reuse as appropriate to Nebraska
- Significant percentage of non-MAGI business policy analyzed and preconfigured within the IBM Cúram Medical Assistance solution
- Wipro and IBM Executive sponsorship to quickly address and resolve project issues
- Staff with Medicaid subject matter expertise coupled with IBM Cúram certification
- IBM Cúram continues to work closely with CMS on product enhancements and the Federally Facilitated Exchange integration which leads to rapid incorporation of CMS policy within the product
- SOA certification simplifies creating of interfaces to other project components

The ***SmartPro MedEE*** solution being proposed by Wipro and IBM is a comprehensive, seamlessly integrated, future proofed solution de-risking the launch of a successful COTS-based Medicaid Eligibility and Enrollment solution for Nebraska. The successful execution of the Wipro and IBM proposed EES system for Nebraska is predicated on a strategic alliance partnership between Wipro and IBM that blends the Wipro IT services leadership with IBM software, hardware, services and research all working together in harmony.

Data Center Services: Wipro proposes hosting the ***SmartPro MedEE*** production environment in our Omaha Data Center (ODC) located in the State of Nebraska. The Omaha Data Center is owned by Wipro and one of Wipro's largest Tier III+ Global Data Centers. Currently over 56 customers are hosted out of these facilities. This Data Center is ideal for the ***SmartPro MedEE*** solution because of its close proximity to Nebraska's management staff and it's availability for potential team members and project staff to work onsite. Inside and out, this specially designed, 86,800 square foot data center is engineered for extensive security and fail-safe redundancy. The ODC is designed solely to accommodate the special requirements of an information services utility and its clients, the data center provides environmental independence between the general office and specialized computer operations areas. Wipro's continued investment in this Omaha data center adds skilled jobs to the Nebraska economy.

Wipro is proposing our Tempe Data Center for hosting the ***SmartPro MedEE*** Development/ UAT/ Disaster Recovery environment. Over 28 of Wipro's US and multinational customers are hosted in the Tempe Data Center today.

SMARTPRO MEDEE ALIGNS WITH MITA FRAMEWORK 3.0

Wipro/IBMs ***SmartPro MedEE*** solution complies with applicable federal and state requirements and policies including MITA, CMS' Seven Conditions and Standards.

To comply with CMS "Seven Conditions" and State directives, ***SmartPro MedEE*** is open, flexible, scalable and adaptable. Key to our solution, a significant percentage of the business rules are delivered configured, out-of-the-box for MAGI and non-MAGI. COTS component-based architecture and open interface architectural constructs allow Nebraska MLTC to quickly and more easily modify and upgrade components, as business needs change over time. ***SmartPro MedEE*** is designed to allow business users to manage a large percentage of system business rule changes, thereby increasing speed to market policy implementation and lower cost through reducing reliance on IT staff to design and execute modifications.

The following table describes how the ***SmartPro MedEE*** solution meets the Seven Conditions and Standards guidelines.

Descriptions provided apply to the IBM Cúram solution that will serve as the foundation to the Wipro/IBM ***SmartPro MedEE*** proposed solution.

Table II-1: *SmartPro MedEE Aligns with MITA Framework 3.0*

Condition	Requirement	*SmartPro MedEE*
Modularity Standard	Open interfaces using web services Business rules external to the program code Formal SDLC Open and reusable systems architecture Componentized into business processes Built on SOA principles Multiple access channels	IBM Cúram is a modular, component-based application, which easily interfaces (via web services or other means) with other federal, state and data trading partner systems. IBM Cúram is rules-based, uses a formal SDLC and is built on SOA principles. Members and staff are able to access the system via mobile devices, email, and web applications, as well as through traditional call centers.
MITA Condition	MITA Alignment Business Workflows	Aligns with MITA Business Architecture, Information Architecture and Technical Architecture to assist DSS in their MITA maturity alignment
Industry Standards Condition	HIPAA Compliant ADA Compliant Keep system current Risk Planning Systems Development and Testing Methodology	IBM Cúram and the EDI platform are HIPAA and Section 508-compliant. The open architecture allows for decreased maintenance costs. The SDLC and Project Management methodologies are highly mature, with many successful implementations

Condition	Requirement	*SmartPro MedEE*
Leverage Condition	Sharing artifacts between states Facilitates identification and reuse of services within the state National cloud-based repository for modular features Open Source and cloud-based products Transition and Retirement Plans	Rules and business processes may be leveraged for use in other states, as needed. The technical platform is COTS-based and can be purchased by other states, on the open market. In the future, the technology can be deployed in the cloud, and supports multi-tenancy.
Business Results Condition	Use of Business Processes and associated KPIs to drive business results Performance Dashboard to monitor and continuously improve service delivery	The ***SmartPro MedEE*** solution provides for an exceptional degree of automation. Operational reports are provided to ensure system processing integrity and continuous improvement. Consumer portals support on-line transaction processing to eliminate manual processes. The Wipro/IBM solution is aligned with MITA business processes and supports real-time monitoring of associated KPIs.
Reporting Condition	Provides automated reports on demand, to authorized requesters	The ***SmartPro MedEE*** solution provides for automated reports, as needed, through 3rd party reporting tools, included those produced by our proposed Cognos reporting tool. Additionally, Wipro's IBM Sterling Commerce File Gateway product automates and manages schedule interface interactions with CMS and other data trading partners.
Interoperability Condition	Loosely coupled, component-based architecture	***SmartPro MedEE*** is architected on open solutions that provide for exposed interfaces and easy integration with other components, modules and systems including the federal data hub, eligibility systems, Medicaid plans and other parties.

THE WIPRO/IBM PARTNERSHIP

Wipro and IBM have entered into a partnership to deliver the ***SmartPro MedEE*** solution to Nebraska. This partnership extends further by working collaboratively with Nebraska in implementing the system. The following section will give a brief overview of Wipro and IBM.

Wipro and IBM are uniquely positioned among the competition to serve Nebraska not simply to implement the IBM Cúram solution, but to do so in a way that "works for Nebraska". As the prime contractor, we ensure a Nebraska-centric project environment that facilitates the successful implementation and integration of forward-leaning, state-of- the-art integrated eligibility technology. In collaboration with the MLTC program, we share overall responsibility for the project success, including on-time delivery and management of our team.

Wipro

As the prime contractor and systems integrator, Wipro Inc., is a global IT company with deep roots in Medicaid system integration, operation, hosting and data center services. Our expertise and knowledge of Medicaid and Medicaid eligibility processes emanates from over 25 years' experience serving as the Fiscal Agent for your neighbor, the Missouri Medicaid program. Wipro's global headquarters are located in Bangalore, India and US headquarters are located in East Brunswick, New Jersey. As of 2013, the Company had 140,000 employees in 54 countries. Wipro is among the three largest IT services companies in India.

Wipro currently provides the State of Missouri with comprehensive Medicaid Fiscal Agent Services including the Medicaid Management Information System (MMIS) operations and software support, claims processing, and related business process operations. In addition, Wipro has been a trusted CMS eligibility and enrollment contractor for Medicare Advantage plans since 1988. Our full complement of Medicare eligibility and enrollment services includes eligibility verification services, enrollment and disenrollment transaction processing of Medicare beneficiaries in Medicare Advantage plans, including part D plans, risk adjustment and premium forecasting and reconciliation services. We were recently named as the CMS designated eligibility and enrollment agent for the national Long Term Care Demonstration program.

International Business Machines Corporation ("IBM"), headquartered in Armonk, N.Y., is one of the world's largest information technology services (IT) companies. As an IT services leader, IBM's solutions and services span the major industries, including financial services, healthcare, government, automotive, telecommunications, and education, among others. It is the diversity and breadth of IBM's portfolio—spanning hardware, software, services, research, financing and technology—that separates IBM from other companies in the IT industry.

Why select the IBM Cúram-based solution?

- **Only proven COTS solution in the market built expressly for Health and Human Services**
- **Leading COTS software in the integrated eligibility market as evidenced by over 80 successful implementations and selection by multiple new customers in 2012-13**
- **The IBM Cúram Solution is the only commercially available software that incorporates the federal CMS guidance for MAGI Medicaid processing.**
- **Significant prebuilt MAGI and non-MAGI**
- **The one integrated and interoperable COTS solution that will seamlessly support incremental eligibility systems modernization by supporting OTB (out-of-the-box) all client programs. including TANF, SNAP, and Child Care.**
- **Market leader for COTS solutions in Health and Human Services as stated by the Independent analyst firms of Gartner and Forrester**
- **Extensive experience in implementing Master Data Management solutions for state government as well as Medicaid fraud detection.**

An innovator in the health and human services industry throughout the twentieth century, IBM in 1992 entered into a contract with the State of California for an $80 million engagement to develop, implement and maintain California's child welfare system, including a network that linked nearly 10,000 county social workers and staff.

In 2000 IBM entered a Global Strategic Alliance with Cúram Software, an organization with global recognition from major industry analysts as the international thought leaders for social enterprise management (SEM) software solutions. Cúram's products are implemented in a wide range of government and state agencies across the United States, Canada, Australia, New Zealand, and Europe. IBM recognized the complexities its Health and Human Service clients are facing in today's challenging landscape and acquired Cúram Software in December 2011 to bring more value to its clients. In Cúram, IBM found a mature, well-developed social service platform designed specifically for the requirements of social services agencies working to provide critical benefits to an increasing number of citizens.

At the core of our Solution is the IBM Cúram Social Program Management Platform (SPMP). Using Cúram as the core application framework, we will leverage Cúram's data model and infrastructure, along with pre-built content (business processes, rules, and workflow) designed specifically for Medicaid processes. In our solution, we take advantage of the research and development already part of the Cúram platform to support the requirements of the Affordable Care Act (ACA).

IBM's Cúram product teams have thoroughly analyzed the Medicaid, CHIP, and the additional rules within the Affordable Care Act to develop a series of pre-built eligibility rules that give our

offering the most advanced starting point to complete the requirements validation and design of the Nebraska eligibility rules for Medicaid (MAGI, non-MAGI and CHIP).

SmartPro MedEE: Nebraska-centric, Market-tested and Reliable

The Wipro/IBM partnership began in the 1990's and today, Wipro is a leading IBM Global System Integrator having achieved the coveted IBM Premier Alliance Partner designation.

Wipro and IBM believe that this partnership offers the most experienced team available in the market to address the requirements of this RFP and to position MLTC for the future. Our experience extends beyond the market-tested IBM Cúram-based software solution and demonstrated software implementation capabilities; our combined capabilities ensure the effective and timely delivery of this project. Our partnership offers the low-risk proven solution implemented by the experts, making Nebraska MLTC a shining example of how to "get it right. The benefit to Nebraska by selecting the Wipro/IBM team is that Nebraska will be selecting an integrated organization to support the project. Many times projects stumble when there are too many products and too many partners in the mix or they rely heavily on implementing a solution that may have been a perfect fit for another state but requires extensive customization to be the right fit for Nebraska, resulting in significant change orders and increased, unplanned expense. By using IBM to provide everything from business analytics tools to IBM Cúram to integration tools to Master Data Management, the risk of integration issues and finger-pointing is minimized.

Our combined highly successful corporate experience in healthcare, Medicaid, eligibility and enrollment processes, system integration, data center services and advanced server technology offers the NE MLTC program the superior low risk strategy to transition from the 20 year old legacy system to a modern, highly configurable solution that delivers all the States key objectives and benefits.

Our commitment, product, collaborative approach, superior platform and project leadership will provide Nebraska with the foundation to meet its vision for Medicaid service delivery well into the future.

Corporate Overview

III. Corporate Overview

A. Bidder Identification and Information

The bidder must provide the full company or corporate name, address of the company's headquarters, entity organization (corporation, partnership, proprietorship), state in which the bidder is incorporated or otherwise organized to do business, year in which the bidder first organized to do business, whether the name and form of organization has changed since first organized, and Federal Employer Identification Number and/or Social Security Number.

Wipro, LLC submits this proposal to the State of Nebraska. Our headquarters are located at 2 Tower Center Boulevard, Suite 2200, East Brunswick, NJ 08816. The company's Federal Employer Identification Number is [redacted]

The company's history began in 1998, when Wipro, Limited formed a US corporation named Wipro, Inc. in the State of Connecticut. In July 2011 the company changed its name from Wipro, Inc. to Wipro, LLC.

Wipro, LLC, has several step subsidiaries, all of which are US Corporations, such as Infocrossing, Inc.

Wipro achievements:

- The first PCMM Level 5 software company–an achievement that impacts all Wipro software development
- A strategic partner to 7 of the world's top 10 most innovative companies
- The world's largest independent R&D services provider

Wipro Limited incorporated in India on December 29, 1945; the legal structure was termed a "Public Limited Liability Company." Wipro Limited (also designated Wipro, LTD. or Wipro) is registered through the Registry of Companies and Businesses under File Number 0208000, in Bangalore Karnataka, India.
Wipro shares have been publicly listed and traded on the NYSE (WIT) since 2000.

- **As the sole owner of Wipro, LLC, the following Wipro statistics are indicative of the financial and other resources that will back the success of this bid to NE:**
- **Net revenues for the year ended March 31, 2013 -- $7.95 billion**
- **145,000 employees across 98 nationalities (Q4, 2012-13)**
- **72 plus global delivery centers and 50 plus industry-specific 'Centers of Excellence' in more than 54 countries**

B. Financial Statements

The bidder must provide financial statements applicable to the firm. If publicly held, the bidder must provide a copy of the corporation's most recent audited financial reports and statements, and the name, address and telephone number of the fiscally responsible representative of the bidder's financial or banking organization.

If the bidder is not a publicly held corporation, either the reports and statements required of a publicly held corporation, or a description of the organization, including size, longevity, client base, areas of specialization and expertise, and any other pertinent information must be submitted in such a manner that proposal evaluators may reasonably formulate a determination about the stability and financial strength of the organization. Additionally, a non-publicly held firm must provide a banking reference.

The bidder must disclose any and all judgments, pending or expected litigation, or other real or potential financial reversals, which might materially affect the viability or stability of the organization, or state that no such condition is known to exist.

Wipro LLC, is a wholly owned subsidiary of Wipro Inc., a publicly traded company. As such, Wipro discloses its financial statements through its annual reports to the investor community and filings with the SEC. Wipro's most recent annual report, containing audited financial statements for 2012, is attached as Exhibits and Samples 1. Wipro Financial Statement as of September 2013. Summary information is displayed below in Figure III-1.

WIPRO LIMITED AND SUBSIDIARIES
CONDENSED CONSOLIDATED INTERIM STATEMENTS OF FINANCIAL POSITION
(₹ in millions, except share and per share data, unless otherwise stated)

	Notes	As of March 31, 2013	As of September 30, 2013	2013 Convenience translation into US$ in millions (Unaudited)
ASSETS				
Goodwill	6	54,756	62,751	1,003
Intangible assets	6	1,714	1,879	30
Property, plant and equipment	5	50,525	52,377	837
Derivative assets	13	51	236	4
Non-current tax assets		10,308	11,061	177
Deferred tax assets		4,235	4,776	76
Other non-current assets	10	10,738	11,731	187
Total non-current assets		132,327	144,811	2,313
Inventories	8	5,263	5,296	53
Trade receivables		76,635	78,087	1,248
Other current assets	10	31,069	36,162	578
Unbilled revenues		31,988	40,714	651
Available for sale investments	7	69,171	72,582	1,160
Current tax assets		7,408	9,619	154
Derivative assets	13	3,031	3,210	51
Cash and cash equivalents	9	84,838	83,897	1,341
Total current assets		307,403	327,567	5,234
TOTAL ASSETS		439,730	472,378	7,547
EQUITY				
Share capital		4,926	4,930	79
Share premium		11,760	12,340	197
Retained earnings		259,178	280,566	4,483
Share based payment reserve		1,316	988	16
Other components of equity		7,174	8,292	133
Shares held by controlled trust		(542)	(542)	(9)
Equity attributable to the equity holders of the company		283,812	306,574	4,900
Non-controlling interest		1,171	1,186	19
Total equity		284,983	307,760	4,919
LIABILITIES				
Long - term loans and borrowings	11	854	10,963	175
Deferred tax liabilities		846	983	16
Derivative liabilities	13	118	1,902	30
Non-current tax liability		4,790	4,512	72
Other non-current liabilities	12	3,390	2,907	46
Provisions	12	9	3	–
Total non-current liabilities		10,007	21,270	339
Loans and borrowings and bank overdrafts	11	62,963	45,451	726
Trade payables and accrued expenses		48,067	50,853	812
Unearned revenues		10,347	11,532	184
Current tax liabilities		10,226	13,157	210
Derivative liabilities	13	975	6,845	109
Other current liabilities	12	10,989	14,384	230
Provisions	12	1,174	1,126	18
Total current liabilities		144,740	143,348	2,290
TOTAL LIABILITIES		154,747	164,618	2,629
TOTAL EQUITY AND LIABILITIES		439,730	472,378	7,547

Figure III-1: Wipro Financial Statement as of September 2013

As a public company, IBM discloses its financial statements through its annual reports to the investor community and filings with the SEC. IBM's most recent annual report, containing audited financial statements for 2012, is attached as Exhibits and Samples 2. Additional financial information and historical annual reports can also be found on the annual report section of IBM's Investor Relations site at: http://www.ibm.com/annualreport/

Additionally, financial highlights from the most recently audited financial statements are included below in Figure III-2.

Financial Highlights
International Business Machines Corporation and Subsidiary Companies

($ in millions except per share amounts)		
For the year ended December 31:	2012	2011
Revenue	$104,507	$106,916
Net income	$ 16,604	$ 15,855
Operating (non-GAAP) earnings*	$ 17,627	$ 16,318
Earnings per share of common stock		
Assuming dilution	$ 14.37	$ 13.06
Basic	$ 14.53	$ 13.25
Diluted operating (non-GAAP)*	$ 15.25	$ 13.44
Net cash provided by operating activities	$ 16,586	$ 19,846
Capital expenditures, net	4,307	4,059
Share repurchases	11,884	15,046
Cash dividends paid on common stock	3,779	3,472
Per share of common stock	3.30	2.90
At December 31:	2012	2011
Cash, cash equivalents and marketable securities	$ 11,128	$ 11,922
Total assets	119,213	116,433
Working capital	5,807	8,805
Total debt	33,269	31,320
Total equity	16,984	20,290
Common shares outstanding (in millions)	1,117	1,163
Market capitalization	$214,037	$213,896
Stock price per common share	$ 191.59	$ 183.99
Number of employees in IBM/wholly owned subsidiaries	434,246	433,362

*See page 28 for a reconciliation of net income to operating earnings.

Figure III-2: IBM Annual Report/Audited Financial Statements

C. CHANGE OF OWNERSHIP

If any change in ownership or control of the company is anticipated during the twelve (12) months following the proposal due date, the bidder must describe the circumstances of such change and indicate when the change will likely occur. Any change of ownership to an awarded vendor(s) will require notification to the State.

Wipro does not anticipate a change in ownership or control of the company or any of its subsidiaries during the 12 months following the proposal due date. We acknowledge the requirements to notify the State should any change of ownership occur after award of the subject contract award.

Wipro is partnering with IBM, a corporation that is over 100 years old and is one of the most recognizable brands in the world and the leading provider of information technology globally. As a publically held company, IBM does not anticipate any changes of ownership or ownership structure in the next twelve months.

IBM is owned by its 500,000+ stockholders who are members of the general public and trade shares publicly, through a listing on the New York Stock Exchange (NYSE:IBM). At year-end 2012 (the latest available reported date), there were 491,541 registered owners of IBM stock. Another 1,600,000 stockholders own IBM stock through brokerage firms, banks, credit unions, and other financial institutions. Ownership is open to anyone, including employees, institutions, individuals, pension funds, and mutual funds.

This ownership is differentiated from privately held companies where the shares are held by a small group of individuals, who often are members of one or a small group of families or otherwise related individuals, or other companies. IBM does not anticipate any changes in ownership with would conflict with, or preclude IBM from, entering into an agreement with or performing services for the State of Nebraska.

IBM does not disclose the Social Security numbers and other personal information about its employees and stockholders. Information that does exist to address such items can be found in the annual report filed with the Securities and Exchange Commission or on our website at: http://www.ibm.com/investor/company/index.phtml.

D. OFFICE LOCATION

The bidder's office location responsible for performance pursuant to an award of a contract with the State of Nebraska must be identified.

Wipro's hosting facility is on Miracle Drive in Omaha, Nebraska. This facility provides ample security and space for our technical hosting team, as well as overflow accommodations for the project team.

Wipro will use state offices in Lincoln, Nebraska, for onsite project personnel. This approach increases collaboration between state and Wipro staff and also makes best use of available resources.

IBM is pleased to be able to use its global presence and vast resources across North America to support the project activities at the State of Nebraska. IBM brings the expertise of services, technology, and hardware resources and a local presence, including IBM offices at in Omaha at 1111 N 102nd Court, Suite 231 Omaha, NE 68114 and Lincoln at the Federal Trust Building, 134 South 13th Street, 10th Floor, Suite 1000, Lincoln, NE 68508. IBM may perform project tasks at a location deemed suitable at the State's discretion. This global and local presence unique enables IBM with the ability, capacity, and skill sets to perform and deliver to the State and its complex and unique needs.

E. RELATIONSHIPS WITH THE STATE

The bidder shall describe any dealings with the State over the previous five (5) years. If the organization, its predecessor, or any party named in the bidder's proposal response has contracted with the State, the bidder shall identify the contract number(s) and/or any other information available to identify such contract(s). If no such contracts exist, so declare.

Wipro operates a data center in Omaha Nebraska and as such, maintains a license to do business in the State of Nebraska.

IBM and the State of Nebraska have enjoyed a relationship for over 50 years, since the time IBM was incorporated to do business in the State. Over that time, IBM and the State have maintained a very positive business relationship across numerous transactions. IBM holds a Customer Agreement with the State.

1. IBM Customer Agreement SSM8885 signed on 18 August 2011. (Signatory: Diane Mohr, Dixon County Clerk)

2. IBM Customer Agreement SSM7090 signed on 26 March 2010. (Signatory: Loleen Bressler, Dean of Administrative Services)
3. IBM Customer Agreement SSM3530 signed on 03 December 2007. (Signatory: V. Ginada Hostetler, Grand Islands Veterans Home)

Over this customer agreement, IBM has provided the State with hardware and software including warranties and maintenance coverage as part of this agreement.

Within the last 5 years, IBM has not held any services contracts with the State of Nebraska.

F. BIDDER'S EMPLOYEE RELATIONSHIPS TO THE STATE

If any party named in the bidder's proposal response is or was an employee of the State within the past twenty-four (24) months, identify the individual(s) by name, State agency with whom employed, job title or position held with the State, and separation date. If no such relationship exists or has existed, so declare.

If any employee of any agency of the State of Nebraska is employed by the bidder or is a subcontractor to the bidder, as of the due date for proposal submission, identify all such persons by name, position held with the bidder, and position held with the State (including job title and agency). Describe the responsibilities of such persons within the proposing organization. If, after review of this information by the State, it is determined that a conflict of interest exists or may exist, the bidder may be disqualified from further consideration in this proposal. If no such relationship exists, so declare.

Wipro declares that no party named in our proposal is or was an employee of the State within the last twenty-four months.

IBM employs over 420,000 personnel across the globe in all of its functions. As a company of such size, it is impossible to determine the extent of relationships between all IBM employees and the State of Nebraska. However, IBM provides an assurance that no member of the bid team for this response effort, nor any individual that anticipated to be involved with the project holds a relationship with the State that may create a conflict of interest on the part of either IBM or the State.

G. CONTRACT PERFORMANCE

If the bidder or any proposed subcontractor has had a contract terminated for default during the past five (5) years, all such instances must be described as required below. Termination for default is defined as a notice to stop performance delivery due to the bidder's non-performance or poor performance, and the issue was either not litigated due to inaction on the part of the bidder or litigated and such litigation determined the bidder to be in default.

It is mandatory that the bidder submit full details of all termination for default experienced during the past five (5) years, including the other party's name, address and telephone number. The response to this section must present the bidder's position on the matter. The State will evaluate the facts and will score the bidder's proposal accordingly. If no such termination for default has been experienced by the bidder in the past five (5) years, so declare.

If at any time during the past five (5) years, the bidder has had a contract terminated for convenience, non-performance, non-allocation of funds, or any other reason, describe fully all circumstances surrounding such termination, including the name and address of the other contracting party.

While Wipro has had early termination of some client accounts in the last 5 years, these are not of material value and would not have an adverse effect on the services to be rendered by Wipro under this RFP

In May 2010, IBM filed suit against the State of Indiana ("State"), seeking payment of termination amounts specified in a contract between IBM and the State, and on that same date, the State filed suit against IBM claiming that IBM had breached the contract. The case was tried in Marion County, Indiana Superior Court from late February to early April 2012. On July 18, 2012, the court rejected the State's claims in their entirety and awarded IBM $52 million, plus interest and costs. The parties have each appealed portions of the court's ruling, and that appeal remains pending.

H. SUMMARY OF BIDDER'S CORPORATE EXPERIENCE

The bidder shall provide a summary matrix listing the bidder's previous projects similar to this Request for Proposal in size, scope and complexity. The State will use no more than three (3) narrative project descriptions submitted by the bidder during its evaluation of the proposal.

1. Wipro Corporate Experience

Wipro Inc. is a global information technology (IT) consulting and outsourcing Service Company located in Bangalore, India and East Brunswick, New Jersey. Wipro incorporated in 1945, and has been a publicly-traded corporation since 2000, New York Stock Exchange (NYSE:WIT). As of 2012, the Company had 140,000 employees in 54 countries. Through its subsidiaries, Wipro offers healthcare and infrastructure engineering, consumer care and BPO. Wipro's 25 year engagement with the State of Missouri through its subsidiary Infocrossing, Inc. (acquired by Wipro in 2007), provides a comprehensive Medicaid Fiscal Agent Services solution. Services include Medicaid Management Information System (MMIS) operations and software support. The software is hosted in one of the world class data centers that were part of the Infocrossing acquisition. A full range of claims processing functions are provided from a facility in Jefferson City, Missouri. While Medicaid eligibility functions are provided by State of Missouri personnel, Wipro interfaces with the State's eligibility system and has extensive knowledge of the Medicaid eligibility processes and the State's of Missouri's Medicaid population. Wipro applies our extensive Medicaid eligibility knowledge to the State of Nebraska.

To position Nebraska to effectively respond to and manage the challenges resulting from the Affordable Care Act, Wipro and IBM have joined forces to deliver the IBM Cúram-based solution that meets and exceeds Nebraska's Medicaid eligibility and enrollment requirements, now and into the future. This Wipro/IBM partnership combines our extensive Medicaid and Cúram expertise, offering the Division of Medicaid and Long Term Care (MLTC) the most advanced, purpose-built technical eligibility and enrollment solution, implemented by product and integration experts backed by the full corporate resources of both companies. Our approach is unique as we are providing capability that includes purpose built expertise centers that leverage the implementation of over 80 global IBM Cúram implementation projects and over 10 Medicaid eligibility projects in the United States.

In the role of Prime Contractor, Wipro accepts many of the bedrock tasks; activities that act as the foundation upon which to set up and carry the team forward to the goal. Many of these activities are the same as or similar to Medicaid Fiscal Agent services we have provided to the State of Missouri for 25 years, and activities that we are well-suited to deliver time after time as part of other IT services, outsourcing, and consulting engagements. These tasks include:

- Performing overall project management using PMI-certified staff and techniques to manage toward successful project completion
- Working hand in hand with the State and other members of the extended team to construct an efficiently structured and meaningful requirements validation process
- Using a "train the trainer" approach to teach authorized technical staff how to implement, operate, maintain, and modify the new eligibility and enrollment software we propose (which will allow them to train end users, as needed, and to begin building a bench of technically proficient staff who will be able to take over the system, at the State's option)
- Leading the process of establishing interfaces required to link the software solution with the various existing human services eligibility processes and systems
- Assuming certain key staff roles, including an overall PMP certified program manager to support achievement of project objectives and requirements and to assist in the full integration of software implementation and integration services
- Performing on-going software maintenance, including business analysis tasks, requirements clarification and validation services needed to execute approved changes
- Providing required supplemental technology and services, such as scanning, copying, mail and other services needed to run an efficient project

Sound project management principals and proven success in managing the project team will be particularly important as this project progresses. In the section that follows, Wipro has included a general company overview of our solution partner, IBM.

2. IBM Corporate Experience

IBM (which is headquartered at 1 New Orchard Road Armonk, NY 10504) is one of the world's largest information technology services companies. IBM is owned by its 500,000+ stockholders who are members of the general public and trade shares publicly, through a listing on the New York Stock Exchange (NYSE:IBM). As of February 10, 2012, there were 504,093 registered owners of IBM stock. Another 1,600,000 stockholders own IBM stock through brokerage houses, banks, credit unions, and other financial institutions. Ownership is open to anyone, including employees, institutions, individuals, pension funds, and mutual funds. As an IT services leader, IBM's solutions and services span the major industries, including financial services, healthcare, government, automotive, telecommunications and education, among others.

The company's work in social services began in 1935, assisting the US Government to implement management and accounting systems for the Social Security Act of 1935. Described at the time as "the largest bookkeeping operation in the history of the world," IBM continued its role as an innovator in the social services industry throughout the 20th century, expanding to the state and local level. In 1992 the State of California awarded IBM an $80 million contract to develop,

implement and maintain California's child welfare system, including a network that linked nearly 10,000 county social workers and staff.

In 2000 IBM entered a Global Strategic Alliance with the Irish firm Cúram Software Ltd., an organization with global recognition from major industry analysts as the international thought leaders for social enterprise management software solutions. Cúram's business model was to work with global system integration partners such as IBM to implement Cúram products in a wide range of government and state agencies across the United States, Canada, Australia, New Zealand, and Europe. Cúram provided the product and business expertise while the systems integration partners provided expertise in project elements such as data migration, data cleansing, project planning, project management and other generic implementation project activities.

IBM acknowledged the complexities its Health and Human Service clients are facing in today's challenging landscape and acquired Cúram Software in December 2011 to bring more value to its clients. IBM's unparalleled experience over the past twelve years implementing Cúram Software enterprise case management projects provides the IBM team with unique insight into the opportunities and pitfalls inherent in any Cúram implementation.

IBM has a strong track record of working successfully with social services agencies to deliver mission-critical applications. We have a number of examples that collectively show IBM's success in the following areas:

- Delivering complicated, mission-critical social services case management applications successfully
- Bringing insight and innovation to help our clients solve their most pressing business and technical issues
- Proving the value of Cúram-based solutions to social services agencies
- Integrating client staff into the project delivery teams and successfully transferring knowledge

The IBM team's social services solutions have been successfully implemented in similar projects in most states, four Canadian provinces, Australia, New Zealand, and the United Kingdom. More than five million recipients have received benefits from solutions deployed and delivered by the IBM team. In addition, more than 38,000 government employees in the United States are actively using these solutions to manage public assistance in their jurisdictions. Through these engagements, we have gained knowledge, skills, lessons learned, tools, and assets to support a modern Nebraska Eligibility and Enrollment System (EES) program. Therefore, we can provide an effective, efficient delivery of a large-scale solution meeting the needs of Nebraska children and families and achieving the goals set forth by the State.

Detailed Project Summaries

Bidder must provide narrative descriptions to highlight the similarities between their experience and this Request for Proposal.

Wipro/IBM envisions a unique approach to satisfying the State's vision of a comprehensive, fully integrated, state-of-the-art automated human services eligibility, enrollment and case management system. Our approach stems from another of the State's objectives for the solution's functional

requirements: acquisition of COTS products to develop a "technology enabled, user-friendly, consumer-centric eligibility and enrollment process to leverage and integrate, as appropriate, existing administrative and technical infrastructure for the State's Medicaid and CHIP programs as well as for other human service programs.

After studying what the State of Nebraska intends to accomplish, our approach is that the State's best value lies in acquiring:

- The best fit-for-purpose software applications that are proven to perform as specified, available as COTS, are SOA enabled and hardware neutral, are highly configurable, and designed with a high degree of end-user centricity while using as much automation and electronic verification as possible
- A knowledgeable and experienced system integrator that specializes in the selected applications and technology, and has a reputation for bringing talented, technically savvy staff to each assignment
- An experienced healthcare IT company whose performance and reliability is known by the State and that is acknowledged within the IT industry as being a leading integrator; a company recognized as a leader in business process outsourcing and proven for effective project management

The IBM Cúram product represents the best fit-for-purpose software applications, which have been installed and are in use by numerous satisfied customers. Table III-1: ***SmartPro MedEE*** Solution Experience in State Programs itemizes three current or recently completed, directly relevant State projects on which the same software or services have been used that are proposed by the Wipro/IBM team.

While the IBM team members have implemented many similar projects, we present descriptions of two of those projects, similar to Nebraska EES as they were large-scale eligibility system implementations, with Cúram Software at the core of the solution.

Individual, project summaries follow.

Table III-1: *SmartPro MedEE* Solution Experience in State Programs

State Programs	Wipro	IBM (Cúram)
Missouri Medicaid Fiscal Agent	✓	
North Carolina Families Accessing Services through Technology (NC FAST)		✓
South Carolina Member Management Technology Framework		✓

Project Summary #1

Project Name	Missouri Medicaid Fiscal Agent
Project Time Period	July, 2007 thru current
Client	State of Missouri, Department of Social Services, MO HealthNet Division
Contact Name **Phone** **Fax** **Email**	Darin Hackmann 573.680.1122 Darin.M.Hackmann@dss.mo.gov
Scheduled and Actual Completion Dates	July, 2007 thru current
Work Performed as (Prime Contractor or Subcontractor)	Provide fiscal agent services for the State of Missouri's Medicaid program.
Project Description	Wipro provides fiscal agent services which include data center hosting functions; maintenance, modification and enhancement of the MMIS; participant, provider, managed care, clinical authorization and technical call centers; production of Medicaid identification card and provider manuals; third party liability cost avoidance functions, claims processing operations including mailroom, data entry, resolutions; network and physical security; and HIPAA compliance. Wipro is the system of record for Missouri's Medicaid Eligibility Master File whereby we processing eligibility transactions on a daily basis.
Contractor Responsibilities	Wipro's role is to provide Missouri with business process operation services along with development, implementation and operation of the MMIS. This includes all functions associated with maintaining the State of Missouri's Medicaid Eligibility Master File.

Project Summary #2

Project Name	North Carolina Families Accessing Services through Technology (NC FAST)
Project Time Period	April 2011 – June 2017
Client	North Carolina Department of Health and Human Services
Contact Name **Phone** **Fax** **Email**	Anthony Vellucci, Program director, NC FAST (919) 707-4002 (919)510-4388 Anthony.Vellucci@dhhs.nc.gov
Scheduled and Actual Completion Dates	In progress.
Work Performed as (Prime Contractor or Subcontractor)	Performing project management and providing business and technical resources. Providing operations and maintenance services on the base software product and state approved customizations.
Project Description	The North Carolina Department of Health and Human Services' (DHHS) NC FAST program is an enterprise approach to delivering family-centered benefits and services to the citizens of North Carolina through enabling case management technology. In 2008, DHHS selected the Cúram Business Application Suite as the underlying integrated case management solution for NC FAST. DHHS chose Cúram as they recognized the advantages of using a proven COTS product specifically built for health and human services that could satisfy their needs with minimal customization. Cúram supports DHHS's goal of a phased implementation that allows support for programs to be added incrementally while providing an enterprise foundation for the programs. North Carolina also recognized the value in having a rules engine that had the content for all the US SNAP, cash assistance and Medicaid programs out-of-the-box, without development effort. At the completion of the six projects, IBM Cúram will be used for SNAP, TANF, Medicaid including MAGI and non-MAGI, child welfare, child care and adult protective services.
Contractor Responsibilities	• Assist in development of host environment and other environments in support of the project • Install product software, customizations, software tools, and necessary third-party software • Train State staff on the use of the software solution and tools • Business analysis and documentation including fit/gap analysis and documentation • Architectural design and review • System performance analysis • Project estimation • Provide optional technical support services • Develop customized software when authorized by the State • Provide consultation, tools, and support for data conversion activities • Provide operations and maintenance services for the base product and any State-approved customizations • Provide issue triage and help desk support services - base product and customizations

Project Summary #3

Project Name	South Carolina Member Management Technology Framework
Project Time Period	February 2013 to Present
Client	South Carolina Department of Health and Human Services
Contact Name **Phone** **Fax** **Email**	John Supra, Deputy Director and CIO SC DH&HS Phone: (310) 714-1619 supra@scdhhs.gov
Scheduled and Actual Completion Dates	Scheduled Start Date is 01/2013. Scheduled Completion Date is 12/2013 Actual Start Date was 02/2013 to present
Work Performed as (Prime Contractor or Subcontractor)	IBM Cúram is working directly with the State's IT Division. The IT Division assumed the role of System Integrator in a public/private partnership arrangement with Clemson University, who host HHS IT systems and assist in system development.
Project Description	South Carolina Department of Health and Human Services (SCDHHS) is responsible for administration of the State's Medicaid program and other benefit programs. SCDHHS wishes to modernize their eligibility, enrollment and member management systems to deliver a world class Medicaid enterprise. Following a formal request for proposal (RFP) process, the State chose IBM Cúram as the underlying technology for supporting the delivery of Medicaid and other benefit programs. IBM Cúram will provide a cost-effective and flexible technology framework which SCDHHS – working with Clemson University – can use to design, configure, implement, and operate a replacement Eligibility Enrollment and Member Management System (EEMMS) for the State's Medicaid and other human services programs. While the State is not hosting its own health insurance exchange, the Cúram system will be doing the MAGI determinations and having interaction with Federal exchange and service hub. The system will provide functionality for eligibility, enrollment, and case management for: Medicaid, advanced premium tax credits and other healthcare affordability programs. Other benefit programs and the State is now exploring options for managing Care Coordination. Programs Supported: Medicaid, advanced premium tax credits, and other healthcare affordability programs.
Contractor Responsibilities	IBM is providing the underlying software platform for the system, namely the IBM Cúram Social Program Management Platform. IBM is also providing dedicated Cúram specialists to the project to advise and assist on the system implementation.

I. SUMMARY OF BIDDER'S PROPOSED PERSONNEL/ MANAGEMENT APPROACH

I. Describe policies, plans, and intentions with regard to maintaining continuity of personnel assignments throughout the performance of any agreement resulting from this RFP.

The Wipro/IBM team's approach to organization and staffing for the Nebraska Eligibility and Enrollment project is based on the critical need to have the right staff, in the right place, at the right time. We fully appreciate the need to minimize risk, and ensure a successful project by deploying fully trained and experienced resources. The key team members assigned to the project have been selected based on their thorough knowledge of the proposed solution, their extensive experience in working in the health and human services environment, and first-hand experience in successfully planning for Cúram solution implementations . Adherence to the project plan, close coordination and open communication among all the project team, state personnel and stakeholders is critical in delivering all activities necessary to establish effective project governance and performing all necessary task effectively and on time.

To support and successfully implement and manage the project, we understand the urgency to engage qualified and experienced staff, ready to begin work on day one. The Wipro/IBM team collaborated to select the best qualified candidates. Key staff were selected based on their experience in health and human services systems design, implementation and operations as well as their proven experience deploying the Cúram eligibility solution.

II. Discuss the Bidder's plans to avoid and minimize the impact of personnel changes.

All of the Wipro/IBM Team members are committed to the approach of "partnering for success". This means we have access to Cúram solution domain experts from the source, as well as very significant IT expertise and subject matter experts. We offer Nebraska a high degree of certainty we can access and leverage our collective human capital resources at the level of intensity and on the schedule needed to deliver on time results for this project.

III. Identify planned backup personnel assignments.

The importance of deploying well qualified and experienced staff for this project is a crucial element of success. Our key staff are exceptionally well qualified and experienced to lead this project and achieve the objectives on time. We are placing well-seasoned and highly capable resources in key positions on the Nebraska project. These are qualified individuals with the right mix of knowledge, experience, and expertise to carry out the project. These individuals were chosen specifically for their proven leadership skills, depth of knowledge, prior eligibility system experience, knowledge of the Cúram solution, large-scale system experience, and ability to successfully perform the tasks required.

All of the Wipro/IBM Team members are committed to the approach of "partnering for success". This means we have access to Cúram solution domain experts from the source, as well as very significant IT expertise and subject matter experts. We offer Nebraska a high degree of certainty we can access and leverage our collective human capital resources at the level of intensity and on the schedule needed to deliver on time results for this project.

IV. Commit to using the personnel identified in the proposal and agree to the State of Nebraska's right to approve proposed personnel changes during the term of the contract.

The Wipro/IBM team acknowledges and is committed to the requirement stated above. We recognize the importance of deploying qualified staff resources on the project. We will engage well qualified experienced staff and reiterate our ability to resource this project with exceptional talent. Our Wipro/IBM Team approach and resource acquisition strategy lends the highest credibility to our commitment and obligations to this project. While we plan on maintaining a consistent team through the life of the project, we are aware that some times staff changes are unavoidable. In those instances, The Wipro/IBM team will identify appropriate replacement personnel and will discuss the choices with the State. The State will have the right to approve proposed personnel changes during the term of the contract.

V. Agree that the Bidder's proposed project personnel may not be reassigned, replaced, or added during the project without the prior written consent of the Department's Project Manager. Should a key staff position be vacated, the IV&V Contractor must give the Department resumes of and an opportunity to interview and approve, potential replacements for that employee.

The Wipro/IBM team acknowledges and agrees that the key personnel may not be reassigned, replaced, or added during the project without the prior written consent of the Department's Project Manager. We acknowledges and agrees to provide the Department with resumes and an opportunity to interview and approve potential replacements for key personnel.

VI. Agree that the Bidder's proposed key project personnel may not be assigned new or additional contract assignments outside the State of Nebraska contract, without the prior written consent of the Department Project Manager.

The Wipro/IBM team acknowledges and agrees that the Bidder's proposed key project personnel may not be assigned new or additional contract assignments outside the State of Nebraska contract, without the prior written consent of the Department Project Manager.

VII. Agree that the Department Project Manager reserves the right to require a change in the IV&V Contractor's project personnel at the Department Project Manager's discretion and that the Department must be given an opportunity to interview and approve potential replacements for that employee. However, the Department will not unreasonably exercise this option and will take reasonable steps to work with the IV&V Contractor toward a solution.

The Wipro/IBM team acknowledges and agrees that the Department Project Manager reserves the right to require a change in the IV&V Contractor's project personnel at the Department Project Manager's discretion and that the Department must be given an opportunity to interview and approve potential replacements for that employee.

1. *Key Staff Resumes and References*

Below we present the detailed resumes of our key staff, their qualifications and expertise in health and human services and eligibility and enrollment business. Each staff member brings outstanding qualifications and understanding of the responsibilities for their critical role in this project.

Figure III-3 displays the proposed Wipro/IBM team organization chart with key project staff named.

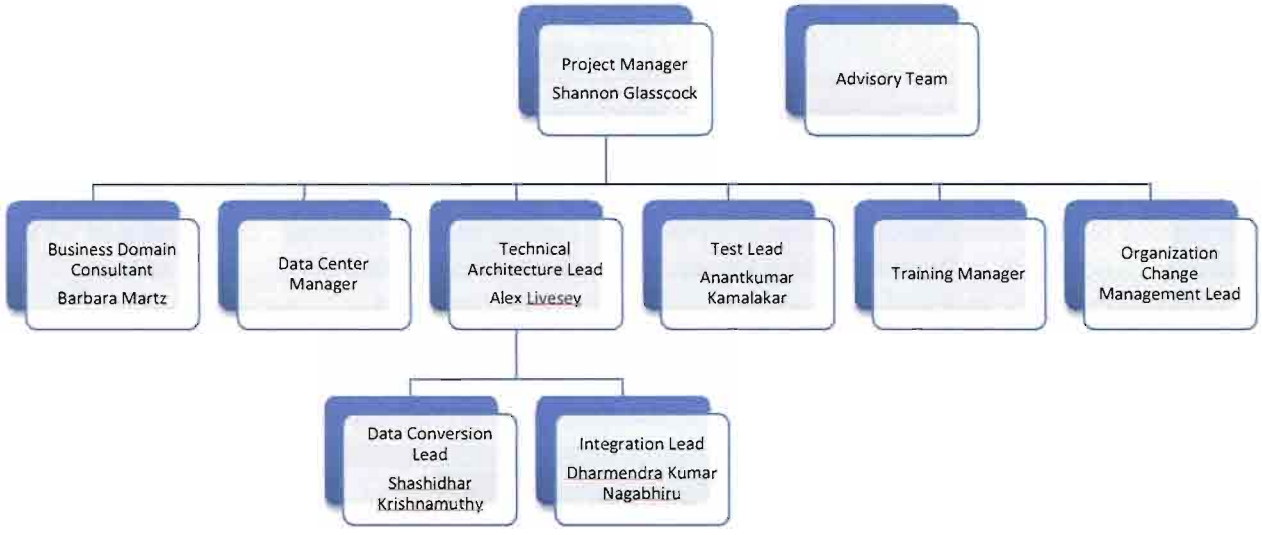


Figure III-3: Wipro/IBM Team Structure

Table III-2: Key Staff Roles and Qualifications summarize each key staff member's role in the project, their years of experience, experience level/source organization, and applicable certifications. The individual key staff resumes with detailed professional histories close this proposal section.

Following that figure are the key staff resumes for submission.

Table III-2: Key Staff Roles and Qualifications

Name	Position	Years of Experience	Experience Level/Source	Certifications
Shannon Glasscock	Project Manager	25	Senior Project Manager/Wipro	PMP, PMI Certified
Alex Livesey	Technical Architecture Lead	15 with 9 on Cúram	Manager/IBM	PMP Cúram Certified Developer Cúram Certified Business Professional
Anantkumar Kamalakar	Test Lead	13	Manager/Wipro	Bachelor of Engineering
Shashidhar Krishnamuthy	Data Conversion Lead	10	Technical Project Manager and Architect/Wipro	IBM Certified Information Server Administration 9.1 Wipro Certified Data Integration Design 4.1 Oracle Certified 11g SQL Tuning
Dharmendra Kumar Nagabhiru	Integration Lead	13	Cúram System Architect/IBM	Cúram Certified Developer

Name	Position	Years of Experience	Experience Level/Source	Certifications
Barbara Martz	Eligibility Policy SME (Part Time)	30	Senior Training Consultant/IBM	Cúram Certified Business Professional

Wipro/IBM's proposed key personnel collectively bring over 100 years of eligibility determination, case management, and claims management in health and human services. As shown in Table III-3, the personnel proposed to lead and support the Nebraska EES Project meet and exceed the recommended requirements for candidates. Wipro/IBM is proud to offer resources that combines related experiences such as State of Indiana, State of Maryland, State of New Jersey, State of Utah, State of North Carolina, and various Canadian provinces to provide the knowledge, skills, and understanding to successfully meet the needs of the State.

Table III-3: Key Resources Ability to Meet Recommended Requirements

Name of Candidate	State of Nebraska Recommended Qualifications				
	Consulting for Eligibility for 2+ Years	Experience in Design, Development, and Testing	Government or Public Sector Experience	In-depth Knowledge of ACA Regulations	Highly Developed Communication Skills
Shannon Glasscock	✓	✓	✓	✓	✓
Alex Livesey	✓	✓	✓	✓	✓
Anantkumar Kamalakar		✓			✓
Dharmendra Kumar Nagabhiru		✓	✓		✓
Barbara Martz	✓	✓	✓	✓	✓
Shashidhar Krishnamuthy		✓			✓

In addition to our key personnel, The Wipro/IBM team also brings an Advisory Panel to support the project activities and provide additional subject matter expertise around Cúram software, programs, Medicaid programs, and Health and Human Services. Wipro/IBM's Advisory Panel of Thought Leaders, consisting of Executive Health and Human Services Industry Leaders and Cúram SMEs, including Joseph Fiortino, Partner for IBM Cúram Services, Paula Hildebrand IBM Cúram West Regional Manager, and Christi Oakley, Senior Project Manager for IBM Cúram will be available to provide leadership and guidance for critical issues that may arise, and insight from leading industry knowledge. After great consideration in carefully selecting the right personnel for this Advisory Panel for the State of Nebraska, Wipro/IBM is pleased to bring these resources as a value-added measure of differentiation of our capabilities.

Joseph Fiorentino

Joseph Fiorentino brings over 16 years of experience serving government and insurance clients working in a variety of delivery, strategy development, and consulting roles. Since 2005, Mr. Fiorentino has worked as part of IBM's Global Social Industry Team, which provides IBM's key focus on Social Security and social services, including subject matter expertise and solutions

development. In this role, he provides business support to clients and IBM teams around the world, contributes to the development of solutions, creates thought leadership materials, and presents at industry conferences. Mr. Fiorentino was the Global Social Services Lead for the IBM Government Centre of Competence. In this role, he was responsible for leading IBM's Business Analytics and Case Management solution portfolio and a worldwide team of Industry experts that are entirely focused on social security and social services at the federal, state, and local levels. Mr. Fiorentino also led the creation and deployment of a Social Industry Model – intended to be an international definition of business processes that is aimed at supporting citizen centric business models. The outcome of the work is driving a number of large scale business transformation projects primarily focused on process improvements, determining commonality across business processes, and implementing information systems aimed at improving service delivery.

Paula Hildebrand

Paula Hildebrand was the Cúram Account Executive for the State of Nebraska and is now the IBM Cúram Western Regional Manager. Paula has over 25 years of IT and state and local government experience with large IT organizations, like Hewlett-Packard, focused on systems integration. She joined Cúram Software Ltd. nine years ago as the Director for Cúram Global Services in North America. In her role as a project executive, Paula was responsible for the client engagement and service delivery teams in North Carolina, California, Indiana, New York City, Clark County Nevada, and New York State, participating in the explosive growth of Cúram. She has worked with multiple systems integration partners, many of whom were new to delivering Cúram projects. Paula is currently working with Minnesota on their Health Insurance Exchange and Medicaid Eligibility and with Missouri on their Medicaid project and case management projects, and continues to serve as the Cúram Executive liaison for North Carolina.

Steven Martin

Steven Martin has over 10 years of experience in the health and human services industry and over 15 years in large-scale technical system design, development and implementation. Steven serves as a Principal Technical Consultant and Senior Cúram Solution Architect with a focus on health and human services. Steven has served as a Lead Technical Solution Architect for Supplemental Nutrition Assistance Program (SNAP), Medicaid and other benefit program implementations at multiple clients including the State of Maryland, the State of North Carolina, the State of Utah and New York City. He has lead several architecture teams in the design of enterprise integration with Cúram into local, state and federal systems. Steven worked as a technical lead and architect for large IT projects for Fortune 500 companies before joining IBM.

Christi Oakley

Christi Oakley has over 20 years of experience in the human services arena, including product management, business process analysis, and large-scale system development and implementation. Ms. Oakley currently serves as Senior Product Manager and Subject Matter Expert responsible for defining the functional footprint of the IBM Cúram Healthcare Reform solution, with a focus on healthcare eligibility and enrollment. In her previous role, Christi worked as the product manager and principal domain expert for the IBM Cúram Income Support solution in support of Temporary Aid to Needy Families (TANF), SNAP, and Medicaid. Prior to joining Cúram Software, Christi

managed and consulted on human services IT projects in over 25 states, as well as with Federal, Tribal, and international government agencies.

2. State of Nebraska Staffing

Collaboration and coordination between the customer and the contracting team is a major factor contributing to positive outcomes and success for the Nebraska ***SmartPro MedEE*** implementation. The proactive inclusion of State of Nebraska employees and key staff in the full lifecycle of the project will promote and foster an environment of mutual trust and reduce risk through increased transparency. As such, the Wipro/IBM team has designed a project plan and project approach that includes the support and representation of key State of Nebraska personnel to help develop, manage, and support the EES transformation activities.

In constructing the detailed work plan for the project, Wipro/IBM estimates the personnel from the State of Nebraska that may be included in the design, development, and execution of project activities. Wipro/IBM's team's estimated staffing levels and hours requirements are included in Table III-4 below:

Table III-4: Anticipated State of Nebraska Key Personnel Requirements

Tasks	State Staff	Estimated Start Date	Estimated End Date	Estimated Hours
Conduct Project Kick-off Meeting	MLTC Project Manager, SMEs (3) (Audits and Appeals, Field Staff, Medicaid Eligibility Policy) , Project Stakeholders (2), Project Sponsor, IS&T Project Manager, IS&T Tech Lead	3/17/2014	03/17/2014	20.00
Conduct Meetings to Finalize Development Infrastructure	MLTC Project Manager, IS&T Project Manager, IS&T Tech Lead	3/17/2014	03/28/2014	16.00
MLTC Review of PSR DEDs	MLTC Project Manager, Project Stakeholders (2)	3/25/2014	03/25/2014	12.00
MLTC Re-review and Approval of PSR DEDs	MLTC Project Manager, Project Stakeholders (2)	04/03/2014	04/03/2014	6.00
Conduct Review of all PSR Documents	MLTC Project Manager, Project Stakeholders (2)	05/02/2014	05/06/2014	54.00
MLTC Provides Written Feedback of PSR Documents	MLTC Project Manager	05/06/2014	05/06/2014	12.00
MLTC Approves and Submits PSR Documents to CMS\CCIIO for Scheduled Review and Approval	MLTC Project Manager	05/20/2014	05/20/2014	2.00

Tasks	State Staff	Estimated Start Date	Estimated End Date	Estimated Hours
MLTC Review of AR DEDs	MLTC Project Manager, Project Stakeholders (2), IS&T Project Manager, IS&T Tech Lead	04/18/2014	04/18/2014	20.00
MLTC Re-review and Approval of AR DEDs	MLTC Project Manager, Project Stakeholders (2), IS&T Project Manager, IS&T Tech Lead	04/29/2014	04/29/2014	10.00
Conduct Review of all AR Documents	MLTC Project Manager, Project Stakeholders (2), IS&T Project Manager, IS&T Tech Lead	05/19/2014	05/19/2014	48.00
MLTC Provides Written Feedback of AR Documents	MLTC Project Manager, Project Stakeholders (2), IS&T Project Manager, IS&T Tech Lead	05/19/2014	05/19/2014	20.00
MLTC Approves and Submits AR Documents to CMS\CCIIO for Scheduled Review	MLTC Project Manager	06/05/2014	06/05/2014	2.00
MLTC Review of PBR DEDs	MLTC Project Manager, Project Stakeholders (2)	06/12/2014	06/12/2014	12.00
MLTC Re-review and Approval of PBR DEDs	MLTC Project Manager, Project Stakeholders (2)	06/23/2014	06/26/2014	6.00
Conduct Review of all PBR Documents	MLTC Project Manager, Project Stakeholders (2)	07/05/2014	07/10/2014	54.00
MLTC Provides Written Feedback of PBR Documents	MLTC Project Manager	07/11/2014	07/11/2014	4.00
MLTC Approves and Submits PBR Documents to CMS\CCIIO for Scheduled Review	MLTC Project Manager	07/17/2014	07/17/2014	2.00
MLTC Review of PDR DEDs	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	07/25/2014	07/25/2014	24.00
MLTC Re-review and Approval of PDR DEDs	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	08/05/2014	08/08/2014	12.00
Conduct Review of all PDR Documents	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	08/20/2014	08/25/2014	144.00
MLTC Provides Written Feedback of PDR Documents	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	08/25/2014	08/25/2014	24.00

Tasks	State Staff	Estimated Start Date	Estimated End Date	Estimated Hours
MLTC Approves and Submits PDR Documents to CMS\CCIIO for Scheduled Review	MLTC Project Manager	09/12/2014	09/12/2014	2.00
MLTC Review of DDR DEDs	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	09/22/2014	09/22/2014	32.00
MLTC Re-review and Approval of DDR DEDs	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	10/01/2014	10/06/2014	16.00
Conduct Review of all DDR Documents	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	10/20/2014	10/23/2014	184.00
MLTC Provides Written Feedback of DDR Documents	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	10/24/2014	10/24/2014	32.00
MLTC Approves and Submits DDR Documents to CMS\CCIIO for Scheduled Review	MLTC Project Manager	11/12/2014	11/12/2014	24.00
Create User Stories or User Cases	MLTC SMEs (3), MLTC EE End Users (10)	10/08/2014	10/14/2014	960.00
MLTC Review of FDDR DEDs	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	11/20/2014	11/20/2014	12.00
MLTC Re-review and Approval of FDDR DEDs	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	11/25/2014	11/25/2014	144.00
Conduct Review of all FDDR Documents	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	11/20/2014	11/24/2014	24.00
MLTC Provides Written Feedback of FDDR Documents	MLTC Project Manager, SMEs (3), Project Stakeholders (2)	11/24/2014	11/24/2014	2.00
MLTC Approves and Submits FDDR Documents to CMS\CCIIO for Scheduled Review	MLTC Project Manager	12/15/2014	12/15/2014	2.00
MLTC Review of PORR DEDs	MLTC Project Manager	11/20/2014	11/20/2014	24.00
MLTC Review and Approval of PORR DEDs	MLTC Project Manager, Project Stakeholders (2)	12/01/2014	12/01/2014	12.00
Conduct Review of all PORR Documents	MLTC Project Manager, Project Stakeholders (2)	12/18/2014	12/18/2014	144.00

Tasks	State Staff	Estimated Start Date	Estimated End Date	Estimated Hours
MLTC Provides Written Feedback of PORR Documents	MLTC Project Manager, Project Stakeholders (2)	12/18/2014	12/18/2014	24.00
MLTC Approves and Submits PORR Documents to CMS\CCIIO for Scheduled Review	MLTC Project Manager	01/12/2015	01/15/2015	2.00
MLTC Staff UAT Testing	MLTC SMEs (3), MLTC EE End Users (40)	12/26/2014	02/16/2015	19600.00
MLTC Review of ORR DEDs	MLTC Project Manager	01/28/2015	01/28/2015	4.00
MLTC Re-review and Approval of ORR DEDs	MLTC Project Manager	02/03/2015	02/03/2015	6.00
Conduct Review of all ORR Documents	MLTC Project Manager, Project Stakeholders (2)	02/11/2015	02/17/2015	90.00
MLTC Provides Written Feedback of ORR Documents	MLTC Project Manager, Project Stakeholders (2)	02/20/2015	02/20/2015	12.00
MLTC Approves and Submits ORR Documents to CMS\CCIIO for Scheduled Review	MLTC Project Manager	03/10/2015	03/10/2015	2.00
Collaborate with MLTC for Deployment of System to Production	MLTC Project Manager, Project Stakeholders (2)	01/19/2015	03/2/2015	12.00
Conduct Training for MLTC Staff	MLTC SMEs (3), MLTC EE End Users (40)	02/23/2015	03/09/2015	1720.00
Conduct Implementation Schedule Meeting with MLTC	MLTC Project Manager, Project Stakeholders (2)	03/05/2015	03/05/2015	12.00
MLTC Approval of Implementation Schedule and Plan	MLTC Project Manager, Project Stakeholders (2), Project Sponsor	03/06/2015	03/06/2015	8.00
Conduct Review Meeting with MLTC of Federal Certification Documentation (Optional)	MLTC Project Manager, Project Stakeholders (2), Project Sponsor	06/17/2014	06/26/2014	16.00
MLTC Review of Federal Certification Documentation (Optional)	MLTC Project Manager, Project Stakeholders (2), SME, Project Sponsor	06/26/2014	07/01/2014	96.00
MLTC Re-review of Federal Certification Documentation (Optional)	MLTC Project Manager, Project Stakeholders (2), SME, Project Sponsor	07/02/2014	07/10/2014	48.00

Tasks	State Staff	Estimated Start Date	Estimated End Date	Estimated Hours
MLTC APPROVAL of Federal Certification Documentation (Optional)	MLTC Project Manager, Project Stakeholders (2), Project Sponsor	07/10/2014	07/11/2014	4.00
Participate in Federal Certification Meetings (Optional)	MLTC Project Manager, Project Stakeholders (2), Project Sponsor	07/11/2014	08/08/2014	32.00

Key Staffing Level Descriptions

Wipro/IBM has built estimates into the overall project level of effort and project scope for the following positions to be held by State of Nebraska personnel:

Project Manager

The State will be requested to provide a project manager responsible for the governance and oversight of all project activities from the State. The State project manager will work closely with the Wipro/IBM project manager and other project leaders to track project schedules, complete and validate project deliverables, and manage all State resources assigned to the project.

Business Area SMEs

The State will be requested to provide a business subject matter expert for each individual business area related to the project. Typically for projects of this size and complexity, Wipro/IBM would anticipate the support of 4-5 full time business area SMEs. These individuals should be available as part of the project team full-time during the initial analysis phases, part-time during the design and development phases, and full-time again during the testing phase to support project outcomes, validate functionality, and help facilitate knowledge transfer. In addition to these core SMEs, it is anticipated that the State SMEs will have reach-back ability into the Division of Medicaid and Long Term Care (MLTC) to gather information and organize meetings with necessary stakeholders and involved parties (case workers and other related end user parties). The team recognizes that in order to build a culture of change and effectively gain buy-in for transformation, there is a need to involve groups and individuals outside of the core project team.

Infrastructure Architect

Wipro/IBM anticipates and has included estimates for the availability of an infrastructure architect as part of the State of Nebraska personnel involvement. The draft work plan estimates this person to be available part-time (50%) to support project activities throughout the duration of the engagement. This person must be skilled in designing technical architecture and have expert knowledge of the State's existing and desired infrastructure. The infrastructure architect will support the project team and Wipro/IBM's lead architect in the planning, design, and development of the State environment for the Cúram solution.

Data Center and Infrastructure Support

The Wipro/IBM Team anticipates the availability of Data Center and Infrastructure support staff from the State Data Center to be available for consultation during network and infrastructure build cycles and periodically thereafter to provide technical interface design validation to the Wipro/IBM Team during the DDI. We anticipate a variety of staff with expertise in network, interface and integration definition task to optimally integrate with external state systems.

Master Data Management SME

Wipro/IBM estimates the need for one full-time SME that will support the project team throughout the engagement to provide businesses and technical knowledge of State systems and business processes for the configuration and implementation of a Master Data Management (MDM) solution. This resource may provide support for the validation and configuration of hardware, provide subject matter expertise on Nebraska-specific MDM requirements and needs, assist in validating the proposed technical solution, and support the deployment of the solution. This will require knowledge of the Nebraska environment and the ability to support the development and implementation lifecycle for MDM Standard Edition.

Change Management Facilitator

Wipro/IBM will require an individual from the State to facilitate access to key stakeholders including senior leaders in the Department. This person will also help identify change champions and support their participation in a change champion network. Importantly, the lead from the State side will "own" the change management from within the Department, serving as the leader in championing change and providing expertise on the unique change needs of the State of Nebraska. The facilitator will help the project team with developing an understanding of client environment and facilitate access to State project leadership.

Communications Liaison

The project team will require the support of a part-time liaison to assist with communications, including the development and dissemination of communications. This is especially important for those groups (including external stakeholders and potential users) with whom the team will not to directly interface. The communications liaison will be responsible for assisting with the development of the communications plan and identifying appropriate mediums for communicating with internal and external stakeholders. This role may also act as a part-time resource to assist the change lead in determining how project communications and other Organizational Change Management (OCM) related work products should be developed.

Change Champion Agents

The team will request the support of a number of Change Champions, one from each functional area (business unit, organizational grouping, stakeholder group, end user group), to commit 6-8 hours per month to act as communications leads for their area. Duties for this may involve translating communications down to each individual group to enhance their meaning and effectiveness for each area, identifying issues, and helping to develop messaging. Change Champions should be individuals who are not necessarily in a leadership position within their business unit, but may

represent a super user of the new platform or someone who is able to spur action and involvement within their functional area.

Training Liaison

The team will request a point of contact be available to act as a liaison for the activities surrounding the design, development, planning, and delivery of training modules associated with the project's change management efforts. This person may share time as the part time Communications Liaison, but will act as a facilitator for access to key stakeholders, and owner of training coordination with State representatives and end users. This person may also support the delivery and facilitation of training programs for beyond the duration of Wipro/IBM's implementation and stand up of the Cúram-based Eligibility and Enrollment Solution. The State's training liaison should possess strong leadership and presentation skills to effectively train users and related parties.

User Acceptance Testing

User acceptance testing activities will require a coordinator from the State with full time effort during this phase of implementation to coordinate the design of use cases, review of test results and meeting with the Wipro/IBM Team UAT staff for walkthroughs and define any re-test scenarios required.

Systems Integration Testing

Systems integration testing requires consultation from the State with respect to validation support and coordination with external systems to validate requirements, integration strategies and integration testing activities.

Maintenance and Ongoing Operations

Maintenance and Ongoing Operations activities requires support from the State to validate best practices for client reporting and oversight, scheduling, change and event management processes. The time commitment is expected to be less than 10% during DDI and less than 10% during ongoing operations and maintenance.

Shannon Glasscock, Project Manager

Employer History

2010 – Present Wipro Limited, Oregon
Senior Solutions Architect

Assignment History

05/2010 – Present Missouri Medicaid
Acting IT Program Director

- Leads enterprise solution design teams for the provider and payor healthcare market
- Architects enterprise level solutions to meet the needs of state and local governments, as well as commercial entities
- Acts as interim IT Director for Wipro's contract for the Missouri Medicaid project providing direction and accountability for all aspects of Missouri MMIS IT organization including successful delivery and regulatory compliance

Professional Experience Prior to Wipro Limited

04/2009 – 04/2010 Salem Tech Solutions
Project Manager
Oregon Department of Human Services

- Managed the team to create web-based food benefits, medical and TANF enrollment applications and a complementary caseworker application processing tool
- Developed overall custom development program projects sequence (scheduled with multiple iterations over several years) and obtaining approval from Program Executives
- Created individual project plans and schedules for each iteration including detailed WBS and task sequencing and effort estimating
- Created and maintaining and integrated project schedule
- Provided dashboard reporting and communicating project status at regularly scheduled district, working and executive steering committee meetings
- Leading project team daily standup meetings and weekly project status meetings
- Conducting lessons learned for the implementation of the first iteration to establish a baseline for continuous improvement
- Assisting the program manager by interviewing and selecting permanent key staff and their reports
- Served as acting Business Analysis Manager, Test Manager, co-Business Transition manager at various stages in the project as the team was being deconstructed and reconstructed due to a previous unsuccessful attempt to initiate the program

08/2005 – 04/2009 Oregon E-Government Program
Account Executive
Oregon Department of Human Services

- Managed contract to provide centralized E-government services to the State of Oregon agencies, boards and commissions
- Responsible for profit and loss (P&L), customer satisfaction, employee performance management and growing new business with client

08/2001 – 08/2009 EDS
Technical Delivery Manager
Oregon Department of Human Services

- Built and managed a team of software developers supporting the Oregon Department of Human Services Medicaid Management Information Systems application; focused on supporting Claims Processing (mainframe) and Eligibility (Web) Systems
- Oversaw the conversation and/or implementation efforts for several Health Insurance Portability and Accountability Act (HIPAA) transactions and National Council for Prescription Drug Programs (NCPDP) transaction set related to the MMIS proper and to various public health program that were being integrated into the MMIS

10/1998 – 08/2001 EDS
Systems Manager
Mississippi Title XIX

- Managed a team of up to 60 staff including mainframe and web developers, business analysts, and operations support staff
- Responsible for enhancing and maintaining the Medicaid Management Information System for on behalf of the Mississippi Division of Medicaid

08/1994 – 03/1997 EDS
Technical Supervisor
California Medicaid

- Managed a team of up to 17 developers responsible for enhancing and maintaining the California MMIS Claims and Financial subsystems
- Responsible for creating the first web-based system for the MMIS(enrollment and eligibility verification for a state-only program that was integrated with the MMIS)
- Implemented enhancements to the MMIS to support federal and state mandates

02/1989 – 07/1994 EDS
Systems Engineer
California MMIS

- Supported the Claims team with front end, claims adjudication, adjustments, and appeals
- Responsible for enhancing and maintaining multiple subsystems

Education and Background

- BS, Computer Information Systems and Business (Double Major), University of Puget Sound, Tacoma, Washington
- MS, MBA (concentration in Management Information Science), California State University, Sacramento, California

How State Recommendation(s) for Position is Met

Shannon has 25 years of experience providing services to public sector clients. Clients include State of California Department of Health Care Services (various technical and management roles with MMIS Fiscal Agent), State of Mississippi Division of Medicaid (Systems Manager for the MMIS Fiscal Agent), State of Oregon Department of Human Services (Project Management Contractor for Integrated Eligibility custom development project), and State of Oregon Department of Administrative Services (E-government Services Account Manager).

Experience with Proposed Software

- Multiple sales engagements with Cúram since 2006
- Onsite training with Cúram application supported by 25 years of industry and technical experience

Experience Relevant to Proposed Role

Proven experience with Consulting, Project Administration, and Technical Assistance for Commercial or State Government Eligibility Solutions for at least 2 of the last 4 years

Pre-sales solution development for multiple states and programs including State of South Carolina (MMIS), State of New Mexico (MMIS), State of Missouri (Integrated Eligibility)

Experience in the design, development, testing, and implementation of Medicaid or Commercial eligibility system

Project Manager for the development of an integrated eligibility application (Medicaid, SNAP, TANF, and Employee-Related Day Care)

Public Sector Experience

Twenty-five years of public sector experience as described above.

Other Relevant Experience

Not applicable

Alex Livesey, Technical Architect Lead

Employer History

2005 – Present IBM Corporation - Poughkeepsie, New York
Technical Project Manager

Alex is a Cúram Certified Developer (CCD), a Cúram Certified Professional (CCP), and a Project Management Professional (PMP) with over 15 years of experience in building JEE applications including 9 years of working with the Cúram platform. Alex has worked extensively on projects involving case management and eligibility in the social services arena most recently in Affordable Care Act implementations. He has participated in the full software development life cycle of both public-facing and internal Cúram implementations with roles in both hands-on development and project management. He is an experienced applications developer with proven skills in architecture, coding and design and he has an extensive background in developing robust user interfaces for the Web in multiple languages. He has implemented multiple applications that use Web Services to transfer and expose data.

Assignment History

04/2012 – Present Maryland Health Insurance Exchange
Cúram Technical Architect

Maryland is one of the first states to implement a health insurance exchange as required by the Patient Protection and Affordable Care Act. The project uses Cúram's Health Care Reform software to allow citizens to screen and apply for Insurance Affordability Programs and streamlined Medicaid and to shop for insurance plans.

- Project planning including resourcing, scheduling and process definition
- Lead the development of all Cúram customizations and configurations
- Technical design of the internal and external components of the exchange
- Design and development of Cúram's interaction with other systems, including the Federal Data Hub and the insurance carrier portal, using web services and messaging services
- Refinement and elaboration of the non-functional requirements
- System architecture including hardware and software specifications
- Implement a single sign-on solution for communications across systems
- Analyze evolving federal and state requirements to integrate into solution
- Work with stakeholders and the systems integrator to create effective project deliverables including requirements and design documentation

10/2009 – 03/2012 New Jersey Consolidated Assistance Support System (CASS)
Technical Architect and Technical Team Lead

The CASS project uses the Cúram platform to unite the systems used by the Department of Human Services and the Division of Family Development, including Medicaid, Food Stamps, TANF, and Child Care. As Technical Architect for the Cúram component of the project had ownership of 22 separate technical designs including Intake, Eligibility, Online Screening, Case Management,

Provider Management and Financial Management. Responsible for designing the communication management component, which includes the integration with HP's Exstream product for PDF generation.

- Development team lead for all Medicaid rules development, which encompassed 32 different programs including CHIP, LIFC, Long Term Care and Aged, Blind and Disabled.
- Designed the Cúram Organization and Security structures
- Designed the customizations of the Cúram assessment scripts which collect data from clients in order to determine eligibility for benefits
- Designed and developed modules for Medicaid Presumptive Eligibility and Managed Care
- Technical representative at requirements validation sessions
- Assisted in the integration of Cúram with 30 systems including EBT and external eligibility systems
- Responsible for hardware and software configurations, including Requisite Pro, Oracle and Web Sphere
- Performed gap analysis to compare Cúram's functionality with over 1400 CASS requirements

From 04/2009 – 09/2009 Indiana Integrated Case Management System
Technical Lead

The Integrated Case Management System (ICMS) project supports the business processes of three agencies. The system uses the Cúram platform to implement Service Planning, Workflow, Provider Management, Intake, Eligibility, Financials and Communications as well as other case management functionality. Responsibilities included deploying the Cúram application and database and supporting the configuration of WebSphere and Oracle, requirements gathering, and creating and documenting an approach for migrating data from multiple legacy systems into Cúram

04/2008 – 04/2009 New York City HHS-Connect
Senior Technical Consultant, Technical Team Lead

Technical team lead for multiple initiatives that were built simultaneously as part of New York City's HHS-Connect project. Led the development of the first release of Worker Portal project in late 2008 and the ongoing development of the Client Portal project.

08/2005 – 04/2008 New York City ACCESS NYC
Senior Technical Consultant, Technical Team Lead
08/2005 – 01/2007 Technical Consultant

Alex worked with the project's system integrator, to provide a public-facing screening tool that will allow residents to determine their eligibility for 35 social service programs including Food Stamps, Medicaid, Child Care, Healthy NY, School Meals, Disabled Homeowner's Exemption and Head Start, along with many others.

Education and Background

- Bachelor of Science, Business Administration, Indiana University

How State Recommendation(s) for Position is Met

- Alex has extensive experience working with the MAGI and non-MAGI requirements for Medicaid implementations in both New Jersey and Maryland.
- Alex has over 10 years of experience with web-based, solution design, development, implementation and governance lifecycle experience. Most of his recent work had been done with the Cúram platform.
- Alex has performed as the Technical Architecture Lead for both the Maryland Health Insurance Exchange and New Jersey Consolidated Assistance Support System engagements, demonstrating his ability to perform this role on engagements of similar size and scope to the State of Nebraska EES Project.
- Alex's experience with the Cúram platform to design and develop and EES has been demonstrated through his last several engagements, including roles at the Maryland Health Insurance Exchange and New Jersey Consolidated Assistance Support System.
- Alex has spent the last 13 years working with healthcare, health and human services, and social services organizations in a variety of roles.

Experience with Proposed Software

Alex is a Cúram Certified Developer (CCD), a Cúram Certified Professional (CCP) and a Project Management Professional (PMP) with over 10 years of experience in building JEE applications including over 8 years of working with the Cúram platform. The Cúram certifications are for both technical and business analyst/functional roles.

Experience Relevant to Proposed Role

Proven experience with Consulting, Project Administration, and Technical Assistance for Commercial or State Government Eligibility Solutions for at least 2 of the last 4 years

Alex has worked extensively on projects involving case management and eligibility in the social services arena most recently in Affordable Care Act implementations.

Alex has nine consecutive years of working with government eligibility solutions using Cúram.

Experience in the design, development, testing, and implementation of Medicaid or Commercial eligibility system

Alex has served as the technical architect and technical lead for the implementation of Medicaid eligibility systems in Maryland, New Jersey, and New York City. In these roles, he has been responsible for the total solution development and end to end oversight of new or upgraded Medicaid eligibility systems.

Alex has five consecutive years of experience working in the design, development, testing and implementation of Medicaid eligibility systems in Indiana, New Jersey, and Maryland.

Public Sector Experience

Alex's public sector experience includes working with the states of Maryland and New Jersey over the last five years, as well as extensive experience with other state and local government agencies, including New York City and the State of Indiana.

Anantkumar Kamalakar, Test Lead

Employer History

1999 – Present Wipro Technologies
Senior Test Manager

Anantkumar has more than 13 years testing experience across multiple industry verticals such as, healthcare and pharmaceutical, finance, telecom, energy and utilities. He brings strong experience of test strategy creation, test plan development and test execution across multiple testing tracks, such as functional testing, system testing, integration testing, performance testing, regression testing and usability testing. His diverse experience on testing projects varies from mainframe based custom applications, windows based legacy application such as Lotus Notes to COTS testing of Oracle products.

Assignment History

09/2013 – Present Lane Bryant and Catherine's Plus
Senior Test Manager

Testing of legacy migration project. Creation of test strategy, test plan and test scenarios for migration of retail merchandising systems from mainframe to COTS products Oracle Retail Merchandising System and Oracle Retail Trade Management. Data migration and data load testing from legacy system to new COTS application.

04/2011 – 08/2013 Novartis Pharmaceutical, New Jersey
Senior Test Manager

Creation of test strategy, Test Plan, test environment and test data set-up for migration of Lotus Notes to SharePoint. Tracking and monitoring quality of testing deliverables for functional, usability, integration, compatibility, security and performance testing.

01/2010 – 03/2011 SSENG (APAC Migrations)
Scrum Master/Test Manager

Managing testing of project executed in agile methodology. Planning for testing in each sprint and managing testing risks on project to ensure delivery schedule adherence. Created user acceptance test plan and supported user acceptance testing on agile methodology.

01/2009 – 03/2011 Tokyo Stock Exchange, Tokyo
Test Manager

Managed the onsite QA team testing activities for functional and regression testing deliverables. Responsibilities included, creating test strategy, test plan and test cases for functional testing and system testing. Created testing status dashboard for tracking and reporting on progress and quality of testing.

Education and Background

- Bachelor of Engineering (Electronics and Communication) from Gulbarga University, Gulbarga

How State Recommendation(s) for Position is Met

Anantkumar has strong experience in creating test strategy and test plan for legacy migration projects. He has managed testing for two large mainframe to COTS product migration of IT application. He has managed functional, operational and performance testing of web-based SharePoint application migration from legacy Lotus Notes.

Experience with Proposed Software

Anantkumar has experience in using testing tools for functional, system, performance and automation testing proposed for EES project.

Experience Relevant to Proposed Role

Proven experience with Consulting, Project Administration, and Technical Assistance for Commercial or State Government Eligibility Solutions for at least 2 of the last 4 years

Anantkumar has managed two large legacy migration projects, which involved migration of mainframe based application functionality to COTS product and migration of Lotus Notes application to SharePoint based web application.

Experience in the design, development, testing, and implementation of Medicaid or Commercial eligibility system

None

Public Sector Experience

None

Other Relevant Experience

Regression and functional testing of mission critical telecom systems.

Shashidhar Krishnamuthy, Data Conversion Lead

Employer History

12/2004 – Present Wipro Technologies Ltd.
Technical Architect

Shashidhar has more than 10 years of IT experience in enterprise data warehousing, system migration, data migration, data modeling, and business intelligence projects for Health and Life Science's manufacturing and energy domains. He possesses extensive experience on IBM InfoSphere Suite, and the SQLServer, Oracle, Teradata, Hive, and DB2 databases. His experience includes working as an IBM Information Server Administrator utilizing user administration and project administration.

Assignment History

05/2013 – Present Cardinal Health, Dublin, OH
Data Analyst

- Reverse Engineering (extract the transformation mappings) of Invoice Line Teradata Warehouse from IBM InfoSphere DataStage 8.1 Jobs
- Create Metadata Transformations for Ongoing and Historical Business Flow into Hadoop
- Document the work tables logic from DataStage to Hadoop Logic and Walkthrough, and ETL Mappings from DataStage for Invoice Line
- Data modeling for shared services using Power Designer for Pharma
- Designed digital marketing SUB, BUS Layer and generated Hive DDLs, and tested and delivered defect free DDL scripts
- Created test cases for data migration of invoice data from Teradata into Hadoop

07/2012 – 05/2013 Vantiv, Cincinnati, OH
Information Architect

- Designing, developing, and reviewing DataStage and BO implementations
- Requirement analysis for new enhancements; investigating problems and analyzing impact of changes; work allocation; status reporting and bug triage meetings; deployment of new enhancements
- EDW sizing; DataStage job design; development, testing, and implementation for EDW data mart
- Involved in mapping multiple data sources to a single target database by analyzing the business requirements
- Worked on QualityStage; standardize and match stages; writing rule sets
- Worked as IBM Information Server Administrator 8.5 creating users, assigning roles in Web Console, configure database connectivity, bouncing DataStage Server, changing settings in DSENV file, editing parallel job configuration files
- Implementing Configuration Management using ClearCase, Teradata Connector, and Oracle Connector stages

01/2008 – 07/2012 Pitney Bowes Inc., USA, EAME

- DataStage Architect
  - Fool Proof Technical Architecture and Design of ODS CRM migration of Oracle RDP to DataStage 8.1 on SMP architecture
  - Logical and physical data modeling of EDW for Star Schema Design in ERWIN
  - DDL script generation from ERWIN and deployment in Dev/UAT/Prod EDW database
  - Automation of production data migration; full load in DataStage
  - Automated job scheduling of ODS and leasing DataStage job using shell scripts and Oracle
  - Automation of Canada Calendar Implementation for job scheduling using shell scripts
  - Developed re-usable shell scripts for FTP, archiving, and validation of ODS flat files
  - Purging of historical data using PLSQL script
  - Implementation of auditing using DataStage routines
  - DataStage project migration to UAT and production DataStage
  - Environment and data warehouse sizing and storage estimation
- Technical Lead
  - Design and development of DataStage server, parallel and sequence jobs and shell scripts for real-time data warehouse using Netezza, stored procedures, and DataStage 8.1
  - Requirements gathering and effort estimation for 12 countries
  - Extensively implemented stages such as XML Input, Sequential File, Dataset, Lookup Stage, ORACLE Stage, Aggregator, Transformer, Copy, Merge, Join, Filter, Column Generator, Funnel, Peek, Change
  - Capture, Change Apply Stage, and several other stages for developing parallel jobs
  - Worked on assessment and DataStage Migration 8.1 to 8.5
  - Used Environment Variables, Stage Variables, and Routines for developing parameter driven jobs
  - Involved in designing source to target mappings between sources to operational staging targets
  - Implemented logic for slowly changing dimensions
  - Logical and physical data modeling of EDW Dimension and Fact Tables using ERWIN, DDL Script generation via ERWIN, and Deployment in Dev/UAT/Prod EDW data warehouse
  - Review of data stage jobs and documents and closing the comments
  - Performance tuning of ETL load execution time for XML parent child validation
  - Contribution to re-architecture of Connect+ accounting system
  - Transition to ADM Team for Country Wise Delivery
  - Utilized DataStage Director to run and monitor the jobs performed, automation of job control using batch logic to execute and schedule various DataStage jobs
  - Implemented the multi language support for Connect Plus system using DataStage, Oracle
  - Development of EDW Historical Data Purging PLSQL scripts

- Developed reusable SSIS packages to analyze daily load execution time reporting of Source System to OLAP Database
- Disaster recovery documentation for US Aix Servers
- Implemented IBM QualityStage Standardize stage for standardization of customer dimension data
- Oracle Partition Techniques for Oracle 10g Fact Table Partition

12/2004 – 12/2007 Shell Global Solutions, NL, UK
Application Consultant

Education and Background

- Bachelors of Engineering, Amrita University
- IBM Certified Solution Developer – InfoSphere DataStage v8.1, v8.5
- IBM Certified Information Server Administration 9.1
- Oracle Certified Expert, Oracle Database 11g SQL Tuning
- Wipro Certified Data Integration Design 4.1

How State Recommendation(s) for Position is Met

Shashidhar has been involved in large scale data migration projects at Cardinal Health, involving data related to pharmacy distribution.

Experience with Proposed Software

Shashidhar has used IBM Infosphere data stage extensively in his past projects.

Experience Relevant to Proposed Role

Proven experience with Consulting, Project Administration, and Technical Assistance for Commercial or State Government Eligibility Solutions for at least 2 of the last 4 years

Large scale data migration using similar tools as proposed for EES project.

Experience in the design, development, testing, and implementation of Medicaid or Commercial eligibility system

None

Public Sector Experience

None

Other Relevant Experience

Data migration experience on IBM platforms.

Dharmendra Kumar Nagabhiru, Integration Lead

Employer History

2000 – Present Wipro Technologies, Dublin
Senior Architect

More than 15 years of experience in IT including application architecture design, development, implementation, consulting, and administering on EAI, SOA, ESB, web services, client-server and Web applications in areas such as retail, telecom, mobile platforms, education, manufacturing, oil and gas plants, human resources, knowledge management, and business portals

Assignment History

02/2013 – Present Cardinal Health, Dublin, USA
Senior Architect

- Participated in requirements capture meetings with the business and various functional groups
- Provided architectural, technical, and functional expertise during any solution discussions
- Identified various integration solution options considering both functional and non-functional requirements and developed architectural approach/analysis/recommendation document and quality of service requirements document for the selected options and presented to the project workgroups and management

01/2012 – 12/2013 Lowes, Mooresville, USA
Senior Architect

- Defined the overall architecture framework for the IBM DataPower and its integration scenarios considering deferent kind of design patterns, protocols, data formats, and communication mechanisms with other applications and components
- Enforced best practices by implementing design patterns and integration scenarios in line with the Enterprise Architecture Strategy and Vision
- Designed solutions using Data Power components like WS-proxies, Multi Protocol Gateway, XML firewall , Web application firewall, SSL Proxy, AAA Policy and protocol like HTTPS/HTTP, MQ, TCP/IP, ODBC and Data formats like SOAP XML, Binary, fixed width and HTTP Get, REST and Database
- Designed integrations with legacy mainframe applications, enterprise applications (Sterling order management, PeopleSoft, Tax), Ecommerce Web application (Lowes.com) and implemented gateways to integrate with external vendors in a secured connection for processing payments, coupons, employee benefits, shipment and delivery.
- Provided architectural guidance, assessment, configuration steps, and engineering duties
- Developed best practices and standards to be followed during the implementation

10/2008 – 12/2011 Verizon Wireless, Atlanta, USA
Architect

- Participated in requirements capture meetings with the business and various ACI-IT groups

- Provide architectural and technical expertise during solution discussions
- Create architectural approach/analysis and QOS documents for the selected solution options
- Created system design, functional design, and technical design documents
- Defined the overall architecture framework for IBM DataPower, WBICS, and its integration scenarios considering different kind of design patterns and communication mechanisms
- Designed solutions using DataPower components like WS-proxies, Multi Protocol Gateway, XML firewall , SSL Proxy, AAA Policy, and protocol like HTTPS/HTTP, MQ, TCP/IP, ODBC, and data formats like SOAP XML, and Database
- Reviewed developer deliverables checking for quality and conformance to standards; notified developers of any quality or non-compliance issues
- Serve as architectural, functional, technical solution liaison for business and various ACI-IT groups

01/2005 – 01/2007 Alltel Communications, Atlanta, USA
Technical Lead/Architect

- System study, requirement and functional analysis, design, coding, testing, system administration, team management, communication, and coordination
- Designed Business objects and created ASBOs and GBOs using Business object designer
- Developed maps that convert data from the ASBO GBO format
- Created the collaboration template includes scenario and its activity diagram
- Created a collaboration object from the collaboration template
- Installation and Configuration of WICS, DB2, MQSeries, JDBC connector and Jtext connector
- Configured the data handlers required to convert between external formats

11/15/04 – 01/2005 Ispat Industries Ltd., India
Consultant
Internet and KM Portals

08/2003 – 09/2004 Petronas, Malaysia
Project Lead
CME for Melaka Refineray (EAI Project)

04/2003 – 06/2004 Dubai Government, Dubai
Project Lead
TECOM (Technology Electronic)

04/2000 – 04/2003 India
Module/Project Lead
B2B, B2E, B2C, Education, Project Management Portals,

07/1998 – 03-2000 India
Developer/Module Lead
Client Server Application Development/Tool Development

Education and Background

- Master of Computer Applications (MCA), India, 1998

How State Recommendation(s) for Position is Met

Dharmendra has knowledge on integration architecture to define and design the integration services, service reusability, and implementation of service in the technology selected for integration namely IBM Integration Bus (IIB), WSRR. The candidate is well versed with integration patterns and wide variety of implementation experience in integrating various A2A, B2B integration which makes him suitable for the role.

Experience with Proposed Software

The candidate has overall 15+ years of experience in architecting, designing, implementing the integration solution and has more than 7+ years of experience in IBM Message Broker (which is now known as IBM integration Bus), WSRR, B2B, and B2C type integration.

Experience Relevant to Proposed Role

Proven experience with Consulting, Project Administration, and Technical Assistance for Commercial or State Government Eligibility Solutions for at least 2 of the last 4 years

15+ years of experience with multiple commercial solution implementations for various Fortune 500 companies

Experience in the design, development, testing, and implementation of Medicaid or Commercial eligibility system

In depth experience in executing projects across all phases of Software Development Life Cycle with capacity of developer to senior developer, tech lead, architect and senior architect. Although the candidate does not have experience in Medicaid or commercial eligibility system implementation, but with wide range of experience in his career he is suitable for the role of integration architect for Nebraska Medicaid solution.

Public Sector Experience

Dharmendra has more than a year of public sector experience with Dubai Government, Dubai

Other Relevant Experience

Dharmendra has 14+ years of private sector experience.

Barbara Martz, Eligibility Policy SME

Employer History

08/2010 – Present IBM Corporation - Salt Lake City, Utah
Senior Business Consultant

Barbara Martz is a Senior Business Consultant within IBM Cúram Lab Services and a certified Cúram V6 professional. She has more than 30 years experience in health and human services.

Assignment History

02/2012 – Present State of North Carolina
Senior Business Consultant

The NC FAST project is state wide integrated income support system using Cúram's Global Income Support software which determines eligibility and benefits for Food Assistance, Cash Assistance, Traditional and Streamlined Medicaid, Children's Health Insurance Plans, and several state specific programs. Roles and responsibilities include:

- As lead business consultant for Medical Assistance design and implementation, providing Cúram support to policy specialists, analysts, developers, testers and trainers.
- Consulting with NC FAST project staff implementing Cúram for Health Care Reform software to meet the requirements of the Patient Protection and Affordable Care Act.
- Working closely with Cúram product development teams to modify out-of-the-box offerings to meet new NC FAST and federal requirements.
- Developing job aids to introduce and assist project staff in the use of the Cúram v6 online system.

11/2012 – 01/2013 Clark County, Nevada, Department of Social Services
Senior Business Consultant

The ACES project was a customization of Cúram software to provide a modern, comprehensive IT system to support eight assistance programs – financial and medical –for emergency and short term assistance to people in Clark County, Nevada. Roles and responsibilities included:

- Completing the business design for several emergency assistance programs using Cúram v6 software.
- Working closely with policy specialists to design user interface screens.
- Facilitating requirements sessions with Clark County Social Services staff to ensure that business designs met their needs.

05/2011 – 10/2012 Multiple North American Government Organizations
Product Consultant

During this period, Barbara assisted Cúram Sales with proposals and software presentations, focusing on the business functionality of Income Support (TANF, SNAP, Medicaid and CHIP), Citizen Self Service, Outcome Management, and Child Services. Roles and responsibilities included:

- Assisting with project proposals for several States' eligibility system RFPs

- Fit-gap analysis
- Written description of Cúram v.6 solution content and capability
- Analysis of Cúram for Medical Assistance MITA maturity level
- Providing product demonstrations of Cúram v.6 business functionality
  - Income support end-to-end demonstration from citizen online application to benefit issuance
  - Outcome Management demonstration including assessment, service planning and outcome evaluation
  - Citizen self-service demonstration of screening for need, screening for eligibility, online application and change reporting functionality

12/2010 – 04/2011 Ontario, Canada - Ministry of Community and Social Service – DSCIS
Senior Business Consultant

The DSCIS project was a customization of Cúram software to provide a modern, comprehensive IT system to support case management activities and service delivery to Ontario's adults with developmental disabilities. Roles and responsibilities included:

- Completing the business design for multiple screens to record results of needs assessment.
- Working closely with developers to construct and test the screens.
- Facilitated requirements sessions with Ontario ministry staff to ensure that screen design met ministry needs.

Professional Experience Prior to Cúram Software

12/2006 – 04/2010 TASH Networking
Lead Business Analyst
Data Conversion for Utah State eREP Project

Barbara was the lead analyst for data conversion from Utah State's public assistance legacy system (PACMIS) to eREP. She also served as a business analyst for adult Medicaid programs and federal interfaces (SDX, BENDEX, Buy In, SOLQ) for the Cúram based eREP project.

09/2002 – 11/2006 State of Utah Department of Technology Services
Project Manager
Utah State's Public Assistance Management Information System

Barbara managed the IT team responsible for the maintenance and enhancement of Utah State's PACMIS project which determines eligibility and provides benefits for TANF, Food Stamp, Child Care, Medicaid and state medical and income maintenance programs.

01/1990 – 08/2002 State of Utah Department of Workforce Services
Lead Information Analyst
Utah PACMIS System

Barbara was the lead business analyst for PACMIS, Utah's income maintenance system.

09/1974 – 12/1989 State of Utah Assistance Payments Administration
Eligibility Processing Coordinator

Barbara began her career with Utah as an eligibility worker and was soon promoted to the supervisory position of a team of twelve eligibility workers. Her team was responsible for eligibility and issuance of 1500 financial, medical and food stamp assistance cases. Barbara initiated computer system enhancements to benefit agency operations for income maintenance programs.

Education and Background

- M.A. Public Administration, University of Utah, June 1999
- B.A. History, University of California - Irvine, June 1972

How State Recommendation(s) for Position is Met

- Barbara has spent nearly thirty years working with eligibility determination and eligibility programs at the state level, highlighted by her extensive experience with the State of Utah.
- In addition to eligibility determination, Barbara's experience includes work with TANF and SNAP programs, combining the state and federal assisted population coverage into her extensive IT and Social Services work.
- As a Senior Business Consultant for IBM Cúram, Barbara has worked with multiple North American government organizations in the last several years to assess systems and design solutions that meet the changing demands of the space, including such programs as the PPACA and MITA through her present assignment with North Carolina, where she is consulting with NC FAST project staff implementing Cúram for Health Care Reform software to meet the requirements of the Patient Protection and Affordable Care Act.

Experience with Proposed Software

Barbara has over 6 years of experience with Cúram software. This includes three years as a business analyst for Utah's Cúram eREP project. Her Cúram experience includes the ability to perform fit-gap analysis and as well as implementation and migration from legacy systems to the Cúram platform.

Experience Relevant to Proposed Role

Proven experience with Consulting, Project Administration, and Technical Assistance for Commercial or State Government Eligibility Solutions for at least 2 of the last 4 years

For the last four years, Barbara has worked with multiple government organizations across North America in consulting, sales, project leadership, and technical assistance, including various roles in Canadian provincial government organizations, and with the State of Utah.

Experience in the design, development, testing, and implementation of Medicaid or Commercial eligibility system

Barbara's experience includes nearly 30 years of work with eligibility systems and programs. She has extensive experience as a manager and business analyst in all of the State of Nebraska's recommended areas as an expert in eligibility.

Public Sector Experience

As a subject matter expert, Barbara brings nearly 30 years of experience working in and consulting for public sector organizations in North America. Her extensive state and provincial experience has provided her a deep understanding and expertise in eligibility systems and the unique requirements of public sector organizations.

Resume References

In addition, at least three (3) references (name, address, and telephone number) who can attest to the competence and skill level of the individual.

References for each of Wipro/IBM's proposed key personnel are listed in Table III-5: Resume References.

Table III-5: Resume References

Proposed Candidate and Position	Reference 1	Reference 2	Reference 3
Shannon Glasscock, Project Manager	Darin Hackmann MO HealthNet Division 615 Howerton Court P. O. Box 2320 Jefferson City, MO 65102-2320 (573) 751-3221	Donna Martinez California Medicaid 10500 221st Lane NE Unit 202 Redmond, WA 98053-2015	Jerry Stanger 3901 Calverton Boulevard, Suite 110 Calverton, MD 20705 (301) 388-7900
Alex Livesey, Technical Architect Lead	Tom Robinson Application Architect, Indiana FSSA 132 East Washington Street Indianapolis, IN (317) 234-0690	Doug Dolan IT Director, New York City DoIT 15 MetroTech Center Brooklyn NY (212) 232-0922	Alan Karatas Application Development Manager, HP 6000 Irwin Road Mt. Laurel, NJ 08054 (856) 638-6077
Anantkumar Kamalakar, Test Lead	Jayati Ghosh Delivery Head, Wipro Ltd MANIKONDA PHASE 1 , Hyderabad, India Phone: + 914030794534	Srinath Nittur Gopalakrishna Rao General Manager, Wipro Ltd. Electronics City, Bangalore, India Phone: +91 8030291266	Srinath Katte Group head, Wipro Ltd. Hinjewadi, Phase 2, Pune India Phone: +912039105194
Shashidhar Krishnamuthy, Data Conversion Lead	Badri Narayanan Delivery Manager, Wipro Ltd. CDC5, ELCOT SEZ, SURVEY NO. 602 / 3, SHOLINGANALLUR - MEDAVAKKAM ROAD, CHENNAI - 600 119 India. Phone: +9144 8482042	Prasanth Vasanth Pai, Practice Delivery Head, Wipro Ltd, Electronic City, Bangalore, India Phone: +9180 30292040	Mukund Kalmanker General Manager, Wipro Ltd, 2 Tower Center Blvd, suite 2200, East Brunswick, NJ 08816 Phone: +1 732 331 6313
Dharmendra Kumar Nagabhiru, Integration Lead	Sachin Huddar 7000 Cardinal Place Dublin, OH 43017 (614) 589-2803	Muralidhar Mukkala 7001 Old Bridge Lane West Dublin, OH 43016 (614) 441-7250	Manoj Pacha 3007 Dublin Arbor Lane Dublin, OH 43017 (614) 822-9120

Proposed Candidate and Position	Reference 1	Reference 2	Reference 3
Barbara Martz, Eligibility Policy SME	David Moffitt Manager, Utah Department of Workforce Services 1400 East 300 South Salt Lake City, Utah 84111 (801) 514-0215	Judith Kardrmas Retired 2409 Madison Square Drive South Fargo, ND 58104 (701) 226-0145	Maury Girard Principal Business Consultant, IBM Corporation 3274 National Drive Raleigh, NC 27612 (404) 274-9543

J. SUBCONTRACTORS

Wipro/IBM will be comprised of prime contractor Wipro LTD. and subcontractor International Business Machines Corporation (IBM). The team brings proven Eligibility Software Solutions, experience in State and Local Government, Medicaid and complex integration project expertise to successfully meet the State's business needs. Having partnered successfully with IBM, Wipro is one of only a few IBM Premier Global Systems Integrators. Wipro and IBM enjoy a 20 plus year relationship and history of partnering to deliver exceptional capabilities and value for customers across multiple practice areas including hardware and software deployment and enterprise integration.

Provided below is information pertaining to the subcontractor firms for this engagement:

Table III-6: IBM Contact Information

Subcontractor Contact Information	
IBM Headquarters IBM Corporation 1 New Orchard Road Armonk, NY, 10504-1722	IBM Nebraska Contact John Marteney IBM Corp. Client Executive – State of Nebraska 6825 South 27th Street Lincoln, NE, 68516 Office number: 1-316-207-5048 jdmarteney@us.ibm.com

Specific Tasks for Each Subcontractor

As a Wipro/IBM team member, IBM will support the project to construct a modern COTS-based Eligibility and Enrollment Solution that meets the State's requirements and the CMS Seven Standards and Conditions.

IBM will provide expert support and collaboration as a full partner with Wipro in all phases of the construction and deployment of ***SmartPro MedEE*** solution using the IBM Cúram as the base. Table III-7 details the staffing levels for the Wipro/IBM team in each phase, indicating the size of each projection function relative to its maximum team size during each phase of the project.

Table III-7: Staffing Levels as Percentage of Full Sub-Team Hours by Phase

	Planning	Design	Development	Testing	Deployment	Warranty
Management Oversight						
Cúram Solution Development						
Organizational Change						
Training Development						

Wipro/IBM estimates IBM supporting the delivery of the project in the following key task groupings:

Executive Oversight and Project Management

Percentage of Hours Estimate: Wipro/IBM estimates that the project management office functions performed by IBM will require 11.58% of subcontracted performance hours to undertake and complete.

As part of Wipro/IBM, IBM will provide and actively participate in project leadership and management to assist in the governance of the project and support the efforts across the team. This effort is expected to occur across all phases of the program, from the planning phase through deployment in order to support the effective and functional delivery of the Cúram solution for the State of Nebraska.

Design

Percentage of Hours Estimate: Wipro/IBM estimates that the design tasks performed by IBM will comprise 16.10% of subcontracted performance hours to undertake and complete.

IBM will provide personnel to support the requirements analysis phase, which includes the core business process reengineering analysis and design, Cúram business rules design, and Cúram configuration components. The design phase and the personnel associated with the activities in this phase will include conducting extensive requirement analysis with subject matter experts and other key stakeholders from the State to perform a fit gap against the core functions of the Cúram platform to determine the specific business rules and unique attributes of the State's business environment. Additionally, it is estimated that IBM technical specialists, including the Cúram Architect, will support technical analysis to better understand the State's IT environment and requirements to support the Cúram-based solution.

Development

Percentage of Hours Estimate: Wipro/IBM estimates that the development tasks performed by IBM will comprise of 49.27% of subcontracted performance hours to undertake and complete

The largest component of the project will be the technical development of the solution. Tasks associated with this phase include development and coding, security testing, unit testing, interface development from both the Cúram and Master Data Warehouse (MDW) sides, and any custom developments associated with the solution design to support the State's requirements. This phase leverages the business process reengineering study and stakeholder input to effectively build a solution specific to the State's goals for business operations and its business environment.

Organizational Change Management

Percentage of Hours Estimate: Wipro/IBM estimates that the organizational change management tasks performed by IBM will comprise of 8.72% of subcontracted performance hours to undertake and complete

IBM will provide support to the State for organizational change management tasks including the development and facilitation of communications that support change around business processes, technologies, and business rules associated with a new Eligibility and Enrollment Solution. This may also include working with key stakeholders to establish change materials provided to external stakeholders that interface with the system, or are impacted as a result of the upgrade to a modern Eligibility and Enrollment Solution.

Training

Percentage of Hours Estimate: Wipro/IBM estimates that the training tasks performed by IBM will comprise of 14.34% of subcontracted performance hours to undertake and complete.

IBM is estimated to provide support to the project team and the State in the areas of development and facilitation of training, including the delivery of modules associated with system changes and new business processes.

Percentage Of Performance Hours Intended For Each Subcontractor

As the sole subcontractor for Wipro/IBM, IBM personnel will contribute 35-40% of performance hours associated with the contract. IBM personnel will both lead and support key project activities as members of Wipro/IBM. We estimate the tasks associated with the components as listed above will require 45k plus hours to complete.

Total Percentage Of Subcontractor Performance Hours

As the sole subcontractor and partner on Wipro/IBM, all subcontractor hours are associated with IBM. IBM will provide resources to support and/or lead certain functions and task throughout the

life cycle of the project. We estimate the IBM resource staff-contributions to the project represents 10% to 15% of the total number of hours projected in our work plan. IBMs contributions to this project are more than the distribution of hours in the work plan. IBM staff hour contributions are packaged within hardware and software product deployment and implementation, which are not reflected in hours calculations.



Proposal to Provide Nebraska Medicaid Eligibility and Enrollment Solution

Prepared for:

State of Nebraska Administrative Services
Material Division Purchasing Bureau

Submitted in Response to RFP: 4544Z1
January 21, 2014

Prepared by: Wipro LLC

– ORIGINAL –

Technical Proposal Volume 2 of 3
(TECHNICAL APPROACH)

WIPRO
Applying Thought

Table of Contents

Table of Contents

Table of Contents i
List of Figures v
List of Tables xi
List of Exhibits and Samples xiii
I. Proposal Forms I-1
II. Executive Summary II-1
III. Corporate Overview III-1
A. Bidder Identification and Information III-1
B. Financial Statements III-1
C. Change of Ownership III-3
D. Office Location III-4
E. Relationships with The State III-4
F. Bidder's Employee Relationships to the State III-5
G. Contract Performance III-5
H. Summary of Bidder's Corporate Experience III-6
1. Wipro Corporate Experience III-6
2. IBM Corporate Experience III-7
I. Summary of Bidder's Proposed Personnel/ Management Approach III-13
1. Key Staff Resumes and References III-14
2. State of Nebraska Staffing III-18
J. Subcontractors III-43
IV. Technical Approach IV-1
A. Understanding of the Project Requirements IV-1
B. Proposed Development Approach IV-9
i. Functional Requirements IV-15
ii. Non-Functional Requirements IV-111
1. Key Assumptions IV-111
2. Proposal Requirements IV-111
a. Architecture and Policy IV-111
b. System Administration and Support IV-119
c. System Security and Disaster Recovery IV-144
d. System Performance, Availability and Capacity IV-153
e. Technical Components IV-164
f. Software and Hardware Components IV-186
g. Environmental Installation and Configuration IV-194
h. Design, Development and Customization IV-198
i. Deployment IV-198
iii Requirements Traceability Matrix IV-201
a. Functional RTM – Appendix B IV-203
b. Non-Functional RTM – Appendix C IV-205
c. Requirements Gap Analysis – Appendix D IV-207
iv. Project Planning and Management IV-209

1. Project Management Plan IV-209
2. Scope Management IV-216
3. Requirements Traceability and Management IV-220
4. Issue Resolution Management IV-225
5. Risk Management and Resolution IV-228
6. Configuration Management IV-232
7. Project Performance Management IV-240
8. Communications Management IV-246
9. System Development Life Cycle (SDLC) IV-248
10. Project Initiation IV-256
11. Requirements Validation IV-258
12. Business Rules Configuration IV-270
13. System Design IV-274
14. Development IV-280
15. Testing IV-293
16. Data Conversion Task IV-336
17. Operational Readiness Review Task IV-348

v. Business Process Reengineering IV-352
vi. Organizational Change Management IV-364
vii. Training IV-379
viii. Knowledge Transfer IV-396
ix. Reporting IV-401
x. Documentation IV-413
xi. Implementation IV-415
xii. Post Implementation Support IV-420

1. System Hosting IV-420
2. Equipment Summary IV-423
3. Network IV-423
4. IT Service Desk IV-425
5. Software Configuration Management IV-429
6. Change and Release Mgmt IV-430
7. Data Retention and Archiving IV-431
8. System Performance Monitoring and Reporting IV-432
9. Compliance with Federal HIPAA, HI-TECH and State of Nebraska Confidentiality Law IV-438
10. Data System Access IV-439
11. Safeguard Publications IV-440
12. Warranty IV-441
13. Software Maintenance and Operations (M&O) IV-443
14. Hosting and Disaster Recovery Services IV-461
15. Development Environments IV-463
16. Production Environment IV-466
17. Disaster Recovery Environments IV-467

xiii. Turnover IV-469
xiv. Service Level Requirements IV-474
xv. Deliverable Approval Process IV-477
xvi. Value Add Options IV-477

C. Technical Considerations IV-480
D. Draft Project Work Plan IV-493
E. Milestones and Deliverables IV-495
Form C-1 Nebraska Milestones & Deliverables IV-495
Form C-2 Milestones and Deliverables Mapping and Schedule IV-499
Form C-3 Milestones & Deliverables Payment Percentage IV-505
F. Personnel Management and Planning IV-507
Exhibits and Samples ..... Exhibits and Samples-1

Page Left Intentionally Blank

List of Figures

Figure II-1: SmartPro MedEE Architecture II-3
Figure III-1: Wipro Financial Statement as of September 2013 ..... III-2
Figure III-2: IBM Annual Report/Audited Financial Statements III-3
Figure IV-1: Gartner's Magic Quadrant for MDM of Customer Data Solutions, October 2012 ..... IV-8
Figure IV-2: MDM Building Blocks IV-8
Figure IV-3: Nebraska's Enterprise-Ready Medicaid Eligibility and Enrollment System IV-10
Figure IV-4: Proposed Production Infrastructure IV-12
Figure IV-5: Processes and Tools Engineered for Rapid, On-Time Delivery: IV-13
Figure IV-6: Sample Self-Service Account Home Page IV-17
Figure IV-7: Sample Services Map IV-18
Figure IV-8: Sample of Collecting Home Relationships Information During Screening IV-19
Figure IV-9: Sample Life Events Page IV-21
Figure IV-10: Sample Online Application Home Page IV-24
Figure IV-11: Healthcare Application IV-25
Figure IV-12: Pre-Registration Person Search IV-32
Figure IV-13: Client Registration Page IV-33
Figure IV-14: Person Home Page View IV-34
Figure IV-15: Cúram Integrated Case Home Page IV-37
Figure IV-16: IBM Cúram Illustration IV-44
Figure IV-17: Common Life Events IV-51
Figure IV-18: Communication Template Examples IV-55
Figure IV-19: Communications Screen IV-56
Figure IV-20: Example External Screen IV-58
Figure IV-21: Integrated Case Home Page IV-61
Figure IV-22: Citizen Context Viewer IV-63
Figure IV-23: Supervisor Workspace Home Page IV-74
Figure IV-24: Sample User Workspace IV-75
Figure IV-25: Sample Case Workspace IV-76
Figure IV-26: Sample Organization Unit Workspace IV-76
Figure IV-27: Sample Unit Workspace IV-77
Figure IV-28 Sample Work Queue Workspace IV-78
Figure IV-29: Hearing Case Home Page IV-81
Figure IV-30: Capturing Appellant and Respondent Details IV-83
Figure IV-31: Creating a Hearing Case IV-84
Figure IV-32: Example Hearing Case Home Page IV-85
Figure IV-33: Reporting Architecture (High Level) IV-87
Figure IV-34: Information Delivery Architecture (Detailed) IV-88
Figure IV-35: Cognos Security Architecture IV-91
Figure IV-36: Example Task Home Page IV-99
Figure IV-37: Workflow Process Home Page IV-101
Figure IV-38: Graphical Representation of a Sample Workflow IV-102
Figure IV-39: Cúram Express Rules Editor IV-104
Figure IV-40: Rate Table Example IV-105

Figure IV-41: Example Page Showing Smart Panel IV-106
Figure IV-42: Sample Case Audit Configuration IV-109
Figure IV-43: Sample Audit Plan for a QC Review IV-110
Figure IV-44: Service Mediation Pattern IV-113
Figure IV-45: Example of Real-Time End-to-End Requirements Management Dashboard IV-117
Figure IV-46: Performance Reporting in Cognos IV-117
Figure IV-47: Common Life Events IV-119
Figure IV-48: Wipro's Ticket Escalation Process IV-124
Figure IV-49: Wipro Security Operations Center Portal IV-127
Figure IV-50: Example Network LAN Design IV-128
Figure IV-51: Logical View of a Typical Customer Network IV-129
Figure IV-52: Wipro WAN Diagram IV-130
Figure IV-53: Effective Dated Version Tracking IV-132
Figure IV-54: Meeting MLTC Requirements IV-156
Figure IV-55: PureApplication Virtual Application Builder IV-157
Figure IV-56: Cúram Architecture Model Describing the Upgrade Protocol. IV-158
Figure IV-57: *SmartPro MedEE* is SOA-Based and Architected for the Enterprise IV-165
Figure IV-58: Nebraska's Eligibility Solution – Cloud-Like, Flexible, Highly Available IV-166
Figure IV-59: Wipro's Missouri Medicaid Operation Utilizes an IBM Enterprise Service Bus IV-167
Figure IV-60: Reporting Architecture (High Level) IV-168
Figure IV-61: Information Delivery Architecture (Detailed) IV-171
Figure IV-62: The CER Editor, with Rules Diagram IV-173
Figure IV-63: The CER Editor, With Decision Table. IV-173
Figure IV-64: The CER Rules Search Function IV-174
Figure IV-65: CER Rule Doc IV-175
Figure IV-66: CER Decision Summary IV-175
Figure IV-67: Rules Trace Output IV-176
Figure IV-68: Rules Trace Output IV-177
Figure IV-69: Test Coverage Report IV-178
Figure IV-70: Network Connectivity IV-192
Figure IV-71: PureApplication Server Deployment IV-193
Figure IV-72: Network Topology IV-194
Figure IV-73: Project Management Methodology Processes IV-210
Figure IV-74: Work Patterns IV-211
Figure IV-75: Tasks and Activities in Delivery of the EES IV-214
Figure IV-76: Program Roadmap Processes IV-219
Figure IV-77: Rational Requirement Composer IV-220
Figure IV-78: Change Management Process IV-221
Figure IV-79: Versioning of a Requirement IV-222
Figure IV-80: Issue Management Procedure IV-227
Figure IV-81: Risk Assessment Matrix IV-229
Figure IV-82: Risk Management Plan Process IV-230
Figure IV-83: Risk Management Process IV-232
Figure IV-84: RTC Change Sets IV-233
Figure IV-85: RTC Streams IV-234
Figure IV-86: Move and Rename Tracking IV-234
Figure IV-87: Configuration Management Process IV-236

Figure IV-88: Change Management Procedure Process....IV-237
Figure IV-89: Release Management Procedure Process....IV-237
Figure IV-90: Overall Organization Structure....IV-239
Figure IV-91: Weekly Status Reporting....IV-240
Figure IV-92: Sample Weekly Status Report....IV-241
Figure IV-93: Sample Dashboard....IV-242
Figure IV-94: PM Tools....IV-243
Figure IV-95: IMP/IMS Planning Approach....IV-244
Figure IV-96: High-level View of Overall Organization Structure....IV-245
Figure IV-97: Sample Escalation Process....IV-247
Figure IV-98: CMS Enterprise Lifecycle (ELC)....IV-248
Figure IV-99: *SmartPro MedEE* Methodology....IV-250
Figure IV-100: Overall Organization Structure....IV-254
Figure IV-101: Stakeholder Collaboration Strategy....IV-259
Figure IV-102: Real-Time Dashboard and Collaboration Capabilities Example....IV-262
Figure IV-103: Sample Interface for Requirements Orientation....IV-267
Figure IV-104: Graphical Relationship of Rational Requirements Composer to Requirements....IV-268
Figure IV-105: CER Rules Editor....IV-271
Figure IV-106: Stages in Deploying Rules using the *SmartPro MedEE* solution....IV-271
Figure IV-107: Configuration Transport Manager Example....IV-273
Figure IV-108: Quality Gates....IV-276
Figure IV-109: Technological Overview....IV-278
Figure IV-110: SDLC Phases....IV-281
Figure IV-111: *SmartPro MedEE* Methodology....IV-282
Figure IV-112: Integration Testing Approach....IV-284
Figure IV-113: Business Process Management Approach....IV-285
Figure IV-114: Test Environment Topology....IV-286
Figure IV-115: SOA Integration Testing Topology....IV-288
Figure IV-116: DeepCheck....IV-293
Figure IV-117: Views of Wipro as a Testing Provider....IV-294
Figure IV-118: Wipro's Testing Methodology....IV-297
Figure IV-119: Integration Testing Approach....IV-298
Figure IV-120: Business Process Testing Phases....IV-299
Figure IV-121: System Testing Topology....IV-300
Figure IV-122: SOA Integration Testing Topology....IV-302
Figure IV-123: System Integration Testing Key Functionalities....IV-303
Figure IV-124: Performance Testing Methodology....IV-306
Figure IV-125: Automation Approach....IV-307
Figure IV-126: Automation Roadmap in Testing Lifecycle....IV-312
Figure IV-127: Establish Traceability Between Requirements and Test Cases....IV-313
Figure IV-128: Associate Test Plan with Existing Requirements....IV-313
Figure IV-129: Parallel Testing Methodology....IV-314
Figure IV-130: Approach to Parallel Testing....IV-315
Figure IV-131: Approach for Data Conversion and Migration....IV-317
Figure IV-132: Testing Organization....IV-320
Figure IV-133: Organizational Structure and Management for Testing....IV-320
Figure IV-134: Joint Methodology of Acceptance Testing....IV-321
Figure IV-135: Ideal V Model....IV-322

Figure IV-136: Bottom Up Approach IV-323
Figure IV-137: Automation Tool Framework IV-324
Figure IV-138: SOA Test Tool Chain IV-325
Figure IV-139: Validation and Verification of Services IV-326
Figure IV-140: Middleware System Test Topology IV-328
Figure IV-141: SOA Integration Testing Topology IV-330
Figure IV-142: Performance Testing Methodology IV-333
Figure IV-143: Connectors of the Overall *SmartPro MedEE* Architecture IV-335
Figure IV-144: Graphical Representation of a Sample Workflow IV-336
Figure IV-145: The *SmartPro MedEE* SOA-Based Solution IV-337
Figure IV-146: Conceptual Data Migration Reference Architecture IV-340
Figure IV-147: Data Cleansing Approaches and Options IV-343
Figure IV-148: Using BPR to Maximize Nebraska's Investment in *SmartPro MedEE* IV-353
Figure IV-149: As-Is Assessment IV-354
Figure IV-150:To-Be Assessment IV-356
Figure IV-151: Gap Analysis IV-359
Figure IV-152: BPR Study IV-361
Figure IV-153: Change Masters Achieved Doubled Project Success Rates IV-365
Figure IV-154: Four Attributes to Become "Change Masters" IV-365
Figure IV-155: IBM's Better Change Method IV-366
Figure IV-156: Communications Approach IV-370
Figure IV-157: Industry Awards and Recognition IV-380
Figure IV-158: IBM's Training Methodology IV-381
Figure IV-159: IBM's Training Methodology IV-382
Figure IV-160: IBM's Four-Tier Learning Model IV-383
Figure IV-161: Learning is Not a One-Time Event IV-386
Figure IV-162: IBM's ROSA Approach Aligns Right Training to Right End User Group IV-388
Figure IV-163: Training Menu Example IV-391
Figure IV-164: Team Wipro/IBM's Integrated Continuous Resource Management Model IV-393
Figure IV-165: Overview of Approach to Knowledge Acquisition IV-396
Figure IV-166: Reporting Architecture (High Level) IV-402
Figure IV-167: Information Delivery Architecture (Detailed) IV-403
Figure IV-168: Cognos Security Architecture IV-406
Figure IV-169: Salient Points of Report Migration Solution Phase and Components IV-411
Figure IV-170: *SmartPro MedEE* PureApp Appliance IV-422
Figure IV-171: DCS Network LAN Design is Fault-Tolerant and Highly Available IV-424
Figure IV-172: Problem Management Process Overview IV-426
Figure IV-173: Wipro's Mature Ticket Escalation Process IV-433
Figure IV-174: Graphical Operations Reports Available Through Wipro's SOC Portal IV-436
Figure IV-175: Support Engagement Divided into Core and Flex Teams IV-444
Figure IV-176: Ticket Resolution Methodology IV-445
Figure IV-177: EIS Production Support Dashboard IV-446
Figure IV-178: Capacity Management Process IV-448
Figure IV-179: Defect Management Process IV-449
Figure IV-180: Defect Management Lifecycle IV-451
Figure IV-181: Jazz Technology Platform IV-452
Figure IV-182: DR Architecture IV-462

Figure IV-183: SLM Methodology.....IV-475
Figure IV-184: Disaster Recovery Design.....IV-487
Figure IV-185: MDM Building Blocks.....IV-491

Page Left Intentionally Blank

List of Tables

Table II-1: *SmartPro MedEE* Aligns with MITA Framework 3.0 ..... II-6
Table III-1: *SmartPro MedEE* Solution Experience in State Programs III-9
Table III-2: Key Staff Roles and Qualifications III-15
Table III-3: Key Resources Ability to Meet Recommended Requirements III-16
Table III-4: Anticipated State of Nebraska Key Personnel Requirements III-18
Table III-5: Resume References III-42
Table III-6: IBM Contact Information III-43
Table III-7: Staffing Levels as Percentage of Full Sub-Team Hours by Phase III-44
Table IV-1: *SmartPro MedEE* Complies with MITA 3.0 and CMS' Standards IV-2
Table IV-2: Core Functional Components of the EES IV-4
Table IV-3: Core Non-Functional Components of the EES IV-5
Table IV-4: Attributes Maintained for Persons IV-34
Table IV-5: Attributes Maintained for Cases IV-37
Table IV-6: IBM Cúram Match to CMS Critical Success Factors IV-45
Table IV-7: Case Maintenance Features IV-64
Table IV-8: *SmartPro MedEE* Aligns with CMS' Seven Conditions and Standards IV-115
Table IV-9: Typical Security and Operations Reports IV-126
Table IV-10: Data Center Shared Services Management Tools IV-133
Table IV-11: Description of System Environments IV-138
Table IV-12: Environment Characteristics (Summary) IV-140
Table IV-13: Recommended Network Performance Design IV-160
Table IV-14: Server and Operating System Configuration IV-187
Table IV-15: PureApplication Server Software IV-188
Table IV-16: Application Software and Middleware IV-188
Table IV-17: *SmartPro MedEE* Tools (PMO/SDLC) IV-189
Table IV-18: Data Center Shared Services Management Tools IV-190
Table IV-19: Development Environments IV-196
Table IV-20: Project Management Plan Activities IV-212
Table IV-21: Deliverables IV-215
Table IV-22: Requirements Traceability Activities IV-225
Table IV-23: Additional Status Reports IV-241
Table IV-24: Example of Wipro/IBM Stakeholder Collaboration Strategy Cycle IV-261
Table IV-25: Team Role Identification IV-264
Table IV-26: Reports Included with Rational Requirements Composer IV-265
Table IV-27: System Design Deliverables IV-277
Table IV-28: Performance Testing Considerations IV-304
Table IV-29: Type Performance Tests IV-305
Table IV-30: Performance Testing Methodology Details IV-306
Table IV-31: Test Tools IV-309
Table IV-32: RACI Matrix IV-316
Table IV-33: Data Conversion and Migration Testing Activities IV-317
Table IV-34: Defect Metrics IV-318
Table IV-35: Distribution of Responsibility Across Layers IV-320

Table IV-36: SOA Test Tool Chain Description IV-325
Table IV-37: Performance Testing Approach IV-331
Table IV-38: Types of Performance Testing IV-332
Table IV-39: Performance Testing Methodology Details IV-333
Table IV-40: Data Migration Key Considerations and Inputs IV-339
Table IV-41: Data Migration Activity Tools IV-347
Table IV-42: Enabler Descriptions IV-366
Table IV-43: Benefit to the DCH's IES Program IV-384
Table IV-44: Training Materials IV-389
Table IV-45: Training Delivery Methods IV-389
Table IV-46: Training Methods IV-392
Table IV-47: Risk Analysis of a Single-Phased Implementation Approach IV-417
Table IV-48: A Cúram Single-Implementation Example – Key Facts IV-418
Table IV-49: Success Factors Contributing to a Successful Rollout IV-419
Table IV-50: Wipro Key Process to Support Highly Mature Service Delivery Capabilities IV-425
Table IV-51: Support Model Design Principles IV-428
Table IV-52: Wipro's Infrastructure and Key Role Mapping to Support Outstanding Service IV-428
Table IV-53: Security and Operational Reports – SOC IV-435
Table IV-54: Performance Standards IV-436
Table IV-55: Production Defect Severity IV-441
Table IV-56: Wipro's approach to Issue Management IV-457
Table IV-57: Development Environments IV-464
Table IV-58: Production Environments IV-467
Table IV-59: Criticality or Severity Levels IV-474
Table IV-60: Possible SLAs IV-476
Table IV-61: Data Center Tier Requirements IV-483

List of Exhibits and Samples

1. Wipro Limited and Subsidiaries Condensed Consolidated Interim Financial Statements Under IFRS....Page 1
2. IBM 2012 Annual Report....Page 3
3. Sample Training Course Map and Syllabuses....Page 5
4. Sample Documentation....Page 7
5. Date Warehouse and DataMart Entity Relationship Diagrams (ERD's)....Page 9

Page Left Intentionally Blank

Technical Approach

IV. Technical Approach

A. UNDERSTANDING OF THE PROJECT REQUIREMENTS

The technical approach section of the Technical Proposal must consist of the following subsections:

a. Understanding of the project requirements;

In March 2010, the Patient Protection and Affordable Care Act (ACA) and the Health Care and Education Reconciliation Act of 2010 were signed into law. ACA requires states to implement a streamlined Medicaid eligibility process which collapses existing Medicaid categories, streamlines the application process and employs the simplified Modified Adjusted Gross Income (MAGI) standard for a significant proportion of the population. In addition, the regulations call for a coordinated process by which individuals may apply for and receive an eligibility determination for Medicaid on a MAGI, non-MAGI basis or for Advanced Premium Tax Credits (APTC)/Cost Sharing Reductions (CSR) of premium payments for insurance coverage purchased via an exchange.

Nebraska's existing Medicaid system, N-FOCUS, has been in operation for approximately 20 years. Per our conversations with Nebraska, the system is difficult to modify, requiring skilled developers who are knowledgeable with N-FOCUS. The tools used in N-FOCUS are older technology and there are few skills available on the market to support the system. While N-FOCUS provides integrated eligibility and a common case management environment, it does so in a restrictive way, forcing the MTLC to wait, sometimes unacceptable amounts of time, for their specific requirements to be prioritized for implementation. N-FOCUS was a custom built system, built by a system integrator (SI) and maintained by the SI for a long period of time. Adding the new federal requirements to the system has been challenging. Further, N-FOCUS does not lend itself to integration with online portal technology. Citizens can apply on line but their information must be rekeyed into N-FOCUS to complete the application process. Finally, there is no support for tablet or smart-phone technology, for either the citizens or the State workers.

Instead of attempting to modify the existing solution, the State of Nebraska has decided to undertake the implementation of a new modern system to meet the federal requirements introduced by the ACA and also provide additional benefits to MLTC. The State needs to implement a system that will allow them to maximize currently available federal funding matches. The right solution will enable the State to take advantage of the technology advancements introduced in the past 20 years while also meeting the complexities introduced in the ACA.

At a high level, the Division of Medicaid and Long Term Care (MLTC) requires a commercial off the shelf (COTS) Eligibility and Enrollment Solution (EES):

- Designed around a well thought-out, efficient set of business processes needed to support eligibility and enrollment in public benefit programs;
- Built around a strong, fundamentally sound set of eligibility and enrollment processes;

- Allows administrative users to easily update eligibility rules and other key system functions, without programming changes, will allow the Division to run a more nimble and responsive program at a lower cost than N-FOCUS;
- Allows self-service for clients who prefer to do as much as they can on their own via different modalities such as online and phone;
- Facilitates easy access via methods such as, having a client's representative act on their behalf; allowing an eligibility worker to provide application support; or allowing the client to be serviced in person, on the phone, or via paper;
- Takes advantage of advances made in reporting and business intelligence over the last 20 years. Providing the ability to produce "canned", parameter based reports on a routine schedule or on demand, as well as, ad-hoc reports as desired;
- Provides additional power for users, but with less training;
- Demonstrates a sound long term investment and efficient use of tax dollars for Nebraskans.

Additionally, the State must complete the implementation of the new solution by December 31, 2015 to maximize federal funding.

The Wipro/IBM team proposes a (COTS) Eligibility and Enrollment Solution that will support Nebraska's business needs and complies with the MITA Technical Architecture and CMS Seven Conditions and Standards, as described in the table below:

Table IV-1: *SmartPro MedEE* Complies with MITA 3.0 and CMS' Standards

Technical Service Classification	Technical Capability Descriptions
Client Support (Business Results Condition)	Cúram performs at Level 3 and provides support for some elements of Level 4. • Cúram supports the following browsers: IE 8, 9, and 10, Google Chrome, Apple Safari 5.x, Mozilla Firefox • Beneficiaries have access to Cúram Universal Access (single online access point) for benefit information. • Providers have access to Cúram Provider Management portal (single online access point). • Cúram for Medical Assistance provides application integration with the Cúram Health Insurance Exchange solution.
Business Intelligence (Business Results Condition and Reporting Condition)	Cúram provides support for Level 3 through the following capabilities: • The Business Intelligence infrastructure of Cúram uses 'Business Intelligence and Reporting Tools (BIRT)' to render the charts and dashboards targeted at specific stakeholders. • The Cúram Supervisor Workspace provides decision makers with dashboards, heat maps and color-graded graphs to monitor program usage and expenditures, develop future budgets and staffing plans, prioritize issues, and manage and balance work and caseloads. . • Cúram provides capabilities to extract data into prebuilt data marts for analytics purposes.

Technical Service Classification	Technical Capability Descriptions
Forms and Reporting (Business Results Condition and Reporting Condition)	Cúram performs at Level 4. • Cúram uses electronic forms to capture information from users. These electronic forms are comprised of a mixture of guided questionnaires and forms based JSP/HTML pages. • Cúram supports binary format attachments such as MS Word, Excel, and PDF. • Providers can submit roster and service invoices via the dedicated Provider Self-Service portal or by directly to agency through formatted record files. Scheduled batch jobs will access and process provider invoices.
Performance Measurement (Reporting Condition)	Cúram provides support for Level 4 through the following capabilities: • Performance measures and criteria, associated with the provider's service offerings configured are configurable through the Cúram Administration Suite Updates to provider contracts facilitates the Department's ability to monitor provider contract-related performance. • Configurable alerts monitor milestone status and achievement and are used to notify designated staff responsible for taking appropriate actions in accordance with Department policy and protocol.
Security and Privacy (Industry Standards Condition)	Cúram provides support for Level 2/3 through the following capabilities: • Client access available via web browser, kiosks, and mobile devices. • Cúram web pages can be displayed using common mobile micro browsers. • Cúram can be configured to be part of a Single Sign-On (SSO) session.

SmartPro MedEE will incorporate the new Medicaid rules and interface with the Federal Health Insurance Exchange. Utilizing a proven solution, with extensive out-of-the-box functionality designed specifically to support Medicaid programs, reduces risk and enables Nebraska to take advantage of the best practices built into the solution. Further, Nebraska will be able to leverage project artifacts as appropriate from other states implementing IBM Cúram for both their MAGI and non-MAGI projects.

Over time, if a decision is made to move from the FFE to a State Exchange model, ***SmartPro MedEE*** provides a flexible solution to support that decision. IBM Cúram provides capabilities for integrating with a State Exchange including the Rules logic for Advance Premium Tax Credit and Cost Sharing Subsidy calculation and shopping portal integration with best of breed insurance shopping portal vendors. Furthermore, the IBM Cúram provides a complete portal solution for capturing changes in circumstance.

Nebraska and the federal government require sharing of project artifacts for federally funded projects with a goal of not re-creating what has already been done in another state. A COTS project provides a unique opportunity for reuse and collaboration. Today, North Carolina has shared their project

plan, best practices, and lessons learned with several other states and is willing to share similar project design documents, project plans, configurations, and extensions to IBM Cúram with Nebraska. Currently, Maryland, North Carolina, Washington DC, South Carolina, Indiana, Minnesota, and Arkansas participate in an IBM Cúram user group which hosts regular conference calls and updates from IBM Cúram product development as well as facilitating communication between the states on project accelerators and best practices.

Successful deployment of a new system requires effective project management including plans that address architecture, configuration management, project change management, training, organizational change management, and security requirements. The State requires a system that has been thoroughly tested with a structured plan that includes unit testing, integration testing, and user testing. Plans should address business process re-engineering, organizational change management, user training, and help desk. Because the system is mission critical, plans must address business continuity and disaster recovery services. Meeting CMS standards for effective software deployment will be of critical importance as prerequisite to achieving certification.

Essential to meeting these targets are effective project plans that include key deliverables, milestones and dependencies. Nebraska recognizes the importance of project governance, decision-making and risk management strategies in meeting deadlines.

The Wipro/IBM team is prepared to work with the State to implement the system on time. The Wipro/IBM team is also prepared to support Nebraska in its efforts to meet the complexities and challenges of implementing additional aspects of the Affordable Care Act by supporting the streamlined workflows and processes, business-friendly rules, and automation to address the additional caseload due to the potential expansion of Medicaid.

To meet the State's requirements, the Wipro/IBM team proposes to use the IBM Cúram commercial off-the-shelf software (COTS) solution as the foundation for Nebraska's EES Project. Cúram will meet the functionality requested in the RFP as well as the State's vision for an efficient, compliant, customer-centered solution. In sections of this proposal, we will present our understanding of the requirements and describe how our solution will provide the requested functional and non-functional components.

The core functional components include:

Table IV-2: Core Functional Components of the EES

EES Functional Components		
1. Presumptive Eligibility 2. Registration 3. Application Intake and Processing 4. Determine MAGI and non-MAGI Medicaid Eligibility 5. Caseload Management 6. Spousal Impoverishment Assessment	1. Enrollment/Renewals 2. Case Review Quality Assurance 3. Outreach and Notifications 4. Workflow 5. Master Person Index 6. Reporting 7. Policy Management 8. Public Self-Service Portal	1. No Wrong Door Policy (Application Pathways) 2. Changes to Beneficiary Information 3. Performance Management 4. Audit Trail 5. Organizational Change Management 6. Business Process Reengineering 7. Documentation

The core non-functional components include:

Table IV-3: Core Non-Functional Components of the EES

EES Non-Functional Components		
1. Infrastructure Design, Installation, Testing, Implementation 2. Software Installation, Testing, Implementation 3. Software Configuration, Testing, Implementation	1. Interface Design, Development, Testing, Implementation 2. System Integration, Testing, Implementation 3. Technical Support Services 4. User and Technical Training	1. Post-Implementation Maintenance and Operations 2. Data Conversion and System Migration 3. EES Pilot, if applicable 4. Turnover

IBM Cúram Social Program Management

Leading analyst firms have recognized IBM Cúram as the global leader in commercial off-the-shelf software (COTS) solutions for the Social Enterprise Management (SEM) market. IBM Cúram has the largest health and human services development organization in the world and with its exclusive focus on health and human services is able to deliver unparalleled innovation and enhanced usability for its members. The Wipro/IBM team offers Nebraska a flexible, scalable integrated eligibility solution that will accommodate the evolution of healthcare reform and Medicaid.

IBM Cúram delivers the benefits of a COTS solution, including comprehensive out-of-the-box functionality, documentation, ongoing technical support, product maintenance, and continuous research and development. However, unlike other COTS solutions, IBM Cúram has been designed from the beginning to meet the unique needs of social enterprise organizations and to address the challenges you face. This singular focus differentiates Cúram from other vendors' product offerings.

IBM Cúram enables organizations to implement scalable, robust software solutions that are feature rich, user friendly and highly flexible. IBM Cúram is built on a Java Enterprise Edition (Java EE) architecture that is SOA compliant and facilitates incremental implementation strategies. Additional Cúram components – built on a common foundation – can be added over time to enable agencies to adopt a seamless, enterprise-wide solution.

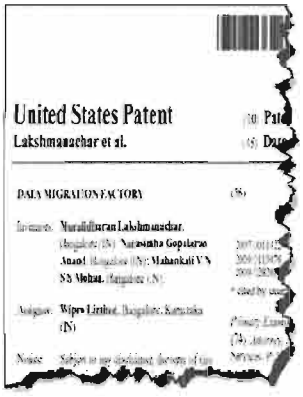
IBM Cúram provides formal, regular training classes that can be held privately or are publically available with a certification program for both the technical and business level professional. There is also a large population of systems integrators and smaller firms available to assist the State in the future with on-going maintenance and modernization efforts. Nebraska will not be dependent on the expertise of just one SI for future enhancements and implementations.

Finally, a key advantage of the IBM Cúram program is a published roadmap that includes regular enhancements based on client feedback, technology trends, and research in the health and human services market. There is also a substantial product development organization to support the Wipro/IBM team with patches and product updates should they be needed as well as having close communication with the Wipro/IBM team on project related issues. With ten other states using the

same COTS product, it is likely that any issues in the product have been addressed by another project team.

Data Conversion

"Data migration/conversion is more than moving data into a new application; it's about making the data work within the new application".


United States Patent
Lakshmanachar et al.
DATA MIGRATION FACTORY

Data is an immensely valuable asset of Nebraska and must be managed carefully so as not to lose or diminish the value. This is especially true in health and human services. The data is the foundation for many core applications and processes which in turn have significant impact on welfare and proper care of Nebraskans.

Based on our experience handling complex data migrations, we understand what is necessary for a successful migration and appreciate the impact of a failed migration.

For successful rollout of ***SmartPro MedEE***, Wipro/IBM proposes to use its patented 'Data Migration Factory' solution underpinned by a strong enterprise information framework, solution accelerators, flexible and execution model approach to manage Data migration requirements for the State of Nebraska. Wipro's patented Data Migration methodology precisely captures the learning over 140 data migration programs. Key components of our solution are:

- Data migration framework, methodology, Reference Architecture, templates and other re-usable assets to streamline the migration process and enable tool based automated migration
- Wipro's Information platform, a web based application developed for enabling Information Management processes with features like data governance, collection, profiling and cleansing, and mapping.
- Flexible resourcing model wherein Core team takes care of requirement analysis, solution definition and designing supported by a pool of flex team.

Data Migration is the process in which data from different source systems (N-FOCUS and others) will be extracted based Cúram Application Operational DB (DB2), Data Warehouse and historical data requirements. Extracted data will be cleansed, transformed, validated and reconciled by embedding business rules, Cúram data model and other relevant transformation rules and finally uploaded into ***SmartPro MedEE*** using load utilities.

Business Intelligence and Reporting

To meet the State of Nebraska's reporting requirements (functional as well as non-functional) and enable ad-hoc reporting and analysis and meet future reporting requirements, Wipro/IBM proposes to build 45-50 Operational and Analytical Reports and approximately 5 Dashboards using Cognos. The reporting or information delivery layer will integrate with ***SmartPro MedEE*** and ensure all the business users are leveraging the best in breed KPIs, Analysis, Data Visualizations, etc., as well as ensuring all the operational and compliance reports under the Eligibility system are covered.

Considering the current spectrum of analytics and operational reporting needs of the State; it is highly recommend having a single BI environment which can address the current needs including; dashboards for the senior and middle management team, and operational reporting to support the day-in and day-out decision-making, and state and federal reporting requirements. It is also advised to have a BI environment which can fulfill the State's vision of a mobile-based BI system to deliver reports on handheld devices like tablets, smartphones etc. if required.

Wipro/IBM recommends using Cognos BI. Cognos BI will also allow the State super users to rapidly create custom reports by picking up appropriate KPIs which will be built as a part of the semantic layer. It will allow users to have greater agility to meet the on-demand BI needs.

On top of the new system and the Cúram data marts, Wipro/IBM will create an additional two to three data marts which will hold all the data required for reporting. DataStage will be used as the ETL tool and the Wipro/IBM team will model the data mart in such a manner that most complex transformations, summary tables etc. are created at the data mart level itself.

Master Data Management

The ***SmartPro MedEE*** solution is based on the market-leading data integration tool, IBM InfoSphere Master Data Management (MDM). At the core of solution are centralized indexes (one for clients and another for service providers) that reliably cross-link identities thereby building a secure and trusted single view of critical client and provider data. By providing the State the ability to uniquely identify essential data elements across systems without the need of normalizing the underlying legacy systems or content, the ***SmartPro MedEE*** solution provides the comprehensive client information necessary to improve quality, reduce costs and achieve outcomes.

IBM is a leader in MDM with a successful history of more than 18 years and with more than 800 clients including those of similar size and structure to the State. This industry-leading product was recognized in Gartner's most recent Magic Quadrant for MDM of Customer Data Solutions shown below.

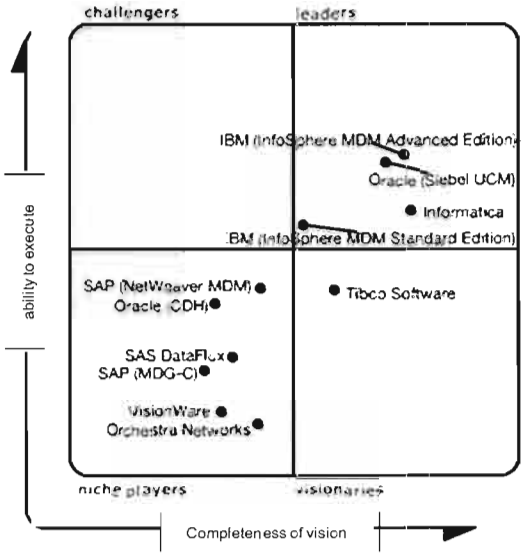


Figure IV-1: Gartner's Magic Quadrant for MDM of Customer Data Solutions, October 2012

Wipro/IBM's point of view on MDM is a top down approach starting from Data Governance strategies progressing to the physical implementation using tools and technologies.

The building blocks of an MDM implementation are illustrated below.

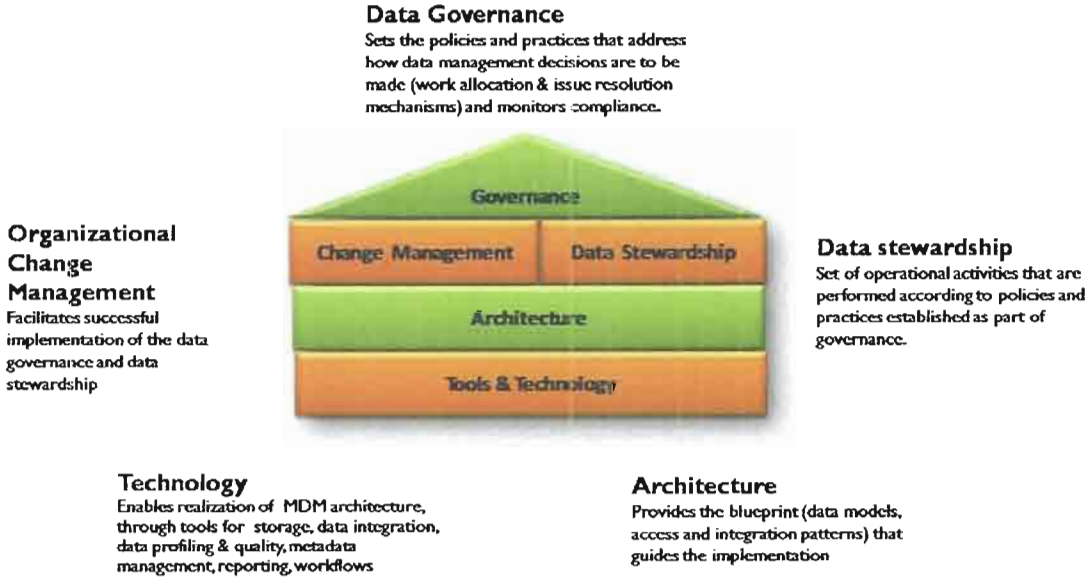


Figure IV-2: MDM Building Blocks

The Wipro/IBM framework for data governance encompasses the enterprise context with its constituent business processes and capabilities which dictates the data governance strategy. The data governance strategy will have a clear charter, principles, practices, policies and standards. This will be evolved as a management program jointly with all business and IT stakeholders during the initial phases of the project.

The best technical project in the world can fail without attention to organizational change management. If the end users are not ready and receptive to the change and executive sponsorship is lacking, projects are doomed to fail. No matter how much the current system lacks in capability, it is familiar, much like a comfy chair that really needs recovering or replacement. Our team will focus on making the users comfortable with the change from the beginning by implementing the following processes:

- From the beginning of the project, we will have a communication process that includes the end user community, giving them updates on what is happening with the project and what to expect and when. We suggest that the communication be a joint one with participation and support by the Nebraska executive leadership.
- We will demonstrate the standard functionality of the ***SmartPro MedEE*** solution to the end user community at the beginning of the project and at mutually agreed checkpoints so that they are not surprised by functionality and can provide feedback.
- We recommend participation by caseworkers and State workers in the requirements confirmation and design sessions. These individuals will then serve as ambassadors for the project.
- Training of the user community and development of training materials that are tailored to the users' role.
- Creation of a help desk and tiger team during the project go live process. The tiger team will be composed of State caseworkers and project team staff. The tiger team is designed to work through the issues of implementing a new system quickly to minimize the frustration that - users may experience with change.
- Creation of an incremental rollout plan so that modifications to the change management process can be made as needed.

B. PROPOSED DEVELOPMENT APPROACH

The Wipro/IBM approach, ***SmartPro MedEE***, is specifically designed to deliver on five key values:

- The right functionality;
- Delivered quickly and on-time;
- Of high quality as understood by its stakeholders;
- With stakeholders fully prepared; cost effectively; and
- Prepared for the future.

SmartPro MedEE is the IBM Cúram-based solution packaged with integration services, reporting, master data management, and other components to meet the requirements of Nebraska. It is designed using the COTS IBM Cúram solution as its foundation and central integration hub. While sub-sections below provide detail on how we will approach and deliver on these and other values to the State, we outline the whole approach here.

Nebraska's Enterprise-ready Medicaid Eligibility and Enrollment System

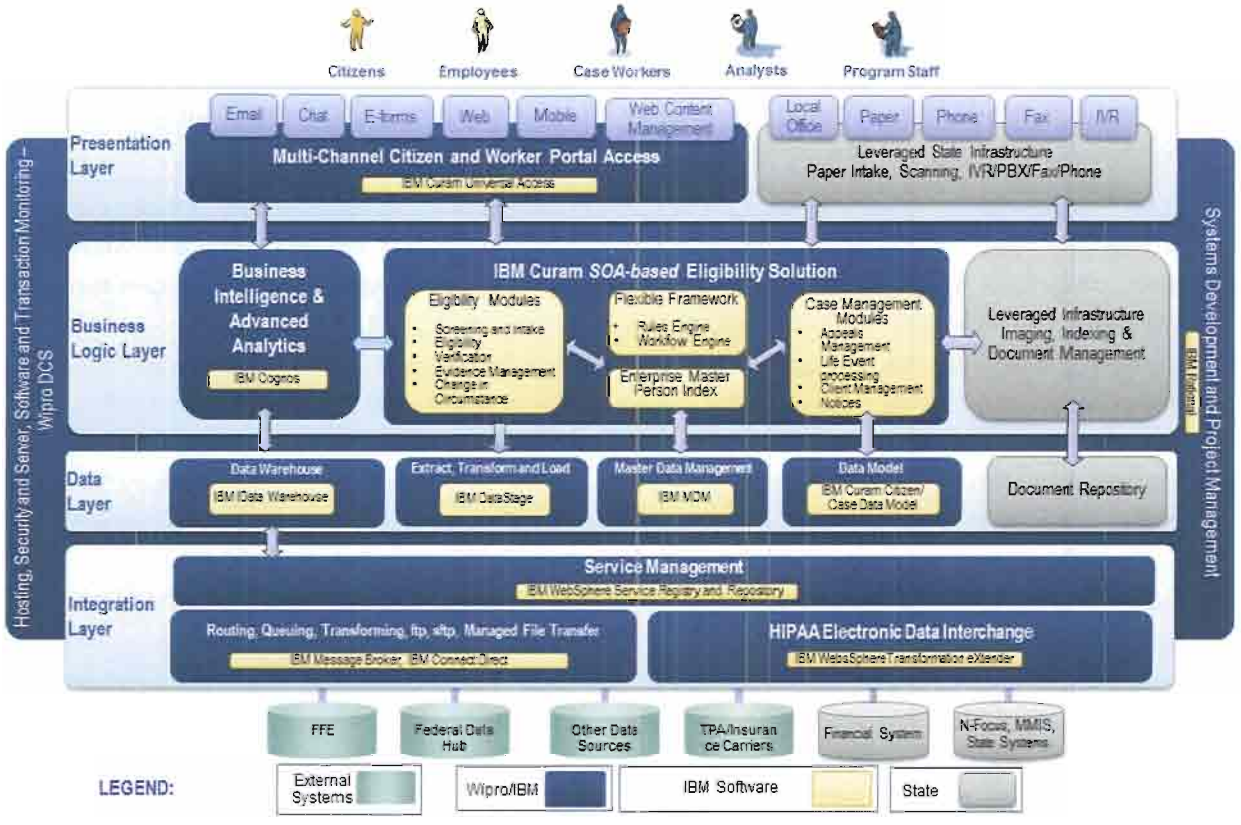


Figure IV-3: Nebraska's Enterprise-Ready Medicaid Eligibility and Enrollment System

Right Functionality

The success of the Nebraska EES depends upon the solution matching the business and non-functional needs of the MLTC. ***SmartPro MedEE*** is built on IBM Cúram, one of the most widely implemented and successful COTS packages available today for Medicaid eligibility and enrollment. IBM Cúram is the only COTS package in the market that is built specifically for health and human services and meets the federal guidelines for COTS. It should be noted that the federal definition of COTS states that multiple integrators must be able to implement the COTS solution and it must be made available commercially to multiple integrators.

An eligibility and enrollment system must also provide for the change in circumstances of its managed population and must be able to check eligibility and calculate benefits based on a specific period in time. Medicaid programs are complicated and each state has specific requirements so the associated rules engine must be easy to configure and existing Medicaid rules need to be easily modified to support Nebraska's Medicaid programs. We will share artifacts from other projects for those Medicaid coverage types that are appropriate to Nebraska, leveraging other state's configurations for a more rapid implementation with lower risk and costs.

As Nebraska is fully aware, core eligibility and enrollment processing is not enough; a successful EES requires easy access to the information created and maintained by the eligibility and enrollment

system, ranging from mainstream reporting, through ad-hoc queries and advanced analytics. ***SmartPro MedEE*** fulfills this need by building upon one of the most common and successful Business Intelligence platforms available today: IBM Cognos.

Last, eligibility and enrollment systems require a strong Internet Portal capability available to citizens, to provide them simple and effective access to the information and support they need, through the communications channel and media format most effective for them. ***SmartPro MedEE*** leverages the IBM Cúram Universal Access portal to provide citizen access, potential eligibility determination, no touch eligibility determination when appropriate, and application submission with seamless integration to the caseworker for more complicated eligibility determination and case management. As IBM Cúram is a web based application, the caseworker will have a worker portal to manage their day to day case management responsibilities.

Non-functional support

SmartPro MedEE is architected based on modern application precepts, such as Service Oriented Architecture, rules engine abstracted outside of code, and hardware/environmental virtualization. It is also built upon an extremely scalable hardware/software appliance, the PureApp server. ***SmartPro MedEE***, and all of its environments, is being implemented on two 64-processor PureApp servers: one for the primary data center, a second for the secondary (DRR) site. Without changing boxes, each server can be upgraded in-place to nearly 10 times its initial compute capacity and memory configurations, providing nearly unlimited potential for future growth. Figure IV-4: Proposed Production Infrastructure below provides an overview of the proposed production infrastructure.

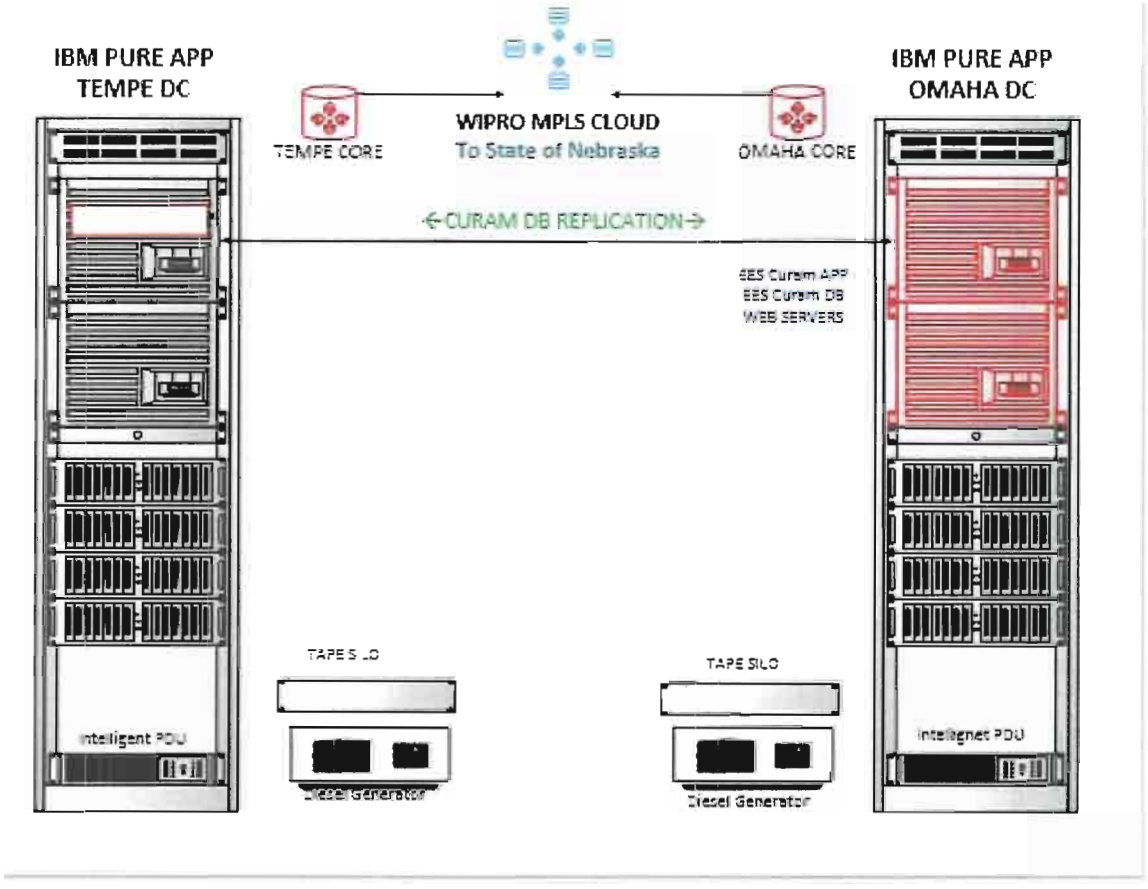


Figure IV-4: Proposed Production Infrastructure

The SOA architecture supports interoperability, scalability and, by avoiding single points of failure provides for high availability and resilience. It is fully compliant with the State's non-functional requirements as detailed in the traceability matrix.

SmartPro MedEE is built upon IBM's PureApp server, a fully integrated web and cloud-ready hardware and software appliance. PureApp encompasses highly scalable hardware (IBM Power+ series), Operating System (AIX), Database (DB2 Enterprise), Application Server (WebSphere ND), virtualization, and monitoring/management in a single pre-integrated and certified whole. By implementing pre-defined and certified patterns such as 3-Tier Web Application or Cognos Business Intelligence, PureApp servers can make integrated and certified application environments available within less than a day from the delivery of the box, and supports configuration of virtualized environments within moments. This level of integration eliminates a large element of people time, cost, and risk normally associated with preparing the technical environments so application teams can begin their work.

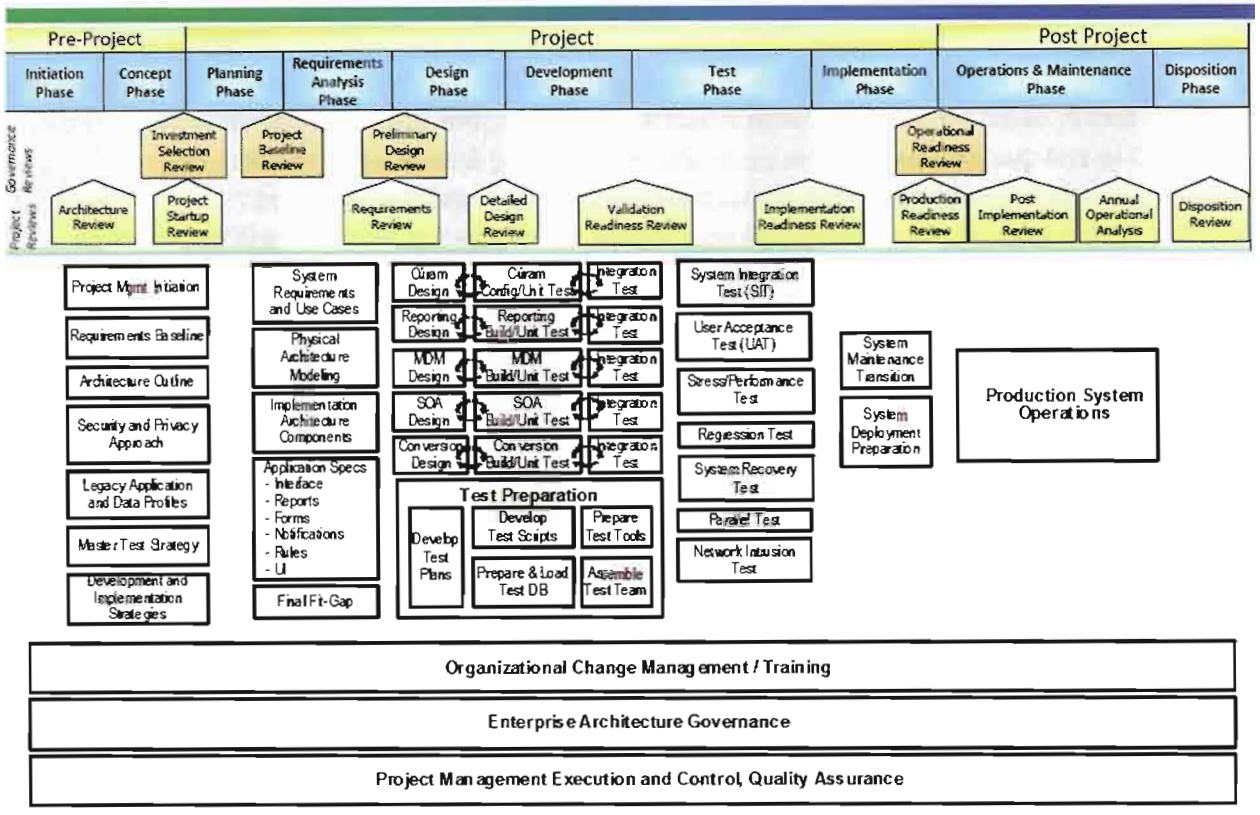


Figure IV-5: Processes and Tools Engineered for Rapid, On-Time Delivery:

Rapid Time to Implementation

SmartPro MedEE delivers on the key dimension of timeliness: we propose a 12 month implementation, from start of contract to full go-live. This is an ideal timeframe for several reasons. It is long enough to allow time to fully illuminate and understand the State's requirements, design, build, and test the ***SmartPro MedEE***, and educate State staff in the true capabilities of ***SmartPro MedEE***. At the same time, it is short enough to minimize cost and risk to the State's deadline while maximizing value to the State by providing the system earlier than required by the RFP.

Equally critical is on-time delivery. ***SmartPro MedEE*** embodies the tools and processes to deliver our commitment to schedule, functionality, and quality. Built upon the Federal Exchange Life Cycle (ELC) methodology and backed by our team's extensive project management expertise, our processes include the necessary measurements, gates, feedback, and corrective processes to deliver on-time.

For the implementation of the Cúram COTS package, we will use the IBM Cúram methodology, which is specifically engineered to elicit requirements based on building an understanding of the out-of-the-box functionality with the stakeholders and then conducting JAD (Joint Application Development) workshops to leverage the leading practices built in Cúram and minimize customization while still accommodating the State's business needs. Our approach will also reduce the implementation cost and the total cost of ownership by making it easier to incorporate future releases of the product. Flexibility to add functionality and integrate with other systems is provided via the SOA architecture and exposure of web services provided in IBM Cúram. <GEN013>

Quality

In ***SmartPro MedEE***, based on extensive large program experience, our team implements a fully integrated end-to-end quality management cycle. Starting with the fundamental mission, and descending to greater levels of detail through requirements, design, and configuration / development. Our team's quality processes provide visible measures of quality that will be agreed to mutually with the State. At each stage, exit gates are clearly defined to measure the readiness before proceeding to its next major phase. These gates and measures of quality provide integral guidance to the subject matter experts primarily responsible for each phase. Quality and testing specialists develop automated tests appropriate to measure performance against the standards. These are in turn tied-back to the Requirements Traceability Matrix (RTM), illuminating how requirements are to be tested, and how specific test results tie back to system components, designs, and requirements.

Stakeholders Prepared

SmartPro MedEE represents a significant advance over the existing N-FOCUS application. To successfully implement change of this magnitude requires a two pronged key approach: a tactical view reinforced by training, and a strategic view based on explicit Organizational Change Management. Our training program teaches stakeholders the "how" of the new system. Based on extensive experience with the system's components and functionality, ***SmartPro MedEE*** training personnel will create and deliver customized training including computer based courseware that will integrate with the State's Learning Management System (LMS).

However, by itself, such "how-to" training is insufficient. ***SmartPro MedEE*** engages a dedicated professional Organizational Change Manager with extensive experience with the IBM Cúram solution, and strategically managing the organizational changes that typically occur when moving from legacy eligibility and enrollment systems to IBM Cúram. This individual collaborates with the State to customize and implement the program to prepare stakeholders for the new environment, including understanding the underlying context, how business units and their work will be affected, and how transition will be managed.

Cost Effectively

SmartPro MedEE is also cost-effective. While efficiencies and right-sizing are built in throughout the details of the program, five over-arching principles allow us to deliver cost efficiency:

- Take full advantage of extensive out-of-the-box Medicaid eligibility, enrollment, and case management capabilities of the IBM Cúram application. Wipro/IBM allows ***SmartPro MedEE*** to expedite the implementation process based on extensive prior work implementing State Medicaid applications. Business Process Reengineering can focus on established and refined best practices already codified in the application.
- Leverage an infrastructure that is ready for and compliant with extensive non-functional requirements, without spending unnecessary resources.
- Implement a Master Data Management approach for Nebraska which is built on the IBM Cúram out-of-the-box data model
- Implement a reporting approach using IBM Cognos to provide standard reports required by the Department and provide federal compliance reports as well as ad hoc reporting capability

- Build upon IBM's PureApp Server Appliance, reducing middleware integration complexity, time, and risk and providing, easy to manage, on-demand virtualization of the technical environments. Full use is made of PureApp's virtualization environment to utilize all computing resources of both the Primary (Production) and Secondary (Disaster Recovery) locations.

Future Ready

SmartPro MedEE is prepared for the future. Most significantly, ***SmartPro MedEE*** is prepared for the business future. While ***SmartPro MedEE*** is limited to Medicaid, IBM's Cúram application is fundamentally designed for the larger general Integrated Eligibility and Enrollment needs of a State. When the time comes to consider migration, the remaining functionality of N-FOCUS to a modern system, ***SmartPro MedEE*** will be ready to provide a cost effective solution path, without disrupting or affecting the needs and operations of the Nebraska MTLC.

i. Functional Requirements

i. Functional Requirements

In order to provide the State a clear understanding of ***SmartPro MedEE*** functionality, we present our discussion of the requirements from a business perspective. The section is organized as a case worker would interact with the system. We are hoping the story based approach makes it easier to envision how work would be done using ***SmartPro MedEE***.

Requirement numbers are included at the end of the paragraph in which they are addressed. This will allow reviewers to track which requirements are addressed and how our solution meets the requirement. Reviewers will also find a table in each section that includes all of the requirements addressed in that section.

Overview

The IBM Cúram Universal Access application, referred to throughout this document as the Public Self-Service Portal, provides the ***SmartPro MedEE*** solution with an intuitive client-facing self-service portal. The portal is a fully configurable, public-facing web application that provides the public with secure online access to information, services, and programs. Portal functionality includes screening, eligibility determination, and managing life events (i.e., changes in circumstances for client and household members). The ability to screen and apply online for multiple programs will provide better service to the families and individuals of Nebraska.

The Public Self-Service Portal is designed to make the interactions between members of the public and their families, community service providers, and the MLTC easier, more efficient and, most importantly, more effective. It provides citizens with a more active role in managing their information through subsequent ongoing case management and service delivery. On-line access by the public also helps alleviate the necessity for individuals to personally attend meetings and interviews at local offices, unless a face-to-face contact is required to comply with policy.

The public's role in managing their interactions, with little to no intervention from MLTC personnel, also contributes significantly to reducing the administrative burden on the Department; allowing personnel to improve their productivity and better serve members of the public.

Key benefits of IBM Cúram Universal Access within the overall ***SmartPro MedEE*** solution:

- Supports service to clients in multiple languages. ***SmartPro MedEE*** and its Public Self-Service Portal will provide service to the public in English and Spanish; <GEN016>
- Provides immediate access to Federal/State programs and community services that match the needs of the individual;
- Offers a wide range of functionality including needs-based triage, multi-program screening, multi-program applications/application renewals, and referrals;
- Delivers a purpose built, COTS solution which is fully configurable so that it can be readily adapted without costly and time-consuming coding;
- Integrates with other IBM Cúram components in the ***SmartPro MedEE*** solution and can serve as a front-end self-service solution across single or multiple back-end systems, including legacy systems.

Application Processing

Requirements Addressed:
ELG017, ELG018, ELG019, ELG020, ELG022, ELG024, ELG025, ELG028, ELG041, ELG042, ELG043, ELG044, ELG051, ELG056, ELG100, ELG143, ELG145, ELG173,
GEN002, GEN008, GEN017, GEN037, GEN041, GEN046, GEN051, GEN068, GEN083
NOT033
OPS054

Unauthenticated Public Access

The proposed ***SmartPro MedEE*** solution through the Public Self-Service Portal supports a number of options for providing the public with access to self-service offerings. For unauthenticated users; i.e., individuals who have not registered a personalized 'Individual Account', limited functionality is also available. These unregistered users can perform triage and check their potential eligibility for a range of services and programs anonymously by providing basic information. The aim is to provide the citizens of Nebraska with the information they need to make an informed decision about whether or not to proceed with an application for services and/or programs, and to make the process as simple as possible to encourage participation.

Public Access via Self-Service Account

In order to proceed with an application and/or avail of the full range of self-service offerings, an unauthenticated user must first register an account on the system.

SmartPro MedEE, through the Public Self-Service Portal, allows individuals to register their Self-Service Accounts online. Initially, basic levels of authentication are granted which allow access to triage, screenings, and any applications that may have previously been saved or submitted. Once the user is identified by MLTC, higher levels of authentication which provide access to a wider range of facilities may be granted and made available through the Self-Service Account.

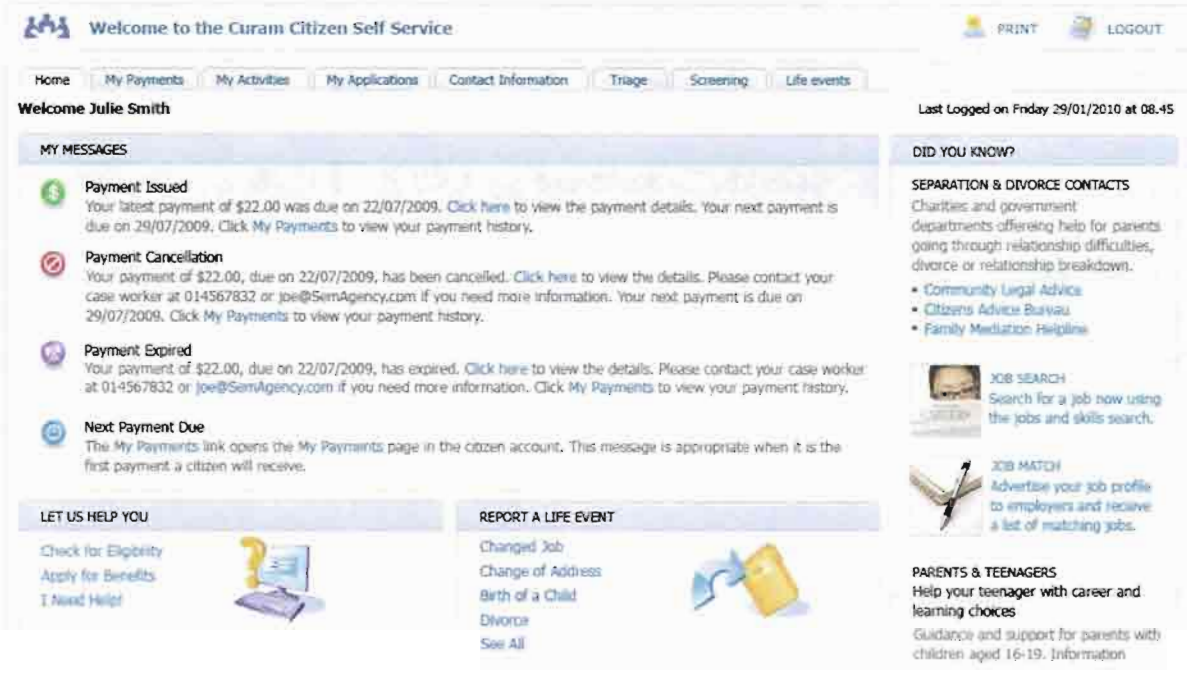


Figure IV-6: Sample Self-Service Account Home Page

The Self-Service Account home page (Figure IV-6) is the first page presented when an individual logs into his/her account. The home page provides access to a range of other features. As previously mentioned, this page will be provided in English or Spanish based on the initial preference specified by the citizen. <GEN017>

Pre-Application Processing

A configurable feature of the ***SmartPro MedEE*** self-service functionality supporting a no wrong door approach is the Triage functionality. Triage quickly identifies an individual's needs in order to direct that person to the services and programs which best meet those needs. A short set of guided questions is presented. Based on the answers provided, rules determine the services and programs that may help meet their needs. Providers of services are displayed on a map, as shown in Figure IV-7 below, along with provider details such as contact information, accreditations, specialties, areas served, intake procedure, eligibility, fees, and documents required. A "Get Directions" function allows individuals to view and print directions to a provider's location.

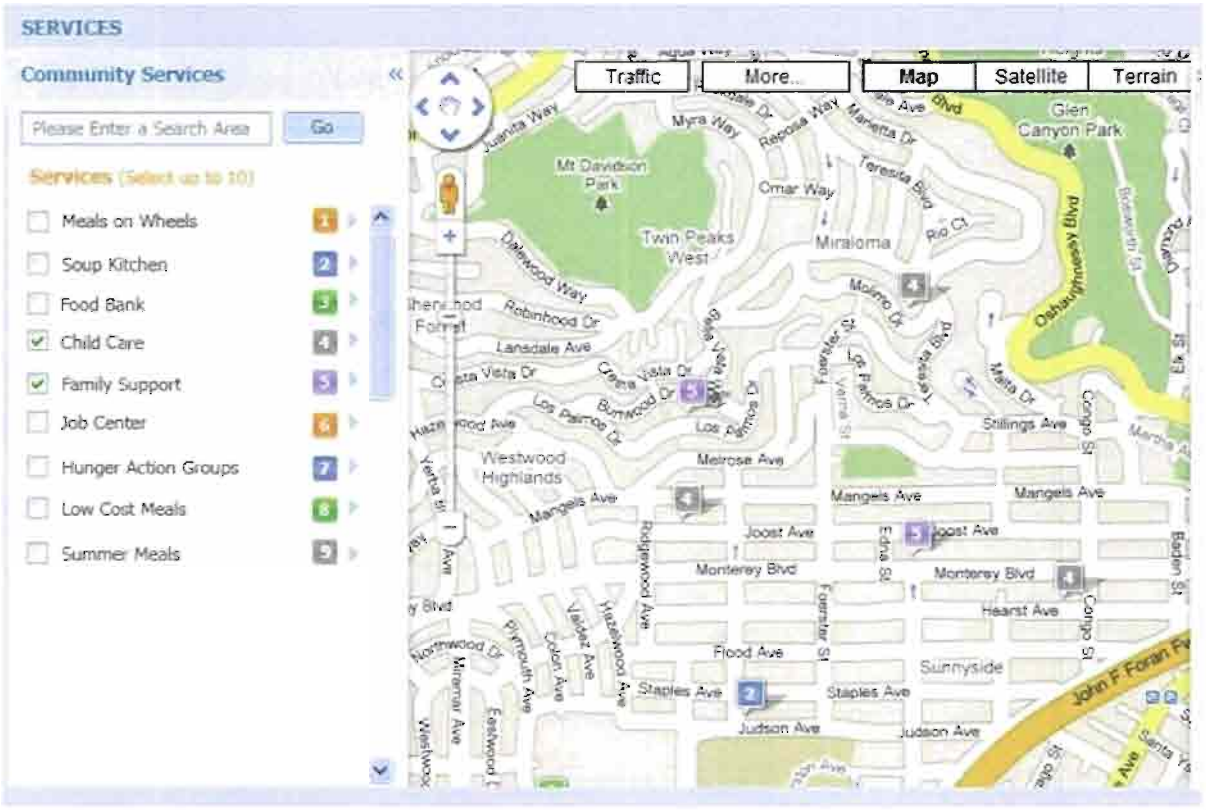


Figure IV-7: Sample Services Map

Based on the services and programs identified, individuals can choose to refer themselves to various service providers, can continue to screen for eligibility for recommended programs, or apply for benefits. Triage functionality is also available to unauthenticated users.

Screening allows an individual to determine if they are potentially eligible for one or more programs based on a short set of guided questions and a subset of eligibility rules. Based on the screening results, the individual can decide whether or not to proceed with an application for identified programs. <ELG173>

Two types of screening are supported. Individuals can first screen themselves by providing answers to a short (one page) list of questions and get a list of programs for which they may be potentially eligible. This type of screening looks at high-level factors that typically screen individuals into (or out of) a range of different programs.

Full screening gathers more detailed information and is generally more accurate than the one page screening. Questions are divided into several major categories including questions about the composition of the household, as well as the relationships, income, resources and expenses of those household members. Using the collection of detailed information gathered from the citizen, the ***SmartPro MedEE*** Public Self-Service option presents a list of programs for which the individual and/or their family may (or may not) be eligible. Figure IV-8 provides an example of how household relationship information is gathered.



Figure IV-8: Sample of Collecting Home Relationships Information During Screening

The results of both types of screening are automatically generated by evaluating the data collected with respect to one or more screening rule sets. The individual is then presented with the option of submitting an application. Screening functionality is also available to unauthenticated users. Data gathered throughout the screening process, once saved, will be used to pre-populate screens accessed during the application process or when authorized users query case or individual information. <ELG017, ELG019, ELG044>

In addition to triage and screening options, the portal serves as an information source to Nebraskans accessing the portal. Portal users are able to find local offices and contact information, along with associated directions to the nearest local office. Portal users can also use links to access education and informational materials as provided by the State. This would include information about Medicaid State programs and information about eligibility to help citizens understand the available programs and those programs for which the citizen and his/her household may be eligible. <ELG022, ELG023, GEN002>

Applying for Programs

In order to apply for programs, a range of information such as personal details, details about the household, and the household's income, resources and expenses are required from the applicant. This information, referred to as 'evidence' in Cúram, is used to determine eligibility as well as forming some or all of the individual's profile. Evidence collected during triage/screening (i.e., pre-application processing) can be used for subsequent application processing. The persistence of data from one stage of the process to the next eliminates the need for re-keying and therefore significantly

reduces the amount of data that needs to be entered by individuals during the application process. <ELG024, ELG025>

An application, whether for initial application or an application renewal, can be configured to be undertaken either as an online application form submission or by using a 'hard-copy' PDF application form that is pre-populated with information previously provided by the applicant. The populated form can then be brought to an office, e-mailed, faxed or mailed by postal service to the MLTC by the individual. The hard-copy application is retained within the system and is available for access and retrieval after submission. Once all data is verified, it is then run against the eligibility rule sets of the various programs to identify, in real time, eligibility for those programs. In the event that the system is for some reason unavailable and all data has been provided and verified, ***SmartPro MedEE*** will flag the case for processing and trigger the eligibility determination once the system is again available. It is important to note that the same rule set(s) is executed regardless of how the application enters the system so the applicant is guaranteed consistency in their results (i.e., no wrong door). <ELG028, ELG042, ELG043, ELG044, ELG051, GEN008, GEN046>

A simplified application process will also be provided to determine whether a pregnant woman meets the criteria for presumptive eligibility for temporary pre-natal care. Eligibility for presumptive eligibility will include effective dates for coverage (i.e., start and end dates) and will also trigger a notification to the eligible applicant that a full application will be required for coverage to continue beyond the presumptive eligibility end date. <ELG056, GEN068, NOT033>

Self-Service Portal: Changes in Beneficiary Information

Beyond initial screening and application processing, there is additional functionality provided in the self-service portal to allow citizens to report information regarding changes in circumstances; this additional functionality is referred to as life event management. A life event is a situation that occurs which may result in a series of interactions with the Department. Some examples include marriage, pregnancy, birth of a child, or death. Life Events Management provides the capability to configure events which may impact the programs and services that individuals receive. Life events may also be configured to provide information about other programs or community resources that are appropriate for that event.

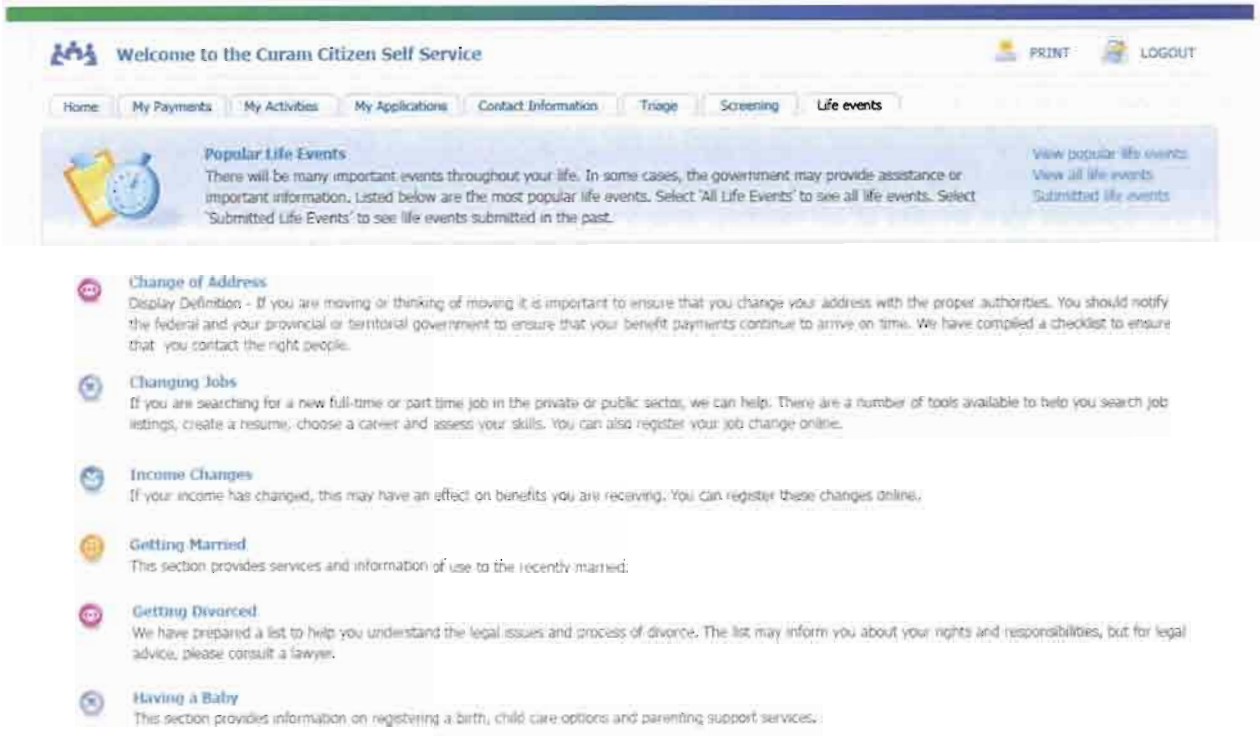


Figure IV-9: Sample Life Events Page

The Sample Life Events Page (Figure IV-9) presents the client's view when reporting a change via the Public Self-Service portal. On selection of a life event, the individual is presented with a guided set of questions based on the life event selected, as well as any other related life events that may have happened. For example, if a change of address is reported, there may be other implications such as a change in the rate of rent payments or a change in household composition. The individual is also provided with a list of services/programs (as per Triage) based on the life event submitted. This allows the individual to refer themselves for such services/programs or to screen and/or apply for additional programs.

Case/client information received through the self-service portal will be processed by the ***SmartPro MedEE***. Based on the data type, the system can be configured to automatically apply the data to the case or to put the data into a holding area, inform a case worker, and permit the case worker to review and accept or reject the data. The information accepted by the evidence broker or case worker may trigger an automatic eligibility redetermination. A redetermination may result in changes or closures to beneficiaries, households, and eligibility categories. ***SmartPro MedEE*** will present the results of all eligibility determinations which may include those resulting from an initial application, reported and verified changes, and redetermination actions - on the decision screen. Details reflect the results of the financial and non-financial determinations. The system can be configured to issue additional notification or set flags to cases deemed ineligible due to established financial and non-financial criteria. The Department can also set 'applicable limits' for data which will allow automated redeterminations based on the data received on a renewal form or that received from a trusted source. For example, a redetermination form submitted via the self-service portal or through other means that reflects no change in circumstance or a change in data that falls within MLTC's

'applicable limits', will automatically trigger a redetermination and not require worker intervention. 'Applicable limits' will be established by MLTC and apply to specific data elements and may apply to specific programs; 'applicable limits' will appear in the program rules. A history of changes to an individual's data is maintained, regardless of whether the change was initiated via the self-service portal or was updated by a worker or an external source (e.g., interfaces). <ELG020, ELG100, GEN037, GEN041, GEN051, GEN083, OPS054>

Client Account Management

The self-service portal provides access to additional information features available via the Individual Account including:

- **Payments** – displays a history of all financial assistance payments made to date.
- **Applications** – in addition to creating and submitting an application, the portal provides a view of submitted or in-progress applications so that an applicant can see the current status of an outstanding application. A new application can also be initiated and the system can highlight discrepancies between existing household data and data provided in the new application. Business rules will need to be defined to determine how to manage discrepancies. <ELG041 ,ELG143, ELG145>
- **Activities** – displays services, referrals, and actions which are scheduled for individual and/or household members
- **Appeals** – access information about the appeals process and fair hearings, submit appeals and reconsideration requests, and monitor status of appeals and reconsiderations <APP001, APP036>
- **Contact Information** – displays the individual's contact details such as address, email and phone numbers. Contact information of caseworkers associated with the individual's cases may also be displayed. <ELG018, GEN024>

Predictive Response Manager

The self-service portal includes additional functionality to further enhance the client experience and assist citizens with their interactions with the Department. The Predictive Response Manager provides a configurable decision support capability that displays information relevant to the specific individuals. The objective is to "predict" why the individual has logged into their account and attempt to answer the individual's questions without the need to browse through various aspects of their account in an effort to find an answer to their questions. For example, messages can be defined in relation to their financial assistance payments, case status, meetings, activities, etc. General system messages can also be displayed.

Outreach

Outreach is a configurable rules-based capability that facilitates the display of targeted messages based on information held about the individual. For example, where an individual has reported the birth of a child, a message can be displayed to remind the individual to register the child's birth and a link to the registration website can be provided.

Requirements Addressed:

ELG002, ELG003, ELG004, ELG005, ELG006, ELG007, ELG013, ELG014, ELG021, , ELG025, ELG027, ELG029, ELG032, ELG033, ELG034, ELG035, ELG038, ELG039, ELG040, ELG041, ELG043, ELG045, ELG070, ELG072, ELG073, ELG074, ELG075, ELG076, ELG077, ELG078, ELG079, ELG080, ELG105. ELG111, ELG113, ELG114, ELG116, ELG117, ELG118, ELG119, ELG120, ELG122, ELG123, ELG124, ELG125, ELG126, ELG127, ELG128, ELG129, ELG130, ELG131, ELG135, ELG136, ELG138, ELG139, ELG140, ELG141, ELG142, ELG143, ELG144, ELG145, ELG146, ELG147, ELG148, ELG149

GEN004, GEN009. GEN046, GEN047, GEN051, GEN064, GEN076, GEN080, GEN081

NOT016

OPS001, OPS013

Application and Intake

Using the Public Self-Service Portal, clients may choose to apply over the internet for programs offered by the MLTC. This may be carried out by the client following a screening process, or without having performed screening. A sample online application home page is shown in Figure IV-10 below. Clients may conduct all applications, initial and redetermination/renewals, by using the application form available through the Public Self-Service portal. Within the first 30 days following the submission of an application and prior to the application being processed, the applicant or authorized representative can submit updates to data reflected on the application. This can be done by accessing the client record via the self-service portal or contacting MLTC directly. Changes to client and household circumstances that occur after the application has been processed can be reported using the Life Events self-service feature or by reporting that change directly to the assigned worker or authorized Department staff. ***SmartPro MedEE*** will provide full-blown applications where the individual can apply for one or multiple programs such as Medicaid and State-offered Medical Assistance and extended to include TANF and SNAP, when authorized by the Department. Additionally, ***SmartPro MedEE*** will accept applications received via interface from the Marketplace, using the data provided to determine individual and household eligibility for Medicaid. ***SmartPro MedEE*** will base all eligibility determinations on current policy governing these programs. ***SmartPro MedEE*** will also prevent the individual from submitting multiple applications for the same program within a 30 day period unless an application submitted during that 30 day window has been denied. Therefore, if an application for a program is pending, the system will not allow the applicant to submit another application for that same program/benefit. The applicant or authorized representative also has the ability to withdraw an application for assistance at any point prior to the processing of that application. Whether filed online or through other means, the applicant/client has the ability to check the status of an application or other processing by accessing the self-service portal using their personal log-on credentials. The client and their authorized representative can access data, including application data, by accessing the system through the use of their personal log-on. Access to case and individual information is governed in accordance with the permissions associated with the log-on credentials and the person's affiliation with the case. All case activity will be logged

and maintained as part of the case transaction log. <ELG004, ELG029, ELG041, ELG124, ELG125, ELG126, ELG127, ELG128, ELG144, ELG146, GEN046>



Figure IV-10: Sample Online Application Home Page

Individuals conducting business via the Public Self-Service portal or workers conducting MLTC business will be guided through the various activities. For instance, there is a process for filing an application for assistance. Once the individual selects the option to file an application and determines the program(s) they will apply for, the ***SmartPro MedEE*** will guide the individual through the application process. Screens will be scheduled and presented to the applicant first to collect mandatory information. Subsequent screens will be based on the person's responses to questions or the data they provide. Individuals indicating they are employed will be presented with screens that will collect employment and wage information, for example. In essence, each task or activity has a predetermined workflow. ***SmartPro MedEE*** will also capture details concerning the person performing the task/activity, the time and date of the activity, the method used to complete the activity, and the location from which the user is conducting MLTC business. For example, the system will track the date and time an applicant completes an application, whether the application was submitted online or via the case worker or other designated staff, and the location of the individual. <ELG130, ELG131>

In support of the ACA, the ***SmartPro MedEE*** solution delivers a streamlined application and redetermination process to collect and verify client and household information, including e-verification through trusted sources. In the first step of applying and determining eligibility for health insurance assistance, the solution captures basic information about the applicant. Streamlined applications comply with CMS requirements and abbreviated applications will be made available in support of specific non-MAGI applications, respectively. The MLTC can set 'applicable limits' for data which will allow automated redeterminations based on the data received on a renewal form or that received from a trusted source. For example, a redetermination form submitted via the self-service portal or through other means that reflects no change in circumstance or a change in data that falls within the MLTC's 'applicable limits', will automatically trigger a redetermination and not

require worker intervention. 'Applicable limits' will be established by the Department and apply to specific data elements and may apply to specific programs; 'applicable limits' will appear in the program rules. <ELG005, ELG006, ELG007, GEN004, GEN047, GEN051, GEN064>

The system uses personally identifiable information about the client to retrieve household and income information from various data sources, such as the Federal Data Services Hub. This same information is used to search the ***SmartPro MedEE*** database in order to determine if the applicant or any member of the applicant household is registered in the database. Search results will provide the authorized staff details in order to determine if the person does in fact have a record within the ***SmartPro MedEE*** database or must be registered as a new participant. If known, all available individual and case information is brought forward for review and update. <ELG002, ELG003, ELG139, OPS001>

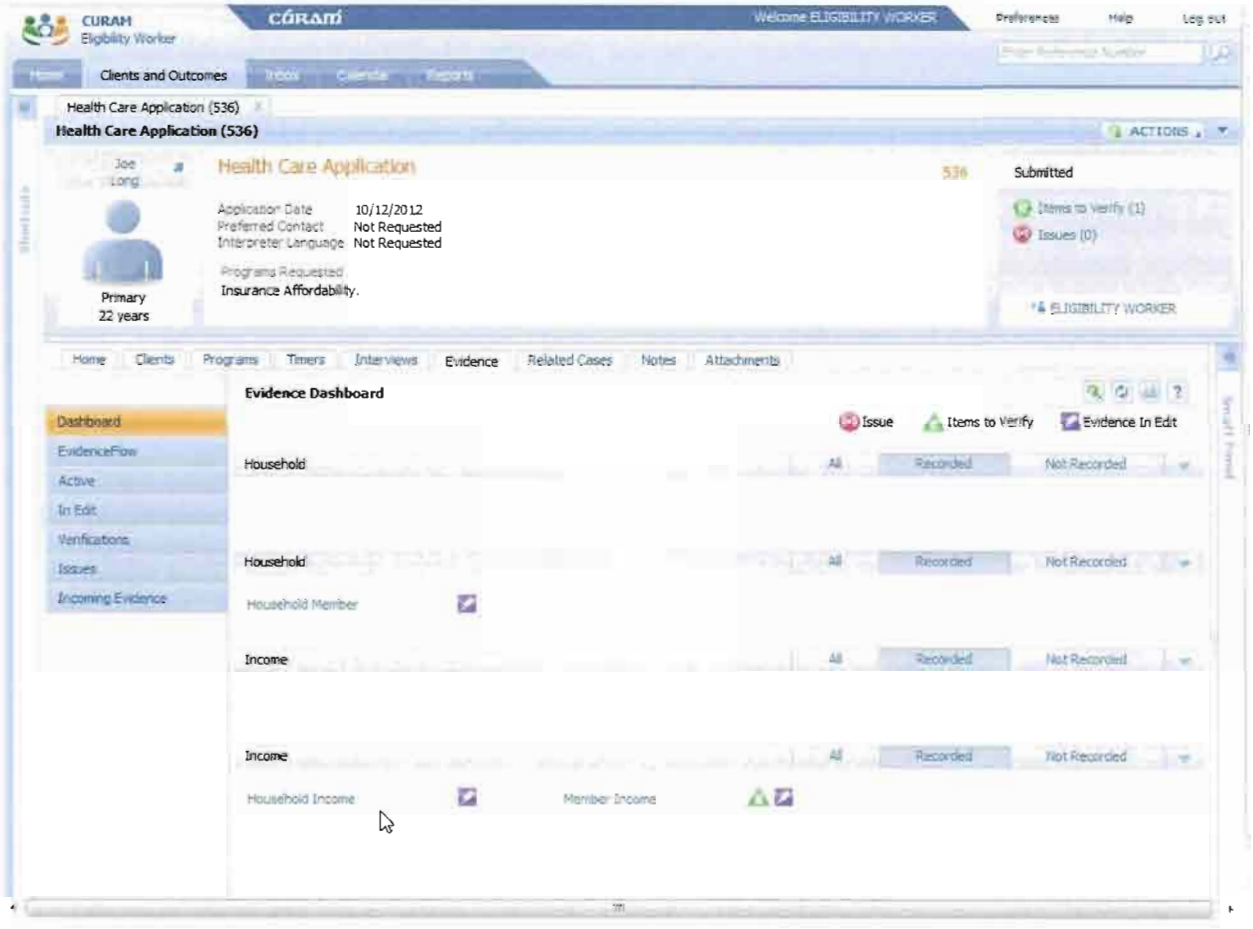


Figure IV-11: Healthcare Application

Information collected on the streamlined application, illustrated in the Figure IV-11 Healthcare Application, includes, but is not limited to:

- Applicant details, including basic identifying data and address
- American Indian/Alaska Native Tribe membership
- Social Security Number details
- Citizenship/lawful presence details

- Household member details and relationships
- Tax filing status
- Additional household member details, such as pregnancy, disability, incarceration status, receipt of other benefits, and availability of employer-sponsored health insurance
- Income (received from the Federal Data Services Hub, other trusted sources, or manually reported).

As data is entered ***SmartPro MedEE*** on-screen edits will confirm that the information is entered in the proper format. For example, the system will confirm that dates are entered correctly. Drop down menus may be used to further assist the individual with data entry. <ELG005, ELG032, ELG045>

The ***SmartPro MedEE*** will accept an application where SSNs are not provided for all members of the household. When this occurs, ***SmartPro MedEE*** will generate a unique identifier, and allow a worker to add the SSN to the member record once it is obtained. ***SmartPro MedEE*** will then set the SSN as the primary reference number for the member. The auto-generated unique identifier will remain on the member record allowing searches using either reference number. <ELG123, ELG141>

Applicant and household information is only collected once and will be used by ***SmartPro MedEE*** to create the electronic case file. This file will organize data into categories such as demographics, relationships, income, resources, and education, all of which will be readily available to authorized users. It will also be used during eligibility and entitlement determination and benefit calculation. Such data will be maintained as individual and case historical information. This data will be available for sharing through the solution's Enterprise Service Bus, when applicable and allowed. <ELG072, ELG129>

The ***SmartPro MedEE*** solution provides intake features via a number of channels. The online user can enter application data which is managed by IBM Cúram Intelligent Evidence Gathering (IEG). The IEG functionality provides scripting capabilities to dynamically tailor questionnaires based on the user's responses and only asks those questions necessary to make the appropriate determinations. The design of this flow is geared to maximize the quality of the user's experience, while minimizing any redundancy in data collection or processing. In addition, embedded field-level help assists individuals in understanding and providing requested information accurately. <GEN009>

Additionally, intake processing is provided to internal workers – such as intake or call center workers who may process applications received via phone, mail or fax. These intake workers would also receive and process any adjudications required on applications received via the online channel, which may require manual verifications. Authorized users can review application data and eligibility determinations before disposing of an application. Application disposition can result in the reviewer not accepting the eligibility determination decision and putting the related case on hold for further investigation/review. In addition, internal workers can manually navigate to any application screen that they are authorized to access. This allows the worker to complete a new application in an order that suits their situation. ***SmartPro MedEE*** workers can process verifications from their view of the healthcare application. <ELG116, ELG117, ELG122>

SmartPro MedEE will produce a summary of all information entered on the application allowing the applicant or authorized representative to review and, if necessary, modify information prior to electronically signing the application and submitting it to the Department. ***SmartPro MedEE*** will

highlight or indicate areas where information required for a specific program of assistance is missing. This will allow the applicant/authorized representative/worker to complete that portion of the application by providing the missing data. The applicant can print the application or summary if they desire. Once submitted, the applicant will be informed of the privacy and confidentiality protections in place for the information they have provided. Additionally, the applicant will receive a list of actions that they must complete, verifications that they must provide, and the timeline during which they must be provided in order for the application to be processed in accordance within each program's processing timeframe. The worker has the ability to extend verification timeframes if notified by the client indicating a hardship in obtaining and submitting the needed verification. ***SmartPro MedEE*** will track all verifications received allowing authorized individuals the option of accessing and printing a list of outstanding verifications if needed; this capability will be available through enhancement of the out-of-the-box functionality which will link the list of verifications received to the notification functionality. <ELG014, ELG021, ELG034, ELG035, ELG038, ELG043, ELG077, ELG111, ELG113, ELG114, ELG118, ELG119, ELG148, ELG149, NOT016>

Applications submitted via the self-service portal as well as those received through other means will be assigned or routed to designated MLTC staff for processing. ***SmartPro MedEE*** can automatically assign the application based on instructions provided by program administrators. For example, the Department may assign the application based on geographic location of the client, based on worker specialty (i.e., language, program), or in a predetermined order. All workers will receive notification via their home page of the newly assigned case. The case will be accessible for review via the link on the home page. The Department may also opt to funnel or direct all new applications to a specific unit or supervisor for assignment. <ELIG142, ELG143, ELG145>

SmartPro MedEE will provide the client with the option of checking the impact of a change in circumstance. For instance, if a client is considering a change in household composition (someone moving into or out of the home), they have the ability to self-assess to determine the impact of that change on their eligibility and benefit level. An increase in household size that also results in an increase in countable income may impact the amount of Food Stamps the household is eligible for and may impact other benefits depending on the relationship of the new household member with all other members of the household. This information may be used to determine whether or not that change will occur. As is the case with individual and household information received and verified at application, changes in household circumstances are used by ***SmartPro MedEE*** to determine the composition of a household for eligibility purposes. Individuals will be grouped in accordance with program specific policy. Eligibility determinations group individuals into households or cases based on program rules and regulations, determining the combination of individuals and benefits that are most beneficial to each party in the household. <ELG027, ELG074, ELG105>

Verification

The ***SmartPro MedEE*** solution supports the process by which the accuracy and validity of evidence is verified. ***SmartPro MedEE*** includes the functionality to define multiple, and effective-dated, verification conditions and items for a particular piece of evidence (data), for example, a date of birth, an address or an income amount.

The Department can define and manage the categories of data that may require verification as part of program delivery. Where verification of specific categories of evidence is a prerequisite for program eligibility, Cúram provides the means for setting evidence verification requirements and the functionality to record and manage verification details. ***SmartPro MedEE*** will help the MLTC and its case workers to focus on obtaining the required evidence verification items rather than needing to keep track of the types of evidence that require verification or the rules involved for each verifiable evidence type. The setting of verification requirements ensures that verification of critical evidence data is managed in a controlled and consistent manner.

The intake process, as well as ongoing renewals and case management, integrates with our electronic verifications process. User identities are verified and in the case of new or updated registrations, existing systems are queried to find matches, create links to external data and minimize duplication. Data from trusted sources, such as the Federal Hub or local sources are used to verify and to streamline data entry. ***SmartPro MedEE*** will notify the assigned worker, via their home page, of inconsistencies between data received from a trusted source and that reflected in the case file. The worker, based on this information will take the necessary steps to confirm the accuracy of the data being reflected in the case before using it in eligibility and entitlement determinations. ***SmartPro MedEE*** will assess the impact of all case updates, whether received from a trusted source or those updated by the worker based on verifications received, on the individual's and household's eligibility. Updates will automatically trigger ***SmartPro MedEE*** to apply that change against the rules applicable to active or pending cases in order to process the impact, update eligibility and generate notices to those impacted. Client notifications reflecting the results of eligibility determinations contain details such as the date of the application, date the decision was rendered, the eligibility begin date, and any calculations used to determine eligibility and the level of benefits. Workers can be notified if a trusted source such as the Federal Marketplace Hub is not available to verify client information; in these situations the worker can initiate the process to obtain the needed verification through other means. That application disposition can result in the reviewer not accepting the eligibility determination decision and putting the related case on hold for further investigation/review. <ELG073, ELG075, ELG079, ELG080, ELG114, ELG138, ELG147, ELG149, OPS001>

Where electronic sources are not present or available, the user would also be prompted to provide verification directly to the worker or upload an electronic version of the verification documentation, which could be subject to further review by an internal worker. Verifications are scanned and associated with the application or renewal individual and household. The system will index verification documents to facilitate the authorized user's ability to search and review documentation associated with a case or individual. For instance, verifications dealing with wages or earned income will be indexed allowing that authorized user to locate specific earned income details as needed. <ELG033, ELG120, OPS013>

Verifications processing uses the IBM Cúram rules engine and can be configured or tailored to the Department's specific requirements. Multiple verification sources with varying levels of trust may be defined for each piece of data used as evidence in eligibility determinations.

The ***SmartPro MedEE*** solution will allow authorized workers to view, confirm and submit corrections to verification results. ***SmartPro MedEE*** will allow an applicant to submit changes to address any inconsistencies to data reported by external entities. <ELG078>

SmartPro MedEE will determine individual and case eligibility by applying reported, verified data against the program rules for each category of assistance selected on the application. The system-generated notice of decision prepared and distributed to the client and identified authorized representative will provide details of each eligibility determination. The decision notice will also inform the recipient of their rights and responsibilities and the process to follow should they opt to file an appeal or grievance concerning their eligibility determination results. <ELG013, ELG039, ELG070>

Application Processing

SmartPro MedEE is designed to automate and track processes. It is quite possible that an individual or household will apply for multiple programs or services on a single application – with each program having different processing timeframes and verification requirements. ***SmartPro MedEE*** will notify workers of impending deadlines or tasks by generating alerts or ticklers to the worker's home page. Applications received are time and date stamped – information that will be used by the system to track processing timeframes for each category of assistance as well as when the various pieces of documentation or verification must be provided by the applicant/client. A reminder will notify the worker that the application for Medicaid and/or other programs must be processed by a specific date. That reminder will appear on the worker's home page, elevating in queue until completed or the deadline is extended. Tasks and activities, such as processing the Medicaid application, will be elevated to the attention of a supervisor if not addressed within the prescribed timeframe. All applications, whether submitted as the result of a screening decision or those that originate directly with an application are tracked based on the application submission date, maintained as part of the electronic case file, and retained in the client's history. As an additional aid, workers have the ability to manually create alerts. The system will track both manual and automated alerts. <ELG025, ELG040, ELG135, ELG136, GEN076, GEN080, GEN081>

In the event that a new program is available, for example, a new medical assistance program or coverage group, ***SmartPro MedEE*** will consider all applicable dates and consider an individual's eligibility for that program by applying all eligibility criteria and program rules to the individual circumstances. Program rules are date-specific which will prohibit eligibility for the program before the actual program availability date. For instance, if an application is pending and a new program becomes available, all individuals and circumstances will be compared to program criteria. In the instance of Medical Assistance, the MLTC will determine the new program's position in a list of programs in order to guarantee that the individual is determined eligible for the program that is most beneficial. <ELG076>

Participant Management

Requirements Addressed:

ELG008, ELG081, ELG082, ELG083, ELG085, ELG086, ELG087, ELG088, ELG089, ELG090, ELG091, ELG092, ELG093, ELG094, ELG095, ELG096, ELG106. ELG109, ELG110, ELG123, ELG140, ELG161, ELG164, ELG165,

GEN041, GEN074, GEN083

OPS038, OPS039

The ***SmartPro MedEE*** will use the IBM Cúram Participant Management component to provide comprehensive support for recording and managing details of clients and their interactions with the MLTC. Highlighted features of IBM Cúram Participant Management and their corresponding benefits include the following:

- **Centralized Master Client Index** – allows organizations to register and manage details of a client, assigns a unique identifier to each registered client, and provides statewide access to registered clients for users with applicable security authorizations. <ELG081>
- **Powerful, flexible searching** – allows users to quickly locate client details, including the capability for "sounds like," nickname (thesaurus-based), and wildcard searching to increase efficiency of searches. <ELG082>
- **Duplicate client record identification** – greatly reduces the chance of duplicate client records and improving client tracking and lowering the potential for errors and fraud. If a user inadvertently creates a duplicate, a process is included to enable the user to merge the clients and designate a primary client record for ongoing processing. <ELG083, GEN025>
- **Holistic approach to managing client information** – through integration with case management and client self-service functionality, IBM Cúram Participant Management empowers agencies to improve service delivery to their clients and to increase the chance of achieving the most appropriate outcomes.

The ***SmartPro MedEE's*** case management component provides extensive functionality to facilitate the creation, management and tracking of cases in support of social enterprise program and service delivery. In Cúram, a case is used for recording and maintaining interactions between clients and the MLTC to support program and service delivery.

By providing an "electronic folder" capability, ***SmartPro MedEE*** enables relevant case data to be managed in a centralized, client-centric way. This ensures that information relating to a case is easily accessible to MLTC staff and permits the status of the case to be readily managed and tracked.

Highlighted features of the ***SmartPro MedEE*** case management component and its corresponding benefits include:

- Client-focused approach provides caseworkers with a holistic view of the information relating to a case and the clients involved, promoting improved service to clients.
- Integrated case design allows the MLTC to manage multiple programs and services to a client or household through a single case; which helps avoid duplication of data and encourages organizational efficiency.
- Integrated workflow processing standardizes and automates routine case processes, allowing Department staff to spend more time on clients that require special attention.

- Intuitive case evidence management facilitates efficient recording and maintenance of the key client data, or evidence used to determine program eligibility and entitlement.
- Case evidence is effective dated to allow for "time slicing" supporting retrospective case assessments and auto-detection of overpayments or underpayments.
- Automated eligibility determination and entitlement calculation removes the burden of decision making from case workers, resulting in quicker and more consistent eligibility and entitlement decisions.

Client Registration

The registration function in Cúram allows users to record essential identification information about each client and can be implemented according to the business requirements of the MLTC. For example, this process may be implemented as an independent process, or as part of case processing, screening or some more extensive business process. Because Cúram maintains client data in a centralized database, a client's details need only be registered once. Thereafter, client data may then be accessed and maintained in this centralized database by any appropriately authorized user.

During the registration process, the person search functionality can be invoked (if required) to search the Cúram database in order to identify existing participant records which may match, based on key identity criteria such as name, address and date of birth. All potential matches are displayed to the user in order to help prevent creation of duplicate participant records. The user can increase the number of entered search fields to further filter search results. The results returned help the user decide whether to continue with the registration or to carry out any necessary actions to establish identity. To avoid duplicate client records the worker or designated Department staff can initiate a person search during the registration process. Figure IV-12: Pre-Registration Person Search view provides a sample of the search criteria that can be used by the worker to focus or narrow the results of this search <ELG086, ELG088, ELG089, ELG090>

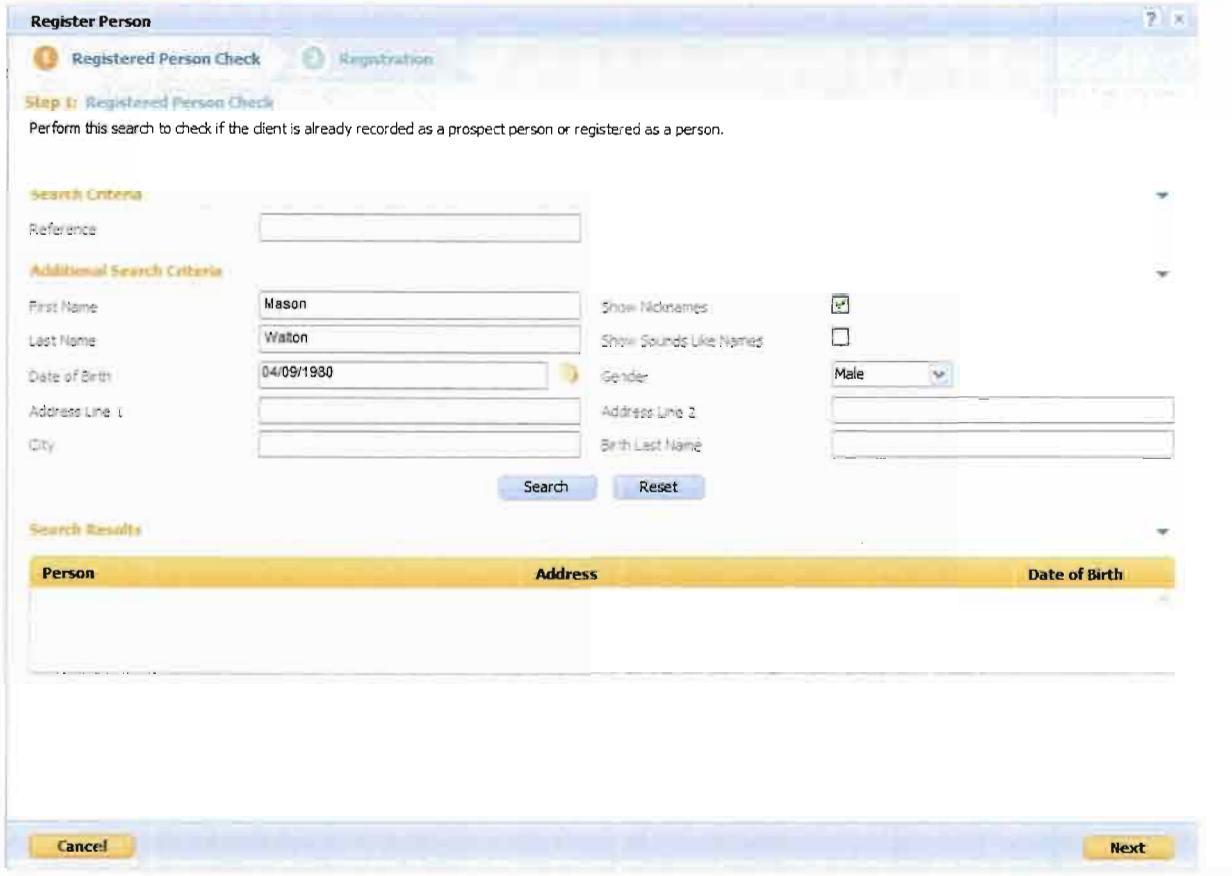


Figure IV-12: Pre-Registration Person Search

If search results indicate that a client or beneficiary has been previously registered, the user can open the individual's profile and update or amend the profile as required. If an individual is not already registered, the user can record data about the individual using the appropriate registration page, as shown for a person in the screenshot in Figure IV-13 below. Data that is entered as search criteria is pre-populated on the registration page.

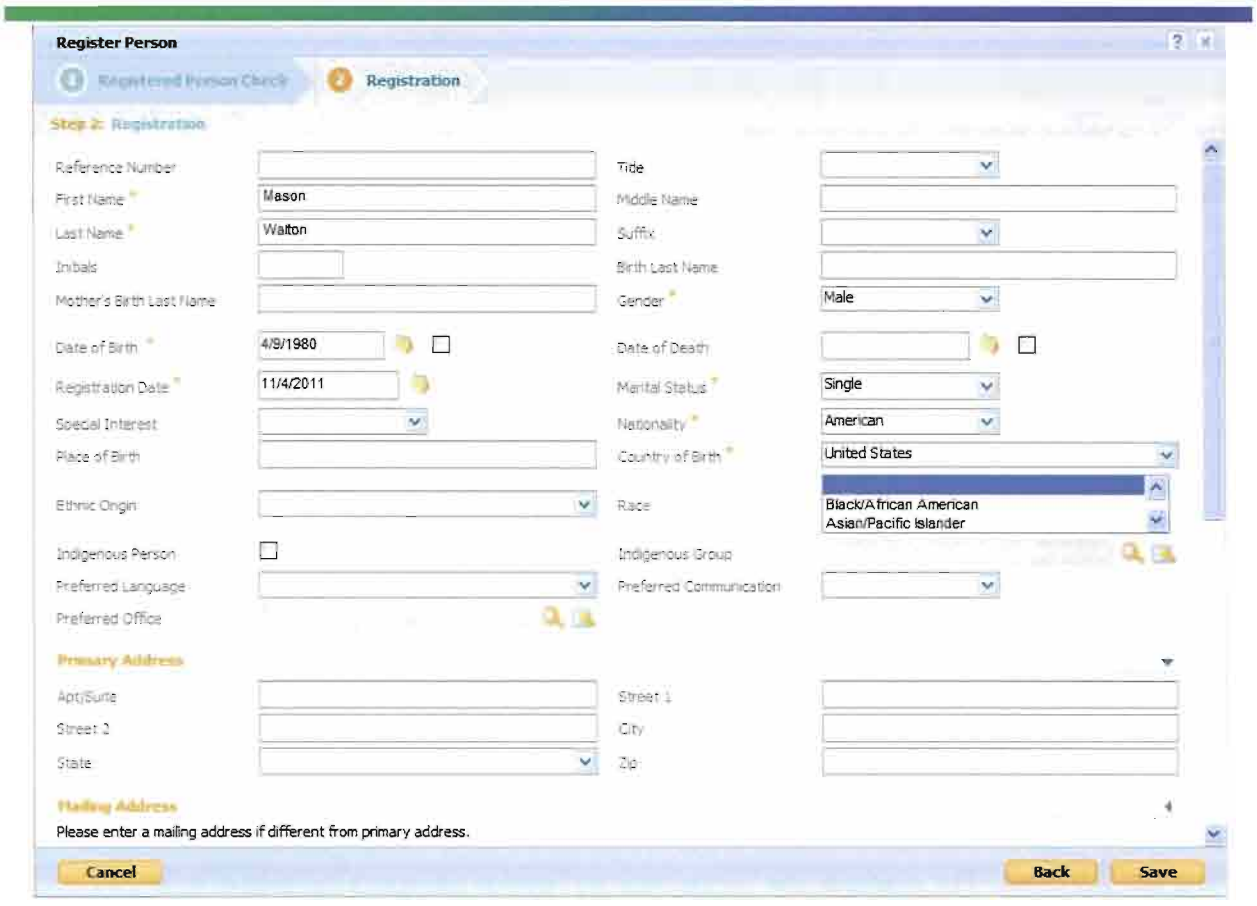


Figure IV-13: Client Registration Page

A user can enter a wide range of data at the registration stage with certain key details being mandatory by default. Once all required information has been entered and the registration process completed, a unique identifier is generated and assigned by Cúram to the registered client. Cúram also supports recording other types of identifiers, such as driver's license number. When the user has completed registration, the system allows the user to either view the client's details on the person "home page" or register another individual. <ELG082, ELG123>

Client Maintenance

IBM Cúram Participant Management facilitates the on-going maintenance of each client's details. The person home page (Figure IV-14) is the starting point for navigating through the various elements associated with a client. The home page displays key information such as name, contact information, preferred communication method and summary information.

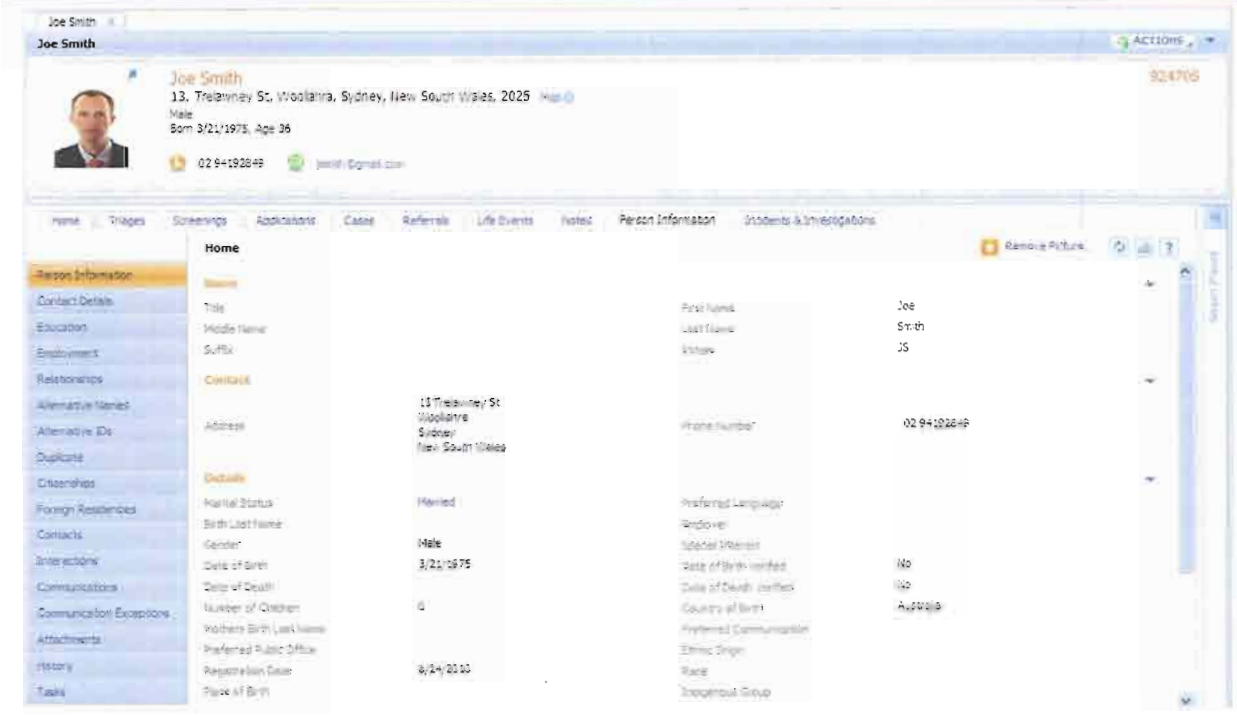


Figure IV-14: Person Home Page View

The person home page provides an extensive menu of options to view, update and add information concerning the individual. For example, the "Relationships" option navigates the user to a list of relationships for that person. Authorized users can then obtain more detailed information about each relationship record displayed in the list and can amend, delete or add new relationship details as required. Security profiles are used to determine what types of person information can be viewed and updated by a user. Changes to a person's data are retained and a history of changes can be viewed and, with appropriately defined business rules, changes to specific types of data can trigger alerts to specified work units and can trigger automated processes such as eligibility redetermination (e.g., child turns 18 years old). <ELG106, <GEN041, GEN083, OPS039>

The following information is maintained for all 'persons' in Cúram:

Table IV-4: Attributes Maintained for Persons

Category	Description
General Registration Information	Includes the person's name, registration date, preferred public office, preferred communication method, and preferred language. Also includes participant sensitivity level (similar to a security clearance level), payment currency, method of payment, and the default frequency by which payments are issued to the participant.
Addresses, Phone Numbers, Email Addresses and Web Addresses	For each address, phone number, email address or web address recorded, Cúram allows a default or "primary" record to be specified as well as the "type" of record in each case. For example, phone number types include

Category	Description
	"mobile" or "business", and address types include "mailing" and "business".
Administrators	Administrators are users who are assigned to manage the interactions between the organization and the person.
Alternative IDs	An alternative ID is a unique person identifier. Cúram automatically generates an alternative ID (reference number) as part of the registration process.
Alternative Names (Aliases)	Alternative Names are those names other than the person's preferred or known name, for example, professional name, alias and so forth. Alternative names are utilized when completing name searches.
Bank Accounts	Contains the details of a person's bank accounts, which can be used to facilitate electronic fund transfers (EFT) to or from the organization.
Cases	Cases for which the person is the primary client on the case.
Citizenships	Citizenships are countries where a person holds citizenship and on the period of validity for the citizenship.
Communications	Communications are items of correspondence to or from the organization, including letters, telephone calls or emails-based. Outgoing communications can be created using MS Word templates, XSL templates, or email and then automatically stored for a person. Incoming communications can also be recorded after they have been received.
Communication Exceptions	A communication exception is used to indicate that a person does not wish to receive communications in one or more formats.
Contacts	Contacts are persons assigned to act on behalf of a client.
Education	Information on a person's educational history and qualifications.
Employment	Employment details for the client, including the employer name, the type of employment, period of employment and the number of hours worked per week.
Financials	Displays the financial transactions between a client and the organization including payments arising as a result of case processing, account adjustments or payments received by the MLTC from the client.
Foreign Residencies	Foreign Residencies are any periods of time during which a person is resident in a country other than that in which the organization is located.
Interactions	An interaction is a generic term used to describe an

Category	Description
	automatically generated list of communications and payments occurring between the participant and the MLTC.
Insurance Contribution Line Items and Consolidations	A person's insurance contributions to his or her employer during a period of employment, as well as groupings of these contributions within an insurance return period. Insurance contribution records are automatically recorded for a person when the person's employer submits insurance returns.
Notes	Notes allow a user to store additional information regarding a person. Individual notes may be secured so that they can only be accessed by certain users. A note history is automatically maintained for all notes.
Relationships	Relationships are the personal or familial relations between a person participant or prospect person participant and another person, e.g., spouse, sibling. When a relationship is added for a person participant or prospect participant, the system automatically adds a reciprocal relationship for the related person.
Special Cautions	Allows users to be cautioned of any issues relating to a client such as behavior, health, or safety issues. Users are kept informed of special situations regarding clients via a special caution icon link, displayed on the client's home page. The complete list of special cautions and associated details can be accessed via this link.
Tasks	A task is an instruction to carry out an item of work. Cúram Workflow tasks may be created automatically by the system or manually by a user. Tasks that are associated with a particular client are displayed in the client's list of tasks.

<ELG008, ELG085, ELG109, ELG164, ELG165>

Case Creation

Cúram includes business services that are designed to streamline the process involved in creating and maintaining cases. A case may be created for a client already registered on the system. Alternatively, a case worker has the option of registering the client when creating the case. Cases may be created by a case worker through a manual registration process or a workflow, with applicable business rules, can be used to automatically create and assign a case. <ELG091>

During the creation of the case, the user can choose the type of case involved, the expected outcome of the case, and other basic information relating to the case. When a case is created in Cúram, a unique case ID number is automatically assigned to the case, which may be used for tracking the case and as a reference for participants involved in the case. The screenshot below shows the home page of a Cúram Integrated Case (Figure IV-15). <ELG092, ELG094, ELG096>

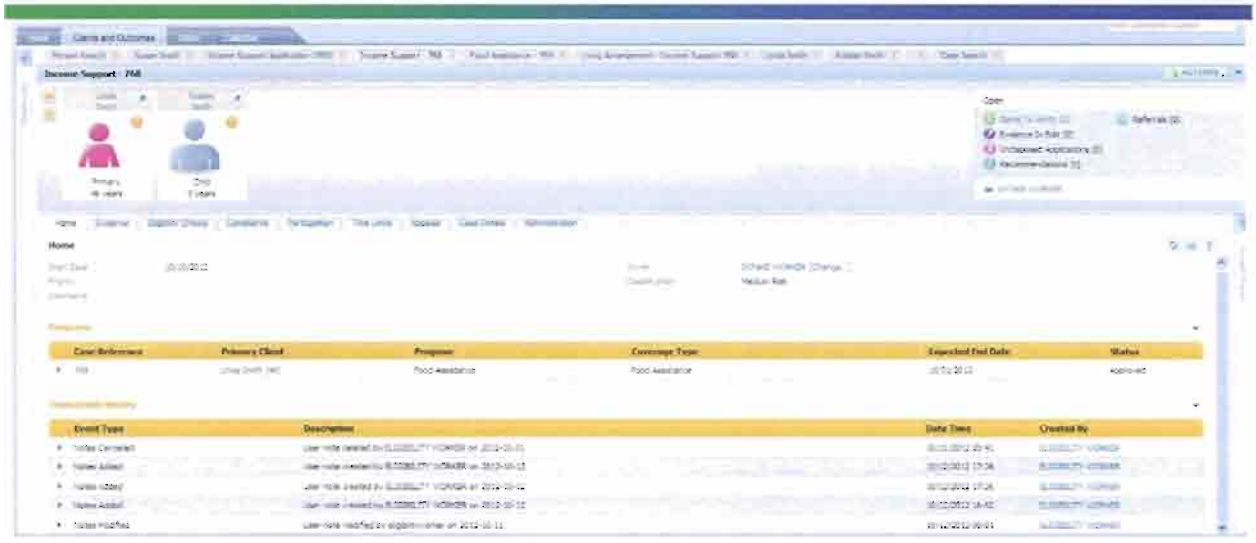


Figure IV-15: Cúram Integrated Case Home Page

IBM Cúram supports the management of the various other "participants" affiliated with a case. Case participants also include any nominees, contacts, and correspondents on the case.

Case "members" are registered individuals added to an integrated case for the purpose of determining their eligibility for benefits and services. Each person who is part of the same household is assigned a case member role within an integrated case. Note that changes in household makeup may require that a new person be added to an existing case. Additionally, changes in the household composition will trigger redeterminations for all individuals currently receiving assistance from the Department. <ELG093, ELG140>

Case Maintenance

Once a case has been created, authorized users with appropriate security rights may update case details and carry out maintenance as required over the lifetime of the case. Cúram provides comprehensive functionality to allow users, as well as automated processes, to manage case details. The following table provides a listing of the information that can be captured and maintained using the ***SmartPro MedEE*** case management functionality. <GEN074, OPS038, OPS039>

Table IV-5: Attributes Maintained for Cases

Feature	Functions
Case Participants	Case Participants are the various stakeholders involved in a case, for example the individuals, providers and other contacts relating to a case. They are added by the system automatically by virtue of their role in relation to a case.
Attachments	Attachments are electronic documents that are linked to the case, associated with clients and communications on the case including, for example, scanned licenses or legal documentation.
Communications	Communications are the correspondence between the organization and participants on the case, including letters, emails and phone calls.
Events	Events are significant milestones and events relating to the case life cycle. Such events may be created automatically by the system as a result of some action that

Feature	Functions
	has been carried out on the case (e.g. case approved, case suspended, case closed, etc.) or they may be created directly by a system user (e.g. case reviews, referrals, and calendar activities).
Notes	Notes are used to provide additional information about a case and to help a user see the progress history for a case. Notes can be entered by any user that is authorized to maintain the case. They can also be created by the system as a result of specific events occurring on the case. The details of a note are entered by users in free text format. Notes may be assigned a sensitivity rating so that the note can only be accessed by certain users. All modifications to a note are maintained so that a history of the note details is preserved, including note version, the time and date the note was entered on the system, and the user who made the note modification.
Related Cases	Related cases are cases in the system that have something in common with the case being viewed. Case relationships are automatically added by the system where appropriate and can also be manually created by a caseworker.
Tasks	In Cúram, a task is an instruction to carry out an item of work. Cúram Workflow tasks may be created automatically by the system or manually by a user. Tasks that are associated with a particular case are displayed in the Tasks list.
User Roles	These are users in the system who are assigned as either the case owner or case supervisor (or both). A single user may be assigned to both roles or different users may occupy each role.
Assessments	Assessments are simple rule-based determinations of specific characteristics relating to a client, for example medical assessments or at-risk assessments.
Contracts	A contract specifies a case member's responsibilities with respect to services or products received as part of the integrated case.
Products	Products are the programs that are being delivered as part of an integrated case.
Outcome Plans	Outcome plans are used to manage a client or household towards achieving specific goals, in order to improve their circumstances. They are created using the optional Cúram Outcome Management module.
Financials	The financials options display details of payments made, and bills charged in respect of product delivery cases.
Deductions	Deductions allocate a portion of a benefit payment to a third party or a debt.
Evidence	Evidence data is used by Cúram to determine eligibility and entitlement for a case. This option allows a caseworker to capture and manage the personal and circumstantial data (evidence) relating to a client and their household.
Certifications	Certification confirms that only certified cases and certified periods are paid. Certifications are proposed periods of eligibility that are used to validate evidence. For example, if evidence is entered for a six month period but only three out of the six months are certified, the evidence entered for the remaining three months will not be validated until it is certified.
Appeals	Permits authorized users to view details of any Appeals cases that have been created.

The case home page contains options that allow users to modify summary case details and to carry out actions such as marking the case as an item of interest, and moving the case through the stages

of the case life cycle. Users can also view a list of "recent transactions" on the case, providing users a convenient audit trail of pertinent events on the case.

Case Searching

Cúram provides case searching capabilities to allow users to quickly locate cases within the system. Cúram case searching functionality allows users to search for cases based on a range of criteria, such as client name, client reference number/ID, case status, or by case reference number. Case search results may indicate that an existing case should be used (based on business rules), instead of registering a new case. For example, a client may already have an existing closed or inactive case that can be re-opened. The ***SmartPro MedEE*** solution will also include compound search functionality, utilizing search criteria that may go across multiple participants (e.g., names of both a parent and a child). Rules will be included to process compound searches to define appropriate search results. <ELG087, ELG095, ELG140, ELG161>

Cúram also supports the concept of saved searches referred to as "case queries". A case query enables a case worker to choose specific case search criteria that is important to them and they can then save the criteria used in the search as a personal query. This query can be run and rerun without the case worker having to specify the criteria each time.

Case Life Cycle

Cúram allows a case to go through a series of defined steps (i.e., a "life cycle") to ensure that the case is properly processed. By default, when a case is created in Cúram its status is set to "open". Thereafter the case status may change depending on the actions carried out on the case and the workflow processes that have been defined for the particular case type. For example, cases may have statuses such as "submitted", "rejected", "approved" or "active". Some programs may involve complex steps and work processes throughout the case life cycle whereas other programs may have a very simple life cycle. Cúram supports the ability to have specific life cycles and workflows associated with specific case/program types. Attributes of a case may affect the behavior of workflows (e.g., 'sensitive' cases may require special handling). When a workflow encounters a special situation indicator, a task can be generated for the appropriate case worker, offering an opportunity for the case worker or other authorized staff to override the process associated with the indicator. <ELG109, ELG110>

Cases may be closed at any time by a suitably authorized user, for example if a case was opened in error. Typically, a case is closed after a number of intermediate steps, at the end of which some outcome is achieved in respect of the case, for example, completion of an investigative process.

Throughout the life of the case, Cúram provides the ability for authorized users to carry out various actions on the case including the assignment of the case to other users. At each stage during the case life cycle, or where significant events occur on the case, Cúram notifies the relevant users via alerts (and where user action is required using task capabilities), so that the relevant caseworkers, supervisors or other MLTC workers are kept up to date on the progress of the case, along with any obligations they may have in relation to the case. Similarly, case participants, such as the client,

providers or contacts will be notified of case related obligations or events via email or through correspondence notices created automatically by the system.

Medicaid Eligibility

Requirements Addressed:

ELG001, ELG002, ELG007, ELG008, ELG010, ELG012, ELG016, ELG027, ELG028, ELG030. ELG031, ELG037, ELG048, ELG049, ELG050, ELG051, ELG052, ELG053, ELG054, ELG057, ELG058, ELG059, ELG060, ELG061, ELG062, ELG063, ELG064, ELG065, ELG066, ELG068, ELG069, ELG071, ELG076, ELG100, ELG102, ELG104, ELG112, ELG137, ELG150, ELG151, ELG152, ELG155, ELG156, ELG157, ELG158, ELG159, ELG160, ELG166, ELG170, ELG172

GEN006, GEN007, GEN008, GEN011, GEN012, GEN014, GEN015, GEN023, GEN025, GEN038, GEN039, GEN040, GEN042, GEN044, GEN045,GEN048, GEN049, GEN052, GEN054, GEN058, GEN059, GEN062, GEN064, GEN065

NOT026

OPS002, OPS009, OPS010, OPS056, OPS057, OPS058, OPS059, OPS060, OPS061, OPS062, OPS064, OPS065

The ***SmartPro MedEE*** eligibility and enrollment solution determines eligibility and entitlement for public medical assistance programs (Medicaid and CHIP), as well as potential eligibility for Federal health insurance assistance subsidies. The ***SmartPro MedEE*** Public Self Service portal, in support of a no-wrong door approach, is accessible from locations with Internet access and will provide the citizens of Nebraska with the ability to access information, screen for potential eligibility, and apply for programs and benefits offered by the Department as well as Federal health insurance subsidies (Federal premium tax credits, and cost-share reductions); Community-based or external organizations will also have the ability to perform these activities on behalf of the individual. Department-specific information such as office locations and hours are accessible through the portal. Citizens can also access this information, request program screening and initiate program applications, and redeterminations through other channels. In all cases, the ***SmartPro MedEE*** solution will support the full process from initial contact through eligibility determination or receipt of information requested. It provides the facilities and rules to collect and manage the evidence relevant to the health insurance plans and programs supporting automated program eligibility and entitlement determinations for such programs. Additionally, the ***SmartPro MedEE*** solution supports a staggered or phased approach to program implementation. For example, the MLTC can implement a solution that supports eligibility determinations for Medical Assistance and Federal health insurance subsidies. At a later date, the Department can incorporate eligibility determinations and case management capabilities involving SNAP, TANF and other programs. <ELG016, ELG028, ELG065, ELG151, GEN007, GEN008, OPS009>

The ***SmartPro MedEE*** solution will interface with external applications as directed by the Department. Interfaces can be used to obtain verifications and can also be used to exchange details concerning client eligibility. For instance, ***SmartPro MedEE*** can interface with legacy applications currently responsible for determining eligibility for SNAP and TANF and external applications

responsible for providing services that are designed to assist the person or household until determined eligible for Department-sponsored benefits. This exchange will serve to increase the accuracy of benefit determinations and decrease fraud by providing accurate timely information to multiple agencies issuing benefits to common clients. The interface with the Nebraska Financial and Accounting system will interface at the Financial Instruction Line Item (ILI) level and will serve to increase accuracy of benefit determinations as well as support financial management and reporting at all levels throughout the State, including reporting and data exchanges with the Federal government. <GEN023, GEN052, OPS002>

Integrated Eligibility

The IBM Cúram Eligibility and Entitlement Engine applies program rules to a household's evidence (data) in order to determine eligibility and entitlement. ***SmartPro MedEE*** will evaluate all the evidence and perform the necessary computations that determine the program entitlement(s) for all named individuals as well as the household. The ability to determine household units – that may vary across programs – is a capability critical to Medicaid and families affected by the ACA. Household units for the streamlined process endorse d by the ACA are based on a taxpayer and his/her dependents as reported on a Federal income tax return. Household composition for other programs is determined differently. The IBM Cúram for Medical Assistance solution's Eligibility and Entitlement Engine is designed to determine different household units according to program rules including, the eligibility and coverage options available to those household members:

- Households that include members eligible for CHIP and Qualified Health Plans administered through the Federally-facilitated Marketplace (FFM);
- Households that include members who have specialized needs and are eligible for Medicaid under traditional rules as well as members that qualify for Federal subsidies through the FFM;
- Households that include employees;
- Households that experience changes in composition, income, and/or employment that move members across public medical assistance programs and the FFM; and
- Households that include members eligible for other human services programs with a subset of those members eligible for different health insurance coverage options.

<ELG104, OPS065>

Using the eligibility and entitlement process described above, when a client requests assistance the system gathers the necessary information, determines different assistance units in the household and their eligibility for various programs (MAGI-based Medicaid and CHIP, non-MAGI based Medicaid, potential eligibility for Federal subsidies). Additionally, the ***SmartPro MedEE*** solution can provide a Medicaid enrollment roster to the Marketplace at pre-determined interval. <GEN064, ELG107>

MAGI Medicaid Eligibility Determination

To provide coordination of eligibility and continuity of coverage across the different healthcare programs, the ACA stipulates how eligibility is determined for Medicaid and CHIP to align with the income-tax based method for Federal subsidies. The ACA established new definitions for income,

Modified Adjusted Gross Income (MAGI), and determining household composition based on the number of personal exemptions that an individual claims on a tax return with some exceptions.

Certain types of income are treated differently between tax code and Medicaid eligibility rules, such as:

- Social Security benefits,
- Lump sum payments,
- Educational scholarships and grants, and
- American Indian and Alaska Native income.

The solution must apply rules, including MAGI, to a household's data in order to determine eligibility and entitlement. ***SmartPro MedEE*** evaluates the evidence and carries out necessary computations to determine program entitlement(s).The ability to determine household units varying across programs is critical. Household units for the streamlined process endorsed by the ACA are based on a taxpayer and his/her dependents as reported on a Federal income tax return. Household composition for non-MAGI Medicaid and other programs is determined differently. The ***SmartPro MedEE*** solution can and will determine different household units according to program rules, and the eligibility and coverage options available to those households.

Treatment of Income and Resources

Income and resources are also factored into eligibility determinations. Policy will determine how income and resources are treated at the program level. Rules will assess the household structure. As part of the review process, types of income and resources entered are verified in order to accurately apply income and resources to both the individual and case. For example, income and resources may be included, excluded, or exempt depending on program rules. The ***SmartPro MedEE*** solution will assess and treat the income and resources in accordance with program-specific policy. The treatment of these items, and all other data, is detailed in the eligibility determinations and calculations and is also detailed in the notifications issued to the client, client and/or authorized representative. For instance, ***SmartPro MedEE*** must consider transfer of resources (type of resource, date of transfer) when determining eligibility for Long Term Care. Improper transfer of resources may result in an individual's ineligibility or suspension from a program. ***SmartPro MedEE*** will initiate and track all periods of ineligibility and program suspensions resulting from an improper transfer of resources. ***SmartPro MedEE*** will maintain a comprehensive, detailed history of all eligibility determination at the individual and case levels. <ELG050, ELG054, ELG061, ELG063, ELG064, ELG066, ELG069, ELG156, ELG160, ELG170, GEN054>

Certification periods vary based on programs and may also fluctuate based on the instability of the household or likelihood of change. ***SmartPro MedEE*** will assign a certification period based on program rules – usually between one and 12 months. It will also monitor the eligibility period in order to notify the assigned worker, client and/or authorized representative of the upcoming redetermination requirement that must be addressed in order to continue eligibility. Redeterminations that must occur as the result of reported changes or conducted for other reasons prior to the end of the certification period are processed by ***SmartPro MedEE*** by considering all current, verified information and applying that against applicable program rules. Eligibility determinations and required notices and documents are generated as the result of any eligibility

determination associated with applications and redeterminations. ***SmartPro MedEE*** rules will accommodate MLTC's policy which allows for a reconsideration period or segment of time during which the client will not be required to complete a new application if the overdue redetermination form is received directly by the Department or processed as an online via the Public Self-Service portal. <ELG048, ELG049, ELG068, GEN048, GEN049>

IBM Cúram Eligibility and Enrollment for a Federally Facilitated Marketplace

IBM Cúram Eligibility and Enrollment delivers out-of-the-box functionality in support of the Department's implementation of the requirements for a Federally Facilitated Marketplace (FFM).

CMS has defined seven critical success factors to help FFM states understand their responsibilities for working with the FFM. These seven critical success factors are:

CMS Critical Success Factors

1. Ability to accept application data: The State must accept the streamlined application.
2. MAGI rules: The State must be capable of determining eligibility under MAGI rules.
3. MAGI conversion: The State must be capable of converting income data to MAGI.
4. Provide thresholds and flexibilities: The State must provide to CMS, via MACPro, State specific thresholds such as FPL limits.
5. Connections to FFM: The State must provide the required end points for interacting with the FFM.
6. Connections to Hub: The State must implement the required connections to the Federal Data Services Hub, for example to automatically verify data captured through the State's streamlined application.
7. Minimum Essential Coverage (MEC) check: The State must provide client enrollment status under State medical programs, such as Medicaid or CHIP.

The ***SmartPro MedEE*** solution supports the MLTC's ability to accept a streamlined application, verify data received against the state and federal data hubs, determine eligibility using MAGI rules, and, when required, interact with the FFM to hand off applications to the FFM or accept applications from the FFM. The latter will occur when the FFM assesses potential eligibility under MAGI or traditional Medicaid and CHIP rules. Verifications received electronically will be reflected and, if received from a trusted source will automatically update individual/case information in accordance with Department instruction. ***SmartPro MedEE*** can be configured to notify the assigned worker or designated staff in the event that a discrepancy between available data and newly received data occurs, prompting the worker to review and take appropriate action. All updates and transactions will be recorded and maintained in the client's/case history. <ELG002, ELG057, ELG071, GEN011, GEN012, OPS010>

IBM Cúram Eligibility and Enrollment provides the Department with the components needed to satisfy these seven critical success factors. The solution provides the streamlined application, the MAGI rules, the MAGI conversion logic, interfacing with the federal data hub and, subject to completion of the design and implementation of the account transfer interfaces by the FFM, will provide the State side of these interfaces. The ***SmartPro MedEE*** solution will serve as the single

endpoint between the FFM and the Federal Data Hub as depicted in Figure IV-16: IBM Cúram Illustration diagram.

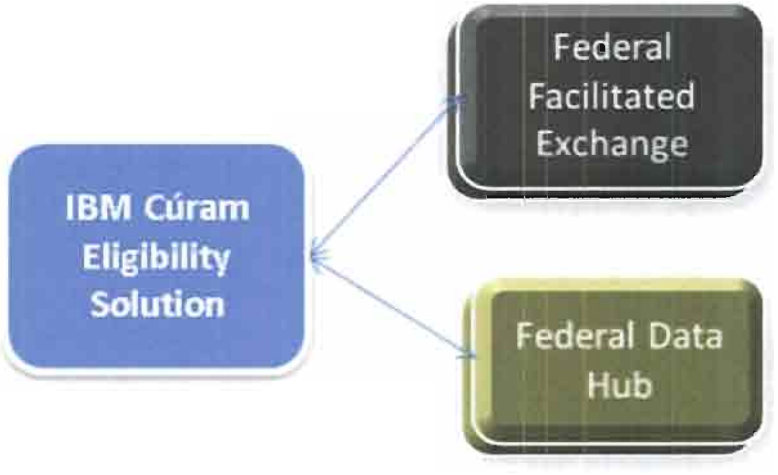


Figure IV-16: IBM Cúram Illustration

The application transfer interfaces, known as "Account Transfer business services" will operate through the federal data hub. These business services will operate in both directions transferring application data to the State's Medicaid/CHIP systems from the FFM, and from the State's Medicaid/CHIP systems to the FFM. All referrals from the FFM to the State Medicaid/CHIP systems will be sent to a single endpoint. The receiving entity at the State must coordinate the referral between various agencies and send a response back to the FFM. The account transfer interface will be triggered by the FFM when:

- The applicant is assessed as potentially eligible for Medicaid/CHIP based on MAGI (by FFM).
- Applicant is referred by FFM to Medicaid for non-MAGI eligibility determination based on screening questions.
- Individual requested full determination of eligibility for Medicaid/CHIP
- Qualified Health Plan Enrollee (with APTC/CSR) assessed as potentially eligible for Medicaid or CHIP during periodic data matching or self-reported changes.

The account transfer interface will be triggered from the State when:

- A Medicaid/CHIP Applicant is determined ineligible for Medicaid/CHIP (by State) and is referred to the FFM.
- A Medicaid/CHIP Recipient loses eligibility for Medicaid/CHIP (as determined by State) and is referred to the FFM.

The exchanges of client data between the FFM and MLTC and subsequent eligibility determinations are seamless to the client. The ***SmartPro MedEE*** solution will generate detailed notices to all clients detailing eligibility determinations (denied, eligible, termination). <ELG010, ELG156, GEN054>

The IBM Cúram Match to CMS Critical Success Factors table documents in further detail how the solution satisfies the seven critical success factors for the State of Nebraska. <ELG112>

Table IV-6: IBM Cúram Match to CMS Critical Success Factors

Ability to accept application data	The IBM Cúram solution includes the complete streamlined application. It is implemented as a configurable script of questions and presented to the user in an intuitive and guided manner.
MAGI rules	The solution is delivered with MAGI rules for both initial eligibility and ongoing case management.
MAGI conversion	MAGI conversion is accommodated through configurable rules logic included in the solution.
Provide thresholds and flexibilities	Configuration capabilities allow state thresholds and flexibilities to be applied to the solution.
Connections to FFE	The IBM Cúram solution acts as the required single endpoint for the FFM, providing the four account transfer interfaces needed by states: • H15 Account Transfer: FFE to Medicaid/CHIP • H16 Account Transfer: Medicaid/CHIP to FFE Response • H17 Account Transfer: Medicaid/CHIP to FFE • H18 Account Transfer: FFE to Medicaid/CHIP Response
Connections to Hub	The IBM Cúram solution provides the required connections to the Federal Data Services Hub. Maryland's exchange, powered by IBM Cúram, is the nation's first state-based exchange to submit information to – and receive information from – the Federal Hub.
MEC check	The IBM Cúram solution's connections to the Federal Data Services Hub facilitate the required Minimum Essential Coverage (MEC) check, providing client enrolment status for Medicaid and CHIP.

Over time, if a decision is made to move from the FFM to a State Exchange model, ***SmartPro MedEE*** provides a flexible solution to support that decision. IBM Cúram provides capabilities for integrating with a State Exchange including the rules logic for Advance Premium Tax Credit and Cost Sharing Reduction calculations. Shopping portal integration with best of breed insurance shopping portal vendors is also feasible with IBM Cúram. Furthermore, the IBM Cúram solution provides a complete portal solution for capturing new claims and changes in circumstance.

Further, Nebraska will be able to leverage project artifacts as appropriate from other states implementing the IBM Cúram Eligibility, Enrollment, and Case Management solution for both their MAGI and non-MAGI projects. Today, North Carolina has shared their project plan, best practices, and lessons learned in implementing SNAP, cash assistance and Medicaid eligibility with several other states and is willing to share similar project design documents, project plans, configurations, and extensions to IBM Cúram with other clients.

Non-MAGI Medicaid Eligibility Determination

The solution must provide rules to determine eligibility for the full spectrum of medical assistance programs that exist today, listed below, and also address the revised spectrum of medical programs as a result of ACA consolidations. Covered programs in the solution today, under pre-ACA or 'traditional' processing include the list below.

Pre-ACA Medicaid coverage types

- Mandatory Categorically Needy groups

- Low Income Families with Children (LIFC – includes Transitional and Extended Assistance)
- Aged Blind and Disabled (ABD)
- Pregnant Women
- Newborn
- Children (under and over 6)
- Title IV-E Foster Care
- Title IV-E Adoption
- Emergency Medical Assistance for the following:
  - Low Income Families with Children
  - Aged Blind and Disabled
  - Pregnant Women
  - Newborn
  - Children (under and over 6)
  - Title IV-E Foster Care and Title IV-E Adoption
- Cost Sharing Medical Assistance
  - Qualified Medicare Beneficiaries (QMB)
  - Specified Low-Income Medicare Beneficiaries (SLIMB)
  - Qualified Individual (QI-1)
  - Qualified Disabled Working Individual (QDWI)

- Optional Categorically Needy groups
  - Long Term Care
  - Refugee
  - Breast and Cervical Cancer (BCC)
  - Tuberculosis (TB)
- Mandatory Medically Needy
  - Medically Needy Children
  - Medically Needy Pregnant Women
  - Emergency Medically Needy Children
  - Emergency Medically Needy Pregnant Women
- Mandatory Medically Needy with Spenddown
  - Medically Needy Children with Spenddown
  - Medically Needy Pregnant Women with Spenddown
  - Emergency Medically Needy Children with Spenddown
  - Emergency Medically Needy Pregnant Women with Spenddown
- Children's Health Insurance Program

Post-ACA Medicaid coverage type consolidations

The revised spectrum of medical programs as a result of ACA consolidations is show below.

Pre-ACA Medicaid coverage types	Post-ACA Medicaid coverage types
LIFC	Replaced by ACA category (parent/caretaker or children)
ABD	No change with ACA
Title IV-E Foster Care/Adoption	No change with ACA
Newborn	Replaced by ACA category (children)
Children	Replaced by ACA category (children)
Pregnant Woman	Replaced by ACA category (pregnant woman)
Medically Needy Children	No change to Medically Needy with ACA
Medically Needy Pregnant Woman	No change to Medically Needy with ACA
Medicare Cost Sharing Programs (QMB, SLMB, QI-1, QDWI)	No change with ACA
BCC	No change with ACA
Refugee	No change with ACA
Emergency LIFC	Replaced by ACA category (parent/caretaker or children)
Emergency ABD	No change with ACA
Emergency Title IV-E Foster Care/Adoption	No change with ACA
Emergency Newborn	Replaced by ACA category (children)
Emergency Children	Replaced by ACA category (children)
Emergency Pregnant Woman	Replaced by ACA category (pregnant woman)
Emergency Medically Needy Children	No change with ACA
Emergency Medically Needy Pregnant Woman	No change with ACA
Emergency Medically Needy Children with Spenddown	No change with ACA
Emergency medically Needy Pregnant Woman with Spenddown	No change with ACA
Medically Needy Children with Spenddown	No change with ACA
Medically Needy Pregnant Woman with Spenddown	No change with ACA
LTC	No change with ACA
CHIP	Modified with ACA

<ELG007, GEN014>

The IBM Cúram for Medical Assistance component of our solution features cascading eligibility, as encouraged by the Centers for Medicare and Medicaid Services (CMS). Cascading eligibility refers to the process for determining program eligibility based on a hierarchy of the spectrum of Medical Assistance programs. Administrators can configure the hierarchy and prioritize programs to meet policy objectives and maximize Federal funding. <GEN059>

When applying for medical assistance, applicants, households, or case workers do not have to choose a specific medical program. Information about the household is entered and an eligibility check is requested. Cascading eligibility determines the household composition and executes the rules for the program with the highest priority first, followed by the rules for the program of next

highest priority, and so on until the best possible fit is found for the individual or family. When eligibility is found for more than one program – such as an ABD and QMB combination – both programs are offered for continued eligibility determination. This also supports efforts to address dual-eligibles and provide opportunities to 'end the disconnect' between the two programs by integrating care for high-expense users of medical services. <ELG053, GEN062>

The goal of ***SmartPro MedEE*** is to assess the individual's and household's verified circumstances in order to determine eligibility for the program(s) most beneficial to the client and client household. All confirmed circumstances will be applied against program rules. MLTC will set a hierarchy of programs that ***SmartPro MedEE*** will access when determining eligibility. For example, programs that fall within the Mandatory Categorically Needy Medical Assistance category offer a higher level of benefit than those that fall within the Medically Needy Medical Assistance category. ***SmartPro MedEE*** will follow that hierarchy issuing an eligibility determination for the program that will offer the individual the most beneficial benefit. Given this, it is possible for members of the same household to receive different benefits based on the situation and the income and resources, for example, which must be factored in to the individual eligibility determination. Changes in circumstances may result in an automatic eligibility redetermination that could impact the individual's eligibility. The system will automatically determine the eligibility, end date eligibility for one program/category and set a begin date for another category of assistance in accordance with policy. For instance, ***SmartPro MedEE*** receives information that employer-sponsored coverage will be ending 1/31/2014, ***SmartPro MedEE*** will set the begin date for coverage for eligibility household members effective 2/1/2014. The status of each individual is updated and a complete history of all changes is maintained as part of the individual and case historical record. All changes are automatically assessed by ***SmartPro MedEE*** to determine the impact on all household members however; a change in benefit eligibility for one individual does not automatically impact the eligibility of other members of the household. A disposition workflow process will be included such that primary and secondary reviewers participate in a disposition and a hold will be released following a secondary review. Detailed notification of all eligibility determination results, at application, redetermination or as a result of a change, is automatically prepared for distribution to the client or client representative. <ELG001, ELG030, ELG031, ELG137, GEN044, GEN045, GEN065, OPS009, OPS056, OPS057, OPS058, OPS060, OPS061, OPS062, OPS064>

Long-term Care: Cost of Care Calculation, Transfer of Assets Assessment, and Spousal Impoverishment

IBM Cúram Long Term Care Medical Assistance supports three Medical Assistance coverage types that provide coverage for individuals who require an institutional level of care over an extended period of time: Long Term Care, Medically Needy Long Term Care, and Medically Needy Long Term Care with Spenddown. Long Term Care refers to the medical, social, personal care, and supportive services needed by people who have lost some capacity for self-care because of old age or a chronic illness or a condition. This definition generally excludes medical care for acute conditions; however, post-acute care, such as skilled nursing care and home healthcare, is often classified as long-term care. <ELG060>

Unlike other Medical Assistance coverage types, the full liability for nursing home or waiver care is not usually completely incurred by the Medical Assistance agency, in this case, MLTC. The

institutionalized individual must usually contribute to their cost of care. IBM Cúram Long Term Care Medical Assistance calculates the amount paid by the institutionalized individual based on their total monthly income with some deductions made for personal needs, family dependents, shelter allowances, and income. <ELG059>

In Long Term Care, an individual must declare information about resources they, their spouse, or any individual acting on their behalf have transferred to another individual within a specified period of time prior to application; known as the 'look-back period'. ***SmartPro MedEE*** collects information required to determine if the individual transferred the resource specifically in order to qualify for Long Term Care Medical Assistance, in which case they would be ineligible for a period related to the invalid transfer amount. The look-back period is a constant time frame of 60 months. ***SmartPro MedEE*** will track the individual's period of ineligibility resulting from an improper transfer of resources. <ELG172>

For an individual with a community spouse, special provisions called Spousal Impoverishment provisions apply to individuals who became institutionalized after 1989. The purpose of this provision is to allow the community spouse to keep some of the institutionalized individual's resources as determined on a specific date (assessment date). Under spousal impoverishment provisions, an institutionalized individual may receive Long Term Care Medical Assistance if he or she agrees to bring his or her resources below the resource limit by transferring them to his or her spouse within a specified time known as the 'protected period'. Spousal Impoverishment calculations are performed by rules. The system determines the value of all countable assets belonging to the institutionalized individual and the community spouse on a specific date called the Assessment Date. The rules determine an appropriate spousal share for each spouse. Generally, the spousal share is half the couple's resources on the assessment date; however, there are limits and if the spousal share is below the minimum or above the maximum, the spouse's share may be increased or decreased. This is called the Community Spouse Share. If the institutionalized individual's resources are less than the resource limit, then the individual is eligible and no protected period is required. If the institutionalized individual's resources are over the limit (usually $2000), the resources are compared to the resource limit plus the Community Spouse Share. If this resource test is passed, resources must be transferred.

In all Long Term Care situations, should the institutionalized individual move or change placements the impact of this change will be assessed by ***SmartPro MedEE*** and eligibility results reflected in the client correspondence issued. All changes in placement as well as any and all changes in eligibility are tracked by ***SmartPro MedEE***. <ELG062>

Spenddown

Spenddown is a Medical Assistance term used for persons whose income and assets are above the threshold for MLTC's designated medically needy criteria, but are below this threshold when medical expenses are factored in. The difference between the individual's gross income less deductions and the actual income limit for the particular Medical Assistance program is called the Spenddown amount. The ***SmartPro MedEE*** solution calculates Spenddown on a period basis, and both eligibility and the Spenddown amount are re-determined each period.

An individual can meet the Spenddown amount by submitting allowed medical expenses to reduce/meet the Spenddown amount.

When the individual meets this Spenddown amount, they can receive Medical Assistance coverage from the date that Spenddown was met until the end of the specified Spenddown period.

Spenddown functionality covers the following groups of people that are Medically Needy if they meet income and resource eligibility guidelines or Spenddown to the eligibility guidelines:

- All pregnant women
- All individuals under 18 years of age
- Women who were medically needy during pregnancy must remain eligible for Medicaid services related to the pregnancy for 60-days beginning on the date of her child's birth.
- Individuals receiving long term care. <ELG157>

Changes in Circumstances

Beneficiary changes occur frequently such as marital or employment status changes. The MLTC requires a system that allows it to track, maintain, and address those changes in client or individual information. The Public Self-Service Portal provides the option of reporting changes by accessing the Report A Life Event option on the Member home page. The ***SmartPro MedEE*** solution accepts specified changes linking to the appropriate case and notifies the assigned worker of the change. This option allows the client to describe the actual life event that is causing them to look for assistance, for example divorce, newborn, lost wages, and obtain a set of related recommendations.

The individuals' needs are assessed collectively in a member/family context - rather than in a program-driven manner, providing a tiered, integrated response that focuses on the needs of the member/family.

As changes in household circumstances occur, such as the birth of a baby or a change in marital status, the member must notify the Department to determine impact on eligibility for benefits (increase, decrease, or have the possibility of new benefits). Clients can report these changes using the Public Self-Service portal (Figure IV-17).

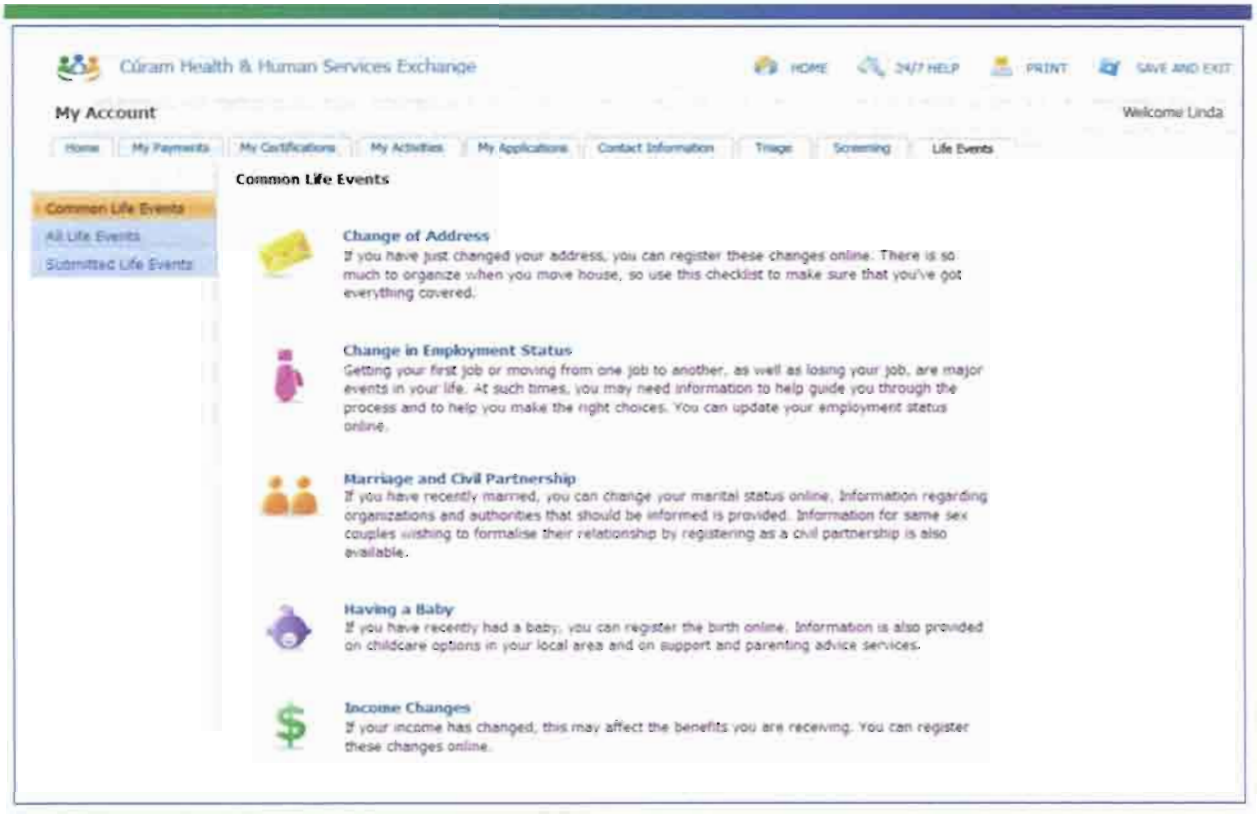


Figure IV-17: Common Life Events

The client will select they type of change being reported, for example - Change in Employment Status. As is the case when initiating the redetermination process, existing information available for the select individual will be presented to the person reporting the change. The person can then provide details concerning the change, save and exit. The reporter also has the ability to check to see what impact the reported change will have on eligibility and/or the level of benefits. <ELG027>

Online Member Account – Common Life Events. Easy to read and understand to encourage self-service.

Once entered and saved by the client, the assigned worker will receive notification of the reported change and the member will be informed of the verifications required. When the change in circumstance is verified, eligibility for active programs will be reassessed. If the change in circumstances is such that the individual and/or household may be eligible for additional benefits or services, the system will generate that message allowing the member to decide his/her next steps.

Reported changes that impact eligibility yet to be determined will keep the application in pending status. For ongoing cases, the eligibility and benefit level will continue at the present level until verification is received. Once recorded, the change will trigger redeterminations for future eligibility and benefits as well as for retroactive eligibility to confirm that benefits previously issued were accurate. If, in accordance with policy, a trial budget or trial eligibility must occur prior to a change in benefits going forward, the system will be configured to accommodate this process. <ELG012, ELG052>

Redeterminations and reassessments triggered as the result of verified changes in circumstances may result in a change in benefit status or level of benefits received. For example, an increase in income in excess of the allowable limit will close a case and possibly terminate a benefit for the household or a household member. This case closure may initiate a reassessment of Medicaid/Medical Assistance eligibility for household members. The system can be configured to trigger an eligibility termination action based on verification of non-payment of a required premium. Assigned workers or other authorized staff members have the ability to manually initiate a case action, such as a case closing if in line with program policy. In these situations the worker will be required to indicate the closure reason and date. ***SmartPro MedEE*** can also be configured to notify the worker. All actions – closing, withdrawal, denial – and associated reasons and action dates are maintained as part of the individual's eligibility history. <ELG037, ELG100, ELG102, GEN038, GEN039, GEN040>

An authorized business user can make changes such as a Cost of Living Allowance (COLA) rate adjustment or insurance premium adjustments. Given that these two examples could impact the eligibility profile of a large number of cases, this likely would be handled via mass change. <ELG058, ELG166, GEN042>

The ***SmartPro MedEE*** solution tracks verification timeframes as specified by program rules or in accordance with State protocol. Failure on the part of the applicant to verify information in a timely manner will result in denial of the application. A member's failure to verify information within the timeframe stipulated may cause a case to close based on program rules.

As eligibility determinations are issued, case and member information is automatically updated to reflect current information concerning eligibility including eligibility status, benefit amounts, certification and eligibility periods. <ELG008>

Presumptive Eligibility

Presumptive eligibility in Medicaid is an important strategy for improving access to early prenatal care for low-income pregnant women. Authorized providers (like local Public Health offices, clinics, and hospitals) determine when pregnant women are presumptively eligible for Medicaid and provide medical services when they first seek prenatal care. Access to this early prenatal care can lead to better birth outcomes, healthier babies, and reduced overall healthcare expenses.

In the ***SmartPro MedEE*** solution, authorized providers use the citizen-facing streamlined application to capture data, electronically verify information, and determine eligibility for Medicaid. If applicant information (e.g., citizenship, residency, and income) cannot be electronically verified, providers can manually verify information based on MLTC policy, and upload required verification documents with the application. Presumptive eligibility continues for a specified number of days as specified by the State.

Authorized providers have access to certain functionality on behalf of applicants they assist. For example, authorized hospital staff can access information on an applicant's application status and eligibility results.

Program Rules

Organizations such as the MLTC that are responsible for the administration of public assistance programs and benefits are often faced with changes in Federal, State or local regulations. The budget constraints resulting from these changes or environmental changes have an economic impact during a downturn or a natural disaster. These organizations must adapt to these situations quickly and efficiently in order to serve the individuals relying on the benefits and services they offer or coordinate. ***SmartPro MedEE*** will support the Department's need to rapidly, accurately and efficiently implement changes to policy or establish rules in support of a new program offering. Because the rules engine is self-contained these changes can be developed, tested and implemented without impact to system response times or modification to the system architecture. <ELG155, GEN006, GEN058, GEN059>

Authorized users, through the System's Administration feature, will be able to modify existing program rules without the intervention of technical staff through the pre-built Web interface. All program rules are time-sensitive meaning that they have an effective begin and end date. This feature facilitates eligibility determinations for multiple periods. For example, if the current month is June and the reported, verified change was found to be effective in May, ***SmartPro MedEE*** will apply that change to rules in effect for the period May through June. ***SmartPro MedEE*** will also compare benefits issued to the correct amount of benefits that should have been issued computing the difference. The worker will then receive notification of the benefit discrepancy in order to recoup on an overpayment or issue the balance of owed benefits. Taking that same situation, if a rules change occurred effective July 1, ***SmartPro MedEE*** will take the correct case circumstances, by applying the rules effective for May and June, and then against rules effective July 1 to determine eligibility, recalculate benefits and inform the worker of discrepancies. <ELG150, GEN015, NOT026>

SmartPro MedEE also supports MLTC that will determine eligibility and the benefit levels associated with the new program being implemented. Once activated, ***SmartPro MedEE*** will automatically determine eligibility for the new program based on Department instructions. In the case of a Medicaid or Medical Assistance program, MLTC will indicate the program's position in the eligibility hierarchy. <ELG076>

Program Maximums

Faced with budgetary constraints and considerations it is critical that the Department monitor program usage and expenditures. The ***SmartPro MedEE*** will support enrollment limits (caseload and/or expenditures). Out-of-the-box wait list capability will be used to manage applications for programs for which the enrollment limit has already been reached. Modifications are required to enforce enrollment limits (program level maintenance of enrollment limits, rules to check if enrollment max has been reached, processing of items on wait list), and to issue wait list notifications (added to and removed from wait list). <ELG158, ELG159>

Notices and Communications

Requirements Addressed:
ELG011, ELG015, ELG044
GEN016, GEN054

NOT001, NOT002, NOT003, NOT004, NOT005, NOT006, NOT007, NOT008, NOT009, NOT010, NOT011, NOT012, NOT013, NOT014, NOT015, NOT016, NOT017, NOT018, NOT019, NOT020, NOT021, NOT022, NOT023, NOT024, NOT025, NOT026, NOT027, NOT028, NOT029, NOT030, NOT031, NOT032, NOT033

OPS006, OPS027, OPS028, OPS029, OPS044, OPS045, OPS046, OPS047, OPS048, OPS049, OPS050

The ***SmartPro MedEE*** solution includes comprehensive notice management functionality, providing the required communication channels and intuitive management and, usage of those notices. Individuals and groups of applicants/beneficiaries will receive notices electronically and via traditional paper mechanisms in the ***SmartPro MedEE*** solution via the solutions' Communication Management and Workflow Engine features. These features provide the functionality to manage the complex processing and routing for the multiple channels of communications to internal and external users.

SmartPro MedEE, through the implementation of IBM Cúram Communication Management, supports multiple communication formats including mail, email, and fax with multiple documentation types through online or asynchronous methods. As part of the IBM Cúram out-of-the-box solution multiple reference templates are provided that are automatically or manually generated by users. Logic can also be built in to override automatic generation of a specific notice or benefit card as required. <OPS028>

The "Communication Template Examples" figure (Figure IV-18) provides a sample of the list of templates provided out-of-the-box. Generated communication documents utilize applicant/beneficiary, case or other user provided information including free form text. Generated notices may include letter notifications, benefit cards, or pre-populate form. These templates are available for transmitting to one or more recipients in single or mass mailing via batch in the ***SmartPro MedEE*** solution. Specific Nebraska branded, federally compliant, information will be incorporated into existing or new templates as required in both English and Spanish versions. <ELG044, GEN016, NOT005, NOT006, NOT008, NOT014, OPS027, NOT029>

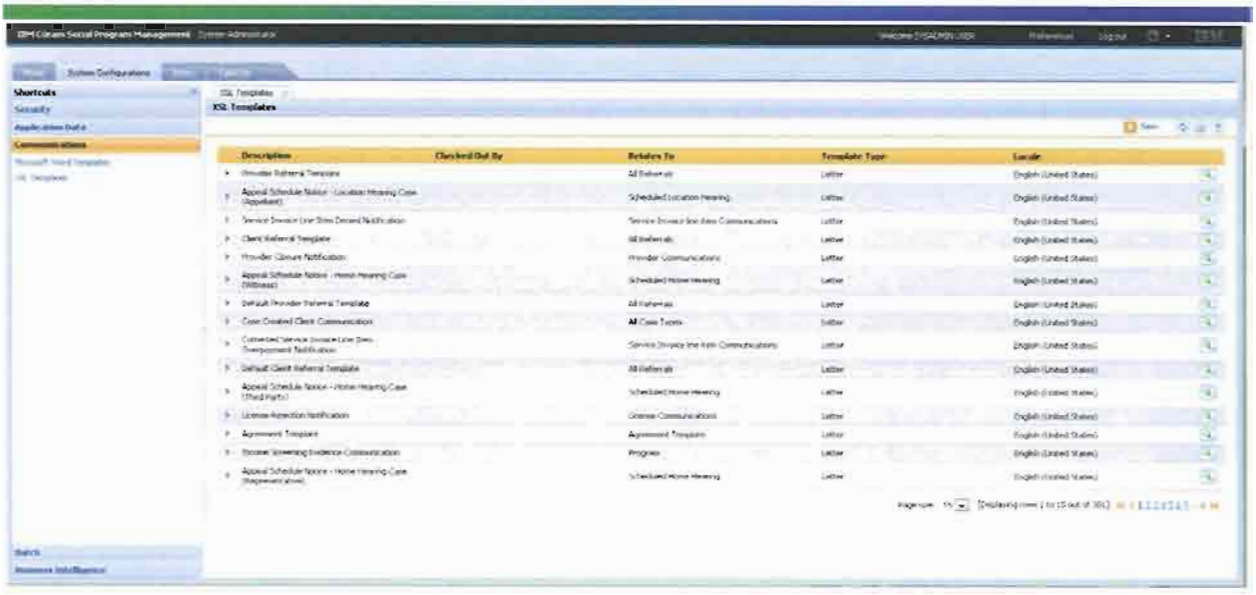


Figure IV-18: Communication Template Examples

The ***SmartPro MedEE*** solution's administration portal provides the ability to administrate, upload and version communication templates within the solution. Authorized users may suppress usage of out of date or expired communication templates or upload new versions within the portal. Pro forma templates utilize standard FO-XSL templates that are stored and versioned within the Cúram data store. Each generation of a communication document within ***SmartPro MedEE*** is re-creatable to the original version or the generated version is optionally stored within a data store.

<NOT011, NOT012, NOT013, NOT024>

The ***SmartPro MedEE*** solution will utilize IBM Cúram's Communication Framework to provide:

- Multiple locale and language notices and online notifications,
- Pro-forma generation,
- Email, fax and other communication methods,
- Bar-code incorporation into electronic and paper documents,
- No page limit notices,
- Grouped/Bundling noticing,
- Tracked generation of communications,
- Notification of change of eligibility,
- Scheduled notices based on program milestones, and
- Benefit card generation (including card replacements).

Notifications will be prepared and issued based on the client's indicated preferred language and mode of communication. ***SmartPro MedEE*** will maintain a history of all correspondence and notices issued. Authorized users will have access to these notifications as needed. <ELG011, NOT004, NOT007, NOT020, GEN054, OPS029>

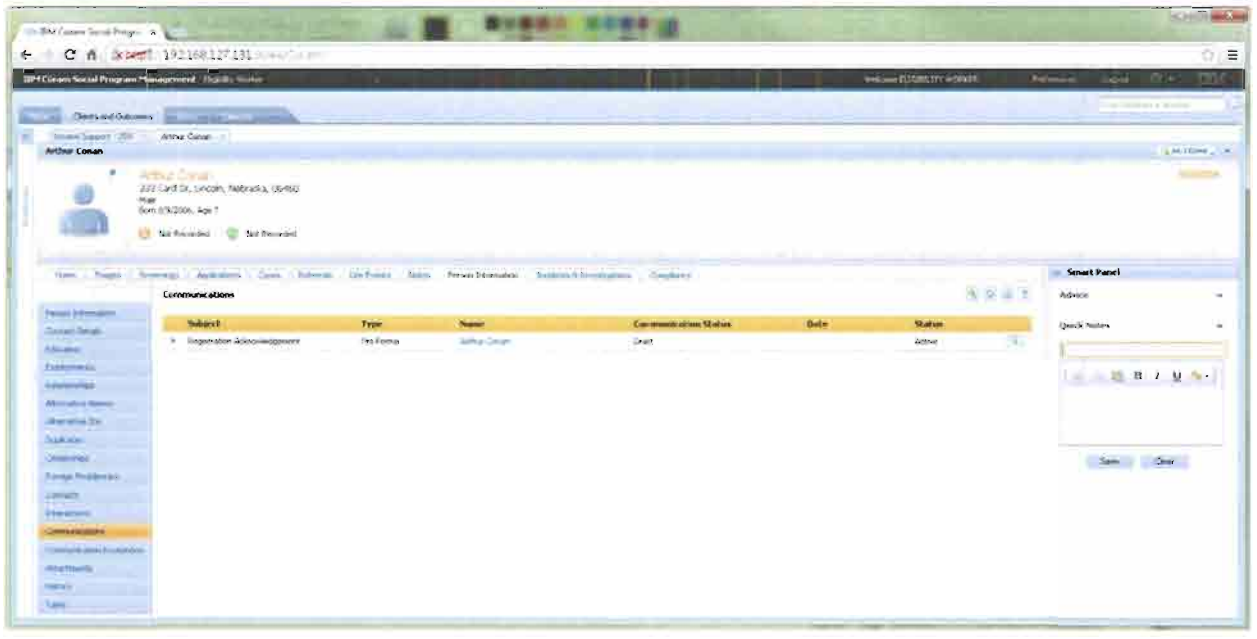


Figure IV-19: Communications Screen

Within the Communications sub-tab as shown on the Figure IV-19: Communications Screen available in applications, appeals, persons and program/case sections the authorized user may:

- Track notices with parties specific to the business process (application, case, program),
- Generate or regenerate notices,
- Sort notices by date or type,
- Delete a pending notice, and
- Identify source of notices, i.e., automatic or worker generated.

<NOT015, NOT019, NOT021, NOT022, NOT031, NOT032>

The IBM Cúram Workflow Engine will provide the business processing and event management to support automatic notice generation and task assignment related to notices. Referral tracking and task management will occur through the out-of-the-box provided referral process and Cúram Workflow related task management. Referrals will be automatically generated and tracked based on defined rules. Referrals can also be manually generated within IBM Cúram. Included in the referral workflow processing is the ability to monitor for subsequent action to a referral from the receiving entity. When certain types of data are captured, a referral workflow will be triggered notifying the specialized work unit. The referral type and target will depend on the type of data captured; e.g., employment and household changes, child-only Child Support Enforcement referrals.

<NOT027, NOT030, OPS044, OPS045, OPS046, OPS047, OPS048, OPS049, OPS050>

Notices to Applicants/Beneficiaries

The IBM Cúram solution has out-of-the-box functionality to automatically generate notices throughout the life of a case. The ***SmartPro MedEE*** solution will leverage and configure additional information as needed. A newly registered user will first generate an Adobe PDF version of their

application information available for printing or mailing to the applicant. A statement concerning the individual's rights and responsibilities as well as instructions to file an appeal may append the application or attach to another notice. External users registering within the ***SmartPro MedEE*** solution will indicate their preferred communication method; the system will use this information to determine the method of client contact. Additionally, Notices can be configured to provide the client/beneficiary with the Department's established protocol for addressing an information breach should that occur. A complete history of all communications sent and received is maintained for all individuals and cases. <ELG015, NOT001, NOT002, NOT003, NOT031>

Special situations may cause consumer notices to be generated such as in situations related to specific Cost Avoidance and Recovery areas (CSE, TPL, HIPPS, ERU, and Medical Subrogation). <OPS049>

As part of its out-of-the-box Case and Application lifecycle Cúram will set specific deadlines and milestones (i.e., logic flags) that will trigger notices to applicants/beneficiaries and possibly tasks to internal users. The ***SmartPro MedEE*** solution will generate client communications, automatically or on-demand by internal user, informing individuals of the need to provide missing information such as application fulfillment needs, missing verification information, enrollment status changes, or program requirements. Those deadlines and milestones will coordinate to the specific program rules and other relevant release dates. Since these notices are stored within the Communications screen internal users may review the existing communication in one location prior to or when directly interacting with a client, beneficiary and/or authorized representative.

<NOT009, NOT010, NOT016, NOT017, NOT018, NOT033, OPS006>

The ***SmartPro MedEE*** solution will provide a full renewal lifecycle providing notices as appropriate for each stage of interacting with beneficiaries. Beneficiaries and internals users will be able to see the stage of renewal along with a history of the interaction such as Life Events, Verifications and other related information.

<NOT023, NOT024, NOT025, NOT026, NOT027, NOT028, NOT031>

Outreach

In addition to online and paper notices applicants/beneficiaries may receive information specific to their situation via the Public Self-Service Portal. Information relevant to their household is available for display as demonstrated in Figure IV-20: Example External Screen.

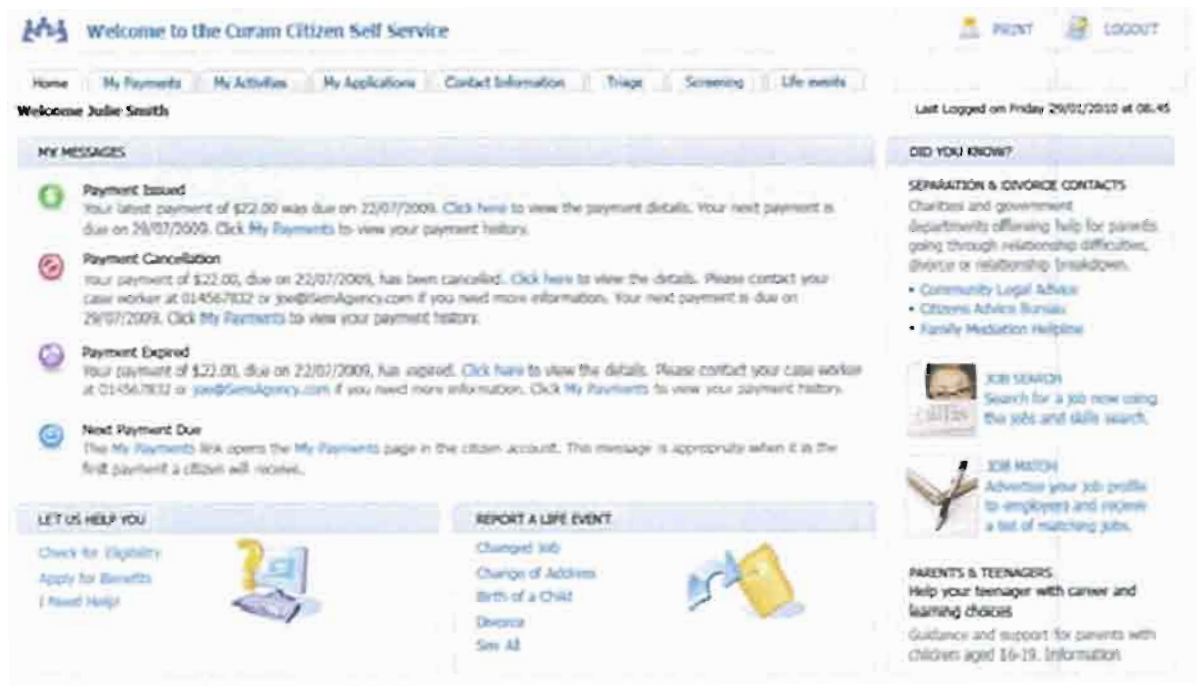


Figure IV-20: Example External Screen

IBM Cúram allows for configuring targeted information or system-wide announcements for users.

Caseload Management

Requirements Addressed:

APP017, APP025, APP029, APP033, APP042

ELG002, ELG009, ELG024, ELG026, ELG042, ELG044, ELG046, ELF047, ELG055, ELG066, ELG067, ELG068, ELG069, ELG070, ELG071, ELG090, ELG091, ELG092, ELG093, ELG094, ELG095, ELG096, ELG097, ELG098, ELG099, ELG101, ELG102, ELG103, ELG104, ELG107, ELG108, ELG110, ELG114, ELG115, ELG120, ELG121. ELG122, ELG134, ELG152, ELG156, ELG158, ELG159, ELG162. ELG163, ELG164, ELG165, ELG166, ELG167, ELG168, ELG169, ELG171, ELG172

GEN018, GEN021, GEN026, GEN027, GEN028, GEN029, GEN030, GEN031, GEN032, GEN033, GEN035, GEN043, GEN067, GEN069, GEN073, GEN079, GEN081, GEN084, GEN085, GEN086

OPS004, OPS005, OPS008, OPS012, OPS014, OPS015, OPS016, OPS019, OPS022, OPS023, OPS024, OPS025, OPS026, OPS031, OPS032, OPS034, OPS035. OPS036, OPS037. OPS038, OPS040, OPS041 OPS042, OPS043, OPS051, OPS052, OPS053, OPS054, OPS055, OPS059, OPS063, OPS066

IBM Cúram Case Management, the integrated case management component of the ***SmartPro MedEE*** solution, provides extensive functionality that will help public-facing staff to efficiently

manage increasing caseloads and administer programs that continue to increase in number and complexity. The Caseload Management functionality facilitates the creation, management and tracking of cases in support of MLTC's program and service delivery. In ***SmartPro MedEE,*** a case is used for recording and maintaining interactions between participants (such as clients, employers or providers) and the Department. The Case Management component controls the vast amount of data associated with cases and individuals while supporting caseload related tasks and activities. This feature also assists program administrators by tracking program access and usage by individuals and cases, monitor program statistics, and providing insight into program expenditures. <OPS019>

The "electronic case folder" facilitates centralized, client-centric case data management and tracks and manages the case lifecycle. Additionally, authorized staff have access to case and client information based on their designated role. <OPS004>

The proposed ***SmartPro MedEE*** case management functionality offers:

- A client-focused approach that provides case workers with a central, holistic view of client and case related information;
- An integrated case design that allows MLTC to manage multiple programs and services to a client or household through a single case, avoids duplication of data and promotes organizational efficiency;
- Integrated workflow processing that standardizes routine case processes, and increases the amount of time available to spend with clients;
- Intuitive case data that facilitates efficient recording and maintenance of key client data used to determine program eligibility and entitlement;
- Effective dated case data allows for "time slicing" that supports retrospective eligibility determinations and automated detection of overpayments or underpayments; and
- Automatic eligibility determination and entitlement calculation removes the burden of decision making from case workers and expedites accurate, consistent eligibility and entitlement decisions.

The privacy of personal and case information is essential and critical. All access to case and client information is based on the individual's role or association with the client and case. For example, log-on credentials designed to permit access to the system do not grant access to all system data. Access to case and individual data is permissible based on the user's role and affiliation to the case, restricting access to individual and case information. Additional restrictions can be set which will further limit access to sensitive information. For example, if a client is also a MLTC staff member the Department has the ability to set a high security indicator which will limit access to client details to a specified few. In these situations, search results will return a list of all individuals that meet the stated search criteria however, unless the user is specifically assigned or affiliated with that case as a worker or service provider they will not gain access to further details. Further, role-based security will restrict the access to individual and case information as well as the actions that user can perform on a case, i.e., view, modify, and perform merge functions. All transactions performed will be tracked and details maintained as part of the case transaction log. <APP029, ELG108, ELG163, OPS038, OPS052, OPS053>

Case Initiation

Cúram includes business services that are designed to streamline the process involved in creating and maintaining cases or electronic case files. A case may be created for a client or prospect client previously registered on the system. While ***SmartPro MedEE*** facilitates automated case creation, workers also have the ability to manually create cases and align individuals (registered or new) to that case in accordance with established program policies. Alternatively, client or client registration can occur at the time the case is created. Authorized users have the ability to associate clients and cases manually as required to support their workload. <ELG092, ELG093, ELG099>

During the creation of the case, the user selects the type of case involved, the expected outcome of the case, and other basic case-related information. The system will auto-generate and assign a unique case number when a case is created. This number will be used to track the case and as a reference for participants involved in the case. Figure IV-21: The Integrated Case Home Page reflects the assigned case number and serves as a launching point for authorized users to access additional case and individual details. Authorized workers can use existing case numbers to reopen or reactivate a case for the individual if all required information is provided, verifications are in place, and all other case aspects are in accordance with Department policy. By clicking on case or individual numbers reflected on any screen, authorized users can access details concerning the individual and or case. For example, authorized users can access demographic, income, resource and educational information concerning an individual as well as details such as income, resources or other factors used to determine individual and/or case eligibility. <ELG090, ELG091, ELG094, ELG095, ELG096, ELG162, ELG171, ELG172, OPS042>

Case assignment often occurs at this point in the process. ***SmartPro MedEE*** can be configured to automate the case assignment process based on the parameters established by the Department. For example, automated case assignment can be based on worker location or region, worker specialization, or in a predetermined worker sequence. This process can also be configured to assign cases to a specific work unit, or directly to the attention of a supervisor for manual case assignment. Supervisors or other authorized users have the ability to override an assignment at any time and reassign that case or group of cases. In most cases additional details such as date and reason for the override must be documented by the user to activate the override. All activities will be maintained on the case transaction log. <OPS005, OPS035, OPS043>

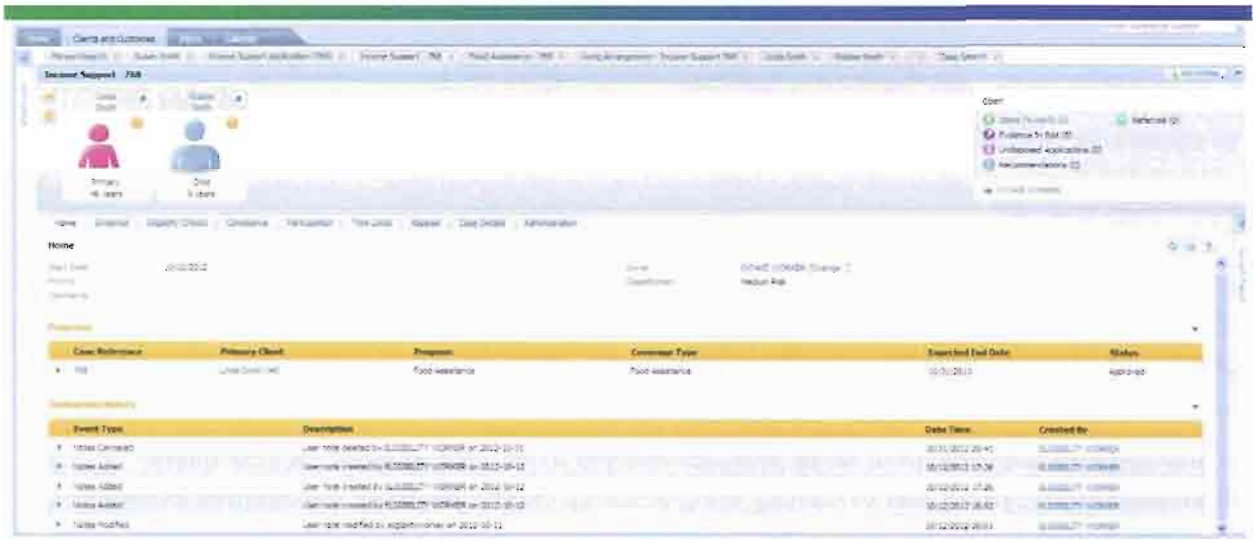


Figure IV-21: Integrated Case Home Page

Integrated cases facilitate the worker's ability to access and manage clients and other individuals affiliated with a case, including employers, providers, and utilities. Case participants also include any nominees, contacts, and correspondents on the case. Authorized individuals, based on their role, can access case details, including eligibility results.

Case "members" are registered individuals added to an integrated case for the purpose of determining their personal eligibility for benefits and services; this information may also be factored into the eligibility determinations for an entire household or assistance group in accordance with program-specific policy. Each person who is part of the same household is assigned a case member role within an integrated case. As the worker builds the case he/she conducts searches on all individuals identified on the application or reported as additions to the existing case. If the system returns a match on an individual and the worker selects that individual, all available case and individual data will be brought forward for the worker to review and update as necessary. Relationships between all individuals linked to a case are recorded by the worker while building or maintaining the case. Member relationships are considered in eligibility determinations based on program rules. ***SmartPro MedEE*** will establish the reverse or complementary relationship once the initial relationship is documented. For example, if Susan is Jack's mother the system will infer that Jack is Susan's son. Specific pieces of client data are required at different process stages. All data entered and saved is maintained as part of the individual and case history. For example, shelter expenses recorded are date-specific as are used in accordance with policy when determining eligibility and entitlements for benefits and services. Authorized users can review details involved in these determinations as well as details surrounding case circumstances at any time. <ELG009, ELG164, ELG165, ELG172, GEN043, GEN086>

Specific pieces of client data are required at different process stages and based on the program. System administrators and other authorized staff will configure the solution indicating mandatory data elements based on program requirements. Although designated as mandatory it is possible that they are overlooked; as a result, onscreen edits will review data entered and prevent advancement to the next screen highlighting the missing data. ***SmartPro MedEE*** allows the user (client /authorized staff) to save and store information, and resume the task or activity at a later time. Authorized users

have the ability to review and update or edit data entered to date; they also have the ability to review a summary of this information – for example, review a complete application or reported change prior to submitting. <ELG042, ELG114, GEN069, OPS066>

Client and Case Search

Our proposed ***SmartPro MedEE*** solution's searching functionality allows users to quickly locate individuals and cases within the system. This functionality permits users to search for individuals and cases based on a range of criteria, such as client name, client reference number/ID, case status, aliases, and case reference number.

Cúram also supports the concept of saved searches referred to as "case queries". A case query permits an authorized system user to identify specific search criteria based on information available; increasing the number of criteria often helps to narrow or focus search results. Search or query criteria can be saved and later used in the search as a personal query. This query can be run and rerun without the worker having to re-specify the criteria. It is important to note that Person search results are displayed in a summary list format from which users can navigate to the required participant home page using a hyperlink.

The Citizen Context Viewer (CCV) feature provides a complementary view of a person's details and their interactions with the Department. It consists of a pop-up window containing a dynamic folder structure that summarizes a person's details, their relationships and their involvement with the MLTC. A photo of the person may also be added, if available. Through the CCV, authorized staff can see which benefits and services the client receives, the cases with which the client is affiliated, and the level of contact the client has had with the Department.

The CCV also provides a holistic view of each of the client's family members. Users can view client information for each family member in the same CCV or launch a new CCV window for each family member. This can assist the MLTC in confirming whether a family member receives a particular benefit from any number of agencies, thereby reducing the risk of a family fraudulently collecting the same benefit. Figure IV-22: Citizen Context Viewer reflects a high-level view of the client's involvement with the Department with the ability to open folders and access additional details.



Figure IV-22: Citizen Context Viewer

The CCV window is launched from a person's home page and contains an expandable "tree" structure. The top of the CCV tree displays a picture of the client (if available) and associated personal details, namely, date of birth, gender, and address. Each CCV component groups related aspects of client information, including cases, client communities, family relationships, interactions, and multidisciplinary teams. Each of these components can be expanded by clicking the corresponding arrows. Each CCV component is configurable, which means that the precise information that is displayed when a given component is selected can be specified by an administrator. <ELG097, ELG098>

Case and Participant management within our proposed ***SmartPro MedEE*** solution includes duplicate identification and merging functionality to help decrease or prevent the incidence of fraud and errors resulting from duplicate client records. Cúram supports the merging of information from two or more records for a person or prospect person into a single, master record. Merging information essentially copies selected details from a record that is deemed a duplicate to the master record, which is then used as the valid record for case processing. The ability to merge client and/case information is role specific meaning that only individuals authorized to do so may perform that task. <GEN025, OPS038, OPS053>

The client registration, case initiation, and eligibility processes require verification of certain pieces of data based on the step in the process. These verifications may be received via interfaces such as verification of an SSN through the Social Security Administration or via email or other type of correspondence if the worker is verifying residence and living expenses. Data from reliable, designated sources will automatically update individual and case data. Some changes, a change in income or household composition, for example, automatically trigger an eligibility redetermination while others such as the addition of or change to a telephone number will not impact eligibility and therefore not trigger a redetermination. Additionally since data is used across programs the impact to different cases will vary. ***SmartPro MedEE*** will apply all changes in accordance with MLTC and program policy. All transactions will be logged allowing authorized users to determine the date, time, source and specific data updated via interfaces. The system can be configured to process specified transactions automatically (i.e., eligibility determination based on data received from a trusted source) or to notify the worker when any new information is received. It is possible to

configure a combination of the two options based on guidance and instruction received from the Department. All changes performed on a case are logged and maintained in the case history. <ELG002, ELG069, ELG070, ELG122, OPS054, OPS055>

It is possible that data received via an interface may not agree with reported or current case information. These discrepancies must be noted and acted upon. To address this possibility our proposed ***SmartPro MedEE*** solution through inherent IBM Cúram processes and edits, provides a capability for flagging discrepancies between data received by a client and the verification of this data received from a third party. Verifications received from third parties such as landlords will be reviewed and the case information updated. ***SmartPro MedEE*** can be configured to trigger notification to workers when multiple individuals are confirmed to reside at the same address. Such discrepancies are referred to as "issues". An issue could be used to highlight, for example, instances where the reason given by a client for leaving a job is different to the reason provided by his or her employer. <GEN085>

Issue management capabilities provided within the proposed ***SmartPro MedEE*** will allow MLTC to:

- Automatically or manually create issues on a case
- View a snapshot of the evidence at the time the issue was created as well as the most recent evidence
- Track the progress of issues
- Prioritize issues
- Notify and assign appropriate users to issues
- Manage issue resolutions using built in workflows
- Appeal issue resolutions

Issues can be created on cases when issue information has been pre-configured and associated with evidence types and workflow events. Issue management allows the progress of the issue type to be tracked from issue creation, through entering a resolution for the issue, approving the resolution, and closing the issue. Issues can help organizations to detect errors and prevent fraud from occurring. This process can be used to notify specific departments, units and/or agencies if fraud is suspected. <ELG046>

Case Maintenance

Once a case has been created, authorized users may update case details and carry out maintenance tasks and activities as required over the lifetime of the case. Cúram provides comprehensive functionality to allow manual and automated processes for managing case details. The following table provides a listing of the information that can be captured and maintained using ***SmartPro MedEE***:

Table IV-7: Case Maintenance Features

Feature	Functions
Case Participants	Case Participants are the various stakeholders involved in a case, for example the individuals, employers, providers and other contacts relating to a case. They are added by the system automatically by virtue of their role in relation to a case.

Feature	Functions
Attachments	Attachments are electronic documents that are linked to the case, associated with clients and communications on the case including, for example, scanned licenses or legal documentation.
Communications	Communications are the correspondence between the organization and participants on the case, including letters, emails and phone calls.
Events	Events are significant milestones and events relating to the case life cycle. Such events may be created automatically by the system as a result of some action that has been carried out on the case (e.g. case approved, case suspended, case closed, etc.) or they may be created directly by a system user (e.g. case reviews, referrals, and calendar activities).
Notes	Notes are used to provide additional information about a case and to help a user see the progress history for a case. Notes can be entered by any user that is authorized to maintain the case. They can also be created by the system as a result of specific events occurring on the case. The details of a note are entered by users in free text format. Notes may be assigned a sensitivity rating so that the note can only be accessed by certain users. All modifications to a note are maintained so that a history of the note details is preserved, including note version, the time and date the note was entered on the system, and the user who made the note modification.
Related Cases	Related cases are other cases in the system that have something in common with the case being viewed. Case relationships are automatically added by the system where appropriate and can also be manually created by a caseworker.
Tasks	In Cúram, a task is an instruction to carry out an item of work. Cúram Workflow tasks may be created automatically by the system or manually by a user. Tasks that are associated with a particular case are displayed in the Tasks list.
User Roles	These are users in the system who are assigned as either the case owner or case supervisor (or both). A single user may be assigned to both roles or different users may occupy each role.
Assessments	Assessments are simple rule-based determinations of specific characteristics relating to a client, for example medical assessments or at-risk assessments.
Contracts	A contract specifies a case member's responsibilities with respect to services or products received as part of the integrated case.
Products	Products are the programs that are being delivered as part of an integrated case.
Outcome Plans	Outcome plans are used to manage a client or household towards achieving specific goals, in order to improve their circumstances. They are created using the optional Cúram Outcome Management module.
Financials	The financials options display details of payments made, and bills charged in respect of product delivery cases.
Deductions	Deductions enable a portion of a benefit payment to be allocated towards a third party or a debt.
Evidence	Evidence data is used by Cúram to determine eligibility and entitlement for a case. This option enables a caseworker to capture and manage the personal and circumstantial data (evidence) relating to a client and their household.
Certifications	Certification ensures that only certified cases and certified periods are paid. Certifications are proposed periods of eligibility that are used to validate evidence. For example, if evidence is entered for a six month period but only three out of

Feature	Functions
	the six months are certified, the evidence entered for the remaining three months will not be validated until it is certified.
Appeals	Enables users to view details of any Appeals cases that have been created using the optional IBM Cúram Appeals module.

The case home page also contains options that allow users to modify summary case details and to carry out actions such as marking the case as an item of interest, and moving the case through the stages of the case life cycle. Users can also view a list of "recent transactions" on the case, a feature that provides a convenient audit trail of pertinent case events. The summary feature allows the worker or other authorized users to review available information and editing as required prior to completing the case initiation process or saving reported and verified changes. <ELG121, GEN079, OPS051, OPS052>

Case Life Cycle

Our proposed ***SmartPro MedEE*** solution will support the full case life cycle or series of steps and milestones achieved throughout the individual's involvement with the Department and its affiliates. The case status may change depending on the actions carried out on the case and the workflow processes that have been defined for the particular case type. Process and associated workflows will vary in complexity based on the task undertaken; ***SmartPro MedEE*** will track these processes and update case status based on milestones defined by the Department. MLTC will have the option to implement out-of-the-box workflows or to configure department-specific processes and workflows allowing specific life cycles and workflows associated with specific case/program types. <ELG169>

Application

The ***SmartPro MedEE*** solution will support the intake of applications through a variety of venues. The Public Self-Service portal provides the opportunity for individuals to research benefit and service options available through the MLTC and independently initiate an application for those services. Individuals can also submit paper applications at the local office or submit those applications through the mail or by fax. In all cases, ***SmartPro MedEE*** will guide the user through the application process by presenting views in a logical sequence designed to intelligently collect all mandatory and other data based on responses entered. The application process is used not only as a means to request the benefits, services or initiate subsidized insurance application requests but also to gather individual and household data concerning income, employers, resources, address, living expenses and health insurance and policy-specific details. This information is maintained throughout the life of the case and the individual's involvement with the Department. On-screen edits are designed to scan entered data to confirm that all mandatory data is entered, prohibiting advancement to subsequent screens until this is completed. Applicant or authorized representative signatures on the application, regardless of the mode in which the application was submitted, will begin the application process. <ELG067, GEN026, OPS066>

To determine eligibility for Medicaid, state-funded and administered Medical Assistance and Insurance coverage offered through an Exchange detailed information must be collected for each

individual in the household. Demographic details such as name, DOB, SSN, employment and wages, school attendance, and alternate or additional insurance must be captured and verified. Additionally, each individual's relationship to other members of the household is used to establish the composition of assistance groups, establishing cases, and to determine eligibility for benefits and services. Relationships are maintained throughout the individual's involvement with the Department with a history of relationships and case affiliations tracked. It is possible for an individual to be a member of multiple cases however; the system is designed to avoid duplication of benefits. For instance, a client will not be eligible to receive Medicaid benefits from multiple cases. They may, however, be a recipient in one case and the head of household in another. ***SmartPro MedEE*** will also establish the relationships or affiliation of cases to each other. The Client Context Viewer provides authorized users with insight into and access to the cases with which a client is associated. <ELG165, GEN043>

The user (client or MLTC staff) will have the ability to review and confirm all entered data prior to signing and filing the application. Any and all data entered and saved by the applicant during a screening to check for possible eligibility will be carried over, populating the formal application. The system will process information available in order to determine if the case meets the Department's definition of an expedited benefit case. If so, the system will set a flag and notify the worker of the need to process this case within the compressed timeframes specified by policy. This notification will appear on the worker's home page indicating a newly assigned case and will also be queued in the worker's workload listing indicating processing timeframes. The system will track critical dates and specified milestones alerting the worker as deadlines approach. Failure on the worker's part to complete tasks as scheduled are automatically escalated to the attention of a supervisor. <ELG024, ELG026, ELG167, GEN081>

The integrated case facilitates the collection of client and household-specific data and access to that data for those authorized to do so. This collection of data will also be populated with data received from external systems interfaced with the ***SmartPro MedEE*** solution. Such interfaces can include workforce management systems, tax property tax records, city and county benefit systems, car registration systems and other benefit systems. <GEN018>

Eligibility

Before the case transitions from the intake or application phase to the point where eligibility will be processed several steps must be completed. In many instances the worker must interview the client and or client representative. In these cases an appointment will be scheduled to review information provided on the application. The system will generate notification to the client or authorized representative providing details of the scheduled interview. This appointment will also be tracked in order to provide the worker and the client/applicant information concerning interviews that did not occur and the consequences of the missed appointment. During the interview, the worker will discuss the available program options and provide the applicant, or in the case of a redetermination the client, with a full understanding of the expectations or responsibilities that comes from accepting benefits. The date of the interview is recorded by the worker. <ELG134, ELG168, ELG169>

Once all data required to perform an eligibility determination for all programs involved is recorded, that information must be verified. The system will produce a list of required verifications and the

date those verifications must be provided; this will be delivered to the client /authorized representative using their documented preferred method of communication. The system will track verifications received, and the source of those verifications. Enhancements to the base solution will be necessary in order to compile and produce client notification of verifications received. At both initial application and redetermination verification may be obtained directly from a third party such as a landlord, directly from the client such as paystubs or via interface from an MLTC designated trusted source. Verifications received from the client and or third party may be scanned and attached to the case. These will remain as case artifacts that are accessible to authorized users as needed. Verifications received via an interface such as verification of a SSN or SSA benefits will automatically update the case unless there is a discrepancy. The system can be configured to notify the worker should a discrepancy occur. Clients having issues obtaining verifications can contact the worker through the Public Self Service portal or other means of communication. Authorized workers have the ability to extend the time needed to obtain the verification. The reason and approval should be documented in the case notes. <ELG002, ELG120>

Once verifications are available and recorded, ***SmartPro MedEE*** will automatically assess case circumstances and determine or re-determine eligibility. Individuals with existing cases currently in closed status will, if eligible, receive a notification of the reopening of the case indicating the benefits to which they are entitled. Reopens can occur in situations where the person's benefits were suspended or the case was closed for a period of time allowing reuse of the case number. This will be done in accordance with Departmental policy and procedures. Authorized workers can use existing case numbers to reopen or reactivate a case for the individual if all required information is provided, verifications in place and all other case aspects are in accordance with MLTC policy. Reopen transactions will require the worker to indicate the reason for reopening. <ELG163>

Case events, changes in circumstance, and client actions may result in case closings. In some situations automated eligibility redeterminations will result in closing, in other cases this action may require worker intervention. Cases may be closed at any time by an authorized user, for example if a case was opened in error. Typically, a case is closed after a number of intermediate steps, at the end of which some outcome is achieved in respect of the case, for example, receipt of appeals results, benefit suspension or client request to close a case. <ELG102>

Situations may arise that require the override of a system generated decision or result. An override feature will allow authorized workers and supervisors to initiate and complete the override process. In all cases, an override reason deemed acceptable for the action must be selected and a date specified. This action will automatically trigger an eligibility redetermination, reset case and individual status, and generate the appropriate client and worker notifications. This feature will include the ability for authorized users to override auto generated special situation indicators when those indicators are established by the Department. All override transactions will be noted in the transaction log. <ELG101, ELG110, ELG152, OPS059>

As clients move or transition to other cases, caseloads require coverage, or caseload balancing is necessary to ensure that clients receive the best possible service, cases may be reassigned. Authorized users can reassign single or multiple cases in a single action. When this action is completed the system will perform several actions:

- Inform the newly assigned worker via alerts and tasks on their home page;
- Transfer all alerts, appointment and case obligations with the case to keep the newly assigned worker informed; <OPS032>
- Generate a notice to the client and authorized representatives informing them of the change; and
- Record the transaction details on the case log.

SmartPro MedEE will monitor worker caseloads. The Department-approved maximum number of cases assigned to a worker can be modified (i.e., increased or decreased as necessary) by authorized staff through the administration application. Caseloads can be assigned to users, teams, or work queues and the management of these entities will dictate the number of available caseloads. <OPS041>

Rules

In Cúram, data and rules are used to establish the composition of an assistance group and reach a decision regarding a person's or household's eligibility for a program or service. Data reflecting the client's and household's circumstances is assessed to determine program eligibility. Rules are conditions of entitlement derived from legislation or the Departmental policy. A person's data must satisfy the rules specified for a program in order to qualify for that program.

The rules will determine the assistance group composition based on individual and case circumstances and will assign individuals to cases based on these conditions. For example, a family may include a child or children eligible for CHIP and other family members eligible for Medicaid or other insurance offered by the Exchange. ***SmartPro MedEE*** will assign case numbers to each 'type' of case while maintaining the connection or relationship of family member cases to each other. This established case relationship allows the worker to see all the benefits or services received by a client and the household. Automated eligibility in combination with visibility into all benefits and services received will help to identify potential duplication of benefits or services. Upon review of the automated case structure, the worker has the ability to manually adjust as needed. The system will redetermine eligibility based on all case structures and all changes made to determine the most advantageous set or level of benefits for each individual. <ELG097, ELG098, ELG103, ELG104, GEN084>

When eligibility is checked, rules are run against the data to determine eligibility and generate case decisions. These decisions specify whether or not the person is eligible and, if eligible, the level of entitlement. Rules are assigned to assessment and product delivery case types through the Cúram administration application.

The Eligibility section describes the full eligibility functionality that will be available through the implementation of our proposed solution.

SmartPro MedEE will provide users with an intuitive interface for managing data which can be recorded initially in an "in-edit" stage, pending verification or approval by an authorized worker or member of the supervisory staff based on the criteria established by the Department. The system's data management capabilities will help maintain the accuracy and currency of client information

within the system, ensuring that clients receive the correct services or entitlements over the time period for which they are deemed to be eligible.

Client personal and circumstantial data maintained at the integrated case level may be shared across cases encapsulated within the integrated case; it may also be shared with designated external systems as determined appropriate by the Department. For example, when a person applies for multiple programs, each program may treat living arrangement and expense information differently. While the information is entered and verified once, it will be used differently when applied against different program eligibility rules. Sharing with an external system such as FAMIS will help to guarantee that all agencies are using the same data to the benefit of the client and hopefully work towards decreasing the incidence of fraud. The system, based on specific program rules will determine how data is used and applied to eligibility determinations and benefit calculation. <ELG068, OPS055, OPS063>

Rules Processing

Cúram provides a rules infrastructure, known as Cúram Express Rules (CER) that includes a CER Editor and CER Engine, to manage the rule-based processing within the system. The CER Editor is provided within the Cúram administration application and empowers organizations to manage individual rules and rules sets, to allocate the rules to the programs administered by the organization, and to establish rules associated with new programs as dictated by legislation and the benefits and services offered by MLTC. <GEN067>

In the deployed system, the CER Engine executes the rules defined for each program to determine eligibility and calculate entitlement based on the evidence data captured for a client or a household. CER has been designed specifically to efficiently handle the large amounts of rules often associated with program delivery. CER is also used to address changes in legislation including mandates addressing new programs or coverage types. Through CER rules for new programs are developed empowering the the Department to configure, test and implement new programs quickly. This feature is discussed in greater detail in the Non-Functional section of this response. It is also critical for the Department to track expenditures at the program, case and individual levels. ***SmartPro MedEE*** can be configured to associate benefits and services to specific funding sources. This feature will allow the Department to gauge program expenditures to determine the availability of that program or service in the future and, if necessary can be used to create and maintain waiting lists which will allow clients be approved for services on a first come first served basis should the funding source be replenished.

All rules are date-specific which supports eligibility processing that spans periods. For example, if a client applies for retro-active medical assistance or, if a verified change in circumstance impacts eligibility for a prior period, case and individual verified data applicable to the prior period are applied against rules in effect for that prior period; that data is also applied against current rules to determine eligibility for the current period. If a payment or benefit discrepancy is noted by the system for any prior period the ***SmartPro MedEE*** will determine the difference between that received vs. that which was truly due notifying the worker of the discrepancy. Recoupment or repayment activities can be automated and tracked as well.

Periodic reassessment of client eligibility must be completed in accordance with policy. This may occur at predetermined intervals and/or at the time a change in client or household circumstances is reported and verified. ***SmartPro MedEE*** will monitor all factions of client eligibility including reassessment timeframes. The worker will be notified at predetermined intervals indicating the need to reassess the each case.

SmartPro MedEE case management functionality allows authorized users and system processes to access the decisions that have been made in relation to client eligibility over the life of the case. Decision information indicates whether a person is eligible or ineligible for a given program or service. Each eligibility decision contains details about the rules and the financial and/or non-financial results generated when eligibility is checked. ***SmartPro MedEE*** automatically generates notifications to clients and/or authorized representatives detailing the eligibility determination results. These notifications are also maintained as part of the case file. <ELG066, ELG070, ELG156>

To allow for retrospective assessment of cases, or "case reassessment", ***SmartPro MedEE*** will store a comprehensive history of the details surrounding all client eligibility determinations. Case reassessment occurs when there is a change in circumstance and a new determination and decisions are created and stored. To perform case reassessment, Cúram incorporates a robust Eligibility and Entitlement Engine that uses Cúram Express Rules (CER) to continuously reassess a client's or household's eligibility for one or more programs as well as the recalculation of any benefit entitlements.

A reassessment/redetermination occurs whenever pertinent data/evidence is changed, regardless of whether the change is made by a user, through information received from an external system, or as the result of an administrative system wide change such as a change to a rate table or rule set. Additionally, the Eligibility and Entitlement Engine automatically compares new financial components with processed financial components to determine if any underpayments or overpayments exist. If applicable, the system checks for instances of overbilling or underbilling. If an under/overpayment exists (or under/overbilling has occurred), the Eligibility and Entitlement Engine calculates the amount involved and carries out the appropriate actions to rectify the situation, for example creation of an overpayment case or generation of a notification to a caseworker or other authorized system user.

Situations arise requiring that a rule or condition be applied across the entire caseload or a segment or specified population within the MLTC caseload. These mass changes may occur at predetermined intervals, such as the annual SSA Cost of Living Allowance (COLA) or as the direct result of a change in legislation that results in a change in program rules. Rules can be configured to address these changes, scheduled to occur on a specific date, and run on that date. The execution of the new rule will impact cases and benefits to reflect the new policy. ***SmartPro MedEE*** will generate notices to clients and authorized representatives in accordance with MLTC policy. In addition to the client case history updates, the transaction log will reflect the mass change transaction. <ELG166>

Rules and Rules processing are described in greater detail in the Non-Functional section of this response.

Managing Cases with Appeals

A significant benefit of the integrated case feature is the authorized user's ability to access and oversee all aspects of the case including cases in which decisions are currently under appeal. Actions by assigned workers may impact an appeal. An appeal can be initiated by the client, authorized representative or by the assigned worker on the client's behalf. When initiating an appeal the client must indicate whether or not they choose to continue benefits at the level prior to a decision to terminate or decrease the benefit(s). Additionally workers may be authorized to document updates such as to reinstate benefits and/or services at the pre-negative action level if requested in accordance with MLTC policy, or to enter notes that impact the appeals case based on the protocol established by the Department. As with all other activity, all transactions, including notes that are conducted on the Appeals case are based on the permissions granted to the user and transaction details are logged and maintained as part of the case file. <APP025, APP033, APP042>

Case Notes

SmartPro MedEE notes feature allows authorized users involved with the client to document activities and issues that occur throughout the life of the case, further explaining reasons for decisions and recording the results of conversations with or on behalf of the client. Notes are entered as free form text and editable by the author until such time as the note is saved. Workers or those entering notes have the ability to perform a spell check prior to saving the note. Additional notes may be added to clarify or expand upon a prior note but once saved the note cannot be modified. ***SmartPro MedEE*** will automatically date and time stamp notes as they are saved, preserving the note in its entirety and allowing those with access to search and review those notes. The ability to print case notes will require modification of the base solution. The worker also has the option of using the copy and paste feature if they choose to enter the note as a specific client and/or multiple case entries. <APP017, ELG055, ELG115, GEN027, GEN029, GEN030, GEN031, GEN032, GEN033, GEN035>

The worker also has the option of using the copy and paste feature if they choose to enter the note as specific client and or multiple case entries. <GEN031>

Notes can also be pre-populated and auto-created. Workflow logic can be used to determine when to auto-populate the note and indicate what text should be included. The use of templates will require modification of the base system being proposed, however. <ELG044, GEN028, GEN029>

Documentation/Correspondence/Client Notification

Authorized users can perform various actions throughout the life of the case. ***SmartPro MedEE*** through its monitoring capabilities alerts workers of case events to prompt action and keep them abreast of case progress, activities and obligations they may have in relation to the case. Similarly, case participants, such as the clients, employers or providers will be notified of case related obligations or events via email or through correspondence notices created automatically by the system.

The integrated correspondence feature notifies workers, members and stakeholders via a personalized message on their account page and/or other preferred method of communication, including mail. Notification text is set by the Department and most often communicates details concerning eligibility decisions and changes, upcoming certifications or renewal periods, recent payments or billings, changes in case or appeal status, or outreach information. These notifications often communicate what action(s) the client may or must take and the associated timeframes or due dates. Processing timeframes are configurable and trigger different workflows including notifications, alerts, and possibly even case actions (such as application denial or case closure).

Clients and authorized representatives may view notification messages from an Inbox associated with their secure account. This functionality is available to all external users of ***SmartPro MedEE***. When new Inbox content is generated, a notification email is sent to the member's online account. In order to adhere to security and privacy requirements, communication details are not sent directly as attachments or as email content. Instead, the member is directed to access their online account to view their communications in a secure manner. Members also view uploaded verification documentation and communications through their online account. If correspondence or notices are directly sent or copied to a third party such as an authorized representative, it appears in the user's online account Inbox. <ELG011, OPS014, OPS015, OPS016>

Supervisory

The Cúram Supervisor Workspace offers a wide range of work management capabilities across the Department and provides several views into the MLTC workload, at the team, department or divisional level. The Supervisor Workspace allows managers to make better decisions and meet their goals through:

- Supervisor dashboard views of staff assignments
- Real-time display and access to information
- Centralized management of cases and tasks
- Prioritization, balancing and allocation of workloads
- Management of work processes across multiple levels of organization.

<OPS043>

By providing managers/supervisors with insight into their organization's workloads and the ability to make decisions in real time, Cúram Supervisor Workspace will assist the Department in advancing toward their operational goals. The ***SmartPro MedEE*** will provide program administrators and other authorized users with information concerning MLTC operations. The ability to access information on pending cases may prove to be beneficial when assigning or reassigning cases or attempting to determine issues with specific steps in the process. For example, the authorized user has the ability to query pending cases to determine the reason the case is pending beyond program stipulated processing timeframes. <ELG047>

Key Features

Cúram Supervisor Workspace presents supervisors and managers with work load information in four distinctive dashboard views: by user, by case, by work queue, and by organization unit. The

four presentation options provide decision makers with detailed information about staff assignments allowing them to quickly make informed decisions concerning changes that will impact operations and a worker's ability to quickly and efficiently tend to their clients. Additionally, each workspace provides the managers with context-sensitive views and tools to manage work. <OPS022>

On log-in, the supervisor is presented with the Supervisor Workspace home page which makes a number of alternative workspaces accessible including the following:

- A list of users who report to the supervisor;
- A list of cases that are owned by the users who report to the supervisor;
- A list of the organization units in which the supervisor holds a lead position; and
- A list of the work queues to which the supervisor's users are subscribed.

The purpose of each of these lists is to provide overview information and a link to each of the individual workspaces. The supervisor's calendar and shortcuts are also displayed. A sample Supervisor Workspace home page is shown in Figure IV-23: Supervisor Workspace Home Page

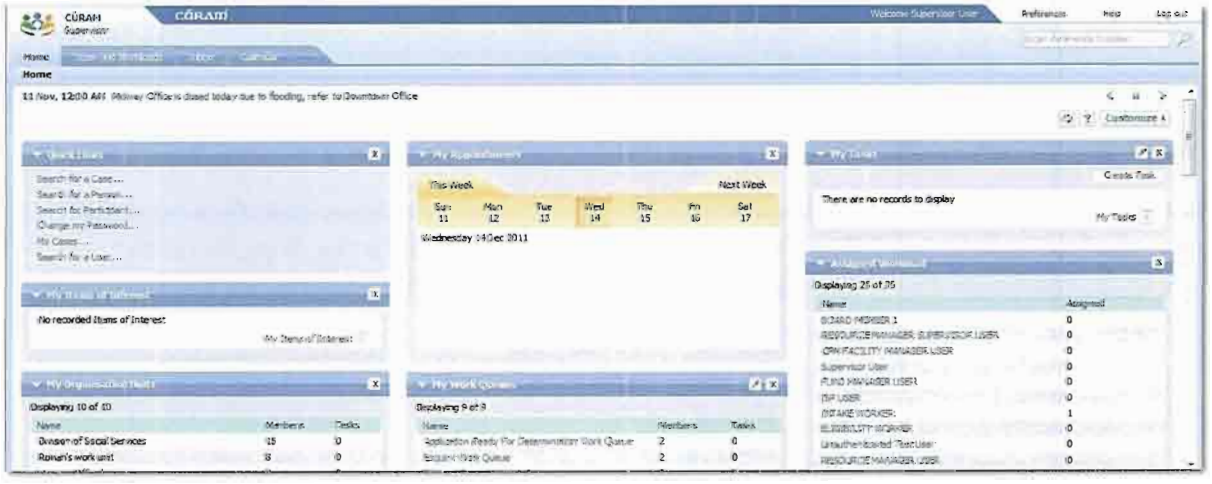


Figure IV-23: Supervisor Workspace Home Page

User Workspace

The User Workspace allows supervisors to readily view assignments, availability and workload for each staff member. Supervisors and managers can redirect tasks to other members of the team, or to other work queues; assignments can be viewed according to type and status of work. These capabilities provide the ability to quickly evaluate workloads and determine the best plan for completion. <OPS040>

Task graphs are used to provide an at-a-glance overview of a subordinate user's tasks. The work queues that a user is subscribed to are also displayed. The application allows a supervisor to reserve single or multiple tasks for a user. Task redirection can be used to redirect tasks to another user that the supervisor chooses. An allocation block can be created that will prevent a task from being assigned to a user. <GEN073>

The User Workspace also allows supervisors to view the user's calendar, and user calendars can be administered and maintained at the local level. Finally, the User Workspace provides access to user

settings that can be adjusted to reflect the changing skills, working patterns, and responsibilities of the user. <OPS023>

A sample User Workspace home page is shown in Figure IV-24: Sample User Workspace.

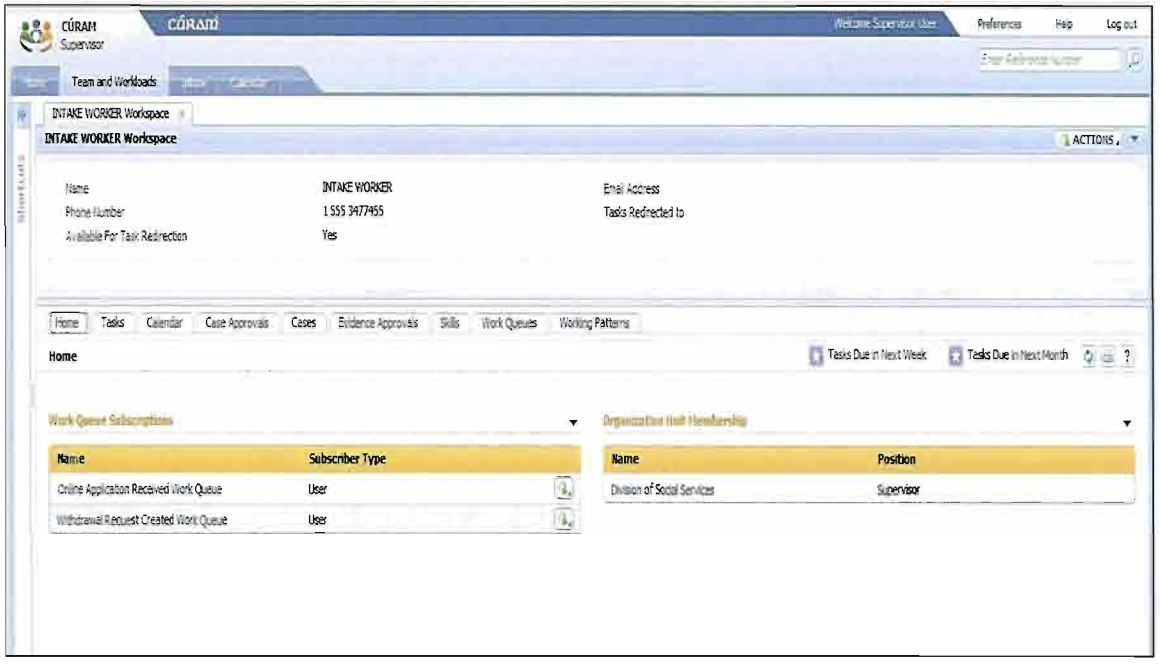


Figure IV-24: Sample User Workspace

Case Workspace

The Cúram Supervisor Workspace provides a case filter that allows supervisors to focus on particular groups of cases. From such a filtered list, cases can be viewed using the Case Workspace. The Case Workspace allows the supervisor to quickly view current and upcoming activities for each case and create work strategies based on case types and statuses which help meet the organization's overall goals to improve overall outcomes for its clients.

From the Case Workspace, the supervisor can manage and distribute the workload of a case, or reassign the case to a new owner. This can be done manually by selecting a new user, or by choosing automatic case reassignment. The case transfer workflow will be configured to trigger a supervisory case evaluation or review prior to transfer allowing the supervisor to confirm that established transfer criteria are met. As the transfer is complete, system generated notifications will be delivered to the Single Point of Contact, or designated universal assignee such as a work group, as well as the client. Finally, a case user schedule allows the supervisor to view activities for users with a role on the case. <OPS031, OPS034, OPS036, OPS037, OPS043>

A sample Case Workspace home page is shown in Figure IV-25: Sample Case Workspace.

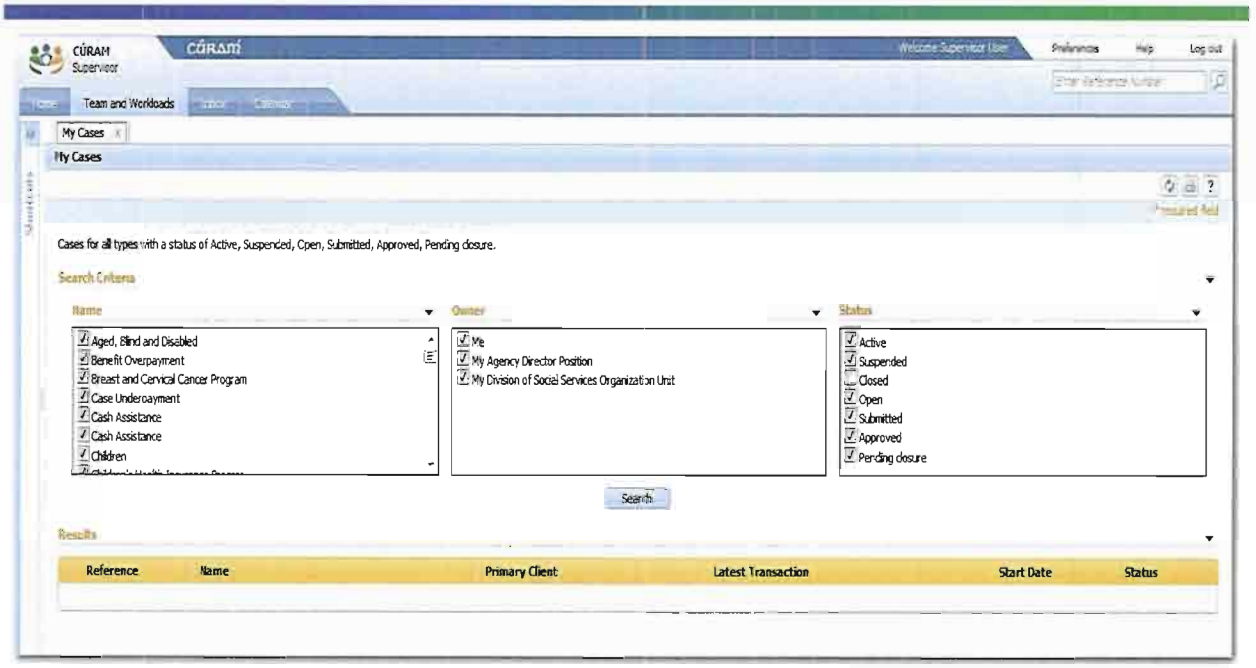


Figure IV-25: Sample Case Workspace

Organization Unit Workspace

The Organization Unit Workspace presents supervisors and managers with an aggregate view of their organization's workload. It gives managers the ability to analyze and compare workloads of teams and departments within the organization and shift work as needed in support of organization goals. As shown in Figure IV-26: Sample Organization Unit Workspace provides supervisors the ability to drill down into the details for each organization unit listed.

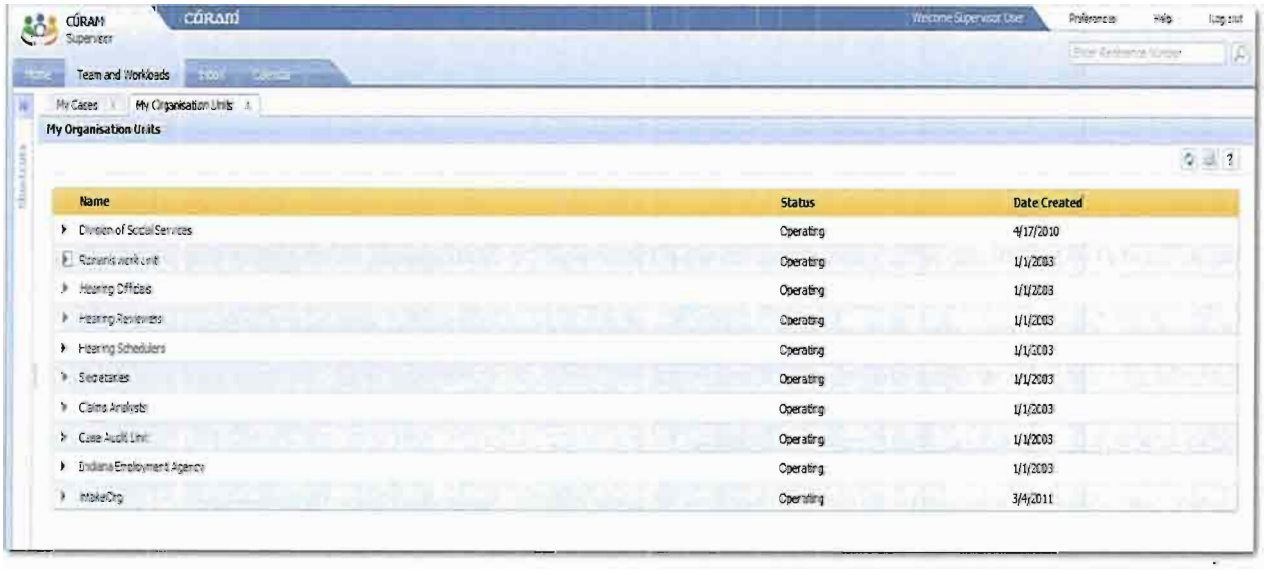


Figure IV-26: Sample Organization Unit Workspace

Selecting a unit on the list provides the supervisor with the key details of the unit and a list of the members, their positions, and their contact details. Managing work for an organization unit is

achieved through managing work for the unit members. Supervisors can monitor tasks assigned to an organization unit, and reserve tasks to users that he or she manages. The supervisor assesses the work assigned to the organization unit, and directs the work to the individual best equipped to complete the work. A group schedule for the users in an organization unit is available to the supervisor, providing an overview of the users' activities for the week.

A sample unit workspace home page is shown in Figure IV-27 Sample Unit Workspace.

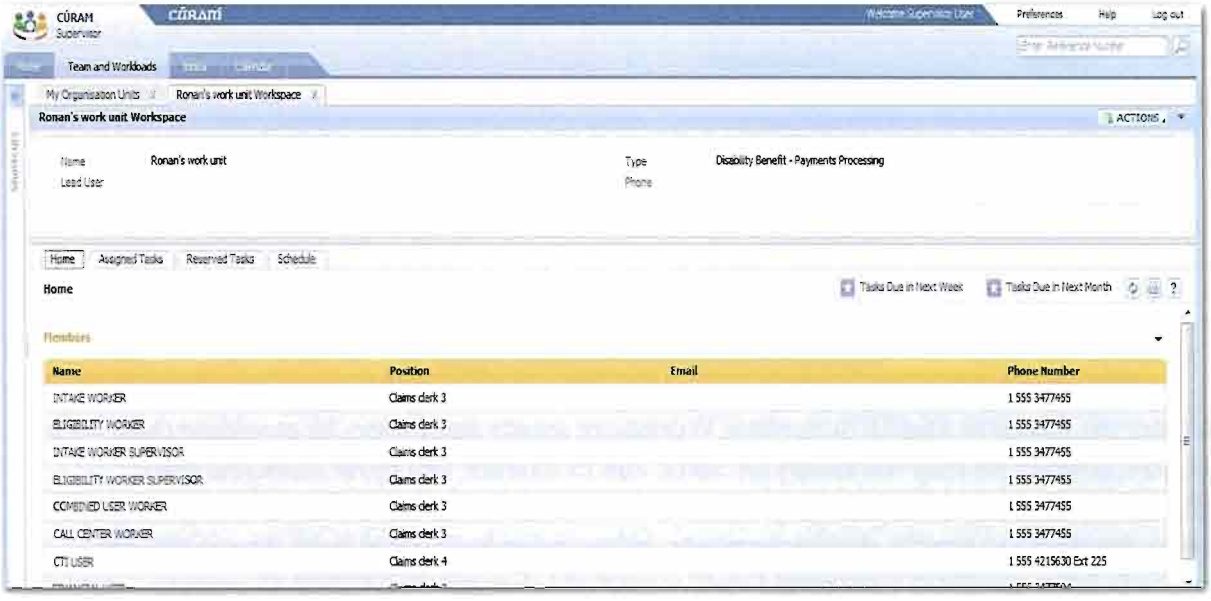


Figure IV-27: Sample Unit Workspace

Work Queue Workspace

The Work Queue Workspace provides supervisors with the ability to more effectively meet Departmental defined service levels by giving managers tools to monitor and manage work flowing through their designated work queues.

The Work Queue Workspace contains key details about a work queue, including the owner of the work queue, and the sensitivity level set for the work queue. The Work Queue Workspace also indicates whether users can subscribe themselves to that work queue. To view the Work Queue Workspace, the supervisor's account must have at least the same sensitivity level as that set for the work queue. The sensitivity level and the ownership of a work queue are set at the administration level, as is the supervisor's sensitivity level. The management of work for a work queue involves the reservation of tasks assigned to the work queue to users subscribed to that work queue. <OPS022>

A sample Work Queue Workspace is shown in Figure IV-28.

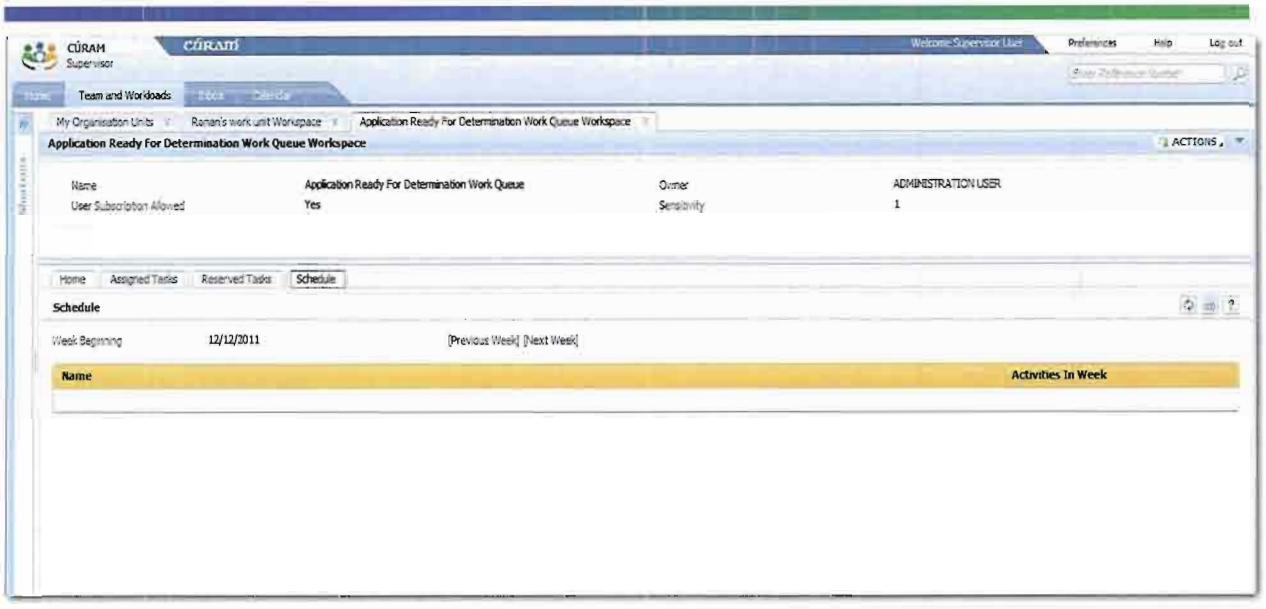


Figure IV-28 Sample Work Queue Workspace

In Summary the ***SmartPro MedEE*** Supervisor Workspace assists supervisors by providing them with the tools to efficiently balance workloads for users, and to monitor and move cases and tasks through their life cycles. It delivers multiple views into the organization's workload and gives supervisors the ability to rapidly shift assignments, either individually or in bulk. As a result, the supervisor can react quickly to unexpected staff or caseload changes. In addition to manual balancing of workloads by Supervisors, algorithms can be defined to automatically assess workloads and reassign cases to balance workloads. Such algorithms will utilize organization and location hierarchical structures to propose recommended workload distributions. <OPS024, OPS025, OPS026>

Most importantly, Cúram Supervisor Workspace supplies the organization with real time views into each staff member's work and caseload. At a glance, managers know the throughput of work queues and are equipped with tools to direct work load corrections as needed.

Appeals

Requirements Addressed:

APP001, APP002, APP003, APP004, APP005, APP006, APP007, APP008, APP009, APP010, APP011, APP012, APP013, APP014, APP015, APP016, APP017, APP0018, APP019, APP020, APP021, APP022, APP023, APP024, APP025, APP026, APP027, APP028, APP029, APP030, APP031, APP032, APP033, APP034, APP035, APP036, APP037, APP038, APP039, APP040, APP041, APP042, APP043, APP044, APP045, APP046, APP047, APP048

ELG044,

GEN050, GEN053, GEN055, GEN056, GEN057

NOT029

Clients need the ability to request reconsideration and to appeal any decision issued with regard to their benefits or the benefits of any member of their household. These requests are based on the information detailed on the client's notices or correspondence concerning their eligibility determinations. The Wipro/IBM team's proposed ***SmartPro MedEE*** solution incorporates IBM Cúram Appeals which will facilitate the Department's management, administration, and resolution of appeals. It provides comprehensive support to the intake, hearing, and decision processes, including work allocation and work scheduling, notice generation, data or evidence collection and management, and reporting capabilities.

IBM Cúram Appeals operates seamlessly with many other components of the ***SmartPro MedEE*** solution including case management, participant management, workflow, correspondence, and calendaring, all of which support generic processes and the legal actions requirements associated with appeals and stipulated in the RFP.

The integrated IBM Cúram Appeals component:

- Provides pre-built business processes for handling appeals and legal actions processes.
- Offers flexibility to empower agencies similar to the Nebraska MLTC, to configure their system based on their appeal process and levels of appeal.
- Facilitates efficient routing of information and work to MLTC staff involved in appeals and legal actions processes through its workflow capabilities.
- Automates communications keeping those involved with an appeal informed of the progress of the appeal or legal action.

The ***SmartPro MedEE*** Appeals functionality is designed to allow the State of Nebraska, MLTC to establish an integrated, custom appeals process for the programs that it administers. Both the number of appeal levels and the type of appeal that can be created at each level are configurable on a program-by-program and issue-by-issue basis. For example, a Request for Consideration may be inserted, as applicable, in each step of the process as determined by the Department. By doing so, all activities associated with Reconsideration and all other steps or phases of the Appeals process are fully documented and maintained within the Appeals case. <GEN057>

The solution's Public Self-Service feature provides clients and their representatives the ability to independently initiate reconsiderations and appeals, update information concerning those appeals, and access the status of an appeal at any stage of the process. It also affords these individuals the ability to request proceeding postponements, communicate with the Department to register concerns, or dispute decisions made throughout the Appeals and Reconsideration processes. Role-based and user-based security confirms secure access to Appeals and case data based on the rights granted each user type. Our proposed ***SmartPro MedEE*** solution offers clients and their representatives several options when initiating an Appeal including direct contact with the case worker, as well as submission via email, or by way of a direct verbal request to the Department. To conform to Departmental policy and processes, verbal requests for an Appeal or Reconsideration must be followed up by a written request for the appeal to be registered and the process to begin. The system can be configured to confirm that a written request is filed when initial Appeal or Reconsideration requests are documented as a verbal request. Reconsideration and Appeal requests initiated through direct agency contact and not through the use of the Public Self-Service option will require direct input by designated Department staff. Whether client initiated through the Public Self-

Service portal or input by MLTC personnel, the system will guide the user through the data entry and overall Appeals process. <APP007, APP033, APP034, APP035, APP036, APP037, APP040>

Appeals Management

Upon receiving a request for an appeal, an appeal case is registered and is automatically linked to the case being appealed (also known as a lead case). Three appeal case types can be created out-of-the-box, namely:

1. Hearing Case
2. Hearing Review
3. Judicial Review

Additional levels such as Reconsideration may be defined to support the unique business requirements of the State.

Hearings

Hearings provide appellants with the opportunity to challenge a decision made by the Department, and to present their own evidence and arguments. For example, individuals may exercise their rights to appeal eligibility determination decisions concerning Medicaid, premium tax credits, cost sharing subsidies, QHP eligibility or eligibility determinations for any/all programs and services as determined by the ***SmartPro MedEE*** solution. ***SmartPro MedEE*** will support oral and desk-based hearings. <APP048>

Once the appellant and respondent have been identified, the user may proceed with the creation of the hearing case. This involves entering the key data regarding the appealed decision, including the reason for the appeal and whether or not benefits for the appellant should continue. Authorized MLTC staff have the ability to reinstate benefits for benefit termination or to continue benefits at their present level should the client indicate this decision on their appeal request. The system will maintain an accurate, complete history of benefits received in order to initiate the recovery process should the Appeal results uphold the original decision to reduce or end eligibility for benefits. <APP032>

An example of an IBM Cúram Appeals hearing case home page is displayed in Figure IV-29. Authorized users, including the client, have the ability to navigate through the case using the tab navigation feature. They can also drill down to case/appeal specific data by clicking on links provided. The ability to view and access data is based on the user's log-on credentials in combination with their role in the case.

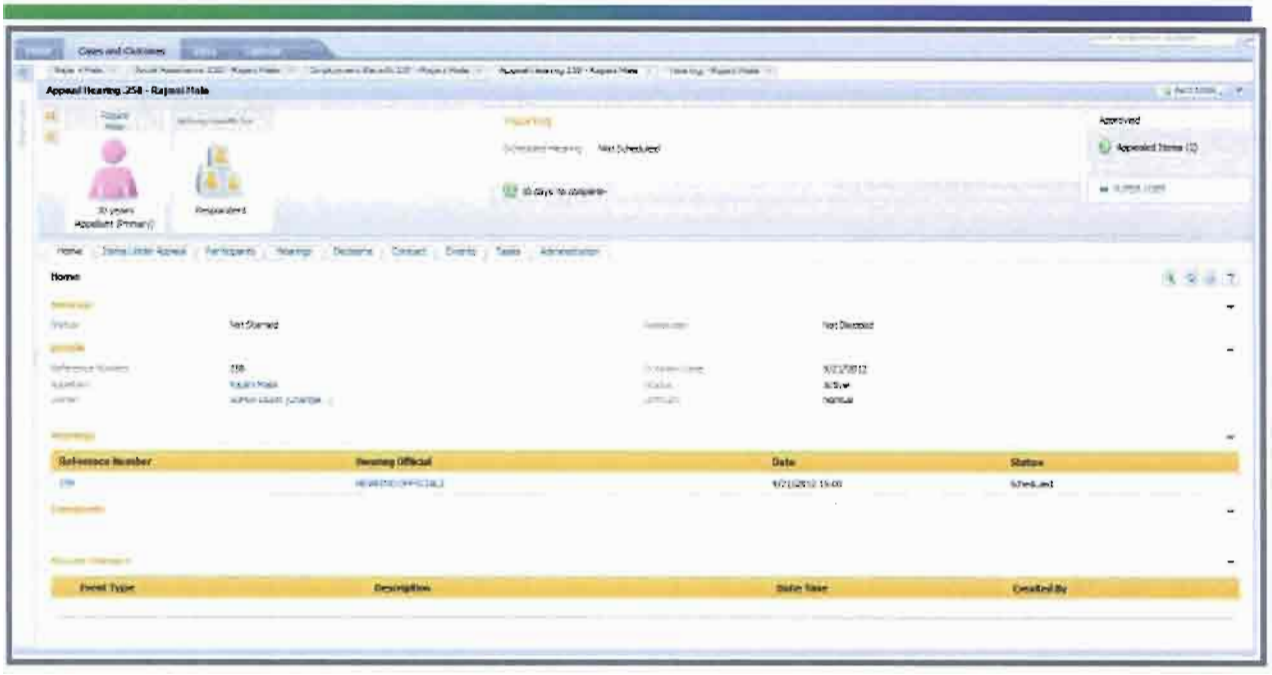


Figure IV-29: Hearing Case Home Page

Hearing Reviews

Hearing Reviews are the second level of appeal. A Hearing Review Case is created to appeal a decision on a completed Hearing Case. This second level of the appeals process comprises all of the process components supported and outlined above for hearings. Once a decision is reached at the hearing, the decision information is recorded by the hearing reviewers.

Judicial Reviews

The third level of appeal may involve a judicial review. A judicial review is an appeal that is conducted by a court to overturn a decision on a case or a prior appeal. A judicial review can be requested by a participant on the case, or by the Department itself, and is initiated by filing a petition with the courts. The court petition for judicial review appeals is a document attached to the judicial review case.

The ability to track the judicial review case, record the final decision and send the appropriate tasks to the case owner or other relevant Department personnel to implement the decision(s) will be supported by ***SmartPro MedEE***.

The ***SmartPro MedEE*** is designed to maintain a comprehensive history of all transactions, activities, communications and decisions associated with all cases, including those associated with Appeals. Authorized users have the ability to access, update and review information based on the permissions or rights associated with their personal log-on credentials. When accessing historical Appeals data the user has the ability to quickly and easily sort information presented to promote review of data being requested. For example, information may be sorted chronologically, by appeal type, or initiator. <APP003, APP006, APP015, APP020, APP028>

An appeal is, effectively, a request for a review of one or more decisions on a program/service delivery, assessment delivery, case issue including an appeal of an exemption decision issued by the

Department, or a prior appeal case – whether generated by automated eligibility determination, by user or through an acceptable manual action. IBM Cúram Appeals supports the entire appeals lifecycle including the common business processes and industry best practices for appeals, which typically consist of the following steps:

- Appellant requests an appeal;
- Appeal case is created;
- Hearing is scheduled for appeal case;
- Hearing is held and completed;
- Decision is rendered for appeal case;
- Decision is implemented or further appealed and moved to next appeals level; and
- Case is re-assessed (this may be automatic or may be requested on demand).

The system's inherent configurability and flexibility will allow the Department to modify the process to coincide with MLTC's approved processes and procedures; for example, the inclusion of steps to address the Reconsideration process and/or include the appropriate steps and processes to address client exemptions and exemption status with regard to their responsibilities as they apply to the appeals process. <APP017, APP018, APP023, APP031>

The initiation of a Reconsideration or Appeal requires a minimum set of data. The system is designed to guide the user through the data collection process. On-screen indicators (*) identify mandatory data while on-screen edits scan data entered and inform the user of missing data. The edits are designed to direct the user to the specific field(s) that requires a response. Appeals data collected and maintained throughout the appeals process becomes case data and as such is stored on the ***SmartPro MedEE*** central database. This allows authorized users to access and review information as needed throughout the period the individual(s) continue their relationship with the Department. This feature also supports the Department's ability to exchange and share information with internal and external agencies such as the federal Hub, to support the Appeals process, and provide individuals with the data necessary to accurately manage Appeals cases. <APP001, APP022, APP037, GEN056>

An Appeals hearing case is used to manage the various aspects of the hearing. Specific data must be collected in order to create and maintain the case throughout the Appeals process which begins with specifying the appellant and respondent as seen in Figure IV-30. Client specific details such as demographic information are collected and maintained to allow the Department to determine and track the source of all appeals. Because data is centrally located, the Department has the ability to cross reference appeals, including multiple appeals filed by a single client or multiple appeals filed concerning a single action such as a change in policy <APP014, APP021, APP047>

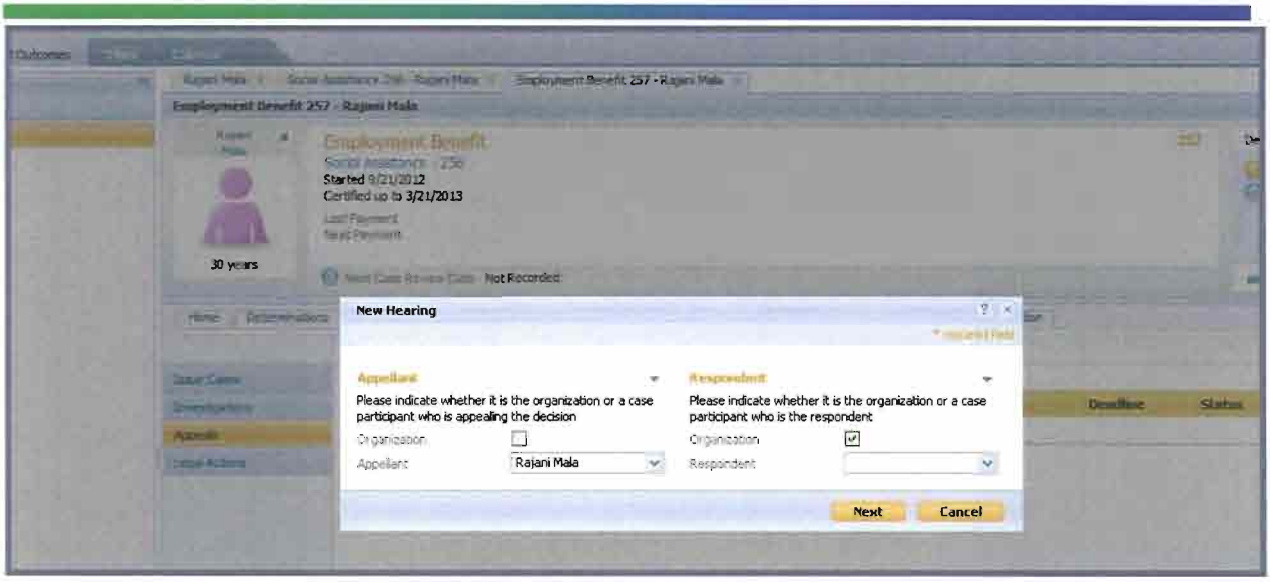


Figure IV-30: Capturing Appellant and Respondent Details

Once the appellant and respondent have been identified, the user may proceed with the creation of the hearing case. This and all steps throughout the process occur automatically through the use of the case specific workflow or series of steps that guide the user through the process. The Department has the option to implement the processes as delivered out-of-the box or to configure those processes to reflect MLTC-specific procedures. This involves entering the key data regarding the decision(s) being appealed, including the reason for the appeal and whether benefits for the appellant should continue or not. To continue benefits the authorized user sets an indicator to confirm the continuance, or discontinuance of benefits for the duration of the appeal. Capability is also supported to define the rules associated with the suspension of payments. A system generated unique case identifier or reference number is assigned to the Appeals case. The Appeals case is also linked to the Eligibility case(s) containing the decisions being appealed. <APP010, APP019, APP040, APP041>

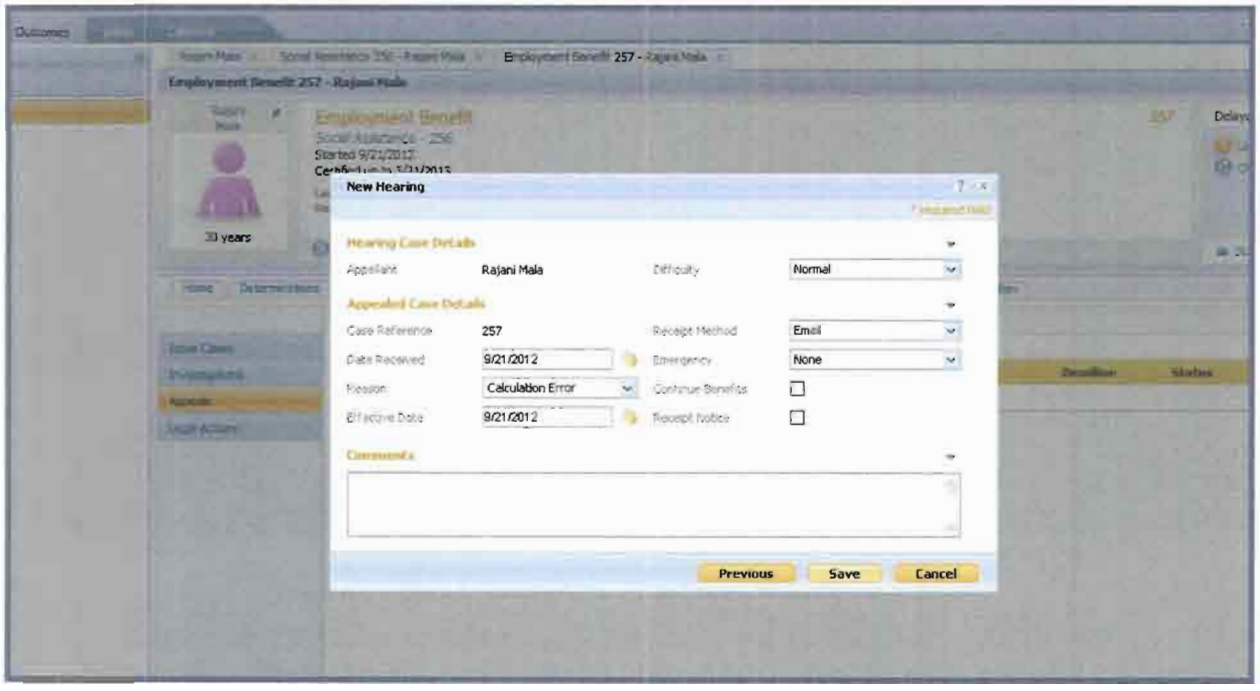


Figure IV-31: Creating a Hearing Case

The client, authorized representative, or Department staff will be guided through the data collection process. It is important to note that once data is entered there is no need to reenter that data. For example, as the client or worker initiates the process, all demographic and other required data already stored for the individual(s) such as the reporter's address are pre-populated from existing data. All required data will be collected and maintained to provide a comprehensive all case activity, track milestones or case status information throughout the process and to generate notifications to designated individuals at those milestones. <APP008, ELG044>

Once created, the case will be assigned to staff in accordance with the instructions provided by the Department. The assigned worker will receive notification of the newly assigned case via their home page. This notification will provide a link that will allow immediate access to the case allowing the worker to review available information and prepare for all subsequent tasks and activities. Should the Department opt to engage a third party to oversee the Appeal, the system will confirm this assignment generating notification to that agency or individual via the agreed upon channel i.e., email or letter. All correspondence with the third party will be maintained as a case artifact. Since all Appeals data will be stored in Cúram, our proposed solution will be modified to create a second instance of the record for an appeal. <APP011, APP016, APP038>

The structured Appeals process involves a series of tasks and activities that must be addressed in accordance with MLTC policy. The system will track the Appeals case throughout the processes notifying or alerting the worker of pending dates and tasks. The case will appear on the worker's home page, elevating in terms of priority, until the required activity is completed, verifications received and recorded or appointments have been documented as complete. Failure on the part of the worker to address their responsibilities in a timely fashion will automatically elevate the task to the attention of the supervisor or manager. <APP009, APP013, APP030, GEN055>

Cases can be reassigned by authorized users as needed. Managers have the ability to reassign a single or multiple cases in a single action. When reassigned the receiving worker will be notified via their home page or system generated notification and all tasks and events associated with the case will automatically be transferred to the newly assigned worker. Clients, authorized representatives and other designated individuals will receive notification of the reassignment as well as all changes to case status or transitions throughout the Appeals process. <APP012>

Case activities and other details are documented using the case notes feature. Notes will serve to record case updates, details of conversations or other contacts between the client, authorized representatives and members of the Department. Case notes can be accessed via the Appeals case by those authorized to do so. Once entered and saved the notes can be appended but not altered. <APP024, APP025>

Documents or verifications provide supplemental information that can be assessed and used when determining the outcome of an Appeal. Authorized users can attach multiple media types such as documents, pictures and videos, all of which become case artifacts. Verifications and other documentation may be required and requested throughout the Appeals process. To assist both client and worker, the system will track the availability of requested information, alerting the worker of missing information and notifying the client of the need to provide requested information by a predetermined date in order to conform to Departmental process and help the reviewer to arrive at the correct, most appropriate appeal decision based on all available information. <APP004, APP046>

Clients/beneficiaries and authorized representative must have insight into the status and other case activities and are able to access the case via the Public Self-Service portal. Their log-on credentials will grant them access to specified, case and client -specific details in order to review and provide additional information and details as needed. <APP033>

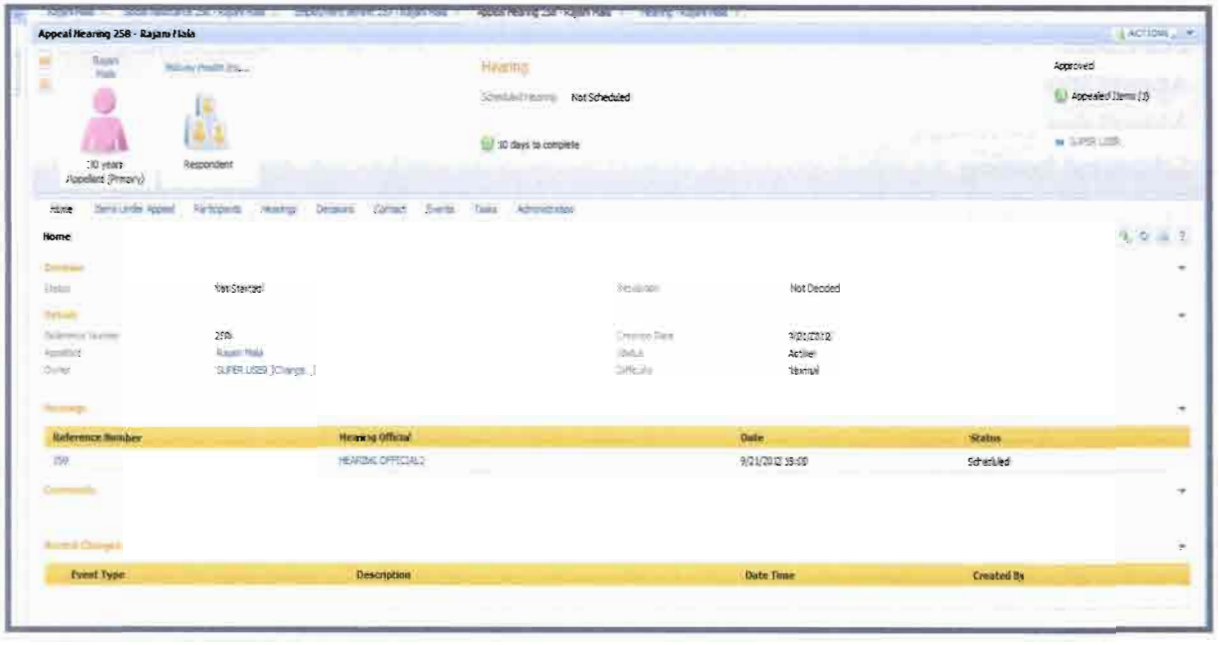


Figure IV-32: Example Hearing Case Home Page

Decisions

All decisions reached with regard to Reconsideration and Appeals requests will be recorded and maintained for historical purposes. Notification of these decisions will be auto-generated to the client(s) and authorized representatives. <APP005, APP029, NOT029>

Decisions upholding the original eligibility determination to reduce or discontinuation of benefits may require recovery of premiums or medical services paid during the continuation period requested by the client. This will initiate electronic notification to the Finance Office providing details concerning amount of the overpayment. The ***SmartPro MedEE*** can be configured to calculate the amount of misspent dollars and to initiate and track the collection of those funds from the client. The system will also calculate benefits owed to the client in the event that the appeal decision overturns an action to close the case or decrease benefit levels. <APP002>

The Appeals decision will determine the need to update eligibility status. For example, in situations where the Appeals decision overturns the original decision to decrease or terminate eligibility, the system will generate notification to the eligibility system with instructions to reinstate eligibility to pre-Appeals status and reimburse the client as the situation warrants. Notification to the client and designated authorized representatives will be generated to reflect the decision and resulting impact on eligibility. <GEN050, GEN053>

Hearing and Appeals Document Generation

IBM Cúram Appeals provides rich document generation features including automated generation of a range of appeals correspondence as listed below.

- Appeal cancellation
- Hearing continuance
- Court Petition
- Fee Letter
- Appeal request rejection
- Appeal request receipt
- Scheduled hearing
- Witness Notification
- Subpoena
- Decision notice cover letter
- Statement cover letter
- Transcription cover letter
- Status change

In many instances documentation is triggered as a result of various actions and requires little user intervention. For example, ***SmartPro MedEE*** can notify clients/beneficiaries that an appeal request has been received, of a change in the status of an appeal, that the appeal has been registered and assigned or reassigned, that verifications are required, and that verifications received do not meet the Department's standards. Support for dynamic insertion of decision clauses is provided through a Clause Administration functionality. <APP039, APP042, APP043, APP044, APP045>

Reports

The availability of information in readable, understandable formats is critical to program administrators, workers and other system users. The proposed ***SmartPro MedEE*** solution will, through the use of standard and online reports and user notifications such as alerts, ticklers or formal correspondence, address this need.

User home pages will present information concerning upcoming appointments and tasks. Case/individual links provide direct access to data specific to each task or event to authorized users.

The ability to review reports online allows the user to sort data in order to obtain time-sensitive case, individual and program data. <APP026, APP027>

Reporting

Requirements Addressed
ELG047
RPT001. RPT002, RPT003, RPT004, RPT005, RPT006, RPT007, RPT008, RPT009, RPT010, RPT011. RPG012, RPT013, RPT014, RPT015, RPT016, RPT017, RPT018, RPT019, RPT020, RPT021. RPT022, RPT023, RPT024, RPT025, RPT026, RPT027, RPT028, RPT029, RPT030, RPT031. RPPT032, RPT033, RPT034, RPT035, RPT036, RPT037, RPT038, RPT039, RPT040, RPT041. RPT042, RPT043, RPT044, RPT045, RPT046, RPT047:

To support MLTC' reporting and analysis requirements, the ***SmartPro MedEE*** solution extracts data from the Cúram and other peripheral applications to populate the ***SmartPro MedEE*** data warehouse. IBM InfoSphere DataStage® will be used to Extract, Transform and Load the data contained in the ***SmartPro MedEE*** application to the data warehouse. The Wipro/IBM team will model the data mart in such a manner that most complex transformations, summary tables etc. are created at the data mart level itself. Datamarts will be scalable to allow data from other sources to be integrated to meet additional reporting requirements. <RPT027, RPT031>

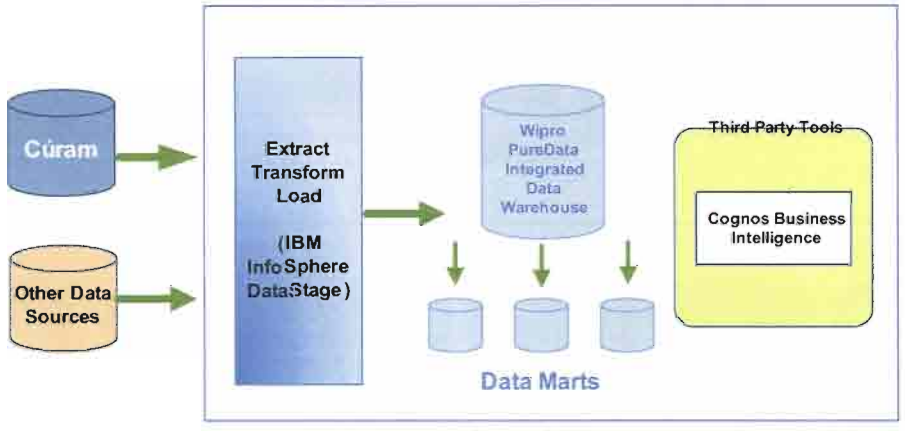


Figure IV-33: Reporting Architecture (High Level)

The Business Intelligence (BI) environment, which is implemented on its own set of dedicated Virtual Machines, backed by physical resources dedicated to BI. User response times are provided by

Cúram, Master Data Management and other capabilities on separate Virtual Machines and therefore not impacted by the BI environment. Additionally, the ***SmartPro MedEE*** will have a unified single BI gateway, similar to a custom built portal, to provide a smooth and richer experience in terms of integrating the supporting artifacts like metadata and data lineage. This will provide a better understanding of the underlying BI ecosystem. It will also enable integrating other BI tools to get a single tool agnostic view of State's BI platform. Based on our understanding of the current system, we know that multiple data warehouses/BI systems have been built using various other technologies, including SAP BO. If required, the existing BI artifacts can be integrated into the proposed portal environment to create a centralized BI repository. <RPT018, RPT028>

The proposed environment will also fulfill the other key BI requirements such as delivering reports in various formats, including, but not limited to, pdf and excel. The BI environment also supports versioning of reports, a standard Cognos feature. Cognos will also include the functionality to provide automated report delivery mechanism. The data warehouse architecture is portrayed in Figure IV-34: Information Delivery Architecture. <RPT035>

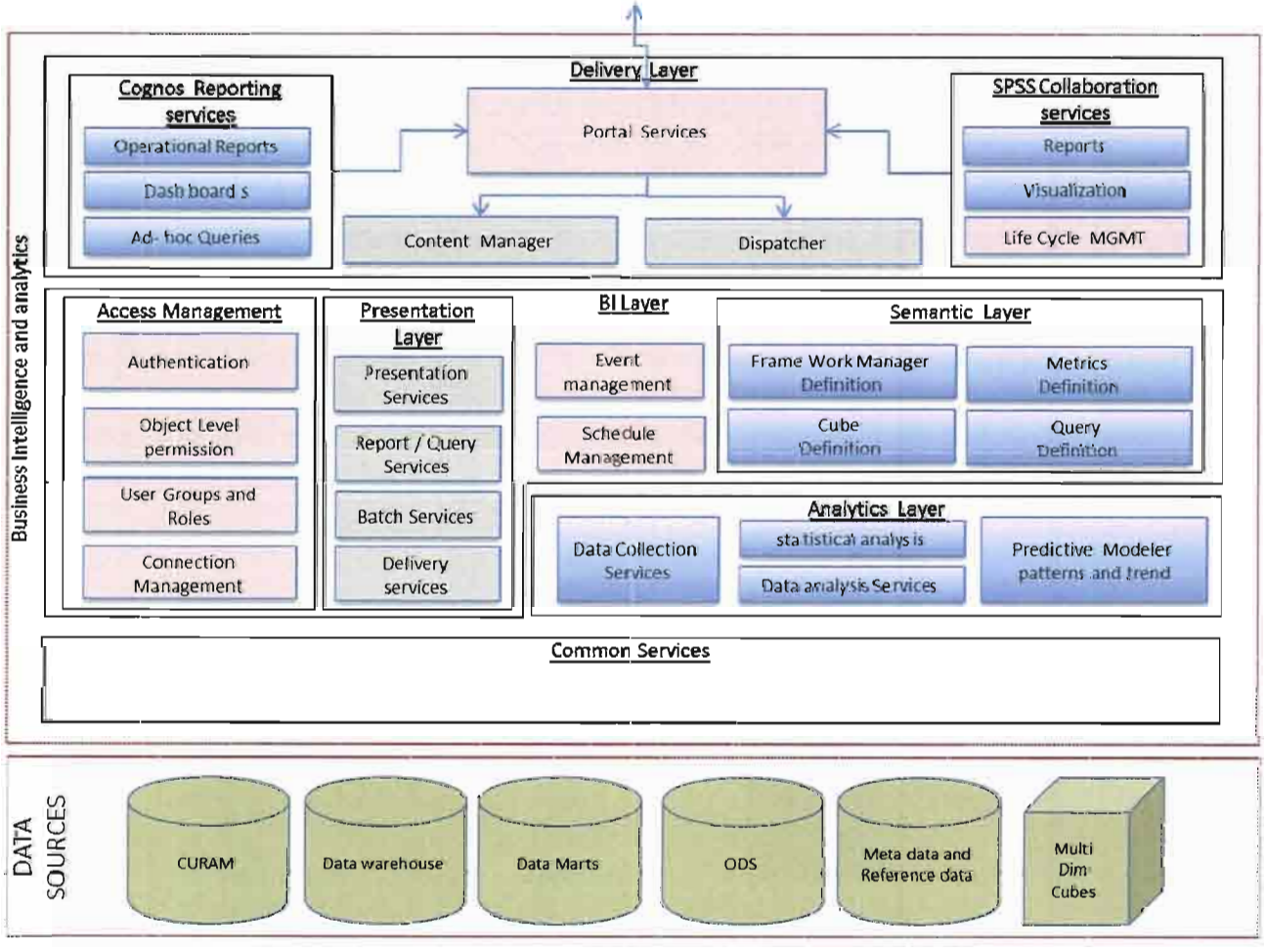


Figure IV-34: Information Delivery Architecture (Detailed)

A multi layered Semantic layer will be built using Framework Manager as a part of this exercise to abstract the technology complexity and bring more meaningful business terms for the measured Key

Performance Indicators (KPIs) which have been built as a part of the Data Warehouse (DW) creation. This Semantic layer brings a greater ease of use and understanding for the end-user community. The same semantic model will be reused and published in the portal for the power users and ad-hoc reporting needs.

The framework model will be designed with data source as the data mart. Multiple Framework manager models /packages will be built to support the business areas:

- Program Reporting
- Member Reporting
- Utilization Reporting
- Program Integrity Reporting
- Management reports <RPT015>

The Wipro/IBM team recommends that MLTC staff authorized to access the solution's reporting feature attend training on the use and benefits of Cognos, the proposed reporting tool. The training will also be used to elicit feedback from Department staff. This feedback will then be used to design and develop reports required by the State.

Report delivery

The Cognos Reporting environment will be implemented to support the Department's reporting needs. Once trained, MLTC staff will be able to run ad-hoc queries and produce reports needed to monitor caseloads, program usage and expenditure, worker productivity and overall departmental operations. <RPT032>

Cognos Connection, the Web portal for Cognos, allows authorized staff to access and publish, find, manage, organize, and view the organization's reports and scorecards. Cognos Viewer, will also allow staff to view reports.

Query Studio will be the reporting tool for creating simple queries and reports in Cognos, the Web-based reporting solution. Casual or novice users use Query Studio to create ad hoc reports that answer simple business questions. Query Studio is an easy-to-use reporting tool. With minimal steps, you can author basic reports, change the report layout, filter and sort data, add formatting, and create charts. This studio will be used by State's business/operational staff and authorized external users.

Cognos Query Studio enables you to build custom ad hoc reports that you may share with other Cognos users. Also, IBM® Cognos® Real-time Monitoring is an operational business intelligence solution designed to provide easy access to consistent data so you can react quickly to revenue and cost-saving opportunities. Cognos Real-time Monitoring features self-service, interactive dashboards with operational key performance indicator (KPI) measures for frontline business users, executives, managers and analysts. Cognos Real-time Monitoring features include:

- Self-service query, reporting and analysis from virtually any data source.
- Business-defined alerts about sudden issues that need attention.
- Patented memory-based data store for continuous data integration.
- Real-time data navigation that can help you investigate the root cause of an issue

- Drag-and-drop dashboard environment that enables you to add real-time, formatted information to your historical business intelligence. <RPT025, RPT045, RPT046>

Report Studio is the professional reporting tool for Cognos. It will be used to author more complex reports. Report Studio offers greater flexibility in calculating and formatting results. Report authors can open Query Studio reports to create more advanced reports. Report Studio is a report authoring tool that professional report authors and developers use to create sophisticated and managed reports. Use Report Studio for reports that are intended for a wide audience, exist long enough to require maintenance for changing requirements and data, and require detailed control over the appearance. Report Studio provides powerful functionality, such as bursting, prompts, and advanced charting, and provides many ways to customize reports. When you use Report Studio, data is not visible. You must run the report to view current data. Within State EES, the IT staff and some advanced Operations staff will use this studio.

Analysis Studio is the analysis tool for Cognos. Use it to explore, analyze, and compare Dimensional (cubes) data. Analysis Studio helps you answer business questions by finding meaningful information in large data sources. Managers and business analysts use Analysis Studio to explore and manipulate data so that they can analyze their business. Users can quickly analyze critical corporate data from any angle to understand why business events occur, and then make effective decisions. With analysis, it is possible to see trends and highlight exceptions that may not be evident with other types of reporting. Analysis Studio users can explore large volumes of dimensional data. When you use Analysis Studio, you interact directly with visible data.

Metric Studio will create a customized score-carding environment to monitor and analyze business metrics throughout your organization. It helps you translate your organization's strategy into relevant, measurable goals that align each employee's actions and accountability with a strategic plan. The score carding environment of Metric Studio shows you quickly where your organization is successful and where it needs improvement. It tracks performance against agreed targets and indicates the current status so that decision makers at every level of the organization can react and plan. With Metric Studio, you are self-sufficient and can readily see how the organization is progressing against its strategy. You can set priorities for your own actions and understand how your decisions affect the performance of the MLTC and their operations <RPT024, RPT041, RPT042, RPT043>.

Event Studio is the event management tool for Cognos. Use it to notify decision-makers in your organization of events as they happen, so that they can make timely and effective decisions. Event Studio ensures that critical information is detected quickly and delivered to key stakeholders in your business. You can create and manage processes that monitor data and perform tasks when the data meets predefined thresholds. By using Event Studio, decision-makers in your organization can be notified of business events as they happen so that they can make timely and effective decisions. Use Event Studio to create agents that monitor status changes, priority customers, or any other condition that is important to your business. When an agent detects an event, tasks are performed, such as ending an email, adding information to the portal, and running reports. <RPT004>

Required security will be built in the reporting layer so that only those users authorized to view the reports are given the access. Separate level of security will be implemented per the various categories of reports based on user's admin details, hierarchical level of the users etc.

Access to reports and the ability to create and run queries is role-based. As such, security will be built in the reporting layer, allowing authorized users to view reports they are authorized to access. Separate levels of security will be implemented based on instructions provided by the Department.

Security includes both authentication and authorization, as described in figure below.

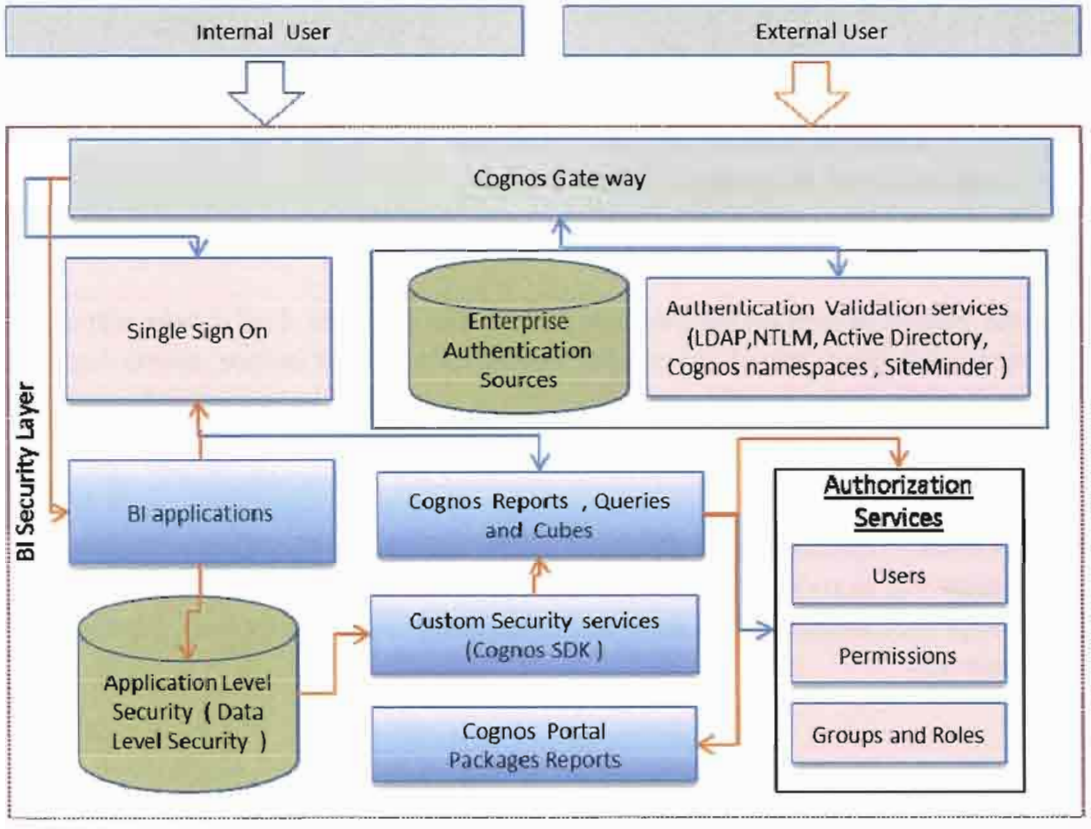


Figure IV-35: Cognos Security Architecture

Authentication is the process of securely validating a user's identity, and is generally associated with "logging on."

Internal users will be authenticated utilizing the State's LDAP system. This will ensure ISF compliance and enable SSO. The Portal Gateway protects the Cognos Portal URLs.

Wipro/IBM proposes to store external user's authentication within each individual reporting application's custom security using database/row level restrictions. To be able to authenticate external users a "view" of the stored external users user id will be available for Cognos to authenticate against. The "view" will require System Development Kit (SDK) development. The SDK provides the necessary Cognos and authentication source code to map internal groups and roles to the portal package, report studio and report run security.

The authentication login page will need to be done through each application to ensure ISF compliance based on each custom application's processes. Once authenticated, the user will be

directed to a new Cognos Reporting environment portal URL created specifically for SDK routing which will require the SDK to send through the security namespace that will be used based on the application it is being routed from.

Authorization is the act of determining what capabilities and access an Authenticated User will be granted. Authorization will be role based. There are many levels of authorization.

User Type

This distinguishes the Cognos Reporting environment license user type:

- Consumer/ report user – can view, filter, schedule, notify, and drill pre-authored reports
- Author – consumer role plus can use Query Studio
- Analysis – consumer role plus can use Analysis Studio
- Manger – consumer role plus can use Metric Studio
- Remote Recipient – view reports from MMIS custom websites
- Object

This will state what specific objects the person through their role can view. This is done within Cognos Reporting environment's security setup. For example, this would include reports that would be managed through public folder security and data elements that would be managed through the metadata/package security. <RPT021, RPT034>

Content

Content security is down to the data 'value' level and will be managed within Cognos Reporting environment's security. For example, if a Provider can only see data related to their Provider ID, this would be accomplished through filters at the metadata, group, role, or user level, depending on the detailed requirements.

Vital Trust Data

Corporate Information Security Framework mandates certain levels of security based on the type of data content. For example, higher levels of security are applied to Vital Trust data versus General data. Each application has processes around the display and storage of their Vital Trust data based on the ISF compliance rules. Since these security rules are controlled within each application (based on the data), a security script will be written within the Cognos Reporting environment to recognize these rules i.e. who can see full text, masked text, or no text.

Data Visualization

Wipro/IBM proposes to use IBM® Cognos® Visualizer as it integrates easily with the Cognos BI and provides high impact visuals that deliver a quick knowledge transfer. Some other features which make it an obvious choice for enabling better visualizations and dashboards are

The visualization engine will leverage data from the data marts and DW. The different ways in which the data can be displayed for the State's users include the following.

- Geographical data (e.g. Utilization by Region) – Map
- Data over time , ratio data, comparison of linear data – Chart

- Trends, Outliers (e.g. Exception cases in Fraud etc.) – Combination of line and bar graphs, control limits, etc.
- Snapshot data, single values (i.e. KPIs) – Gauge
- Multidimensional data - OLAP
- Other graph types for data presentation, including:
  - Pie chart
  - Side-by-side bar charts
  - Single and multiple line charts
  - Tree graphs
  - Probability plots
  - Trend lines
  - 3 dimensional graphs
  - Parallel coordinates
  - Control limits

Other common-use graphical presentation methods allowing drill down capabilities wherever required and possible.

Wipro/IBM will analyze the chart types; including swatch, value, parallel coordinate, box and whisker, gauge, histogram, thermometer, control limits, trend charts (and more) will fit in for data visualization in various dashboards and reports to quickly analyze various KPIs as well as allow the users to analyze the root causes of performance from different perspectives. Some other factors which will be considered include:

- Correctly identifying KPIs suitable to be depicted in each dashboard and end users requirements from the dashboards.
- Multi-metric display: EES users are able to simultaneously see many metrics in an easy to understand visual formats and aggregate displays combining KPIs as well as allowing trends and connections to be easily spotted
- Interactive Exploration with drill down, rotation, zoom etc capabilities to focus on specific data points/patterns.
- Integration with Cognos BI platform <RPT026>

Visual Aesthetics and Layout and Clarity: Logical and Fluent order and proper placements of controls, and various drill down options. <RPT002>

Management reports will be enabled by leveraging the pre-populated KPIs provided through the data model. The business requirements are grouped under business oriented subject areas .These will serve as the main entry point to enable reporting for business users.

The proposed BI environment will have appropriate operational, tactical and strategic KPIs to enable the below reporting requirements.

- Program Reporting, including a branch report
- Member Reporting, including County, Region and worker
- Utilization Reporting
- Program Integrity Reporting

- Business Intelligence Reporting

The State's requirements will be grouped under the subject areas. The KPIs will leverage the structured data dictionary that defines the business terms and phrases used in healthcare industry and the inter-relationships among those terms and phrases. A semantic layer enables some of the following key benefits. [RPT008, RPT014, RPT047]

- Represents the data requirements of a health plan
- Standardizes enterprise business terminology
- Is a business entry point to the data models
- Clarifies misunderstandings among lines of business and improves business-to-IT communications
- Is expressed in plain business language
- Is organized by subject areas
- Can be used as inputs and outputs of process and activity definitions.

Business terms and KPIs will be leveraged to be modeled into subject areas to enable business friendly ad-hoc reporting of data elements loaded from the Cúram database <RPT001, RPT029>

Subject areas help to group key health plan indicators and answer relevant business queries. They can also be leveraged for usage in dashboards, reporting applications and ad-hoc reporting. The subject areas provide an entry point from business to the physical implementation. Management reporting require reporting leveraging both subject area specific KPIs and also cross-subject area KPIs.

Wipro/IBM proposes to conduct workshops to identify KPIs across relevant business processes and finalize a comprehensive KPI list which will be leveraged across all management reporting. This is also expected to unearth / resolve discrepancies in terms of KPI nomenclature and interpretation across different business groups.

Supervisor Workspace provides supervisors and managers with dashboards to manage the cases (including households which are Integrated Cases) within their span of control that includes cases with issues. Cases for review will appear in their task list. <RPT016>

The EES, through Cúram Case Audit, supports configurable QC sampling, that enables the Department to sample by region or other grouping construct, perform random sampling, perform stratification sampling, and to sample by a wide variety of other criteria. Cúram Case Audit ultimately enables a user to configure an SQL statement, through a configurable field, which can select a list of cases using any filtering clause possible in SQL. Sample size, month or year of sample, can be used as filters through the above mechanism. <RPT009>

The EES provides a mechanism to create the universe from which the system pulls samples. The universe will be the complete list of eligibility cases in the system. The sampling logic described above will return a sample list of case IDs. <RPT010>

The EES, through Cúram Case Audit, supports a user role known as an "Audit Coordinator". An authorized audit coordinator can manually add cases to or remove cases from the sample. Comments can be provided to explain why changes are being made to the sample. <RPT011>

A history of case audits completed is maintained in the EES. Modification will be required to support the result categorizations listed here. <RPT012>

The federal and state reporting will be enabled through the data sharing architecture which will generate feeds in the required standard/formats. Federal and state reporting will include the ability to generate data and reports needed to apply for and demonstrate appropriate use of federal grant funding sources and will document the appropriate benefit programs, projects or other categories impacted by system or human actions to support claims for federal matching funds. The EES will also be able to differentiate funding source based on MLTC-specified criteria. The Cognos reporting also includes HUB application status reporting, including pending reports based on citizenship. All information subject to the privacy act will be safeguarded and data will be encrypted before submission. <RPT003, RPT036, RPT037, RPT039, RPT040, ELG047>

A metadata driven reusable extract routines will be built as a part of the state/federal reporting. All the reporting criteria for each external agency will be stored in this metadata repository. This approach will enable the State to easily adhere to the State and Federal data requirement changes. The ETL extraction routines will use this metadata to build appropriate data sets and the same will be stored in a designated location in various formats including but not limited xls, csvs, etc. <RPT013>

The final list of reports required will be finalized during the initial planning and scoping phase. In addition, some reports are produced from within the Cúram application itself. One of these reports includes the Mass change processing report, which is performed via Cúram batch jobs that produce control and error reports as part of their standard processing. <RPT030>

User Interface

The User interface will have a simple, intuitive interface that is fast and customizable. The User interface system will have an open, extensible architecture that allows integrating almost any electronic resource via a portlet/web services. Basic Functionality that the user interface layer will cater to includes

- Processing of user-entered information
- Interaction with authentication and affiliation services
- Validation of input
- Submitting requests
- Retrieving and formatting results
- Directing UI process flow and display of pages or portlet components based on conditions such as data, clicks on hyperlinks, errors, user's privileges, etc.
- Establishment of UI sessions and storage and retrieval of session data

The environment will be enabled with various delivery capabilities like query results exporting to various formats e.g. excel / pdf / HTML/ XML Report delivery can be enabled through email, printer or saving it to a predefined folder with data and time identified. Reports will be generated on frequencies as per business requirements and Wipro/IBM will provide user manual explaining non-It users how they can schedule new reports or re-schedule existing reports. The solution will be built to scale to futuristic BI delivery needs like mobile based dashboards, office integration. Additionally, <RPT005, RPT006, RPT007, RPT019, RPT020, RPT022, RPT027, RPT033>

The Cúram document management interfaces with the State's Hyland OnBase imaging and document management solution and associates all documents and reports received with the appropriate case or case participant (person) so that they can accessed directly from the case file and be shared across programs and agencies with anyone with appropriate authority to view the case. <RPT023>

To generate an inventory of current and available reports, Cognos includes standard auditing features as well as an IBM Cognos SDK application that provides additional auditing, including Role Auditing, folders, reports, queries, etc. <OPS008, OPS012, RPT044>

The Wipro/IBM team will make sure that the existing reports, metadata and documentation is studied properly, a thorough assessment and gap analysis (with expected reporting BI functionality) is done and then the reports are designed and developed using Cognos.

Training

Wipro/IBM will develop a robust training solution that will be aligned with the learning needs of the various target groups. Custom training programs will be created to meet State BI users' specific training requirement.

The key aspects considered for finalizing the BI training solution will be as follows:

Training planned before and during User acceptance Testing – Training will be provided weeks before and during the User Acceptance Testing so that business users spend optimal time from their day-to-day activities and whatever training they receive can leverage and test during the UAT period.

Training road maps for users – There will be role based training road maps designed for the business users, Power users and Data Administrators.

Instructor Led Training (ILT) approach –Training will be delivered to the users in classrooms/space provided in the State's office to equip them with the required knowledge and skills to use the new system.

Training materials - The training materials to be used by the instructors to deliver the training will be designed and developed by Wipro/IBM team.

Self-Paced Learning approach – In addition to classroom training, **Self Paced Training content** will be designed to provide an overview and reinforce key takeaways from the classroom in a self-paced mode.

Recap and Quiz – Quizzes might be designed for each class room session and web based training to check the understanding of the users.

Training Aids – Work Instructions, Job Aids and Quick Reference guides will be created for various target groups to support the users during training.

Training courses developed for ***SmartPro MedEE*** will interface with the State's LINKS Performance Management and Training Systems leveraging standard LMS protocols to facilitate user community access who are familiar with this system. (GEN021)

Requirements Addressed:
GEN020, GEN022, GEN033, GEN043, GEN060, GEN061, GEN066, GEN070, GEN071, GEN072, GEN075, GEN077, GEN078, GEN082
OPS011, OPS018, OPS019 OPS020, OPS021, OPS030, OPS033
RPT009, RPT010, RPT011, RPT012

The Department is tasked with the administration and oversight of state and federal benefit programs and must comply with reporting requirements that are tied to receipt of federal dollars. The ***SmartPro MedEE*** administrative features and capabilities will empower the Department to meet all federal and state reporting requirements and configure workflows and processes that will allow it to automate business processes that will incorporate efficient and best practices and implement consistent processes across the organization.

Federal and state legislation define what and how human services organizations can serve the public. State and department policy must reflect legislation to make certain that consistent work and activities are followed. Workflow can automate policy and procedures to confirm that they are followed, track the time and actions taken and record the entire process.

One example of workflow in a Medicaid/CHIP case follows is:

Business Process	**Workflow**
Application filed	• Capture the date and time the application was submitted
Client proof of residency provided (driver's license)	• Capture the event
A scanned image of the driver's license must be captured and associated with the application before allowing the application to be considered valid	• scanned image attached to the application/client file
If after 5 days of a member application being created, and the application is not still invalid, a message is sent to a supervisor to review	• Assign case • Notify worker via worker home page – case details – name, case type, processing timeframe • Track processing timeframes • Capture the acknowledgement of reading a message • Set the status of the application
If the application has been received by the organization, and verifications are not completed in 45 days, the application is marked as invalid or closed	• Capture the events as history of the workflow from end to end

SmartPro MedEE workflow will support the automation of the Department's business processes and work allocation. MLTC will define and maintain workflows to confirm adherence to best practices

which in turn will result in expeditious and consistent processing of cases and case activities. Cúram Workflow combines the ability to implement business processes consistently along with the flexibility to rapidly respond to changing business needs.

An integral part of the IBM Cúram Enterprise Social Program Management Platform, Cúram Workflow provides a set of features that will allow the MLTC to define reliable and repeatable work patterns to effectively support organizational business processes and service delivery capability. These features include a framework for defining and maintaining workflow processes and an integrated workflow engine to execute these processes at runtime. <OPS019>

The two principal functions that Cúram Workflow serves are:

- Automation of business processes through the definition and maintenance of workflow processes.
- Support for managing the allocation of work items associated with workflow activity steps among machine resources, individuals, and organizational units. <OPS030>

Business process automation is achieved through the definition of workflow processes which describe the activities in a workflow and the transitions between them. An activity in a workflow may be manual or automatic. Manual activities typically involve user intervention, whereas automatic activities are typically performed using system resources. Transitions describe the sequence of activities and how they are linked together. They may be associated with conditions that are used to determine a particular flow through the process.

Workflow

The ***SmartPro MedEE*** solution uses IBM Cúram Workflow to automate business processes, generate alerts to users and assign tasks. The two principal functions served by IBM Cúram Workflow are:

- Automation of the steps involved in business activities through the definition and maintenance of workflow processes.
- Support for managing the allocation of work items associated with workflow activity steps among machine resources, individuals and organizational units.

Workflow functionality is built into the internal and external portals that provide intuitive alerts and task management. Events such as deadlines and appeal timeframes can automatically trigger workflow processes to assign tasks to workers. The Cúram Administrator portal allows for monitoring, management, and configuration of workflows.

Inbox

Users manage their workload from the Inbox. A toolbar shortcut to the user Inbox is available on each page in the application. The Inbox provides the functionality necessary for the user to manage workload. Options are provided for creating, reserving and searching tasks, as well as managing work queues and notifications. Users can create tasks for a variety of reasons; e.g. send a notification task to another user advising the user of a case that has been transferred to them. <OPS033>

Reserved Tasks represent those tasks which a user has accepted, or "reserved", for action. Once a task is reserved, it is removed from the list of Assigned Tasks and added to the list of Reserved Tasks. This allows the user to work exclusively on a particular task.

Assigned Tasks represent tasks which have been allocated to an individual user or to a group of users. For example, a task may be allocated to a particular job such as an "Eligibility Specialist" which results in it appearing in the assigned task list of every user who holds that job. In order to work on a task a user must first reserve the task. This action removes the task from the Assigned Task list. <GEN070>

Working with Tasks

Clicking on a particular item in the My Tasks graphical area presents the user with a list of the tasks associated with that item. The list of tasks can be sorted on the column headers. From the list page, users can quickly navigate to the relevant task home page by single-clicking on either the "View" or "Task ID" links. An example task home page is shown in "Example Task Home Page".

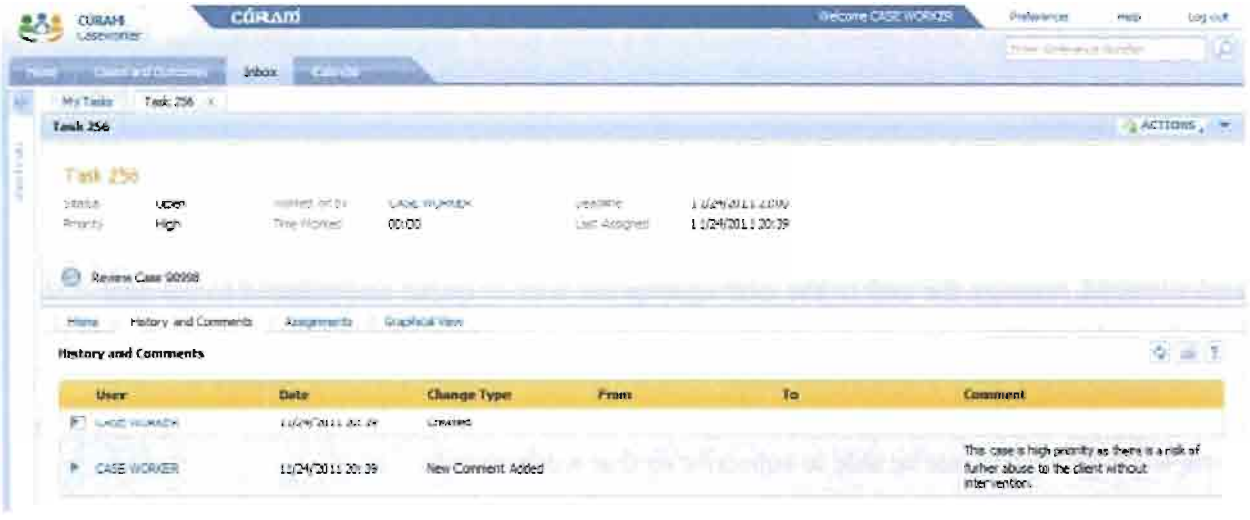


Figure IV-36: Example Task Home Page

The task home page serves as the central point for managing a task. The user can open a task, read the instructions, perform the work necessary and then move the task along by reassigning, reallocating or closing it. A number of additional operations can also be carried out including recording the amount of time spent working on the task, adding comments, forwarding, deferring or restarting it.

Task deadline strategies can also be created to ensure that a task is processed by a user in a timely fashion. In the example shown above, a deadline date and time is specified for the task. This deadline, for example, could be associated with a strategy that involves escalating the task to a supervisor, reassigning the task to another user or changing the task priority. From the task home page, the user can also view a history all actions taken on a task by selecting the "Task History" link on the page. <GEN071, GEN072, GEN078, GEN082>

Task creation is also incorporated into Cúram Workflow processing. For example, tasks can be automatically created and assigned to specific users or work queues based on an allocation strategy. Typically, automatic task generation is used in situations where specific manual activities need to be undertaken. For example, a change in circumstance for a client might result in an overpayment situation. This would likely require user intervention to negotiate and agree to terms for recovering the overpayment. Also, when automatically generated tasks are actioned, the task can be

automatically closed by the system. Whether a task has been automatically closed by the system, or manually closed by a user, the task is removed from the user's task list and is thus logically 'archived'. <GEN075, GEN077>

Task "queries" can be set up by a user. Task queries allow the user to search for tasks based on specific criteria and then save the task query to be run as desired. This allows users to save the searches that they most commonly use for tasks, thereby reducing time spent working with tasks. <GEN078>

Work Queues

Work queues are subscription-based queues to which tasks can be assigned. Using the Cúram administration application, authorized users can setup and manage work queues, as well as define the users subscribed to the work queue. Optionally, if a work queue allows user subscription, users can manage their own work queue subscriptions and can therefore subscribe to one or more work queues as appropriate.

Work queues are typically accessible by groups of users. Work queues could, for example, be defined to route work to specialists who are trained to deal with circumstances that require a particular expertise. Once users are subscribed to a work queue, they can reserve a task from a queue, carry out the work required, reassign the task to the next appropriate user or queue and proceed to the next task waiting in the queue.

Each work queue is assigned a sensitivity level. This empowers administrators to restrict access to specific work queues based on a user's sensitivity level. A user with a sensitivity level less than that of a given work queue will not be able to subscribe to that work queue.

Developing Business Process Workflows

Business process automation is achieved through the definition of workflow processes. A workflow process consists of activities and the transitions that occur between them. An activity may be manual, where user intervention is involved, or automated, where the activity is performed by a system function. Transitions control the sequence of activities and the conditions that determine a particular path through the process. Workflows are developed using the Workflow Process Definition Tool (PDT). The PDT is provided as part of the Cúram administration application and is used to define and maintain workflow process definitions.

The development of a workflow process involves defining the workflow activities, the transitions between these activities and the data elements that pass through the workflow process. The data required to initiate a new enactment of a workflow process is also defined. The administration application is also presented as an online web application. An example of the PDT showing a workflow process home page is illustrated in Figure IV-37: Workflow Process Home Page.

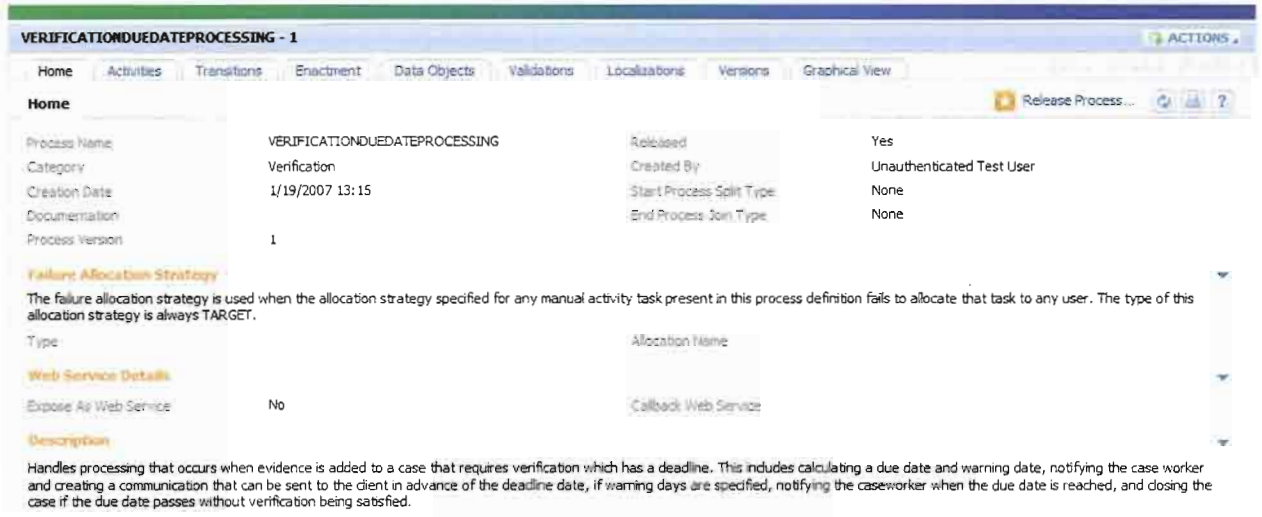


Figure IV-37: Workflow Process Home Page

Creating or editing a workflow process involves activities, transitions, workflow data objects and enactment mappings.

Activities

An activity in a workflow process definition specifies a discrete item of work that must be completed for a workflow process to progress. There are a number of standard activity types available for creating a process definition.

Notifications – often referred to as "ticklers" – can be also be defined and associated with workflow activities. Notifications provide information that may be of interest to a user or a group of users. For instance, if a workflow process automatically closes a case, a notification can be sent to the appropriate user(s) advising of this action. Notifications differ from tasks in that they typically do not require a user to carry out an action. Notifications contain subject text, body text and links to relevant application pages. They can be issued in the form of an Alert, an email message, or both. Alerts appear in a user's list of notifications, available from their Inbox, until they are acknowledged by the user. E-mail notifications appear in the inbox of the user's e-mail system. Within a single workflow process, multiple activities can be defined, allowing for activities to be performed by various users. <OPS020>

Transitions

Transitions determine the flow of execution in a workflow by providing the links between activities. A transition may optionally be associated with a transition rule which is an expression that evaluates to "true" or "false" and is, effectively, a condition or set of sub-conditions that must be met before the transition will be followed.

Where multiple transitions are involved in an activity, these are termed 'splits' or 'joins' depending on whether it is entering or exiting the activity. Splits and joins can be defined as Parallel (AND) or Choice (XOR) transition types. From a Parallel (AND) split, the flow of control within a workflow can therefore take multiple branches simultaneously, with each branch executing in parallel.

Workflow Data Objects

Workflow Data Objects (WDOs) act as containers to hold relevant data items used throughout the workflow. WDOs can be mapped to items in a workflow such as activities, transition conditions, loop conditions, and parameters: that require data to be passed into or out of it. The WDOs can contain a number of attributes which represent the individual data items that will be mapped to the activities. <OPS021>

Enactment Mappings

Enactment Mappings relate to the specific data required to carry out a workflow process. For example, in order to enact a workflow process for a particular case, a 'case ID' is typically required to identify the relevant case. Enactment Mappings provide the mechanism to retrieve the data necessary to start a new enactment of a workflow process and determine how this received data should be mapped onto the WDOs.

Review of the workflow process is accomplished using the workflow process graphical view. This is included as part of the PDT and is a visualization tool which provides a graphical image of a workflow. Figure IV-38: Graphical Representation of a Sample Workflow shows an example of a screenshot reflecting a workflow as displayed by the visualization tool.

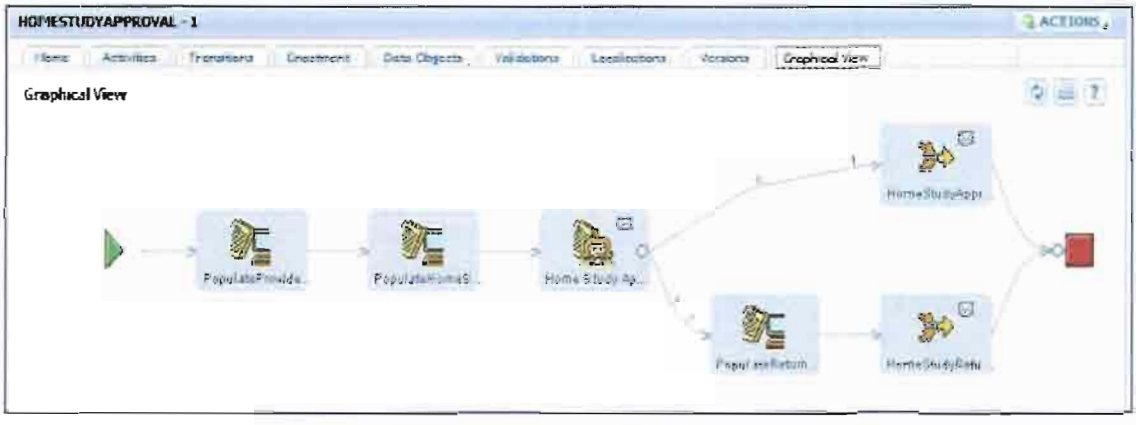


Figure IV-38: Graphical Representation of a Sample Workflow

The ability to validate workflow process definitions before they are released into production is also provided in the PDT. This functionality is used to check the process definition against a series of validations and to report errors arising in either the overall workflow or in specific activities or transitions. These checks assist in producing a valid and well-formed workflow.

Managing/Monitoring Workflow Processes

Workflow process enactment will predominantly be transparent to business users of the system. Authorized administrators, however, will use the Cúram administration application to monitor and maintain workflow process instances, process instance errors and workflow events. In addition to the administrative functions of the Process Definition Tool (PDT) and work allocation features described above, Workflow Administration also provides the following functions that enable an administrator to monitor and control process instances executed by the workflow engine.

Process Instance Search

The Process Instance Search function allows an administrator to search for process instances in a number of different ways, including by process details, by task details and by event wait details. These options allow an administrator to quickly locate a process instance in order to facilitate analysis or diagnosis of workflow progress.

View Process Instance Details

This function may be used by the administrator to view the details and progress of a process instance. It allows an administrator to view the values stored in the workflow data objects for the process instance. This view also shows the activity instances that have been executed at that point in the process instance. There is also the option to view the process graphically.

Suspending, Resuming and Aborting Instances

Workflow Administration provides the ability to suspend, resume, and abort workflow process instances. The suspend function allows the administrator to pause and in progress process instance; the resume function is used to restart a suspended process instance, and the abort function is used to terminate an in progress process instance.

Handling Process Instance Errors

Errors encountered by the workflow engine during the execution of a process instance are displayed in the process instance error list. The administrator can choose to retry the associated process instance after performing the required remedial actions, or abort it.

Executing Workflow Processes

IBM Cúram Workflow provides work allocation features for assigning work items to system resources, individuals and organizational units. Allocation strategies determine how work is distributed to individuals or groups. The supported allocation strategies include specific targets, and rule-based and function-based approaches. Once a work item has been allocated, it becomes a task for an individual who can view and take action required by the task. Tasks may be associated with notifications in the form of alerts or "ticklers".

Tasks are used to assign and track a user's workload. They may be assigned to, and by, automated processes, individual users, or groups of users. Users can be associated with jobs, positions, organizational units, or work queues.

Rules Engine

The ***SmartPro MedEE*** solution leverages the IBM Cúram Express Rules (CER) Engine for comprehensive rules management capabilities by providing rich, prebuilt rules content, a rules composition and execution environment. The CER Engine provides a standalone rules engine that executes business rules in isolation. Business administrators utilize the Cúram Administration portal to manage rules, programs and rates.

Cúram provides robust capabilities to handle eligibility and entitlement determination including rules-based business processes; Cúram has been designed to address the unique challenges faced by health and human services agencies with regard to rules management in support of program delivery, organizational efficiency, and enhanced client service. The Cúram Express Rules

environment provides the functionality necessary to support a range of rules-based business processes in Cúram-based solutions. <GEN066>

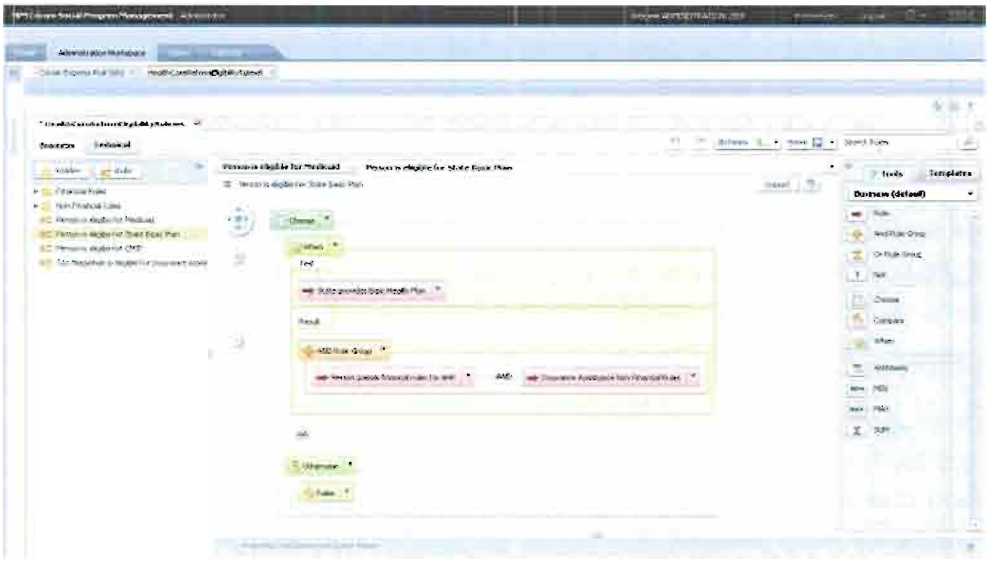


Figure IV-39: Cúram Express Rules Editor

Cúram Express Rules (CER) Environment

CER is a versatile and adaptable rules environment that supports the definition, creation, and execution of rules to support a range of business functions commonly required by social enterprise agencies. The CER environment consists of the following components.

- CER Editor – provides a user friendly tool for business analysts and developers to storyboard, design, and construct rules, and to link rules to data.
- CER Engine – executes rules on demand at runtime in order to output business-based calculations.
- Rate Administration – rates and policies in effect such as Federal Poverty Levels and Disability types.

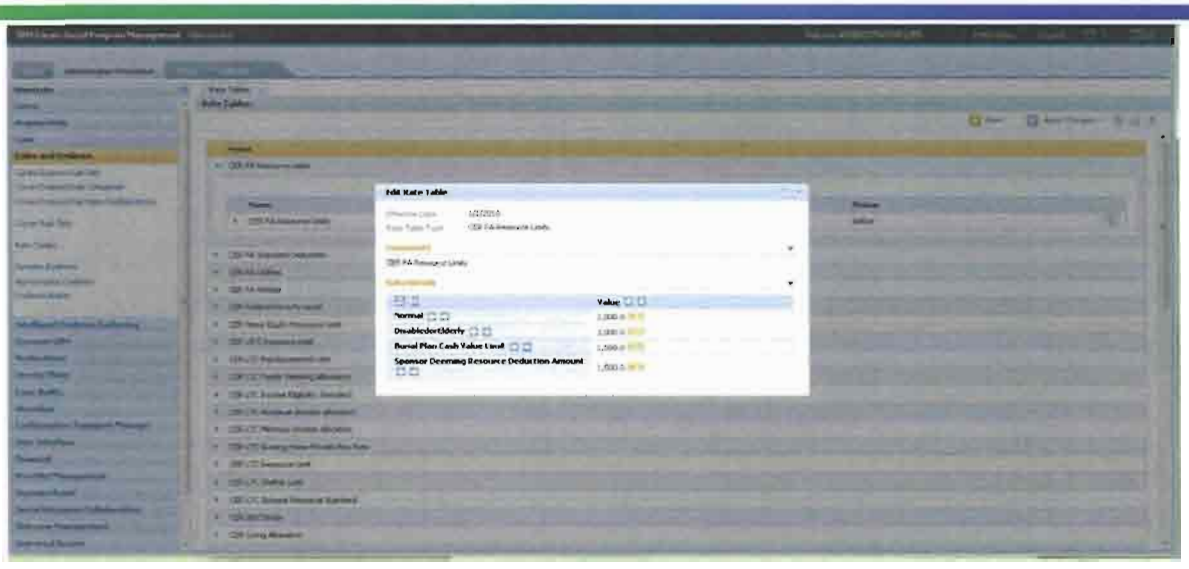


Figure IV-40: Rate Table Example

Policy Management

MLTC is responsible for the administration and oversight of multiple programs tied to state and federal funding sources, regulations and legislation. The Department is responsible for the interpretation and implementation of many complex rules associated with Medicaid programs. In addition, administrators must provide guidance to Department and affiliate organization staff to develop, support and maintain State programs. They must keep their staff abreast of all changes and confirm that changes are accurately reflected in the rules used by ***SmartPro MedEE*** to determine program eligibility.

Policy changes often impact rules governing eligibility. It is critical that ***SmartPro MedEE's*** integrated rules engine reflect the current policy while still allowing assigned workers to accurately determine eligibility for periods prior to the policy change(s). ***SmartPro MedEE*** will maintain a complete history of program-specific rules each associated with a date and an effective time period. Rules, based on given time-bound constraints determine eligibility and benefit calculations. This will allow **SmartPro *MedEE*** to post-date activities associated with one or more criteria. Such functionality is essential for managing policies, especially those with retroactive effective dates. Application of the policy is seamless to the user. For instance, individuals authorized to determine eligibility and clients accessing ***SmartPro MedEE*** via the Public Self-Service portal will receive eligibility as it applies to the span of time for which they are requesting assistance. The rules engine, rules development and maintenance are discussed multiple times in this response. Within this proposal, the Functional Requirements section discusses rules and their impact on Medicaid Eligibility and Administration. Technical discussions of the integrated rules engine are available throughout the Technical Requirements section.

Policy and procedural changes may occur at a rapid rate or may be very complex. Worker aids such as the Smart Panel and Online Help features are designed to provide actionable information within the context of the user's workflow. Access to the right information at the right time assist workers through the transition as policies or processes change and also helps normalize the learning curve that often challenges new users.

The Smart Panel is optionally located on the right side of the main content of a page. The user can show or hide the panel using the arrow on the top left of the panel. It is designed to help users carry out the task or work at hand. It contains two main elements, namely the advisor and quick notes.

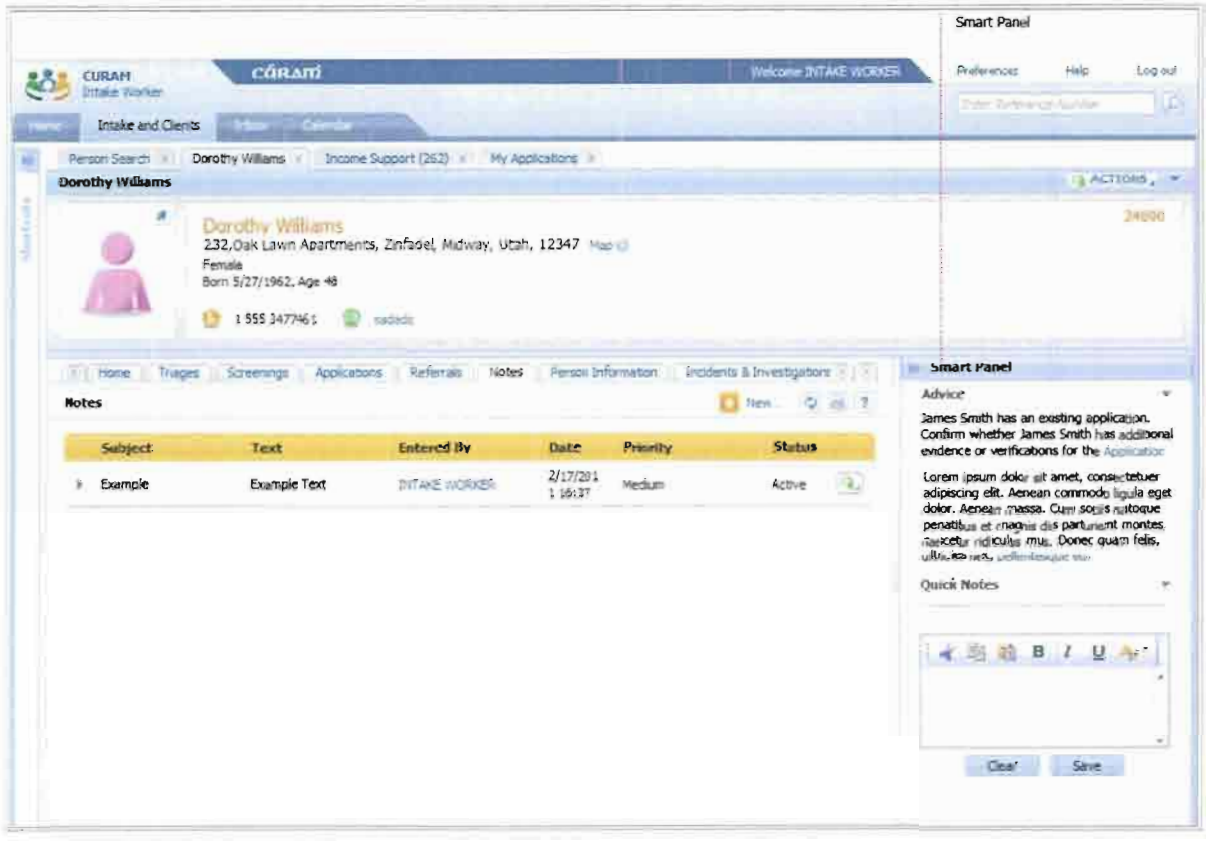


Figure IV-41: Example Page Showing Smart Panel

The advisor provides the user with context-aware recommendations and suggestions for topics or items that require their attention. It is designed to help guide the user through the process at hand. The advisor analyzes the data entered in the system, and then determines the advice that should be displayed, based on specified rules. The user can action advice by clicking on the hyperlink displayed within the advice item text. Items can be prioritized, allowing highest priority advice to be displayed first.

The quick notes feature allows users to take notes while working through the task. As the user works through pages, the quick notes feature can be constantly displayed. This allows the user to input and save notes at any stage, without having to choose another menu option or move away from the current page.

Integrated online help will also assist users as they work through tasks. For example, the worker, uncertain of the next step in the process or how current program policy applies to a situation, can use on-screen help and online documentation without leaving the screen or application. Online help will allow the users to access this documentation from a screen. So for example, a worker can access applicable, program-specific policy or legislation when processing an application or access Help to confirm the type of information or verification that is required at any point or location. Once the

Online Help information is reviewed, the user immediately returns to the screen and field from which Online Help was accessed.

The online help system is customizable and supports multiple languages. System administrators can update the Online Help by updating help files and help dialogs in the editors. The system administrator can accomplish this in their development and UAT environments, and subsequently load the updates into the production environment.

Audit

The proposed ***SmartPro MedEE*** is designed to track, log and maintain a comprehensive history of case transactions and activities. These activities include case activities from the time a case is created and all case updates, the entry of a case note, including additional notes entered to update or amend an original case note entry, changes in client eligibility, and the addition or removal of a household member which in turn will trigger eligibility redeterminations for all members of the household. This change in household circumstance and any changes to eligibility will be recorded both at the client and case levels. <GEN033, GEN043>

The ***SmartPro MedEE*** solution will also support audit processes such as those associated with Quality Control (QC) reviews focused on confirming strict adherence to program policy and to ensure that client eligibility and client benefits are accurate for a distinct period of time.

SmartPro MedEE will use the case auditing features provided by Cúram to address the Quality Control requirements in an intuitive and configurable way. Some of the capabilities Cúram will provide out-of-the-box include:

- Plan creation - the ability to create a QC plan specifying the scheduling details, the purpose of the QC review, and the selection criteria to use in generating a sample list of cases
- Automated Case Sampling - audit case selection based on a range of criteria for the purpose of carrying out case reviews
- Case assignment - automated or manual assignment of designated workers to act as QC reviewers or auditors on the sample cases; authorized users have the ability to override automated assignments
- Review management - to the tasks and activities necessary to effectively manage the information relating to QC reviews in the context of a case that includes the members, workers, providers, contracts and other data necessary for a QC review
- Review documentation - auditor's ability to complete the review, enter comments and notes at any step of the process, and the ability to document and display the QC review findings ;
- Automated notifications - automated notices to management, workers, members and/or providers of QC review events based on milestones reached or specified activities
- Search - the ability search for existing QC reviews and review plans and to view a list of assigned QC reviews and review plans
- Support for peer case reviews

Configuring QC Review Settings

The sample universe may include the entire caseload or be limited to a specific subset of clients such as those eligible for a specific program offering. The universe may also be limited to cases determined eligible or denied during that specified period.

The ability to specify the instruments and components used to carry out QC reviews will be provided through the Cúram Administration Suite application. Administrators will log into this application and configure how the audit of a particular type of case should occur. This includes the ability to identify the algorithm that should be used in generating a random sample of cases. It also allows for the selection of the queries to be available for a QC review coordinator when generating the sample of cases, as well as the "focus areas" that should be addressed by each QC reviewer assigned to participate in a review. The Coordinator's ability to review the sample also affords the opportunity to manually remove or eliminate a case from the sample and substitute a case in its place. Customer satisfaction surveys will be managed using Survey Monkey, Enterprise Edition supporting survey initiatives with PHI/HIPAA <GEN022, RPT011>

A default algorithm is provided, as well as sample queries for use in specifying the selection criteria that can be used in the generation of a sample of cases for the purpose of QC reviews. Both the algorithm and sample queries can be customized to meet the exact needs of Nebraska's programs. <RPT009, RPT010>

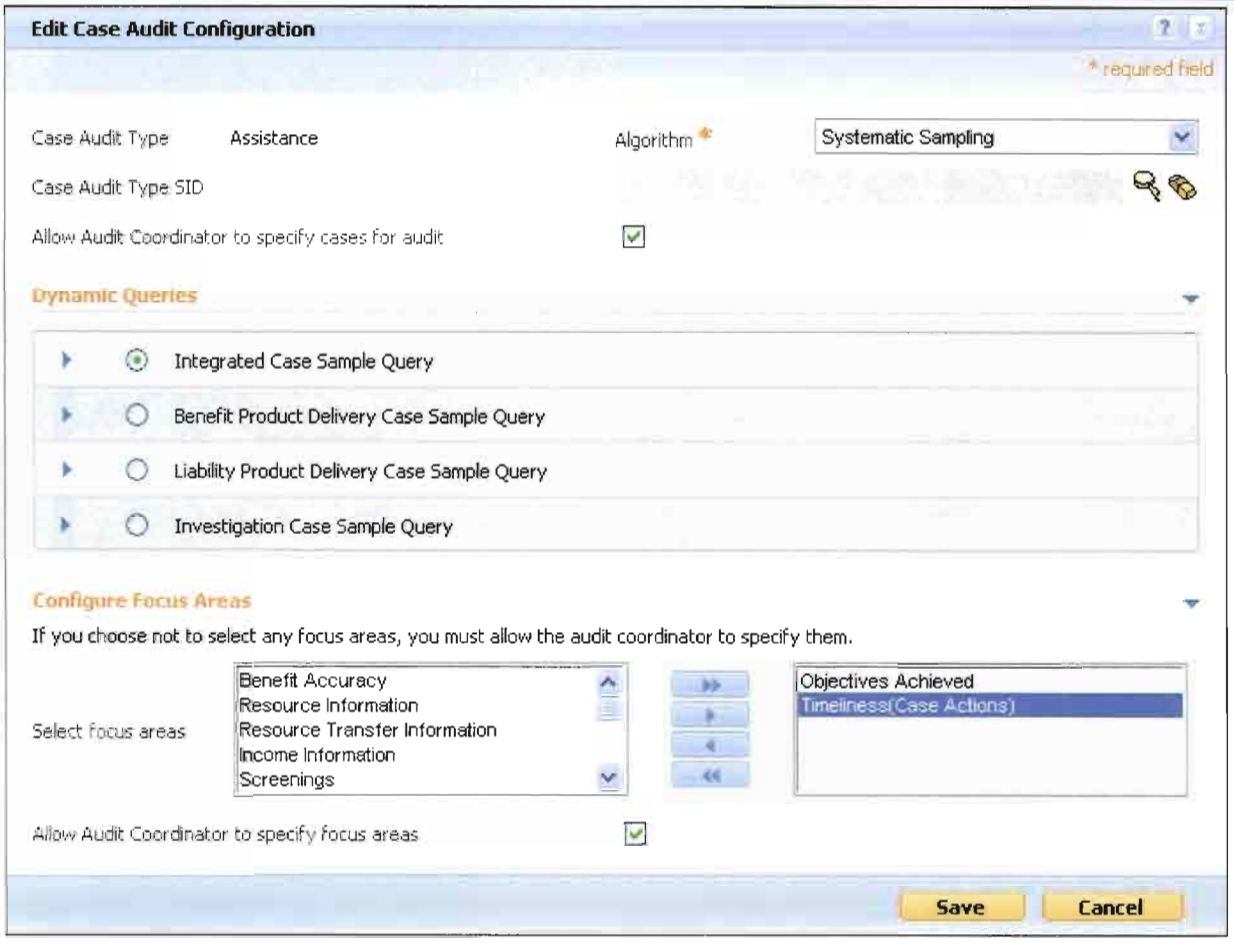


Figure IV-42: Sample Case Audit Configuration

Planning QC Reviews

Designated users known as Audit Coordinators will create a Quality Review Plan for a specific type of case. To create this plan, the Audit Coordinator will specify purpose of the review, what type of user involvement should be allowed (such as ability for designated individuals like caseworkers to provide feedback to findings or, simply view-only access to findings information), and the focus areas to be addressed. A schedule for the time period over which the audit is to take place will be defined, and a sample list of cases generated.

The list of cases may be generated either by manually selecting specific cases or through the random generation of a sample case list by the system based upon selection criteria such as Start Date, Case Status, and Case Decision, entered by the Audit Coordinator. The criteria that can be entered by the Audit Coordinator will be dependent upon how audit information for the type of case being audited was administratively configured.

Once a list of cases has been generated, the Audit Coordinator can then assign each case to either an individual Auditor or an Audit team in order to carry out the Quality Review.



Figure IV-43: Sample Audit Plan for a QC Review

Carrying Out QC Reviews

Once a case audit has been assigned to an Auditor or Audit team, the participating Auditors can enter findings information for each focus area specified by the Audit Coordinator for each sample case. Having carried out the QC Review, each Auditor can indicate that the findings are complete. If the audit plan has been configured to allow feedback, this will result in a notification being sent to each Auditor for the purpose of providing feedback. Each participating Auditor will receive a task that provides a link to a page on which feedback comments may be entered. The Audit Coordinator can then view the feedback comments within the Case Audit Plan and update the overall findings as necessary.

Many features are provided to help both the auditors and the Audit Coordinator to participate in and manage the audit process. Case auditors are provided with a dedicated workspace to view their assigned audits and sample cases, as well as the tasks relating to these. Audit Coordinators also have a designated workspace for creating and managing multiple audit plans. Options are provided to assign one or more Auditors to an audit plan as well as options to view the history of the audit plan, the auditors involved, the focus areas and the selection criteria used. ***SmartPro MedEE*** will maintain a complete history of all audits completed allowing authorized users to review information and access audit details. <RTP012>

ii. Non-Functional Requirements

1. Key Assumptions

The Wipro/IBM team has examined the Key Assumptions list and confirms that consideration was given to all key assumptions while preparing the ***SmartPro MedEE*** solution.

2. Proposal Requirements

a. Architecture and Policy

Describe the proposed approach to SOA. The approach must, at a minimum, take the following topics into consideration in the details:

1. Distribution of Services;
2. Integration of Services;
3. Ease of Maintenance;
4. Administrations and Security; and
5. Support for various Protocols.

The ***SmartPro MedEE*** solution is based on a Service-Oriented Architecture.

- Distribution of Services is enabled by the WebSphere Service Registry and Repository (WSRR), which provides clear visibility into distributed service associations and while enabling governance across platforms of the entire services lifecycle through true end-to-end repository federation to provide multi-data center implementation of the environment.
- Interfaces between components and with external components are enabled by the IBM Integration Bus (IIB) which enables SOA standards-based communications and allows you to connect virtually any application or service over multiple protocols including SOAP, HTTP, Java Message Service (JMS) and more. <GEN018, GEN061>
- The ***SmartPro MedEE*** components are SOA-enabled
  - The Cúram COTS package that delivers the core eligibility and enrollment function is SOA-enabled. The Cúram toolkit allows any business function to be exposed easily as a service, generating the necessary artifacts such as WSDL. It also allows Cúram to easily consume web services.
  - The IBM InfoSphere Master Data Management product communicates with its providers and consumers via Web Services
  - IBM Cognos can provide access to its functionality via the Cognos SDK, a toolkit you use to extend and customize IBM® Cognos® reporting products as Web services.
- The Wipro/IBM design and development approach is SOA-centric in identifying and implementing services and using the SOA infrastructure to connect and orchestrate service providers and consumers.

Wipro/IBM understands that distribution of services and integration of services will provide the State with a flexible architecture to allow easier maintenance and enhancement of both the EES and those other systems with which it is integrated. Distribution and Integration are complementary notions allowing loosely-coupled services to be delivered through multiple components distributed across multiple platforms to be integrated to provide coherent business function.

The IBM WebSphere Service Registry and Repository provides SOA governance and enables Distribution of Services by tracking the lifecycle, versions, location and availability of services, while the IBM Integration Bus provides for the integration of those services. Both provide support for many industry standard protocols.

Wipro/IBM proposes an SOA-based approach in identifying, defining, designing services for the Enterprise. For EES implementation the solution will be integrated with various enterprise applications like MMIS, N-FOCUS, FFE, Federal Data Hub, State Systems, etc., via the IBM Integration Bus (IIB).

The Wipro/IBM approach classifies services into 5 different categories namely Data Service, Business Service, ESB Data Flow and transformation, Business Process Service and Business activity Monitor.

Data Service is the lowest grain of service decomposition and typically implements CRUD operations in a Database, a technical adapter configuration to integration with the system (like SAP Adapter, JDE etc) for a very specific transaction type. It can also be defined as composite data service which implements multiple fine grain data services.

The **Business Service** is the medium to coarse grain of Service decomposition. The business service implements functionalities like Data Validation, Enrichment and orchestration of multiple Data services to provide a business functionality. The business service can also orchestrate ESB Data Flow and transformation service implementation.

The **ESB Data Flow and transformation** implements service mediation, routing and transformation. The ESB implements protocol transformation, data transformation, mediation and routing of service invocation. The ESB implementation may integrate Business services with other systems or may invoke Data Services

The **Business Process Service** implements macro flows with human interaction vi UI layers. The Business Process may invoke any combination of ESB Service or Business Service, Data Service.

The **Business Activity Monitor** service implements the report of business services/Business Process implemented in the integration and business process tier.

IBM IBM Integration Bus (IIB) is the implementation of the Enterprise Service Bus for Data Service, Business Services, ESB Data Flow and Transformation service.

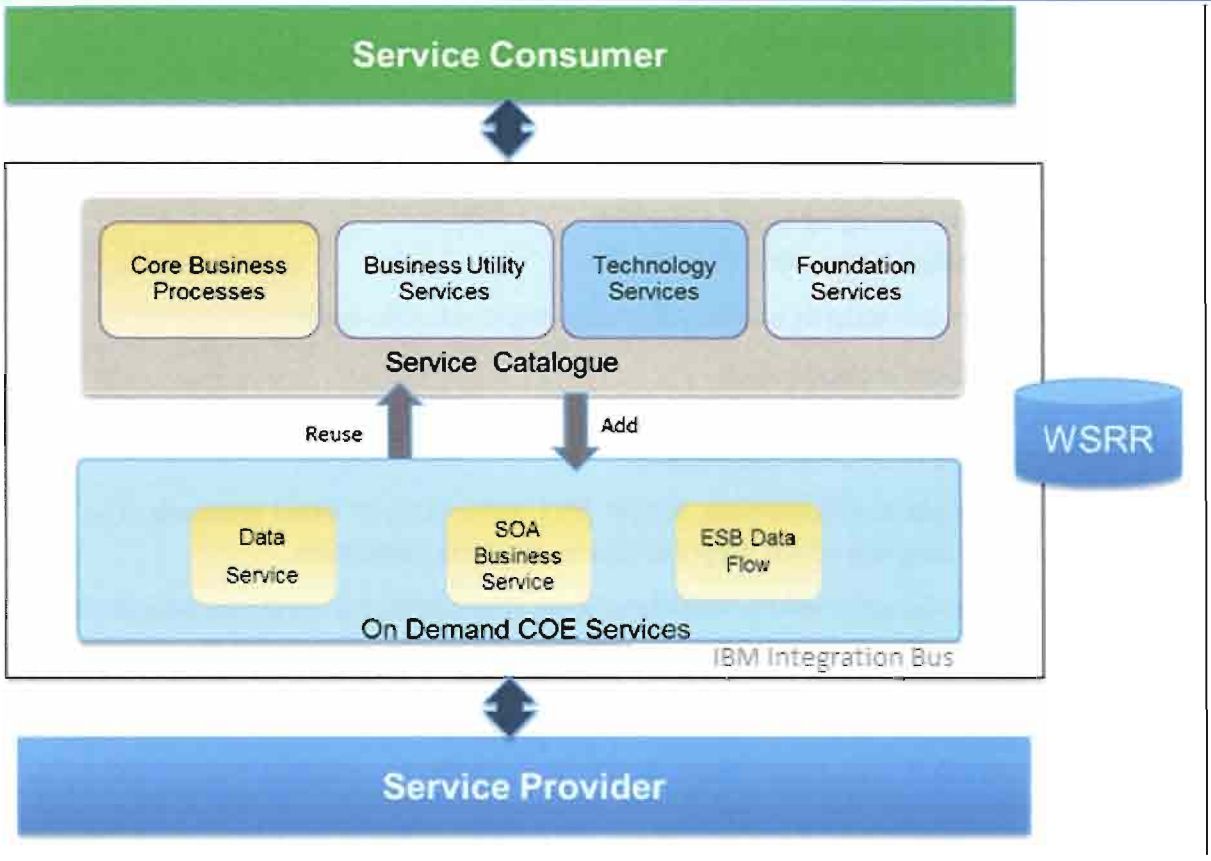


Figure IV-44: Service Mediation Pattern

Event based and real time integration will be implemented using IBM Integration Bus. The batch file transfer will be implemented using IBM Sterling Connect Direct.

Wipro/IBM plans to use a standard design pattern and framework (Service Enabler Kit), developed by Wipro/IBM to accelerate the ESB implementation approach. The Service Enabler Kit provides three component-based layered design patterns (Façade, Transformation, Mediation) to implement various common use cases for ESB implementation. This simplifies the maintenance of service. The Services will be registered in WSRR for design time discovery and run time end point identification. IBM Integration Bus includes a set of performance monitoring tools that visually portray current server throughput rates, showing various metrics such as elapsed and CPU time in ways that immediately draw attention to performance bottlenecks and spikes in demand. You can drill down into granular details, such as rates for individual connectors, and the tools enable you to correlate performance information with configuration changes so that you can quickly determine the performance impact of specific configuration changes.

The IBM Integration Bus web user interface (UI) enables you to view and manage Integration Bus resources without any additional management software. It connects to a single port on the integration node, provides a view of all deployed integration solutions, and gives you access to important operational features such as the built-in data record and replay tool.

Messaging security ensures that service integration bus users are authenticated, resources are protected by security checks, and messages are secured when they are in transit.

IIB Security covers all of the following areas:

- Authenticating and authorizing users that attempt to connect to a bus, and use its resources.
- Securing communication transports between clients and messaging engines, and between messaging engines themselves.
- Authenticating peer messaging engines in a bus.
- Protecting the message store with a user identity.

When a bus is created with bus security enabled, the following conditions apply:

- The bus requires client authentication.
- The bus enforces authorization policy.
- The bus requires use of SSL transport chains.

IIB supports various protocols like Webservice, HTTP, MQ, JMS, TCP/IP based protocols. The product also has technical adapters which supports various products integration.

The service distribution can be achieved by multi-data center implementation of the message broker environment. An implementation of the message broker using clustering will provide the distribution of services and high availability.

2. Describe the system integration approach between our solution, Interfaced Systems and any other proposed third party products. The approach must, at a minimum, provide details on the interoperability features and capabilities our proposed solution and how the EES intends to meet or exceed the Interoperability-Interface Requirements set forth in Appendix C;

The core features of our integration solution are:

- Use of the IBM Integration Broker (IIB) as standards-based Enterprise Service Bus (ESB) to provide an integration point between products within the solution such as Cúram or the Master Person Index and with external Interfaced Systems.
- Use of IBM Sterling Connect Direct to manage secure file transfer, including industry standard Secure File Transfer Protocol (SFTP) to those Interfaced Systems that require file-based interfaces. IIB and Connect Direct are integrated at the product level so they can act as a seamless, integrated integration broker.
- Use of products such as IBM Cúram that can both provide or consume standards-compliant Web Services directly.

Because all these are compliant with standard services such as WSDL, UDDI, SOAP, REST, Web Services standards including WS-Security and support secure protocols such as HTTPS.

3. Describe the approach to scalability and extensibility of the proposed EES. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Ability to meet future growth;
b) Configurability;
c) Flexibility to keep up with changing technology and Regulatory needs;
d) Ease of maintenance.

SmartPro MedEE is architected following modern application precepts, such as Service Oriented Architecture, rules engine abstracted outside of code, and hardware/environmental virtualization. It is also built upon an extremely scalable hardware/software appliance, the PureApp server. Initially,

SmartPro MedEE (all of its environments) is being implemented on two 64-processor PureApp servers: one for the primary data center, a second for the secondary (DRR) site. Without changing out boxes, each server can be upgraded in-place to nearly 10 times its initial compute capacity and memory configurations, providing nearly unlimited potential for future growth.

The SOA architecture provides for interoperability, scalability and, by avoiding single points of failure provides for high availability and resilience. It is fully compliant with the State's non-functional requirements as detailed in the traceability matrix. The architecture also aligns to the CMS Seven Conditions and Standards guidelines, as outlined in the table below.

Table IV-8: *SmartPro MedEE* Aligns with CMS' Seven Conditions and Standards

Condition	Requirement	*SmartPro MedEE*
Modularity Standard	Open interfaces using web services Business rules external to the program code Formal SDLC Open and reusable systems architecture Componentized into business processes Built on SOA principles Multiple access channels	***SmartPro MedEE*** is a modular, component-based application, which easily interfaces (via web services or other means) with other federal, state and data trading partner systems. ***SmartPro MedEE*** is rules-based, uses a formal SDLC and is built on SOA principles. Members and staff are able to access the system via mobile devices, email, and web applications, as well as through traditional call centers.
MITA Condition	MITA Alignment Business Workflows	Aligns with MITA Business Architecture, Information Architecture and Technical Architecture to assist DSS in their MITA maturity alignment
Industry Standards Condition	HIPAA Compliant ADA Compliant Keep system current Risk Planning Systems Development and Testing Methodology	***SmartPro MedEE*** and the EDI platform are HIPAA and Section 508-compliant. The open architecture allows for decreased maintenance costs. The SDLC and Project Management methodologies are highly mature, with many successful implementations
Leverage Condition	Sharing artifacts between states Facilitates identification and reuse of services within the State National cloud-based repository for modular features Open Source and cloud-based products Transition and Retirement Plans	Rules and business processes may be leveraged for use in other states, as needed. The technical platform is COTS-based and can be purchased by other states, on the open market. In the future, the technology can be deployed in the cloud, and supports multi-tenancy.

Condition	Requirement	*SmartPro MedEE*
Business Results Condition	Use of Business Processes and associated KPIs to drive business results Performance Dashboard to monitor and continuously improve service delivery	The ***SmartPro MedEE*** solution provides for an exceptional degree of automation. Operational reports are provided to ensure system processing integrity and continuous improvement. Consumer portals support on-line transaction processing to eliminate manual processes. Wipro/IBM's solution is aligned with MITA business processes and supports real-time monitoring of associated KPIs.
Reporting Condition	Provides automated reports on demand, to authorized requesters	The ***SmartPro MedEE*** solution provides for automated reports, as needed, through 3rd party reporting tools, included those produced by our proposed Cognos reporting tool. Additionally, IBM's Sterling Commerce File Gateway product automates and manages schedule interface interactions with CMS and other data trading partners.
Interoperability Condition	Loosely coupled, component-based architecture	***SmartPro MedEE*** is architected on open solutions that provide for exposed interfaces and easy integration with other components, modules and systems including the federal data hub, eligibility systems, Medicaid plans and other parties.

SmartPro MedEE is built upon IBM's PureApp server, a fully integrated web and cloud-ready hardware and software appliance. This simplified infrastructure approach provides the State with greater flexibility, improved maintainability, and an environment that adapts quickly to your changing business needs. PureApp encompasses highly scalable hardware (IBM Power+ series), Operating System (AIX), Database (DB2 Enterprise), Application Server (WebSphere ND), virtualization, and monitoring/management in a single pre-integrated and certified whole. BY implementing pre-defined and certified patterns e.g. "3-Tier Web Application" or "Cognos Business Intelligence", PureApp servers can make integrated and certified application environments available within less than a day from the delivery of the box, and supports configuration of virtualized environments within moments. This level of integration eliminates a large element of people time, cost, and risk normally associated with preparing the technical environments so that application teams can begin their work.

4. Describe the approach to meet Performance Standards. The approach must, at a minimum, provide details on how the EES intends to meet or exceed the Performance Requirements set forth in Appendix C;

The Wipro/IBM team uses our project management methodology to identify and track alignment to the requirements set for in Appendix C. Requirements from Appendix C are uploaded into the Using Rational Team Concert (RTC) repository. During requirements validation sessions, each of these requirements is confirmed and any adjustments to the requirement are managed within RTC.

These requirements are then tracked and managed during all remaining phases of the SDLC, from requirements gathering, to development, testing and implementation. These requirements are easily summarized, displayed, and managed with dashboards, as described in the figure below.

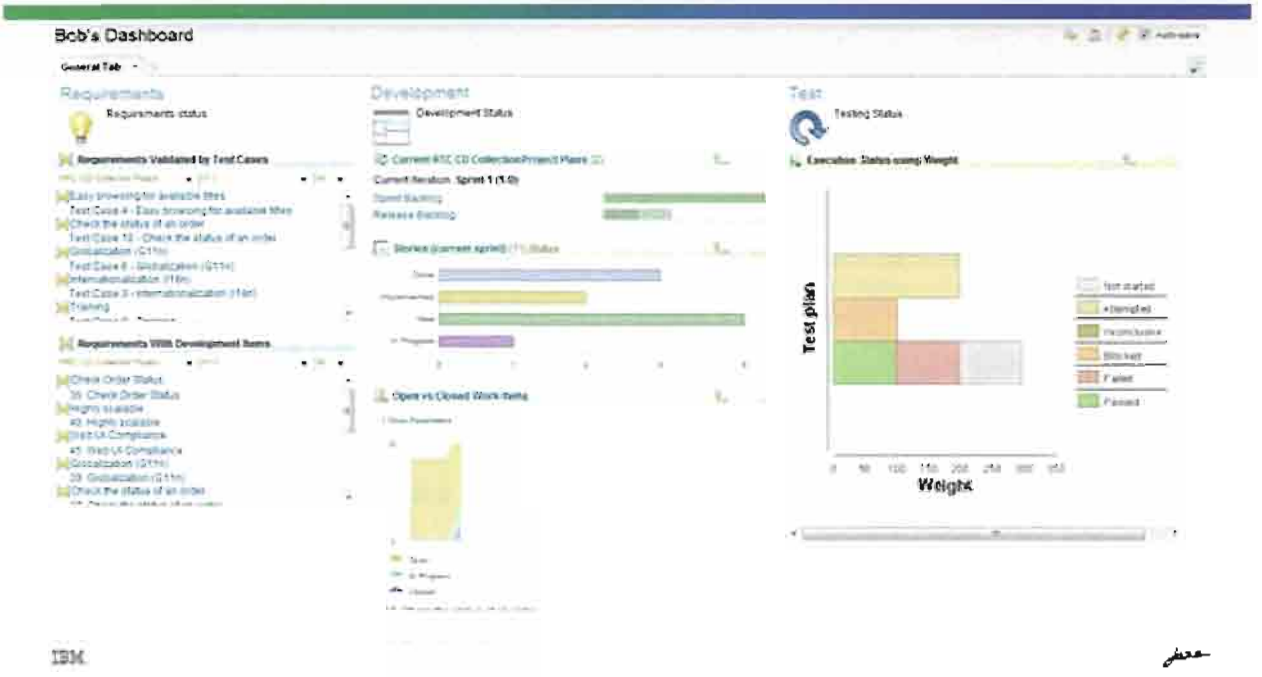


Figure IV-45: Example of Real-Time End-to-End Requirements Management Dashboard

Using this approach to non-functional requirements management, the Wipro/IBM team will meet or exceed the Performance Management Requirements as described in Appendix C.

Once the requirements have been identify, validated, met and implemented, the Wipro/IBM team provides the State with IBM Cognos reporting capabilities, including dashboard reporting, to quickly and easily identify operational performance metrics, as portrayed in the diagram below.

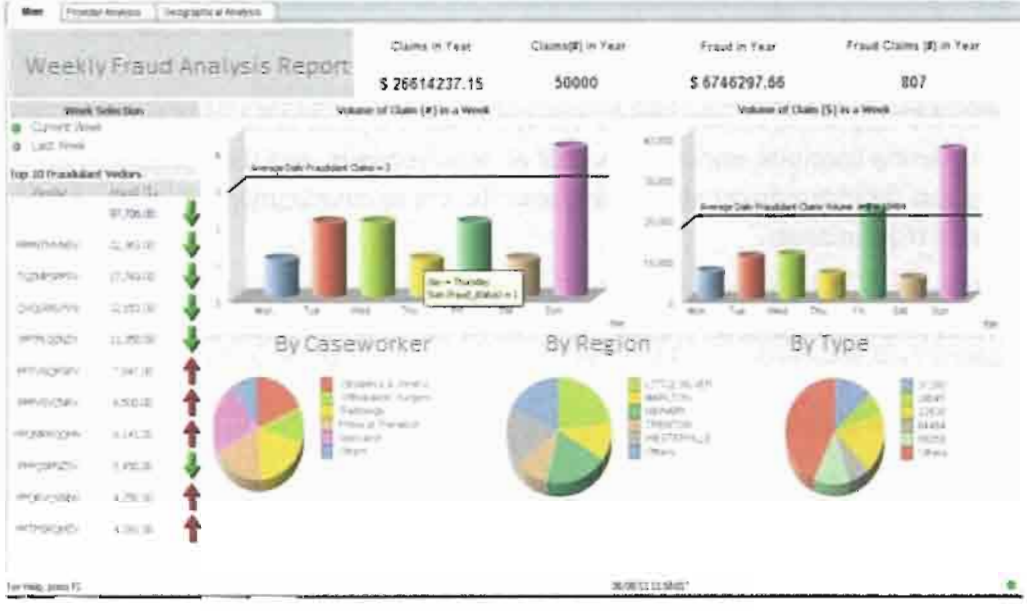


Figure IV-46: Performance Reporting in Cognos

5. Describe the approach for the EES to adhere to or enable State and federal regulations;

Adherence to State and federal regulations is accomplished using SOA-based technologies and fully featured reporting capabilities. With regards to the MITA Business, Technical and Information Architecture guidelines, the ***SmartPro MedEE*** EES uses COTS tools that are rules and workflow-enabled. Our IBM Cognos reporting tool provides extensive capabilities to manage and analyze the program operations, and provide the information necessary to continue to meet the needs of Nebraskans, State and federal staff and other stakeholders.

The Wipro/IBM team is aware of and tracks to multiple state and federal requirements including.

- Enhanced Funding Requirements: Seven Conditions and Standards – Medicaid IT Supplement (MITS-11-01-v1.0)
- CMS MITA 3.0 Framework guidelines
- HIPAA Standards, including Privacy and Security, Code Set and Transaction standards
- Federal and State security standards

The Wipro/IBM team is represented on many national committees and is actively participating in the setting of standards at the national level. In addition, Wipro/IBM is proposing an advisory group that meets regularly with State MLTC executives to discuss the overall vision of the Department and how the ***SmartPro MedEE*** solution continues to evolve to meet the needs of the Department. <GEN060>

6. Describe the approach for the proposed EES to meet Audit and Compliance requirements;

The Wipro/IBM approach to meeting audit and compliance requirements is accomplished primarily using our ***SmartPro MedEE*** Project Management Methodology to identify, validate and track requirements throughout the life cycle of the engagement. Our response to Question 4 above describes how we will meet the non-functional requirements in Appendix C. This approach will also be used to meet the functional requirements (Appendix B), as well as additional Audit and Compliance requirements.

Specific to Audit and Compliance requirements, our approach is first to validate that the State and Wipro/IBM teams have a common understanding of all requirements, and then configure the applications to support these requirements. Throughout the entire development lifecycle, we report on the status of these requirements.

IBM Cúram and Master Data Management both have highly configurable audit capabilities so that business transactions and database-level transactions can be enabled for audit, for either read or update operations.

The following information is captured:

- Date and time - The date and time of the transaction.
- User ID - The ID of the user who invoked the transaction.
- Table name - The name of the database table which was modified.
- Program name - The FID of the function which invoked the transaction.
- Transaction type - Indicates whether the transaction was online / batch / deferred / etc.
- Key info - The key which was provided to this operation.
- Details of changed data

In addition, IBM Cúram has a mechanism to select cases for audit based on specifying selection criteria within which random cases are selected for audit.

7. Describe the design approach and the characteristics of the user interface for the EES. The EES must be designed to utilize a browser based interface that can provide feature rich applications that can be updated over the Wide Area Network and the Internet, and should deliver a consistent user experience to participants, Department staff, contractors, and partners.

The Wipro/IBM ***SmartPro MedEE*** design approach is SOA-based to facilitate interoperability between and within the MLTC enterprise. Built on this strong SOA foundation, the user interface is 100% web-based, providing for a consistent and intuitive experience for all users, including the Department staff, contractors and partners.

As portrayed in the screen print below, the user interface is designed based on the latest trends in web page usability and features large, easy-to-read and click icons and logically placed navigation architecture, using left column business process navigation, tab-based business workflow navigation and top row administrative help and navigation.

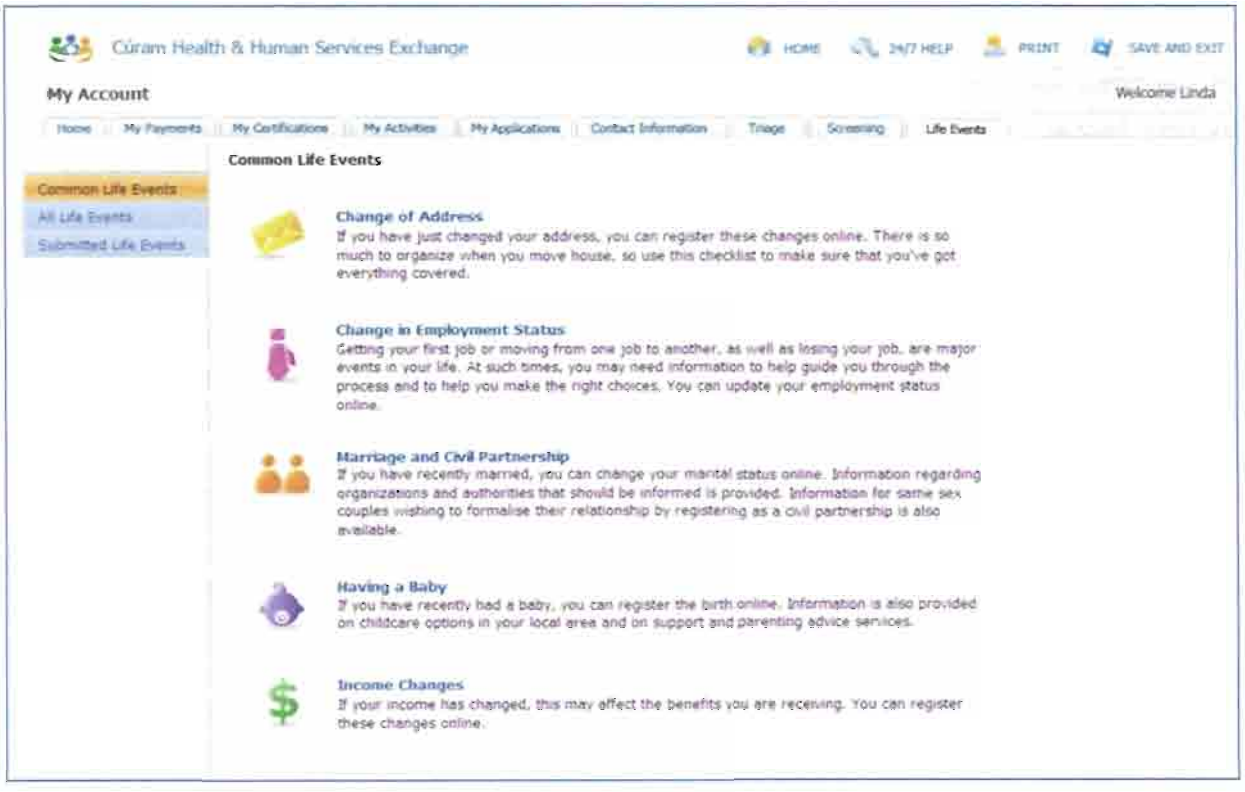


Figure IV-47: Common Life Events

b. *System Administration and Support*

Within the System Administration and Support section, we provide an overview of the tools, procedures, and overarching processes that Wipro/IBM will bring to bear with ***SmartPro MedEE***. While not exclusively "data center" tools and processes, this section is predominately

The IBM PureApp "system in a box" with integrated PureSystems Manager provides huge savings in Systems Administration and Support by automating traditionally manual administration

about how the ***SmartPro MedEE*** solution is monitored and administered within the data center. It is worth noting that these tools and procedures are brought into play early during the commissioning of the various technical elements of ***SmartPro MedEE*** development and implementation, and then carry on throughout Operations and Management.

System Administration Tools and Procedures for O&M

i. Describe the system administration tools and procedures that will be delivered for the ongoing support and maintenance, including customization of the EES.

SmartPro MedEE is comprised of three primary application components: IBM Cúram for Eligibility and Enrollment; Cognos for Business Intelligence; and LifeRay for general Portal functionality. These primary applications execute on standard tools and middleware components such as IBM WebSphere and DB2. All components will be hosted within Wipro's Omaha, Nebraska and Tempe, Arizona data centers, executing on IBM PureApplication integrated server appliances.

As a guiding principle, ***SmartPro MedEE*** minimizes the number of System Administration Tools during Operations and Maintenance, to increase the effectiveness of the support team and to reduce overall costs. The use of IBM's PureApplication server appliance, specifically PureApp's PureSystems Manager (PSM) as the core tool for technical system management is central to successfully executing this strategy. PSM provides a single unified tool environment for Application Management, Web services Management, Systems Management, Performance Monitoring, and Workload Management.

At the Enterprise Data Center Level, Wipro utilizes InfoPac, a Wipro implementation of Computer Associates Service Desk Manager package to consolidate alert events from the PureApplication server environment and from the network comprised of routers, load-balancers, and firewalls. InfoPac provides both the data center staff and designated State representatives (through an Internet accessible portal) a consolidated view of ***SmartPro MedEE***'s status. InfoPac also implements Wipro's trouble ticket automation and management, both for tickets created automatically due to internally generated system alerts, and human created tickets opened by State or Wipro/IBM staff.

Lastly, during O&M, Wipro/IBM continues to support the same System Development Lifecycle (SDLC) tools and procedures that it utilized jointly with the State during DDI. Specifically, Change Management, Issue and Risk Management, Requirements Management, Quality Management, SDLC, and Communications Management remain fundamentally unchanged, though additional production oriented information e.g. Service Level Agreement (SLA) reporting is incorporated once O&M is entered.

Overall Management Framework and Related Tools

ii. Describe the proposed overall management framework, including proposed tools for:

a) Application Management and Monitoring;
b) Web Services Management;
c) Systems Management and Monitoring;
g) Performance Monitoring; and,
j) Workload Management.

The heart of ***SmartPro MedEE***'s application management and monitoring is provided by the integrated management environment of IBM's PureApplication server appliance. PureApp implements a compelling vision of integrated management combining Deployment, Application and System Monitoring, Lifecycle Management, Workload Management, and Infrastructure Management. Such monitoring and management capabilities typically require the implementation and integration of numerous independent tools, resulting in increased overall costs and extended start-up times to deploy and initially setup complex environment.

PureApp shortcuts this process by providing a fully integrated management and monitoring environment out-of-the-box, up to and including the application management layer for multi-tier web applications such as ***SmartPro MedEE***. In Wipro/IBM's ***SmartPro MedEE*** solution, PureApp in turn forwards significant monitoring and management events to the Wipro's InfoPac, our Enterprise event monitoring and incident management system via the industry standard SNMP protocol.

At the heart of PureApp's system management capabilities is PureSystems Manager (PSM), which represents over 1,000,000 staff hours of development by IBM. Out-of-the-box, PureApp with PSM supports full automation of:

- **Deployment**
  Patterns, re-usable and configurable definitions of environments and workloads, are the core of the PureApp environment. Patterns include a mix of application patterns supplied out-of-the-box (3-tier web application, or Business Intelligence), and system patterns (scripting and customization of basic OOTB patterns). Patterns allow deployment in moments of fully integrated and certified environments that would otherwise require weeks to months of environmental development, configuration, and testing.

  Patterns allow deployment in moments of environments that would otherwise require weeks to months of effort

  - **Virtual Application Patterns**
    Integrated environments, including OS, Application Servers, DB, and System Monitoring, deployed on command OOTB. Self-managing and self-scaling according to policies.
  - **Virtual System Patterns**
    Customizable and scripted Patterns that build upon basic OOTB configurations.
  - **Individual Virtual Appliances / Images**
    Create customized pre-configured images, deploy upon command.

- **Monitoring**

  - **Application Server and DB specific monitoring for all supporting VMs**
    Out-of-the-Box monitoring and management reduces deployment effort by up to several weeks per VM Environment.
  - **Operating System (AIX), CPU, Memory Utilization etc. for all VMs**
    Based on configured policies, can automatically load-balance and adjust deployed physical resources to meet performance goals.

- **SNMP Integration to pass alerts upstream to Enterprise Event Monitoring**
  Easy, industry-standard integration with the Enterprise Event Monitoring and Incident Management environments of the Data Center.
- **Graphical/Dashboard presentation with drill-down**
  High-touch, easy to use management interface.

- Lifecycle
  - **Integrated fixes/patches for entire PureApp environment e.g. OS, DB2, WebSphere all at once**
    Environment is considered as a whole, rather than managed as individual components, thereby reducing time and risk.
  - **Automated recovery from VM failures**
    Configuration and management of VM's for automated failover.
  - **Automatic Workload Scaling based on Policy**
    Within defined parameters according to configurable policy, adjust VM physical resources, scaling horizontally to meet goals.
  - **License Entitlement Management**
    Manage license entitlements in real-time, including both soft and hard limit models i.e. allow license overages or prevent license overage.

- General Management
  - **Single Tool encompasses Network, storage, Compute, and Virtualization**
    Monitor and Manage from a single view of the PureApp environment.
  - **Prioritization of Compute, Network, and I/O resources applied to Workloads / Environments i.e. Production, QA, Sandbox…**
    Provides easy and effective management of ***SmartPro MedEE's*** performance across the mix of environments.
  - **Centralized logging**
    One consolidated view of the PureApp environment simplifies management, rather than requiring expert knowledge of many distinct tools and formats.

- Network
  - **VLAN Creation / Management**
    Virtual LANs separate network traffic to enforce security policy i.e. Production from Non-Production network traffic.
  - **Assign IP Addresses / VLANs to Deployed VMs**
    VMs and environments are easily configured to map to desired IP addresses and VLAN configurations.
  - **Separate Management and Traffic for VMs using VLANS and Virtual NICs**
    Implements firewall-enforced separation of components, such as placement of Production Web Servers into the "DMZ", while Application and DB Servers of the same Environment execute in the "Secure Zone".

- Compute Management

- **Automated re-balancing and optimization of VMs during scheduled downtime or on compute node overload**
  Dynamically allocate additional computing resources according to configured policy e.g. "If this VM exceeds 80% of allocated CPU capacity, add additional processors up to 4 CPU cores…"
- **Automated placement of location for VMs, based on entire system state**
  Within configured policy, uses "now" information to optimize performance of critical i.e. Production environments, as opposed to after-the-fact tuning decisions.

- Storage
  - **Create LUNs and File Systems, provision, attach to VMs**
    Integrated Storage Management within the PureApp box, managing storage capacity allocated to individual VMs and Environments while maintaining security policy and data separation.

Monitoring

Wipro/IBM monitors system performance of processors and peripheral devices using a variety of products to track response times over a range of intervals, and to examine response time summaries of individual logical units of work of any period thought to have a performance problem. ***SmartPro MedEE*** uses IBM's PureSystems Manager (PSM), coupled with ITCAM for Applications, to monitor attributes ranging from low level technical information such as CPU utilization, through subsystem and application health, and up to application response time metrics. Using SNMP, these tools forward salient information upstream to the Enterprise Data Center monitoring tool.

Measurements

Wipro/IBM collects statistics of historical system data – measured over regular intervals – in order to establish a baseline of system performance. The baseline statistics are used to measure the differences in system performance after tuning implementation.

Gradual or significant changes in key performance indicators are recorded and an explanation regarding the cause of each change is documented. The purpose of threshold alerts is to notify Wipro/IBM personnel prior to a shortage of resources in a client's system.

System Adjustments

Predefined corrective tasks are automatically initiated to relieve resource shortages when a threshold alert occurs. While Wipro/IBM processes include high-level human intervention in all cases, ***SmartPro MedEE***'s use of the PureApplication server and its PSM module directly and dynamically automate many of the performance tuning tasks in real-time, without requiring human intervention, and without waiting.

Monitoring and subsequent adjustments normally performed by PSM, backed by Wipro/IBM staff, include:

- Processor, memory, I/O subsystems and storage adjustment
- Alert and threshold setting revision
- System priority amendment

- Processor, memory, I/O subsystems, and storage performance measurement analysis

Performance Tuning

Tuning system performance involves the monitoring of, measurement of, and adjustments to the various components of the system to improve its overall performance and availability. The goal of performance tuning is to increase the throughput and efficiency of the processor, memory, and input/output (I/O) subsystems in order to accommodate the activity and workload requested of the system.

Following configured policy and within constraints defined by Wipro/IBM, PSM automatically performs a significant percentage of resource tuning and optimization in real-time. For example, extending a virtual machine's physical core capacity if virtual CPU loading exceeds pre-defined thresholds is an out-of-the-box PureApplication capability implemented by ***SmartPro MedEE***.

d) Event Management;

Event Recognition and Management will be provided to restore normal service operations as quickly as possible to minimize the impact on business operations, thus ensuring the best possible levels of service quality and availability are maintained. Interfacing to external quality management systems is accomplished via ***SmartPro MedEE*** Enterprise Services Bus, adding an additional layer of reporting and analysis to the enterprise. <GEN020>

Problem management will be provided to minimize the adverse impact of incidents and problems on business caused by errors within the IT infrastructure and to prevent recurrence of incidents related to these errors.

Physical and logical problems use the same problem management procedure within Wipro, pictured in Figure IV-48:

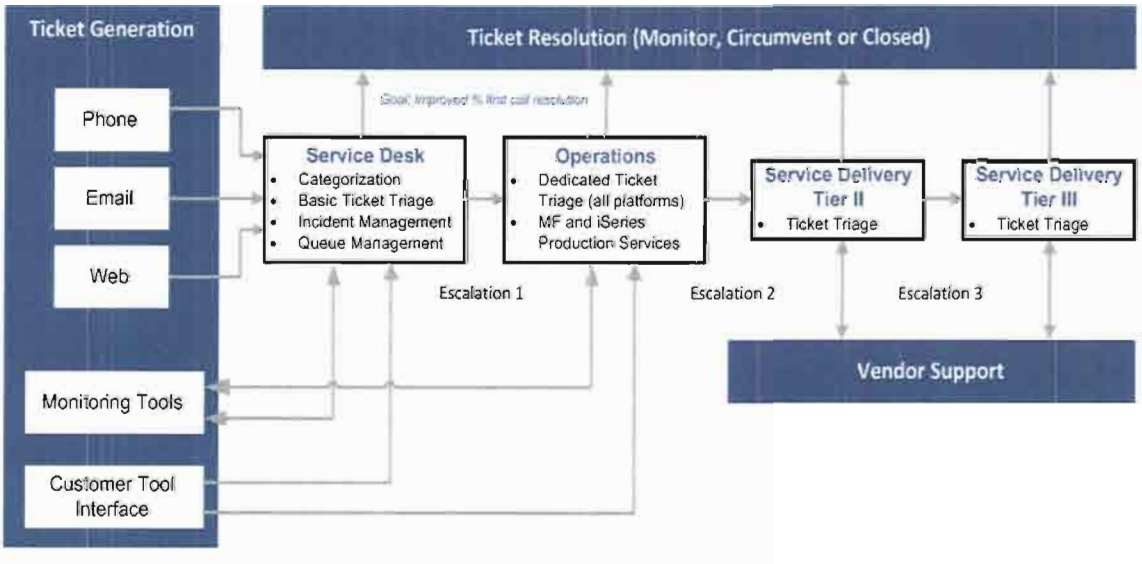


Figure IV-48: Wipro's Ticket Escalation Process

Any chronic or recurring problem initializes Wipro's service improvement process to correct a deficiency in our service, when it is not reaching expected service levels. When a deficiency appears

requiring actions beyond our problem management process, a team of Wipro employees with appropriate skills is convened to develop a service improvement plan. Once the plan is developed, it is presented to the State of Nebraska and internal Wipro/IBM management for approval. The plan is implemented along with appropriate measures.

Results from the plan implementation are compared to service levels – this process is repeated until service levels are met.

Wipro is associated with industry groups and standards such as the Quality Assurance Institute (QAI) and the Information Technology Infrastructure Library (ITIL) ensuring our practices are in-line with industry standard "best practices". These associations also assist us when implementing new procedures and practices as needed.

Wipro focuses on continuous service improvement (CSI) to correctly track the appropriate key performance indicators along with resolving issues effectively. Our internal service delivery process ensuring operations activities are optimized.

Wipro's Continuous Service Improvement Vision

Detailed post incident reports (PIR) are published for all Severity 1 problems to document root cause and correction actions taken to resolve the problems. The information gathered during a particular corrective process is used to assist the staff in resolution of future similar issues.

Wipro informs the State of Nebraska via primary, secondary and/or tertiary contacts previously established by the State in the contact system. Specific callout procedures are established per State requirements. Contacts are made whenever Severity 1 or 2 network faults or performance issues arise.

Continuous service improvement commitments are not intended to be agreements or contracts in the legal sense, but are intended to provide a formal process by which service problems are addressed and resolved. These commitment agreements are formalized between Wipro and a specific State of Nebraska representative.

Once Wipro/IBM technical organizations have the opportunity to thoroughly investigate a problem, a meeting is established with appropriate State personnel to discuss and develop solutions.

Event Recognition

As part of Wipro security policy all servers will have Anti-Virus software installed to protect from infections such as virus, worms etc.; and will be updated with latest signatures from the Anti-Virus server on daily basis. All servers and network devices are updated with the latest security patches and are monitored for availability of any security patches using the patch management infrastructure. Role based access will be provisioned for access to the management console with audit trails. All servers and security devices will be monitored real time for security events and alerts will be generated on detection of any security violations.

To collect audit logs from in-scope log sources Wipro deploys a local instance of Security Information and Event Management tool at the Omaha Data Center. This appliance will collect, store, and correlate audit logs from the production servers, firewalls, intrusion detection systems and other security devices deployed in the IT environment, and generate alerts on security events. Wipro

will also provide an "Event Explorer" software module for enhanced data mining, investigation support and reporting capabilities.

Reporting and Communication

- Wipro/IBM will provide a portal to enable a comprehensive reporting framework that includes incident details , Daily Monitoring Reports, Weekly Monitoring Reports, and Monthly Monitoring Reports
- Enterprise Dashboards will be provided to view all the Alerts spread across the infrastructure
- Role based access for relevant Reports, Views and Alerts will be provided to the Security Administrator, Security Manager, CISCO, etc.
- Device level reports can be generated from the portal
- Secure access to download reports (in CSV, pdf or html formats) will be provided.

Wipro SOC operations provides reports on a daily/weekly/monthly/quarterly/annual basis. Other reports can be created based on incidents/events or as part of vulnerability alert/advisories.

Table IV-9 lists typical reports generated for a customer:

Table IV-9: Typical Security and Operations Reports

Reporting List	Daily	Weekly	Monthly	Ad hoc
Security Event Reports				
Event Count Reports (based on Attacker, Severity, Target Port, Asset Priority, Device)		✓		
Events Based on Asset Group Report		✓		
Event Summary Report	✓			
Event Trend Chart Report		✓	✓	
Top 10 Security Reports (Attacks, Attackers, Targets, Events)		✓	✓	
Compliance Report (authorized change)			✓	
Vulnerability Reports				
Exposed Vulnerability Report			✓	
Asset Group Vulnerabilities Report			✓	
Critical System Vulnerabilities Report			✓	
Case Reports				
All Case Reports		✓		
Case Chart Report		✓	✓	
Operational Impact Chart Report		✓		✓
Cases Today Report	✓			
Custom Reports				
Delta Chart Attacks by Business Unit Report				✓
Alerts and Advisories Report (prioritized vulnerability)		✓	✓	

Reporting List	Daily	Weekly	Monthly	Ad hoc
Service Level Agreement and Measurement Report			✓	

These reports will be available to the State of Nebraska through the Wipro SOC Portal, as shown below; moreover, these reports will be generated and exported in three different formats: PDF, CSV and HTML.

The portal will be accessible to the State of Nebraska on a 24x7 basis with adequate role based access control.

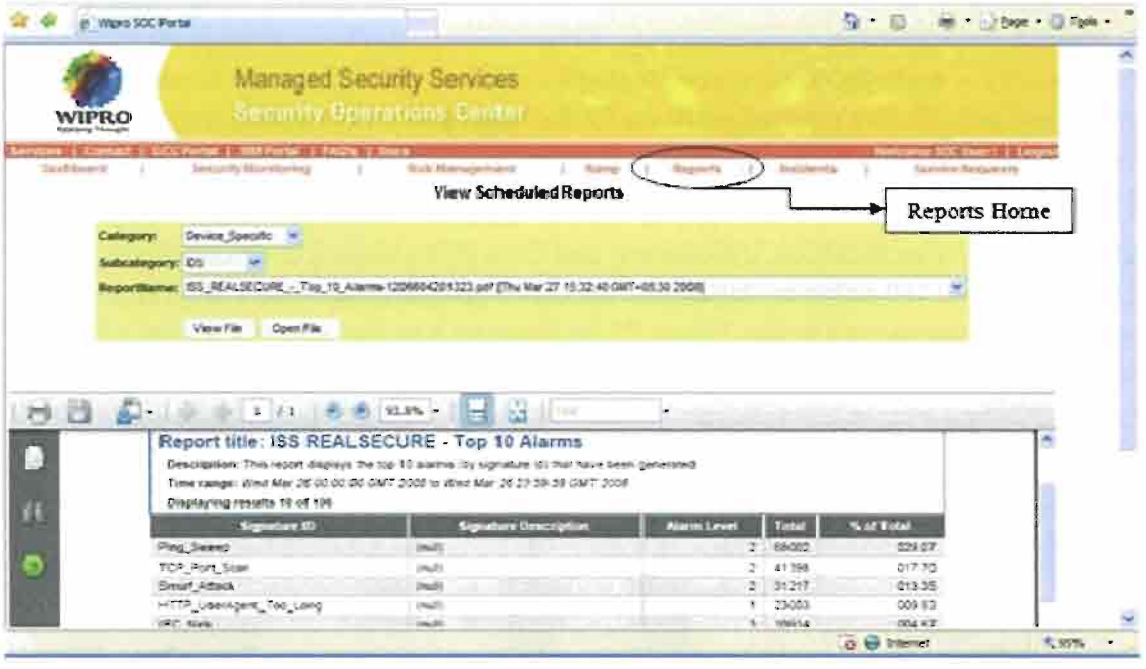


Figure IV-49: Wipro Security Operations Center Portal

Reports will be created by security operators and reviewed by security analysts or other senior SOC staff; this will provide accuracy and a review mechanism of all reported data.

PREVENTION: Wipro data centers area based on fault tolerant engineering to provide non-stop operations. In addition to these design preventive measures, data center sites are located away from industrial areas, airports, railways, and interstate highways. Most site locations have no documented earthquake or tornado activity.

CONTINUANCE OF SERVICE: Wipro will assist the State of Nebraska in the event of a disaster at a Wipro data center. Specific recovery services provided by Wipro include (but are not limited to):

- Shipment of tapes to the ***SmartPro MedEE*** disaster recovery location in Tempe Arizona
- Management and coordination of recovery operations
- Provisioning of appropriate technical resources during the recovery process

f) Network Management and Monitoring;

Wipro Data Center Services network management provides and manages network infrastructure in support of hosted environments. Wipro architected and operates a leading edge and cost efficient shared network infrastructure in its data centers for the benefit of its clients. Wipro also architects and manages custom network environments in the Wipro data centers and at client locations to address specific client network requirements. Wipro Data Center Services network management provides value through:

- Economies of scale via leveraged infrastructure.
- Risk mitigation of network intrusions through a comprehensive security model managed on all network environments.
- Predictability of costs and performance through a highly architected environment providing an efficient and effective network platform for the hosting of server environments.
- Flexibility to architect and operate custom network, security, and voice platforms when client requirements dictate.

Wipro Data Center Services backbone, datacenters, and Core POPs located in carrier neutral facilities provide for over 100 different carriers and telecommunications providers to facilitate interconnection with customer networks. Figure IV-50 diagrams a typical network design, as will be documented for ***SmartPro MedEE***.

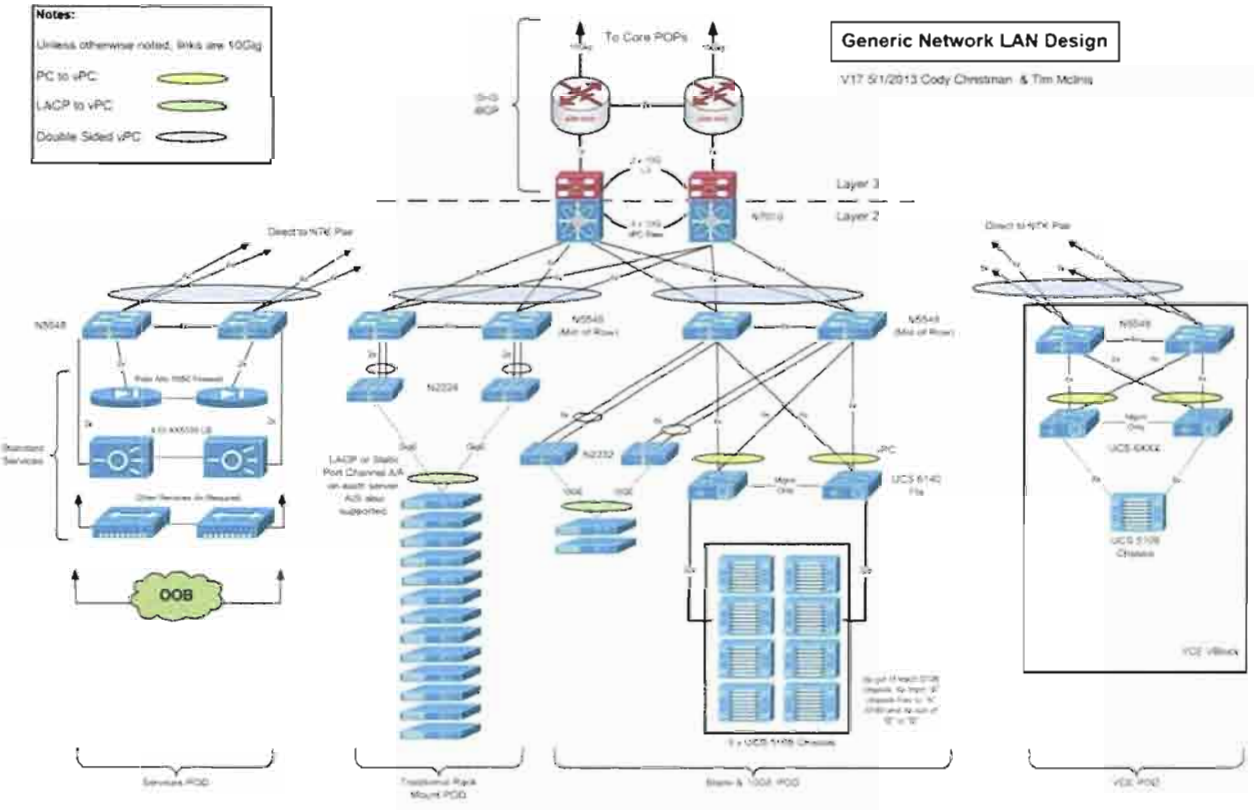


Figure IV-50: Example Network LAN Design

Figure IV-51 pictures a typical Customer Network Logical View as will be documented for ***SmartPro MedEE***.

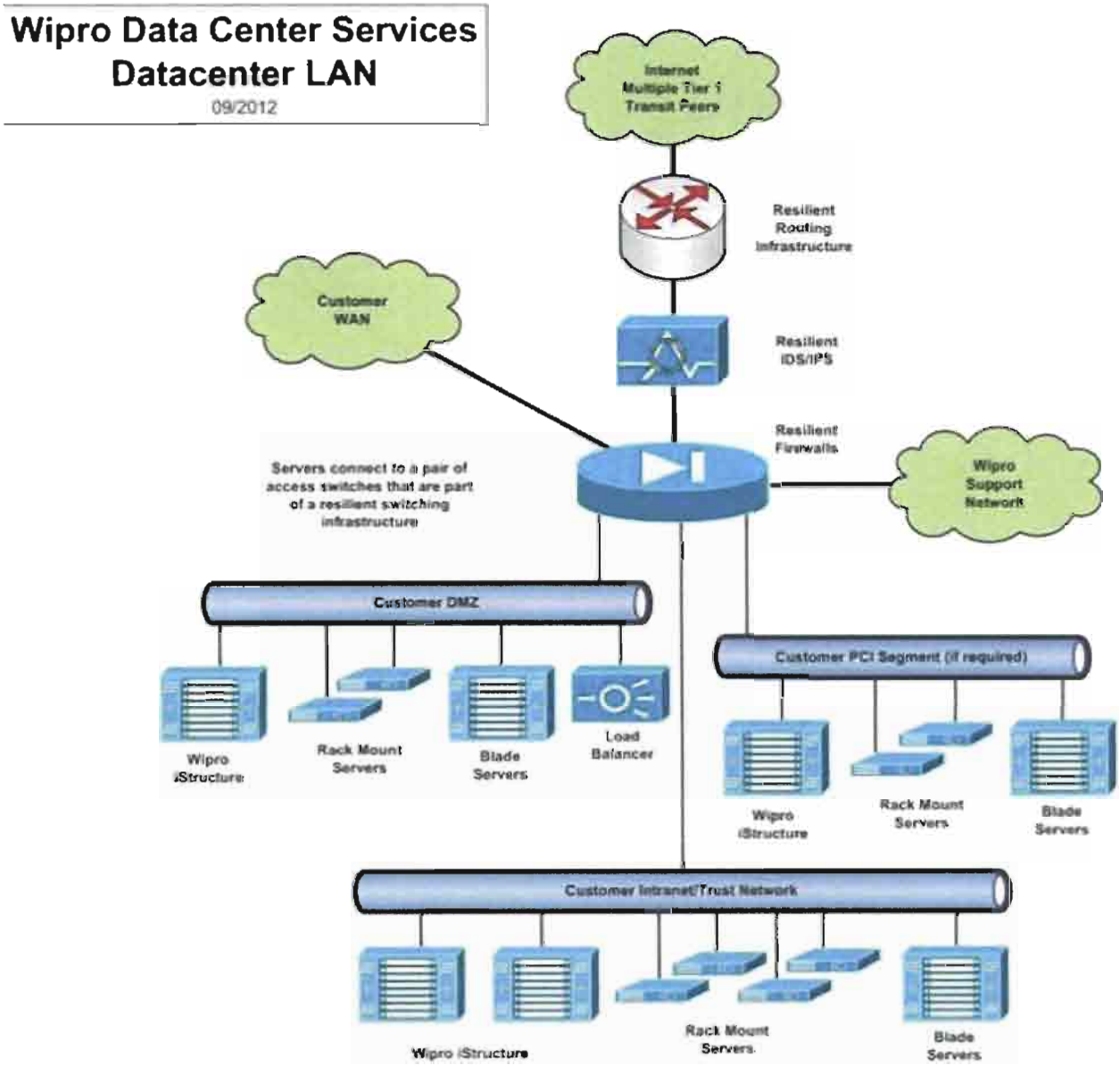


Figure IV-51: Logical View of a Typical Customer Network

Figure IV-52 diagrams Wipro's Wide Area Network. In this picture, our Omaha Nebraska data center will host the production application during normal operations, plus several of its supporting environments. Our Tempe Arizona data center will host the remainder of the supporting environments and receive and apply the near real-time database logs from the production system during normal operations. If the primary Omaha center is lost, Tempe will take over as the Disaster Recovery Hosting Site. Conversely, if Tempe is lost during normal operations, Omaha can take over and host Tempe's supplemental environments, with reduced capacity.

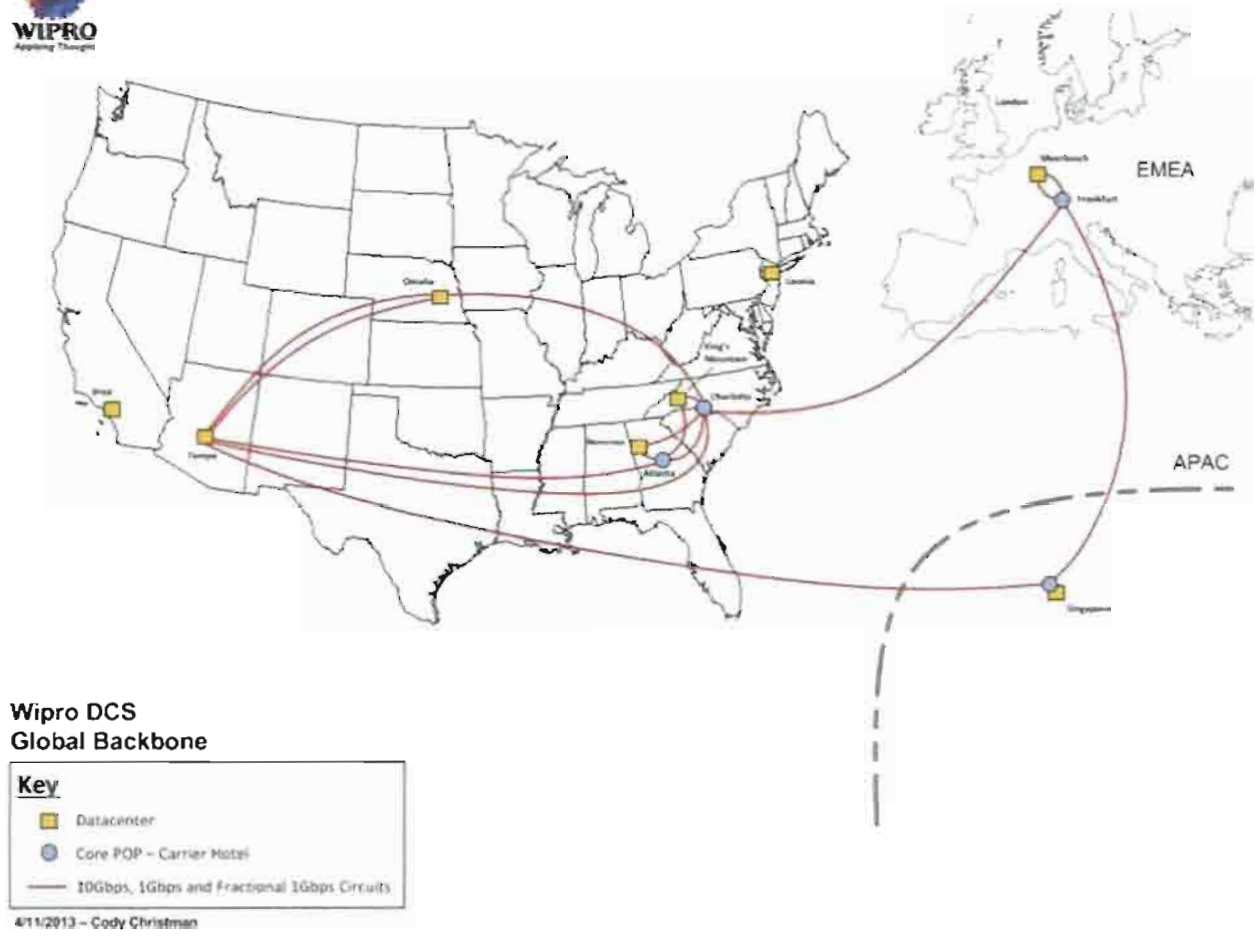


Figure IV-52: Wipro WAN Diagram

i) Print Prioritization and Management; and

Print jobs are broken into three categories:

1. Production (scheduled) jobs from Cúram's Notice Engine (Eligibility and Enrollment Notifications)
2. Production (scheduled) jobs from Cognos (mainstream reporting/BI reporting), LifeRay (Portal), and Data Center Management e.g. SLA reporting
3. Ad-hoc, on-demand reporting from Cognos BI

Production/Scheduled jobs, categories 1 and 2, are created and managed by IBM's SmartCloud Workload Automation tool. In the first case, Cúram Notices, the job stream creates one or more files containing print-ready data, which is then securely forwarded to the State's Print and Mailing Center for printing and disbursement by the State. In the second category, the job steps will similarly create print-ready files, which may then be either securely forwarded to the State for physical rendering, securely retrieved by State initiated file transfers, or retained for ad-hoc display by authorized users via their browser through the Portal as determined during requirements analysis.

Category 3 print jobs, ad-hoc reporting, are executed on-demand by authorized users connecting through the Portal, and the results either displayed immediately, stored in an accessible file directly on the user's machine, or stored for later retrieval and potentially shared retrieval within the Portal.

Category 1 jobs, created by the Cúram Notice Engine, are run daily during off-hours within the Production Environment, on virtualized resources dedicated to the Cúram Application. Standard PureApplication automated performance management ensures that appropriate prioritization is given to competing workloads.

While executing with the same Production Environment, the LifeRay Portal and Cognos Business Intelligence components execute within their own series of dedicated and tuned Virtual Machines backed by dedicated physical resources. Whether scheduled or ad-hoc, these types of reporting are also performance managed by the automated management capabilities of the PureApplication server appliance, tuned to their expected performance profiles.

Tool Inventory

Please refer to response in the section titled Third-Party Off-The-Shelf Management Tools below: Table IV-10 documents the suite of tools that will be utilized to monitor and manage the overall technical environment of ***SmartPro MedEE***.

e) Identity and Access Management;

Identity Management, the process of identifying and authenticating users of ***SmartPro MedEE***, is based on two core directories. For State employees and their agents, the State's Microsoft AD will be used as the single source of Identity and Authentication truth. For citizen beneficiaries, the Cúram application's internal directory will maintain credentials and provide authentication services.

LifeRay Portal, which implements the generalized Web Portal functionality of ***SmartPro MedEE***, provides the core of the Single Sign-On (SSO) environment. While the two underlying directories, the State's AD and Cúram's directory own their respective user ID's, LifeRay portal provides the point of logon. LifeRay then contacts the appropriate directory service, validates the user credentials, and passes those authentication approval / security ticket on to underlying applications. The LifeRay portal provides full library/document management capability with comprehensive search technology out-of-the-box. LifeRay provides several industry standard protocols to support a wide variety of underlying applications, including: <OPS018>

- CAS (Central Authentication Service) for Web based applications
- SiteMinder – Computer Associates SSO environment
- JAAS – Java Authentication and Authorization Service
- JOSSO – Java Open Single Sign-On
- LDAP – Lightweight Directory Access Protocol, option for connecting to Directories
- Microsoft AD – LifeRay supports Microsoft AD native connection for authentication

h) Business Rules;

Requirements: OPS017, RLE004, RLE005,RLE009, RLE012, RLE018, RLE032, RLE033,RLE034,RLE035,RLE036,RLE037,RLE038,RLE039,RLE040, RLE041, RLE042,RLE043, RLE044, RLE045, RLE046,RLE047,RLE048, RLE049, RLE050, RLE060,

RLE061,RLE062, RLE063, RLE064, RLE066, RLE068, RLE072, RLE083, RLE086, RLE095, RLE096

Maintaining Rules

The IBM Cúram Social Program Management Platform (SPMP) Administrative tools provide support for maintaining rules and business elements, such as dynamic programs, that are associated with rules. The Cúram Express Rules (CER) Editor within the SPMP makes editing and maintaining rules straightforward as editing rules can be completed in-browser. Rules developed in this editor are versioned and time dated within the live production system. CER rule sets are stored within the EES version control system via XML files and are uploadable to various repository types. Wipro/IBM will work with the State of Nebraska on defining and configuring a repository of rules that can be made externally available. These rules are human readable XML files following the planned future MITA 3.0 guidelines. Additional files such as text documentation or related meta-data will be included as appropriate. Access to rules and publishing changes will be maintained with secure source control and administrator users' access with a set process to prevent invalid changes.

Within the IBM Cúram SPMP, administrators can view the program definitions and the effective dated versions of the eligibility rules associated with them. Rules are dated to one or more specific programs. Opening rules in the CER Editor provides users the ability to view program rules wholly, or in smaller sub components responsible for more granular decisions or calculations. Administrators can confirm the validity of the rules and prevent conflict with other rule sets, as well as identifying other rules used by a given rule sets. For merging or comparing to other rules versions, XML tools available within the development toolset can be used to modify the exported XML version of the rules. Extending, copying, and reusing rules is supported through a documented process within IBM Cúram.

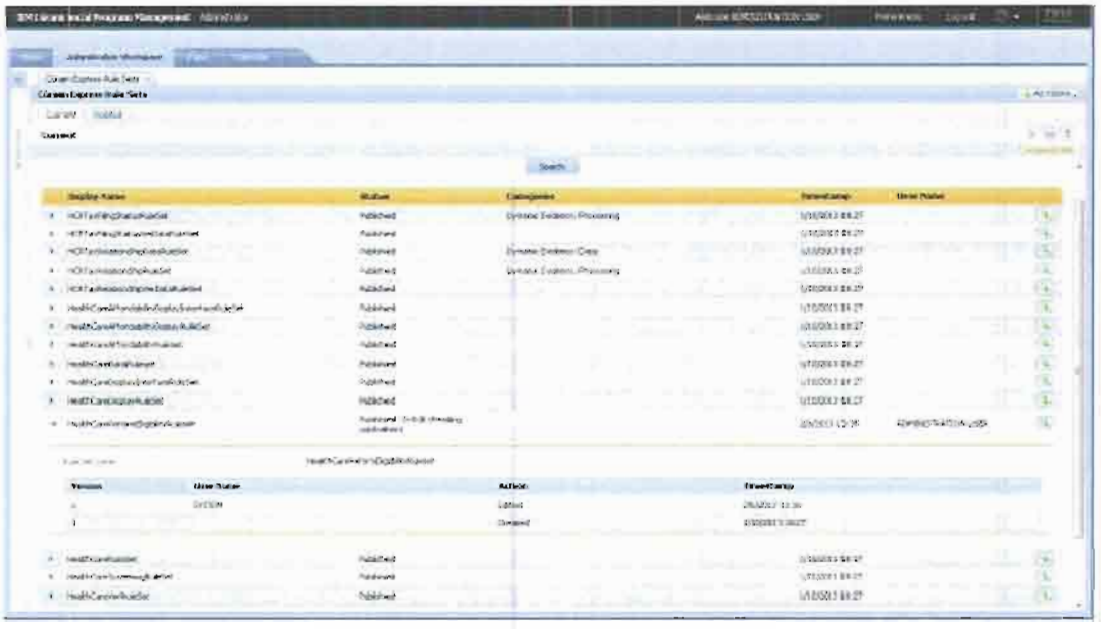


Figure IV-53: Effective Dated Version Tracking

The vocabulary of rules shipped in IBM Cúram is familiar to application analysts with business knowledge of the various programs. This familiar vocabulary allows the business analyst to navigate the rules and easily make required changes. Prior to releasing a new version of rules, a developer would iteratively test within their environment using the IBM Cúram provided unit test tools. To publish the rules for use in program calculations, users do not need to navigate a complex series of changes, across multiple products, using different multiple administration consoles. Instead, the IBM Cúram CER Editor and Configuration Transport Manager (CTM) enable changes to rules to be easily tested and deployed to multiple environments. Changes to rules may be rolled back to a prior version if issues are found in the rollout.

For changes to rules that impact ongoing cases within the EES IBM Cúram provides a Bulk Reassessment batch that automatically re-determines eligibility. Eligibility changes are automatically handled for active cases as this can be completed using Cúram's role based security topology. If new rules are enforced for a given date, such as January 1, the system will automatically determine the new eligibility with the previous rules prior to January 1. After January 1, the system will automatically use the new rules for eligibility determination.

Third-Party Off-The-Shelf Management Tools

iii. Describe any proposed third-party off-the-shelf management tools and include detailed information regarding provider, product and version;

Table IV-10 documents the inventory of Off-The-Shelf Management Tools utilized by ***SmartPro MedEE***. The first 3 tools are specifically part of the software solution set of ***SmartPro MedEE***, licensed explicitly as part of ***SmartPro MedEE***'s dedicated tool environment. Tools underneath the subheading "Data Center Enterprise Tools" are a subset of those tools implemented across Wipro's data center operations, and are part of our shared services model. While these tools are used to manage and monitor ***SmartPro MedEE*** within our datacenter environment, they are neither exclusive nor specific to ***SmartPro MedEE***.

These tools are part of Wipro's general Data Center Management Tool Suite. Exact versions may vary as they are generally kept current and may be upgraded by the time ***SmartPro MedEE*** goes live.

Table IV-10: Data Center Shared Services Management Tools

***SmartPro MedEE* Management Tools**	
Product Name and Version	**Functions and Features**
Tools included in the *SmartPro MedEE* Software Solution	
IBM PureSystems Manager	• PureApplication Server Management and Monitoring
IBM SmartCloud Workload Automation	• Job / Workload Scheduling • Jobstream Management
IBM Tivoli Composite Application Manager for Applications (ITCAM)	• Application Health Monitoring • Application Performance and Response Time Monitoring
Data Center Enterprise Tools	

SmartPro MedEE Management Tools	
Product Name and Version	**Functions and Features**
Tools included in the *SmartPro MedEE* Software Solution	
Computer Associates Spectrum 8.0	System and Infrastructure Monitoring • Periodic polling of system resources (processors, memory, storage, switches, hubs, and routers) for availability • Establishing availability thresholds for various components by using industry standards, Wipro/IBM experience, and State input • Measuring actual availability against thresholds • Taking appropriate actions, as predefined by Wipro/IBM and the State, when one or more system resource thresholds are exceeded • Reporting monthly on availability • For PureApplication Servers, accepts alerts using SNMP
Emprisa	• Manages network device configurations
IBM AppScan Standard V8.8	• Scanning for internet Application vulnerabilities
McAfee Intrushield	• Network Intrusion Detection and Circumvention
Sophos Server AntiVirus	• AntiVirus / Malware Detection for Servers
Tripwire Enterprise V8	• File change alert generation / File Integrity Monitoring
Tenable Nessus V5	• Vulnerability scanning and reporting for network connected endpoints
NetIQ AppManager 6.0.2	• Coordinates with SmartCloud Workload Automation to monitor and report on Batch Jobs • Coordinates with PureSystems Manager to capture end-to-end system and application availability • Coordinates with PureSystems Manager to capture threshold alerts for system resource utilization, performance, and event log details • Storage and Data Management Monitoring
Servergraph Storage Console	• Monitor and Report on Backup jobs (Tape Storage)
Computer Associates eHealth	• Provides near real-time and historical reports showing LAN and WAN usage, availability, errors, usage trends and other customizable variables. • Reports are created and made available via the customer web portal with this service.
Computer Associates Service Desk Module	• Creation and Management of Service Tickets • Service Ticket Escalation Management • Customer Self-Service Portal

Audit Trail Capabilities

iv. Describe the audit trail capabilities of the EES;

Cúram provides robust auditing capability to enable administrative personnel to identify who has accessed, updated or requested sensitive information, what they accessed and when. Auditing can be reviewed based on data points including user role, location, or time. The type and extent of audit data captured can be tailored to meet specific implementation requirements. The audit data collected can be subsequently examined to support tracking, investigations or problem analysis.

To facilitate this, the following audit trail data is maintained by Cúram in the database:

- Date and time – the date and time of the transaction
- User ID – the ID of the user who invoked the transaction
- Table name - the name of the database table that was modified
- Program name – the identifier of the function that invoked the transaction
- Transaction type – indicates whether the transaction was online, batch or deferred
- Key info – the key that was provided to this operation.
- Details of changed data – these details are logged in an XML format

Cúram's auditing features supports a customer in the ability to apply full before-and-after imaging of records for all inserts, updates and deletes. Such functionality also allows for the restoration of recorded data, in the event of hardware or database failure. If required, Cúram can also be configured to audit all database reads (note, however that the impact on database traffic should be considered if read transactions are audited, to help ensure that end-user performance is not compromised within the production application).

Archiving and Restoring Data

v. Describe the processes used to archive and restore data from operational databases;

SmartPro MedEE does not archive or roll-off aged operational data in the normal sense. By default, operational data is never physically deleted from operational databases, though it can be logically deleted thereby rendering it invisible to non-administrative users of the system. Administrators can also restore to full visibility data that has been logically deleted.

Cúram will be extended to allow archiving of aged operational data while maintaining internal database consistency. Aging / Archival will be constrained to closed/inactive cases and to log data, such as logs of data access. The value of the aging threshold will be set in agreement with the State as determined in project execution. Aging / archival will normally be executed as a monthly job, and the resultant archives will be retained consistent with State requirements. Archived data will be restorable based on Archive date.

Technical Documentation Delivered With the EES

vi. Describe the technical documentation that comes delivered with the EES; and <IBM – Jack Hyman>

IBM Cúram offers a robust set of documentation, including the complete out-of-the-box data model, when one installs the Social Program Management Platform (SPMP). The SPMP is included as part

of the architecture because it provides the core enterprise case management functionality, rules, and workflow features needed to operate the Nebraska EES. The documentation is broken down into three areas: Business Analyst, Developer, and Administrator. Each of the areas has a specific purpose for its intended audience.

- **Business Analyst:** This documentation is written for the user who is typically responsible for doing standard system management activities (i.e. case level activities) and how to manage basic system functionality as an end-user or case manager with limited administrative access.
- **Developer:** This documentation provides architecture level details of how and what functionality within the platform as well as enterprise modules can be modified. Granular details on how to manage Web Services and API's are included as part of this documentation.
- **System Administrator:** System Administrator documentation is available to support those that will be maintaining the system administratively day – to – day including security management, rules development, workflow development, data model management, and assessment creation/management.

The Wipro/IBM team plans to provide specific documentation tailored to the Nebraska EES solution for end-user and administrative users as required. This will be prepared iteratively during releases. As part of the change management and operational readiness process, documentation will be updated as necessary.

Migrate Software and System Configuration While Multiple Environments

vii. Describe the approach that will be taken to establish:

a) Multiple environments (e.g., sandbox, configuration/development, testing, quality assurance, production, training, and disaster recovery);

SmartPro MedEE is built upon a number of distinct system environments supporting the EES requirements. Each environment represents a unique set of workload characteristics, functional behaviors and purpose, and user base. And each presents unique needs for the synchronization and/or migration of data between itself and other environments.

Establishing and managing the multiplicity of system environments is one of the most complex aspects of large complex application lifecycle management. Classically, a large amount of initial development time, expertise, cost, complexity, and risk is devoted to the initial setup of core system environments, starting first with the Development and early Test environments, followed by Training and later Test environments such as Integration and QA/UAT, and culminating in the Production environments. The single largest element of this initial configuration work is the installation and integration of the complex middleware and environmental support software upon which modern applications are built. By itself, this purely technical, non-application oriented system work can consume many months of valuable schedule time and saturate some of the most senior technical specialists available to a project.

A major component in how ***SmartPro MedEE*** achieves its aggressive schedule and cost avoidance goals is by short-cutting a significant amount of this complex early work, and dramatically

simplifying its ongoing maintenance and support. Wipro's ***SmartPro MedEE*** makes extensive use of IBM's PureApplication™ server capabilities as its key to simplifying and shortening these complex start-up activities, and streamlining their ongoing management and support. This section describes how.

Several steps are required to establish the multiplicity of environments. Steps 1 and 2 are performed for all environments at the start of the project. Once environmental design is complete, ensuing steps are executed in priority order for each required environment. For example PMO, Developer and Data Conversion environments are needed very early, and are established first, while test and training environments can be installed later, and Production later still.

1. Identify the Environments – our response identifies the primary system environments we believe fulfills all of the requirements of the RFP, in Table IV-11 below. At the beginning of the project, this list will be validated with the State.
2. Finalize Environment Design – based on stated RFP requirements, we have sized and architected the salient top-level environmental characteristics, such as performance/capacity needs, security, access, data privacy/sanitization, backup recovery requirements and so forth. These high level design parameters in turn fed our proposed sizing, licensing requirements, virtual machine layouts, and software/tool deployments. Early in the project, these preliminary designs will be validated and designs finalized.
3. Establish and Configure VMs - using PureApplication's native tools, configuration of the VM environments, including VM provisioning and middleware deployment, monitoring, performance parameters.
4. Install and Load non-PureApplication Server tools / middleware – while PureApplication Server directly implements much of the middleware and tools environment, each environment must now have the correct non-PureApp tools and components loaded and configured.
5. Install Application Software – once the baseline environments are commissioned, application software, such as Cúram and LifeRay can be installed, and turned over to their controlling teams for initialization. These processes vary widely based on the environment's function. For example, the development environment receives its software configuration from the development team, whereas environment's found later in the SDLC process will be loaded and configured per established promotion processes based on their normal source of system and configuration.
6. Establish Initial Data – initial data loads are again specific to the environment, accommodating variances in size, PHI/privacy/security, and source.
7. Establish Change Management Processes – finally, change management processes are instituted, and environments are moved (as appropriate) under the correct level of change control and formality of promotion.

Identifying Environments

Table IV-11 identifies the initial system environments and describes their primary purposes. These environments are classified into two Types: System, and Support. System environments represent

varying aspects of the entire application solution, and embody most of its functionality. Examples are "Production" and "Sandbox". Support environments are highly specialized, and do not present ***SmartPro MedEE's*** primary functionality. Examples are "Data Conversion" and "PMO".

Table IV-11: Description of System Environments

Environment	Alias	Description / Purpose	Type
Production	Prod	The primary Production environment, running in normal, non-DRR mode out of the Primary Data Center. Full functionality, full performance capacity, full live data. Sends database updates to DRR (Idle) in near real-time. Always runs alongside DRR (Idle), never with DRR (Act). Content derived from QA (Small or Large).	System
DRR Prod (Idle)	DRR (Idle)	A limited, database-only environment running in the Secondary Data Center that receives all database updates from Prod in near real-time. Is running only during normal, non-DRR mode. No functionality, limited performance capacity, full live data. Always runs alongside Prod, never with DRR (Act). Content derived from QA (Small or Large).	Support
DRR Prod (Active)	DRR (Act)	The Disaster Recovery version of Production: runs in the Secondary Data Center. Full functionality, full performance capacity, full live data. Differs from Prod in not sending database updates elsewhere. Never runs at same time as Prod and DRR (Idle). Content mirrored from Prod.	System
Development	Dev	Supports multiple instances of configuration and development. Near full functionality is available, though often not used. Limited performance capacity limited and sanitized data. Provides controlled updates into System Test.	System
System Test	Sys Test	System Test brings together one or more application components for formalized testing by QA. Near full functionality is available, though often not used. Limited performance capacity limited and sanitized data. Receives controlled updates from Development, provides controlled updates to Integration Test.	System
Integration Test	Int Test	Integration Test brings together most/all application components, including "outside" interfaces for formalized testing by QA. Full functionality is available, and often used. Limited performance capacity, limited and sanitized data. Receives controlled updates from System Test, provides controlled updates to QA (Small and Large.)	System
QA (Small)	QA (Small)	Aka User Acceptance (UAT). QA (Small) is used for most final acceptance testing, when full load / stress testing is not indicated. Full functionality, limited performance capacity, database can be full or limited as required. Receives controlled updates from Integration Test, provides controlled updates to Production. Only one of QA (Small) and QA (Large) are running at one time.	System

Environment	Alias	Description / Purpose	Type
QA (Large)	QA (Large)	Aka User Acceptance (UAT – Load/Stress). QA (Large) is used for final acceptance testing, when full load / stress testing is indicated. Full functionality, full performance capacity, full database. Receives controlled updates from Integration Test, provides controlled updates to Production. Only one of QA (Large) and QA (Small) are running at one time.	System
Sandbox	Sandbox	Sandbox is a specialized environment dedicated to State personnel for controlled experimentation and testing of limited changes to an existing or proposed environment – especially non-code-based changes such as rules, configuration, and Business Intelligence. Near full functionality (lacks outside interfaces), limited performance capacity, database limited or full as required. Can be rapidly refreshed to a known state. Normal refreshed state is Production functionality. Controlled updates mirror Production.	System
Training	Training	Training is a specialized environment dedicated to training staff, especially in the context of formalized instructor-led training. Near full functionality (lacks outside interfaces), limited performance capacity, limited and sanitized database. Functionality and data can be rapidly refreshed to a known state. Normal refreshed state is Production functionality, but can be imaged from QA (Small or Large) to train to a forthcoming release. Controlled updates mirror Production or QA (Small or Large.)	System
Data Conversion	Data Conv	Security is a highly specialized production environment optimized to running large data conversion jobs, in preparation for major implementations or upgrades. Limited functionality, limited performance capacity, full live database. Code base promoted from QA (Small or Large.)	Support
PMO	PMO	A specialized environment used to host tools used by the Program Management Office and the SDLC. For example, Requirements Management and Test Management. No connection with Production functionality, limited performance capacity, limited and specialized database.	Support

Each environment consists of one or more Virtual Machines (VMs). The layout of each environment's VM configuration is driven by three primary considerations: security e.g. a firewalled separation between a Web Server tier and an Application Server tier; availability e.g. clustering; and performance e.g. multiple load-balanced VMs for high-performance production.

Finalize Environment's Design

Before the environments are configured, their key design requirements will be finalized during requirements discernment and validation. These detailed requirements identify and validate the sources and sinks of configuration, code/applications, and data for each of the environments. For example, many of the environments represent formalized steps in the System Development Life

Cycle (SDLC), and implement formalized release promotion and management between environments. Others, such as the Training Environment, represent a mixture of tactical operations (refresh data for a class) and more formalized management (update the configuration/code base to reflect a new system release.) Another major variable is the type of underlying database: full vs. reduced size; live vs. sanitized data.

Table IV-12 is a summary example of the types of information to be finalized near the start of the project that drive final determination of environment configurations, prefilled in for the Primary Production Environment.

Table IV-12: Environment Characteristics (Summary)

Env. Name:	Production	**Summary Purpose:**	Hosts ***SmartPro MedEE*** production environment during normal, non-DRR operation.		
Data Center:	Omaha NE	**Contingency DC:**	Tempe AZ	**Access:**	Public Internet
VLAN:	Prod	**VM Tiers:**	Full 3-Tier	**Firewall:**	DMZ; Prod
Code Base:	Production	**Code Source:**	QA (L or S)	**Code To:**	NA
Code Mgmt:	Formal SDLC	**Notes:**	Includes Cúram, Portal, and BI		
Rules/Config:	Production	**R/C Source:**	QA (L or S)	**R/C to:**	NA
R/C Mgmt:	Formal SDLC	**Notes:**	Includes Cúram, Portal, and BI		
DB Base:	Production	**DB Source:**	Conv and Ops	**DB To:**	NA
DB Mgmt:	Formal SDLC	**Notes:**	DB updates shadowed to DRR (Idle) Environment		
Interfaces:	Production	**Notes:**	Full Internal and External Interfaces		
Monitoring:	Full	**Notes:**	Complete Ops monitoring of availability and perf		
CPU Capacity	Full	**DB Size**	Full	**Sanitized:**	No, has PHI
Notes:	Always runs with DRR (Idle); never alongside DRR (Act)				

Using this information, we will finalize and validate the specific design and deployment tactics for each environment. This encompasses variables such as:

- VM Layout and Provisioning, based on security, reliability, performance, and functionality
- Storage Layout and Provisioning
- Final Virtual NIC and VLAN configuration, based on security needs
- Environment refresh procedures, based on sources, sinks, and authorizations
- Data procedures e.g. does the environment require sanitization, downsizing, etc.
- Backup/restoration procedures
- DRR VM mapping – data center loss modifies the layout and performance characteristics

Establish and Configure VMs

In a classic approach, once the basic requirements for an environment are established, a significant and technically difficult effort is required to design, install/integrate, and tune the infrastructure and middleware required by each VM, and between VMs. This effort can easily consume several months

of elapsed time before the environments are fully ready for the deployment of applications. While present VM technology generally provides straight-forward means to tune individual VM's by varying their physical computing capacity (CPU Cores) and memory assignments, once established, the VM architecture is difficult to change, even in the light of new understanding and requirements.

SmartPro MedEE dramatically short-cuts this initial technical process of establishing system environments by using the advanced features of IBM's PureApplication server. PureApplication server implements a large suite of predefined, pre-integrated, and certified "Patterns" for environmental architectures and deployments. Examples of Patterns include "Multi-tier Web Application" and "Business Intelligence Engine". Patterns incorporate extensive knowledge of best practices for environmental architectures, and allow fully functional environments to be established literally within minutes, in response to response to a few simple questions. For example, a simple request for a three-tier "Web" architecture pattern, deploying two load-balanced Web Servers, 3 Clustered WebSphere Application Servers, and a DB2 Database Server can be defined, configured, and instantiated within a few moments time – including all required middleware integration. Furthermore, once established, a simple command will replicate the environment's definition and complete long term storage (applications, data) across a network to another PureApplication box serving as a contingency site for the primary environment.

Not only does this dramatically reduce the time, effort, and risk of establishing the initial system environments, it eliminates the largest impediments to optimizing or adding additional environments as needs are discerned and refined throughout the development and implementation process.

Install and Load non-PureApplication Server tools / middleware

Once the baseline environment is in place, supplemental tools and middleware are installed and configured, such as ITCAM for application performance monitoring. The actual components to be loaded vary by environment, and are based on the designs established in the second step.

Install the Application Software

In this step, each environment's application software is loaded and its preliminary configuration established. The exact content varies by environment. For example, the development environment will require an initial load of the baseline Cúram application, while the PMO environment will require the installation of SDLC management and test tools.

To achieve efficiency in initial setup, environments will be initialized through a shortcut of the ongoing, more formalized change management and promotion procedures. For example, Production is normally maintained by formalized and authorized promotion of code out of QA based on approval of User Acceptance Testing. However, at the very beginning, an early generation of Production will be established directly, to allow initial testing and confidence building of the underlying environmental configurations to be performed before complete promotion management is in place.

However, as the project progresses and environments are stabilized, software configuration management will be shifted to implement the production designs for change and configuration management, and synchronization.

Establish Initial Data

Similar to the Application Software, initial data loads are again specific to the environment, varying both based on function, and maturity of the change management and synchronization processes. Initially, environments will be populated as required by test data, to allow early testing and confidence building in the validity of the environment's basic technical layers.

As the project progresses, data maintenance will be shifted increasingly to reflect production change and configuration management, and the attendant promotion and synchronization processes.

Establish Change/Configuration/Synchronization Management Processes

Once environments are stabilized, they will begin to be converted stepwise to follow full change management, configuration management, and synchronization processes. For example, test environments will be populated based on authorized promotion procedures, based on their underlying official sources or record, rather than based on interim procedures designed to optimize initial setup.

b) Procedures used to migrate software and system configuration (e.g. rules, workflows) from one environment to another; and

IBM/Rational Team Concert is used to maintain the repository of record for configurations, current, historical, and developmental. Promotion upstream in the lifecycle i.e. from Development to System Test to Integration Test to QA to Production is controlled by the change management processes under formal authorization. At the same time, development is normally free to retrieve or refresh its configuration from any authorized version.

Under normal conditions, each environment has an identified formal owner and authorized representatives that control promotion into the environment. Functionally, the PMO, Development, System Test, and Integration Test environments are owned by the Wipro/IBM team, while the QA Environments, Sandbox, Training, and Production Environments are owned by the State.

As a formal build (code / configuration /data) is made ready to be promoted upstream, the owning party formally approves and communicates that approval to the representative of the source, and coordinates the scheduling of the promotion event. For example, the designated State authorized representative of the QA environment would normally determine, based on fulfillment of gating factors, that a build level is ready to be promoted out of Integration Test and into QA, and would schedule that promotion event with the representative of Integration Test. The build level would be frozen in the Configuration Management tool (Rational Team Concert), and picked up and the promotion executed by the receiving party or their authorized representative. Normal promotion workflows will be highly automated, triggered by the "receiving" representative's authorization, and include fallback and restoration procedures as a contingency against error.

Environments such as Sandbox and Training partake of the same general process, but in practice will also maintain a "refresh" workflow, to allow the owning authority to institute an automated reversion to a set of authorized known configurations, including code, rules, and data.

Synchronization requirements between environments encompass a mix of environment, code, configuration, and data. Synchronization of builds requires coordinated change between these three components within an environment i.e. data has to match code has to match configuration. It also requires synchronization between environments i.e. Training generally requires an implementation of Production Code and Configuration, running against a compatibly structured set of Data that is both reduced in size and sanitized, on a limited environment. DRR Production, on the other hand, requires the full current Code and Configuration, running on a complete Environment, with the latest production live Data.

PureApplication Server's VM management environment provides one of the key tools required by ***SmartPro MedEE***. As each VM Environment is configured, that configuration is captured, and can be instantiated as needed within moments, on the original hosting environment, or on another. This basic tool is used to facilitate moving environments between Data Centers, and restoring environments in recovery from a disastrous failure. It also provides a rapid mechanism to re-fresh a complete Environment in place, including its code, configuration, and data. For example, refreshing Training to its default state.

Environments, absent their operational data, are generally small enough that it is practical to retain several versions as static, non-instantiated VM configurations, available for rapid, on-demand deployment. This is specifically useful for Sandbox, Training, and Development Environments, when it may be desirable to be able to easily instantiate a recent older build, to test its precise behavior, or to compare and contrast it with the present production environment. PureApplication Server's VM management capabilities support most of the heavy lifting to provide this functionality out-of-the-box.

The second component is Data. For any given data design, there are 4 basic combinations that must be maintained: the full sized production data, used by Production and sometimes by QA; full size, but sanitized, used for Load/Stress testing; limited size and sanitized, used by Development, most pre-QA testing, and by Training; and lastly reduced size but live data, often required in Sandbox and sometimes by QA.

When a new system build is being prepared, part of the analysis and preparation is the determination of the usability of the existing data sets; if new data is required, for example, by a schema change, then appropriate project tasks are scheduled to create/prepare the required data, using the toolset of the Data Conversion Environment. Depending on the build's requirements, Data Conversion may be used in a development mode to crate interim test data for use prior to implementation. Execution of final data conversion of production data, and creation of datasets derived from this production is normally scheduled as part of the implementation step for the build.

Once created, data sets derivative of a production data set need no longer be kept synchronized with production data, up until the next time a new build requires a change to data organization or content. Once created, these derivative datasets are stored in locations commensurate with their security classification, and cataloged in Configuration Management as compatible with the build. Due to space considerations and absent a compelling reason to retain them, full-size data sets that are no longer compatible with production will usually be archived to offline storage, once sufficient

time has passed that the new implementation is considered fully stable and there is little risk of requiring a rapid roll-back. Small datasets may be retained online for longer time periods, if desired.

At the heart of this process is Rational Team Concert, which retains the permanent history of configuration management data – most importantly, it is the ultimate repository of truth regarding the contents of Environments current baselines, component and data compatibility, and the historical perspective.

c. *System Security and Disaster Recovery*

In this section, the Wipro/IBM team identifies our approaches and basic techniques employed by us and by our ***SmartPro MedEE*** solution to address overall system security and disaster recovery.

Building upon already established baseline security policies and procedures that Wipro implements across its Data Centers, our security professionals, guided by our Government Healthcare Systems Information Security Officer, produce customized security policies, processes, and practices. These are validated with the State, and then incorporated into our ***SmartPro MedEE*** implementation.

The implementation of ***SmartPro MedEE*** is fully redundant, without a single point of failure in its network, hardware, storage, and middleware. To achieve the highest degree of system availability possible under normal operations, the software architecture makes aggressive use of software redundancy, such as clustering with automatic internal fail-over and restart, to achieve maximal availability levels. Additionally, all components are actively monitored by our Data Center's Enterprise Management System, with real-time alerts to human staff should components fail, resources become over-burdened, or response times suffer.

Our Disaster Recovery approach provides an optimal mix of cost-effectiveness, simplicity of design, and minimal time to recovery and loss of data. The overall mix of EES Environments e.g. Production, Training, Sandbox, QA and so forth are distributed between two of our Data Centers. Each center is configured with a single matching IBM PureApplication Server. All hardware is normally engaged in useful work in a normal operating environment: Production and some of the supporting Environments executing in our Primary Data Center in Omaha, Nebraska; other supporting environments running out of our Secondary Data Center in Tempe, Arizona. In normal operation, the Production environment keeps a shadow copy of the database current in the secondary site using native DB2 log shipping capabilities, using minimal system resources. Should the primary site fail disastrously, the DRR site can be brought up to full production capability within hours or less, with little (moments) to no loss of data. Simultaneously, all other supporting environments can be subsequently brought back online, though with reduced capacity during contingency operation.

Securing Technical Controls and Technology Solutions

Wipro has a dedicated Government Healthcare Information Security organization that coordinates policy, implementation, and review of security for the healthcare domain. This organization coordinates the line security organizations, such as Data Center Security, to ensure that security policies and practices unique to healthcare are properly understood and implemented.

During the implementation of ***SmartPro MedEE***, this organization consults with the implementation team to ensure compliance with security policy, and the implementation of best practices, both by the application team and the IT Infrastructure team. Representatives of the Security Organization also consult with project leadership, both Wipro/IBM and the State, providing them with guidance and actionable recommendations regarding security.

The Cúram Application is designed out-of-the-box to support the functional and data security needs for Medicaid Eligibility and Enrollment, fundamentally based on a Role Based security model. This includes a pre-analysis of data sensitivity as it relates to ***SmartPro MedEE***. On an ongoing basis, Wipro's Healthcare Security Organization is responsible for maintaining currency with industry and governmental standards for data sensitivity, and exercise this control through formalized policies and procedures for analyzing and reacting to data sensitivity needs.

SmartPro MedEE provides for positive user identification through two paths, one for internal users and the other for external. For internal users, ***SmartPro MedEE*** will utilize the State's Microsoft Active Directory implementation as the source of truth for User Authentication. External Users (citizens) are managed by Cúram's internal user directory, based on positive identification. Once authorized, Cúram maintains the mapping of users to roles, the basis of ***SmartPro MedEE*** RBAC security design. <OPS011>

Site authentication is generally performed via certificate exchange by the communications layers, for both batch and transactional interfaces.

SmartPro MedEE supports VPN-based access. VPN tunnels will be established between the State's and Wipro's Data Centers, to secure internal traffic between the State and ***SmartPro MedEE***. These tunnels carry both system-to-system traffic (interfaces), and State user traffic. State users of ***SmartPro MedEE*** may use the State's own internal networks, or the State operated VPN to access the State's internal networks. Once traffic is on secure State networks, it will be securely carried over VPN tunnels through the public Internet between the State and Wipro facilities. By using this model, State employees only interact with their own State VPN – they need not be explicitly aware of Wipro's VPN implementation. However, State staff can also access their ***SmartPro MedEE*** portal over the public Internet using Wipro's Juniper VPN, should they so choose.

SmartPro MedEE is implemented on high availability hardware (IBM PureApplication Server) that is fully redundant, without single points of failure: multiple CPU nodes, power supplies, busses, network interfaces, RAID disk storage and so forth. The surrounding network fabric, including routers, firewalls, load balancers, security appliances and circuits is also fully redundant. For the Production Environment, the application architecture is implemented with clustering for both performance (load balancing) and redundancy. Finally, the Disaster Recovery site continuously receives database updates from the Production Environment, so it has a full and current shadow copy of the production database at all times, with little or no loss of data in flight should the entire primary instance fail.

SmartPro MedEE is designed from the bottom-up for serviceability, in its hardware, middleware, and application design. The IBM PureApplication Server can by physically maintained, and even expanded, without interruption of service. The PureSystems Manager and IBM middleware environments operate in concert to allow dynamic tuning, including automatic self-tuning, of

physical resources to meet performance targets. Virtual Environments can be rapidly configured, altered, tuned, and migrated between servers within moments. The Cúram Application is designed for fine-grained incremental deployment, so that only modules affected by a change need to be deployed into production to implement a service release.

Specifications for Components of Proposed Security and Disaster Recovery Solution

Disaster Recovery is based on a second instance of a single PureApplication Server Appliance and related network hardware configured identically with the primary version. The primary instance operates out of Wipro's Primary Data Center in Omaha Nebraska, the secondary out of our Tempe Arizona Data Center. Each instance of the two servers hosts a subset of the total suite of Environments (Production, QA, Training…), and is fully part of the total workload mix during normal operations – no specific hardware is dedicated sole to a backup function. However, in the event of the loss of either site, the Workloads that normally are assigned to the lost site can be assigned to the remaining site, though with some loss of capacity except for the Production Environment.

The standard HW environment we are configuring for ***SmartPro MedEE*** consists of a pair of identical PureApplication servers, one for each of our two Data Centers associated with ***SmartPro MedEE***. This standard configuration comprises:

1 – PureApplication Server 1700-64E

- 42 U (Large) rack, provides space for expansion up to 608 Cores
- 64 Power7+ (750) CPU Cores, in two nodes of 32 Cores
- 512 GB DDR3/1066MHz Memory per Node, total 1 TB RAM Memory
- 16 x 400 GB Solid State Disc Drives
- 80 x 600GB Magnetic Disc Drives
- 4x40 Gbps Ethernet, 4x16 Gbps Fiber Channel
- AIX Operating System

Full recovery procedures will be developed and documented as part of the development project. Please refer to response Section entitled System Security and Disaster Recovery immediately preceding for a full explanation of the overall Disaster Recovery Approach.

Network HW

The datacenter security solution is based on a mixture of hardware and software operating within the Network Fabric of Wipro's Data Centers.

Each server is protected by the Unix platform Sophos anti-virus software, which is maintained with full currency of its detection patterns. Sophos raises any security alerts to each Data Center's Enterprise Management System.

McAffe Intrushield and Palo Alto IDS appliances, provide intrusion detection, and also raises alert to the Enterprise Management Environment, based upon threshold configurations.

Tripwire Enterprise Edition monitors the ***SmartPro MedEE*** servers for unauthorized file changes.

Tennable Nessus provides vulnerability scanning and reporting within the data center for all network endpoints: both network fabric and the servers.

Computer Associates NetIQ AppManager monitors server log files for a large variety of operational events, including security alert events generated by the Operating System or any other hosted software.

While our auditing and certifications processes don't allow us to specifically note model or part numbers that comprise our network, at the core of the Wipro DCS network environment sits industry leading manufacturers such as, Cisco, Brocade, F5, Juniper and CheckPoint.

Supporting Identity and Access Management

The Cúram application of ***SmartPro MedEE*** implements compliant identity proofing logic, out-of-the-box. The Cúram Universal Access Portal component orchestrates policy implementation of proofing citizen identity.

SmartPro MedEE is built upon a Role-Base security model, where users are assigned roles that then control the functions they can see and perform, the data they can access, and whether or not they can alter specific data. The configuration capabilities of ***SmartPro MedEE*** support contextual assignment of user roles, such as time-based role modification. The ***SmartPro MedEE*** Portal logic permits user preference recognition and customization.

SmartPro MedEE maintains and reports on extensive audit trails, capturing complete information on record access and/or alteration. ***SmartPro MedEE*** captures who, what, when and changes made as part of its standard logging and audit capabilities. This supports bi-directional tracing, either from individual to data ("What information did this person access?") and from data to individual ("Who accessed this information?")

SmartPro MedEE classes its users into two groups: internal (State, administration, operations) and external (citizens). Internal users are authenticated against the State's Microsoft Active Directory; once authenticated, the Portal logic provides a Single Sign-On experience within ***SmartPro MedEE***, including access to the Eligibility and Enrollment modules, Business Intelligence, and the Information Portal. External (Citizen) Users who are establishing a personal User ID, or are authenticating themselves against their already established ID, interact with Cúram's Universal Access Portal, which maintains and validates their underlying credentials. They also have a Single Sign-On experience across the functions and modules of ***SmartPro MedEE***. For both classes of users, internal and external, ***SmartPro MedEE*** administers and maintains the mapping of users to their roles.

Application Encryption

Encryption of data, be it at rest or in flight, is managed by a very limited set of system and middleware tools.

- IBM DB2 Advanced Enterprise Server Edition, Version X.Y, is used to encrypt sensitive data at rest
- IBM WebSphere Application Server Network Deployment, Version X.Y, manages the SSL (HTTPS) encryption of Web Browser interactions

- IBM Integration Bus HV Edition for AIX, Version 9.0 (aka IBM Message Broker) provides Secure FTP services for select batch file transfers, and secure message delivery
- IBM Sterling Direct Connect and File Gateway, Version X.Y, provides another implementation of secure, protocol specific batch file transfer protocols
- Juniper VPN to establish secure tunnels between the State's and Wipro's Data Centers, for both user to system traffic, and system to system traffic.

Supporting Privacy and Consent

SmartPro MedEE is fundamentally built upon role-based security: every individual accessing the application suite is assigned a role that determines what functions they are allowed to see and perform; what data they can access – both records and fields; what they can do with that data (read versus modify.) This includes external users as well as State users, administrators, and system operators. Role mapping to functions and information access will be validated during Requirements Analysis, and will conform to State policies.

SmartPro MedEE distinguishes between internal and external users, offering two distinct entry points for the two general classes of user. External participants, i.e. citizens, access ***SmartPro MedEE***/Cúram over the public internet through the IBM Cúram Universal Access module, which provides direct control over the functionality and information the external user is allowed to access.

Internal users, such as case workers, supervisors, and system administrators, access their own internal Portal, which is not directly visible over the public Internet – access is restricted to the internal State network, or VPN equivalent.

Restrictions can include both records e.g. whose data, and fields, e.g. confidential data. External users can be restricted to their own data; case workers to their own assigned cases with certain confidential data hidden; supervisors may be configured for broader access. Each user experience is tailored to the users identified system role, and hence their access rights.

Audit Trails

SmartPro MedEE consolidates log events from multiple sources into a single unified view. There are several technical sources of logging within ***SmartPro MedEE***: the systems environment (PureApplication Server, Operating System, Middleware); the application code (Cúram); the Data Center Network Fabric (routers, firewalls, load balancers); specialized monitoring software (file change/deletion monitoring.)

The individual Data Center Monitoring tools work in concert to continuously consolidate exception events from all logs and subcomponents. These exception events are reported to the centralized Data Center monitoring environment, for notification, reporting, and management. These are events that are deemed to require immediate human notice and possible intervention, such as a security breach or component failure.

The detailed logs are extracted and consolidated into a single database repository, expressed as a Data Mart, which is then available for query, inspection, and analysis using the Business Intelligence toolset provided by Cognos. The definition of the information to be captured and reported is defined and maintained by the Comprehensive Security Plan.

Stale data is archived and purged, based on a retention timeframe to be jointly determined by the Wipro/IBM team and the State during Requirements Validation. Archived log information can be retrieved and restored when required. <OPS017>

Maintaining Confidentiality, Integrity and Availability (CIA) of the Database Management Systems

Confidentiality, Integrity, and Availability of data is managed directly by the Cúram application within ***SmartPro MedEE***. Every user of ***SmartPro MedEE,*** internal and external, is assigned a role; roles are configurable to implement the business rules of Confidentiality. Key capabilities include:

- Role-Based Controls over what sets of data a role may view. For example, a Citizen may only view their own data; a Case Worker their assigned cases; a Supervisor may be permitted to see all cases.
- Role-Based Control over what fields / data elements a role may view. For example, some user roles will suppress PHI data, while others will allow the display of PHI.
- Role-Based Control over what can be done with specific information by a role. For example, the ability of a role to merely view information versus permission to update that information.

Roles can include contextual business rules, such as variability of the role's capabilities based on time. For example, select information can only be viewed during defined working hours by a Case Worker, and not viewed or manipulated off-hours.

All information touches are logged, so it is always possible to discern what information was created, viewed, or altered by an individual, including when the access was made, and if altered, what was the data before and after the alteration. This can also be traced from the perspective of the information: which user(s) or systems/interfaces created information, viewed it, or altered it, and when.

Outside of the ***SmartPro MedEE*** application, the hosting environment also implements a number of CIA features:

- Select Data is encrypted within the database using native DB2 functionality, so that sensitive data is not exposed through back-doors outside the control of the application.
- When required, non-Production Environments operate against obfuscated data, created with the assistance of IBM's tool InfoSphere Optim Test Data Management. For example, Environments such as Training, System Test, Integration Test, and Development would never be loaded with discernible production data. However, fully obscured subsets of realistic data will be created using this obfuscation tool.
- Data is encrypted when in flight, using either /or both secure protocols e.g. SFTP or Connect Direct and encrypted links e.g. VPN. Browser traffic is encrypted with HTTPS/SSL.

- Tripwire Enterprise monitors files for unauthorized modifications or deletion, alerting up to the Data Center Enterprise Monitoring system if it detects a policy violation.
- The overall system architecture is designed for high availability at all levels, including fully redundant hardware and networking (no single point of failure), clustered middleware servers (web, Application, DB) with auto-failover, complete transaction logging, and near real-time shadowing of all database updates to a contingency Data Center for Disaster Recovery.

Security Measures to Protect System Components

Wipro maintains extensive standards for the baseline security measures applied to environments it manages and operates. These baseline policies and procedures cover:

- Operating System security configuration and hardening
- Middleware configuration and hardening
- VLAN separation of security domains
- Firewall separation of application tiers (DMZ, Secure Zone)
- AntiVirus / Malware protection and detection for Servers and Workstations
- Public Certificate management
- VPN policies and management
- Identity Management Standards, password policies, use policies, aging policies
- Network based intrusion detection and protection
- Server and Workstation based intrusion detection and protection
- Proactive and managed updates to environments to accommodate vendor security patches and Wipro engineered security changes
- Active centralized monitoring and response to security events
- Vulnerability scanning, both internal and public Internet
- Annual security awareness training and testing for all employees and contractors; HIPAA specific training and testing for employees working with Healthcare systems

These baseline procedures cover all systems, operations, and development activities, serving as a starting point for domain specific policies and procedures.

Wipro maintains a dedicated information security team for Government Healthcare systems, led by a certified Information System Security officer. This organization engages with the teams responsible for healthcare automation, including the ***SmartPro MedEE*** team. Using the baseline security policies and procedures as a starting point, the healthcare security organization works with the ***SmartPro MedEE*** team to extend and customize them to meet the specific needs and requirements of the State for EES, including in the application domain. This team draws upon internal technical experts in architecture and security, along with external experts when required to jointly codify the initial comprehensive System Security Plan, which is formally reviewed and approved by the State.

Once established and executed, the comprehensive Security Plan is a living document, subject to change and enhancement as knowledge of security best practices advances, and new relevant regulations and standards are created. While managed through the normal Change Management

processes, this Plan is not strictly a one-way response to State initiated change: Wipro is a full partner with the State in identifying and recommending changes to maintain currency with prudent state of the art security measures.

Supporting Data Backup

Within our Data Centers, all Environments (Production, QA, Training…) of ***SmartPro MedEE*** are backed up according to custom documented backup procedures that build upon our Data Center's Standard Operating Procedures.

Each Environment of ***SmartPro MedEE*** is defined as a customized Workload comprised of one or more VM definitions. Each of these definitions, including middleware, application code, configurations not held in the databases are maintained with the PureApplication Server's library of Workloads. As part of Change and Configuration Management, these Workload definitions are copied across to each center's opposite. For example, the Production Workload definition is normally assigned to our Primary Data Center, so the PureSystems Manager tool is used to synchronize a copy of this Workload and its constituent VM definitions to the Secondary site, in case a DRR scenario must be invoked. Each Workload assigned to normal operations in the Primary Center is synchronized with a copy in the Secondary Center. Conversely, Secondary Center normal Workloads are copied to the Primary Center, so they could be immediately instantiated if the Secondary Center was lost. While normal operational work is split at the Environment level, each center always has a current copy of all Workloads ready for dispatch.

For Environments with relatively small databases and file-stores, such as Training and most Test Environments, the data sets are backed up to the opposite Data Center nightly, or as appropriate to the function of the workload (data sets that only change as a result of Change / Configuration Management can be copied when changed, rather than nightly.) Additionally, these data sets, along with the Workload definitions, are backed up nightly to tape, and stored offsite for disaster recovery purposes, per agreement with the State.

The Production environment, with its large and dynamic data store, is kept synchronized in near real-time to a shadow copy using native DB2 log shipping technology. This shadow copy, which will normally be within a few minutes or less of full concurrency with the production database, serves as the online backup of Production. Additionally, the Environment is backed up to tape nightly and stored securely offsite. Additionally, one or more local, disk-based generation copies of the Production Environment will be maintained using PureSystems Manager, to allow the rapid back-out as restoration of a prior version of ***SmartPro MedEE*** should that be required. General Approach to Recover from a Disaster and Providing a Disaster Recovery Plan

Describe the general approach to reestablishing operations in the event of a catastrophe, as well as its approach to providing the State of Nebraska with a Disaster Recovery Plan; and

SmartPro MedEE is implemented on two identical IBM PureApplication Servers; the first located in our Primary Data Center in Omaha, Nebraska, the other in our Secondary Data Center in Tempe Arizona. Using native DB2 functionality, the primary Production Environment ships its database log files to the secondary system, which applies them in near real-time to a shadow copy of the production database. Non-database information, such as VM configurations and code bases are kept synchronized between the two centers as part of regular Change and Configuration Management,

using PureApplication Server's native VM shipping capability. If a disaster is declared that requires failover, the secondary site's instance of the full Production Environment is instantiated, network addressing is adjusted, and full operations can be restored within hours, with little or no loss of data in-flight. Due to the database log shipping, the core data will already be in place at the DRR site, so there is no need to wait for the retrieval of offsite backup tapes, or restoration of the large production database.

Both the primary and secondary centers share execution responsibilities for the various Environments (Production, QA, Sandbox…) that comprise ***SmartPro MedEE***. At any one instant, a specific Environment is assigned to only one Data Center; for example, Production normally executes in the Primary Data Center, while QA is assigned to the Secondary Center. This sharing of the workload provides for a reduced overall hardware complement, as all hardware is available and in use at all times: nothing is solely dedicated to Disaster Recovery.

The Non-Production Environments are also part of the Disaster Recovery plan, and can be restored at will in either center should the other center fail – though with a less rigorous RTO than the Production Environment.

Disaster Recovery planning begins during Requirements Analysis, validating its formal requirements. The development of the DRR plan follows the same lifecycle as the rest of ***SmartPro MedEE***, with components of design and implementation flushing out the detailed procedures and processes of the formal plan. During early testing, System and Integration, the DRR plan will be exercised with a small limited dataset, to validate the basic correctness of the procedures. Later in testing, when full-sized Load/Stress data is available, the DRR plan will be exercised in full, including testing the reversion to normal operations. In practice, initial restoration time is not very sensitive to database size, as the shadow database is begin continuously updated and does not require restoration as part of DRR failover. In these late tests, all environments will be tested for DRR restoration, simulating both a failure of the Production Environment / primary site, and the reverse: a failure of the secondary site, requiring restoration of several of the supporting Environments into the primary site.

Provide specifications on any hardware and software components utilized by the proposed security and disaster recovery solutions. Include the required components, configurations and procedures to enable a recovery.

Disaster Recovery is based on a second instance of a single PureApplication Server Appliance and related network hardware configured identically with the primary version. The primary instance operates out of Wipro's Primary Data Center in Omaha Nebraska, the secondary out of our Tempe Arizona Data Center. Each instance of the two servers hosts a subset of the total suite of Environments (Production, QA, Training…), and is fully part of the total workload mix during normal operations – no specific hardware is dedicated sole to a backup function. However, in the event of the loss of either site, the Workloads that normally are assigned to the lost site can be assigned to the remaining site, though with some loss of capacity except for the Production Environment.

The standard HW environment we are configuring for ***SmartPro MedEE*** consists of a pair of identical PureApplication servers, one for each of our two Data Centers associated with ***SmartPro MedEE***. This standard configuration comprises:

- 1 PureApplication Server 1700-64E
- 42 U (Large) rack, provides space for expansion up to 608 Cores
- 64 Power7+ (750) CPU Cores, in two nodes of 32 Cores
- 512 GB DDR3/1066MHz Memory per Node, total 1 TB RAM Memory
- 16 x 400 GB Solid State Disc Drives
- 80 x 600GB Magnetic Disc Drives
- 4x40 Gbps Ethernet, 4x16 Gbps Fiber Channel
- AIX Operating System

Full recovery procedures will be developed and documented as part of the development project.

Network HW

The datacenter security solution is based on a mixture of hardware and software operating within the Network Fabric of Wipro's Data Centers.

Each server is protected by the Unix platform Sophos anti-virus software, which is maintained with full currency of its detection patterns. Sophos raises any security alerts to each Data Center's Enterprise Management System.

McAffe Intrushield and Palo Alto IDS appliances, provide intrusion detection, and also raises alert to the Enterprise Management Environment, based upon threshold configurations.

Tripwire Enterprise Edition monitors the ***SmartPro MedEE*** servers for unauthorized file changes.

Tennable Nessus provides vulnerability scanning and reporting within the data center for all network endpoints: both network fabric and the servers.

Computer Associates NetIQ AppManager monitors server log files for a large variety of operational events, including security alert events generated by the Operating System or any other hosted software.

While our auditing and certifications processes don't allow us to specifically note model or part numbers that comprise our network, at the core of the Wipro DCS network environment sits industry leading manufacturers such as, Cisco, Brocade, F5, Juniper and CheckPoint.

d. System Performance, Availability and Capacity

i. Describe the ability of the proposed solution architecture to support:

a) Internal case workers, and external participants;

SmartPro MedEE using IBM Cúram offers two entry points for users of the Nebraska EES. The internal case worker has their own portal entry point to conduct all case management activities to support eligibility and enrollment of a citizen or provider of services. Other roles that have access to the internal portal user experience include a system administrator or case supervisor. These roles can manage and modify case related functionality including workflows, business rules, and case related data as required. To access ***SmartPro MedEE***, internal caseworkers will log on to ***SmartPro MedEE*** by first accessing the State's own internal network – either via their State VPN if they are connected over the public Internet, or directly if they are connected directly to a State network. Once they are

securely accessing the State's own internal network, their access to ***SmartPro MedEE*** will be carried over a secure data center to data center VPN channel between the State and Wipro. ***SmartPro MedEE***'s portal will validate their user credentials against the State's Microsoft Active Directory before granting access.

The external participant, which could be a citizen or a delegate to the citizen, will have their own publicly accessible user experience using the IBM Cúram Universal Access functionality of ***SmartPro MedEE***. Each user experience, depending on role and required services is tailored to a user's access rights and identified system role. External participants will access ***SmartPro MedEE's*** web-interface over the public Internet, connecting through ***SmartPro MedEE's*** Portal functionality.

b) Mission-critical services/Service Level Requirements;

SmartPro MedEE consists of a collection of commercial off the shelf tools configured and customized to meet the demands of the State of Nebraska infrastructure. Mission critical systems and service level requirements would be met through the implementation of failover redundancy and high availability of servers. Performance monitoring will be facilitated through the use of various tools included as part of the application server. Additional tools including IBM's PureSystem Manager and ITCAM, and Computer Associates Spectrum 8.9 are integrated into the Nebraska EES system to evaluate system performance, application and data latency, and overall system health. If one of the mission critical systems breaches a service level requirement, the appropriate designated system administrator is notified to review mission-critical operational systems immediately.

SmartPro MedEE uses IBM PureApplication Server as its hosting environment. For mission critical environments, such as Production, several techniques are used to ensure continuity of service and management to Service Level Requirements:

- Logical Server tiers (Web, Application, Database) are engineered with mission-appropriate redundancy including clustering with load-balancing and auto-failover within WebSphere
- Storage is configured with an appropriate level of redundancy to meet engineering goals for reliability and performance using RAID configuration
- The PureApplication Server Appliance itself monitors and self-manages resource utilization and dynamically adjusts physical resources to meet configured targets. For example, assigning additional CPU cores to an over-burdened VM.
- Higher-level monitoring tools, such as ITCAM, monitor for application and service availability and performance, and raise alerts for human intervention if target service levels or availability are threatened
- The PureApplication Server Appliances that hosts ***SmartPro MedEE*** are fully redundant high-availability designs, with multiple power supplies, redundant Network Interface Cards, multiple CPU's and CPU Nodes with failover
- The Data Center network fabric, routers / firewalls / load balancers is fully redundant and monitored
- ***SmartPro MedEE*** is implemented in two complementary Data Centers, each hosting an identical PureApplication server assigned solely to ***SmartPro MedEE***. During normal operations, the Environments e.g. Production / Sandbox / Training etc. are each assigned to run in one of the two centers, splitting the workload. The Production Environment, when

executing in the Primary Data Center, ships its database logs to the Secondary Data Center, where they are applied in near real-time to a shadow database. If the Disaster Recovery scenario must be invoked, the Production configuration is instantiated in the Secondary Center within hours or less, with its database ready to go with little or no data loss from the failure. Using more standard techniques of restoration (restoration of data from backup media), all other environments can be re-assigned between centers if needed. For example, non-Production Environments such as QA, which normally run in the secondary Data Center, can be re-assigned to the Primary Center if the Secondary site were to be lost. Each PureApplication box is physically configured to be to run all Environments simultaneously, without compromising the performance of the Production Environment; however, non-Production environments would run with reduced capacity in a DRR scenario.

c) Ease of management;

SmartPro MedEE, in leveraging IBM Cúram, has selected a platform that is built on a J2EE web-based architecture. All applications are web-based. Unless a change requiring integration with IBM Cúram to a third-party system (data source) or a custom interface is required within the Cúram Web-Based platform, all administrative and system management changes can be completed using a standard Web browser such as Internet Explorer, Firefox, Chrome, or Safari. Specifically, managing the Cúram environment can be broken down into four subsets:

- **Enterprise Framework**: The Cúram Application is built on an enterprise framework that allows for a single view of a customer using a robust case management platform. As a COTS solution, all business rules, workflows, assessments, and platform level configuration can be configured using a Web browser.
- **Enterprise Modules**: Modules are extensions of core functionality that allow the MLTC to accomplish program-based activities such as Provider Management, Outcome Management, Social Enterprise Collaboration, Universal Access, and Life Events Management. Combining the framework and module capabilities will provide the State of Nebraska the tools needed to operate EES.
- **MLTC Configuration**: Each MLTC has its own rules, workflows, and vocabulary to describe business functions to name a few unique system characteristics. As part of the Web-based interface, MLTC specific configurations can be completed using a standard Web browser. Such an activity is often completed by a case supervisor or system administrator.
- **MLTC Extensions**: The only time where functionality cannot be managed inside of Cúram or one of the supporting applications directly using a Web browser is for a subset of requirements that cannot be met by configuring functionality using the COTS product. For example, an interface that may integrate one or more data sources into a custom Web page leveraging the J2EE framework. MLTC extensions can be deployed using the Cúram Dynamic Configuration functionality. A new deployment of a specific feature within the platform or a module will not impact an entire deployment.

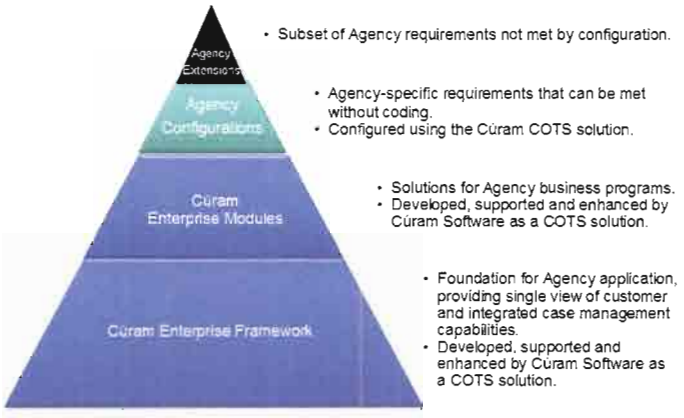


Figure IV-54: Meeting MLTC Requirements

SmartPro MedEE is hosted on IBM's PureApplication Server Appliance, which is specifically designed for ease of management out-of-the-box. IBM has invested over 1,000,000 staff-hours to date engineering this management environment, encompassing the very best of subject matter expertise with the goal of eliminating most of the time, complexity, and risk normally associated with commissioning a complex modern system environment. PureSystems Manager (PSM) is the core of this management environment.

PureApplication Server and PSM dramatically shortcut the engineering investment required to design, configure, and instantiate the technical environments required by modern architectures, such as the 3-Tier (Web, Application, Database) design of ***SmartPro MedEE***. Implementing pre-configured and certified architectural and system Patterns, PureApp automatically self-configures and deploys the required Virtual Machines and fully integrated middleware required by the environment. This includes VM management, server networking, storage assignment, architectural tiering, clustering and failover, monitoring, and physical resource management. Operating System (AIX), Web and Application servers (WebSphere), Database Server (DB2), ESB (Integration Bus aka Message Broker), Service Registry (WSRR), BI (Cognos), and monitoring (PSM) are all part of this Pattern-driven pre-certified environment.

Patterns – A web Application deployment Pattern Example

- Captures decades of experience in designing, building, and deploying new business applications
- Codified best practices for presetting configuration options by type of selected Web application (e.g., high availability, high security, etc.)
- What do we do? Bring our data and application code, select a policy for the application, and everything else is handled in the background
- What do we NOT have to do? Engineer the interdependencies and connections between the database, application server, management, security, and the rest of the middleware; manually engage in extensive real-time management of the PureApplication infrastructure

Result Speed deployment of Web applications by **20-30x**!

The weeks to months of technical engineering and configuration that is normally required to prepare an environment for application installation is literally reduced to hours and days. Workload definitions, which are the instantiable environments that result from configuring a Pattern, can be instantiated within moments, copied to other PureApp servers, and can be rapidly cloned and then modified, to build other Workload definitions (Environments) based on previous work.

Once defined and instantiated, Workloads / Environments are dynamically monitored and self-tuned by PureApp and PSM according to business rules and configurations defined for the Environment. For example, a VM may be implemented to dynamically adjust its physical CPU Core allocation within a defined range to meet target resource utilization goals, without human intervention. Engineers and Operators can also adjust resource assignments on the fly through PSM, should the system monitoring tools indicate a situation that requires human intervention. PSM provides fully modern dashboards, graphical presentations, and quantitative presentations with drill-down into system technical data.

Figure IV-55 depicts the ease with which an engineer or administrator defines a highly sophisticated environment, including dynamic scaling and multiple architectural tiers.

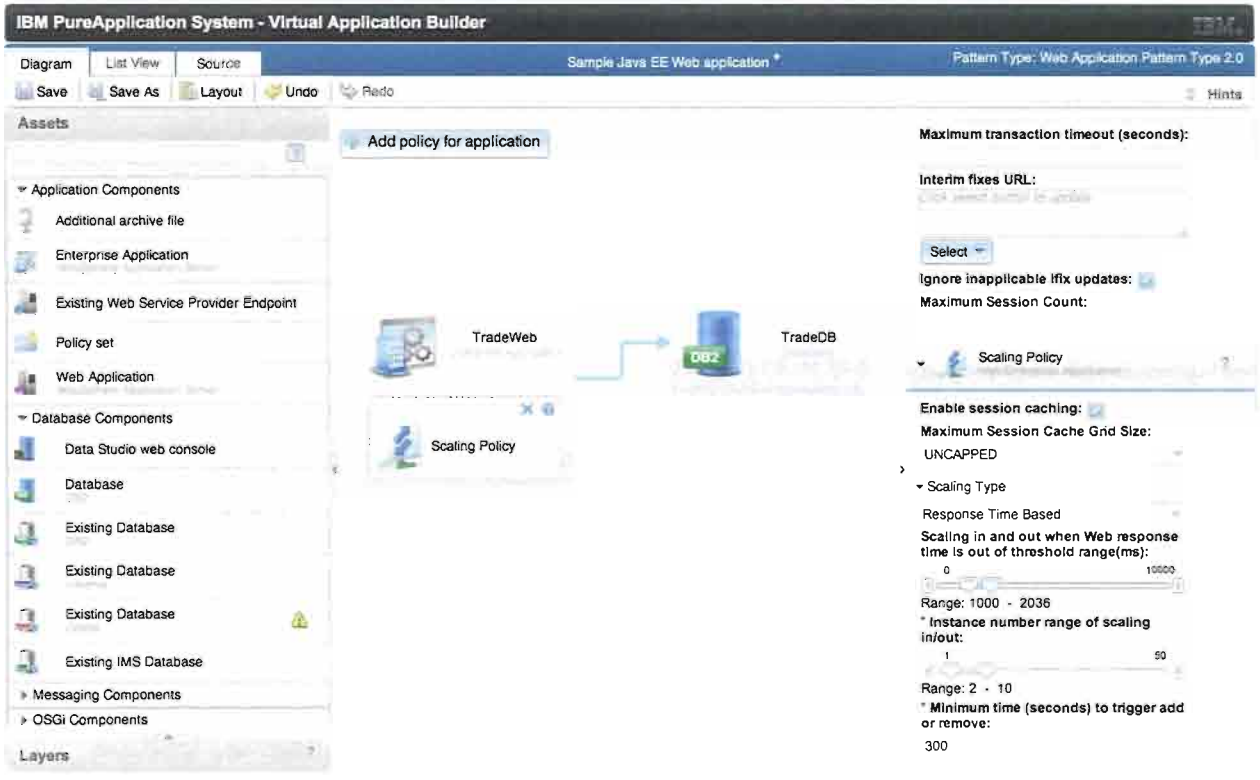


Figure IV-55: PureApplication Virtual Application Builder

d) Ability to upgrade (ease and compatibility);

Each module within the Cúram architecture is generated into an EAR (Enterprise Archive) file which includes both EJBs (Enterprise Java Bean) and Web Containers. The Cúram architecture provides a flexible deployment options by enabling horizontal and vertical scalability. Application upgrades do not require all features to be upgraded within the Cúram environment. The Wipro/IBM and Nebraska team can replace a single module or a series of modules independently so that changes

made in Cúram do not impact all functionality within the environment. Such an architecture design provides failover, load balancing, and redundancy. It also ensures constant compliance with leading practice security models including those interacting with application instances. The architecture model and the design describing the upgrade protocol are found in Figure IV-56.

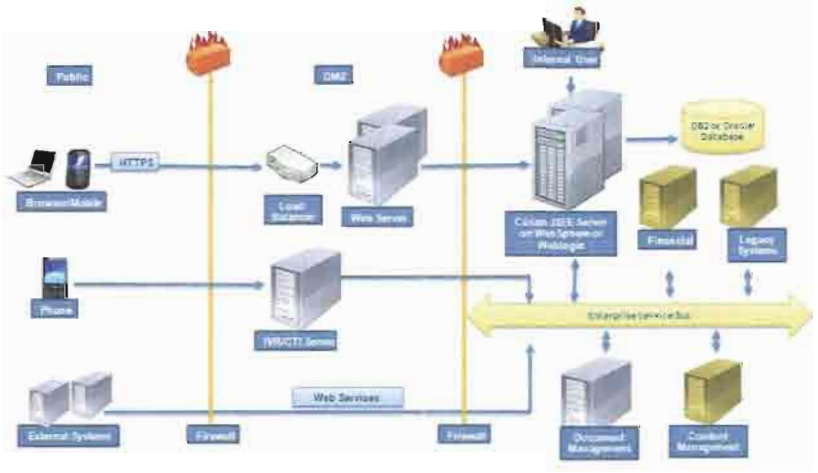


Figure IV-56: Cúram Architecture Model Describing the Upgrade Protocol.

Cúram upgrading principles are built around the concept of Dynamic Configuration. Under traditional software development lifecycle design, all components that are part of a deployment must be updated and configured regardless of how small the change may or may not be. With the Cúram dynamic configuration deployment model, a change can be made to the QA/UAT environment. Once updated, the change can be tested. Finally, upon testing and validation occurring, the production environment can be updated. The COTS-based modularity of each EAR makes the upgrade path quick to deploy and easy to manage in the Nebraska EES environment. PureApplication server is designed for ease of upgrade.

SmartPro MedEE is based on two dedicated PureApplication 1700-64 servers, one located in the Primary Data Center, the other in the Secondary Data Center. Each server has 64 physical CPU Cores (Processors), 1 TB (Terabyte) of RAM, 6.4 TB of Solid-State Disk, and 48 TB of magnetic disk Memory, all housed in a single large rack. Without taking an outage, a single rack/server may be expanded in increments of 32 Cores up to 608 CPU Cores with 9.7 TB of RAM, which may be usefully applied to workloads within minutes.

Each PureApplication Server box is untitled to unlimited DB2 enterprise Edition, and unlimited WebSphere Network Deployment, up to its physical CPU limit. These basic middleware tools are immediately available for effective use by running environments within minutes of installing the new processor Cores into the running server, without service interruption.

Though it is not expected that ***SmartPro MedEE*** will require more than the pre-configured ~50TB of useful disk storage in its expected lifetime, if storage needs do exceed this limit, the PureApplication Server's storage can be extended further using standard Data Center Storage Area Network (SAN) technology.

The Wipro/IBM team employs built in virtualization technologies to simplify the requirement for multiple environments. The server technology design we use supports dynamic logical partitioning (LPAR) and shared processor micro partitions. By designing the EES platform using LPAR and processor micro partitions, the proposed application can run on multiple environments concurrently. As resource demand increases or decreases, adjustments to workload between environments as well as the reallocation of system resources to optimize performance can occur. By increasing system utilization by virtualized processor cores and memory, servers can share input / output (I/O) resources to lower costs of third-party technologies, including adapters, and increase I/O utilization. By providing a higher availability of I/O resources including storage capacity and network bandwidth, overall operational cost are reduced. This is critical for longer term maintenance and stability after system turnover.

SmartPro MedEE is hosted on an IBM PureApplication Server Appliance, which provides a fully virtualized "Cloud in a Box" implementation. All Environments, such as Production, Sandbox, Training, and QA, are instantiated as PureApplication workloads, consisting of one or more closely related VMs within the PureApp Server.

Within each ***SmartPro MedEE*** Environment (represented by a PureApp Workload), the VM(s) are configured and resourced based on three major considerations:

1. Security / Role in a multi-tier architecture:
   - Role (Web Server, Application Server, Database Server), and their placement within a DMZ / Secure Zone network model
   - VLAN i.e. Production vs. Non-Production
2. Availability Requirements i.e. Clustered or Non-Clustered
3. Performance:
   - Physical Resources assigned to VMs e.g. CPU Cores and Memory
   - Isolation of Workloads to minimize interference, such as separation of Business Intelligence from Operational transaction processing
   - Load balancing of multiple instantiations, such as multiple Web Server VMs.

At the high end, the Production environment makes use of all of the above: distinct VM set representing each of the 3 tiers of Web, Application, and database, for security and performance; VLAN isolation of the Production VM set from non-Production for Security; multiple clustered VMs within a tier for performance and availability; dedication VMs to isolate possibly interfering workloads, such as operational processing (Cúram) from Business Intelligence (Cognos).

At the other extreme, a small environment such as Training may institute all layers into a reduced set of VMs, without clustering, explicit separation of tiers into distinct VMs, and so forth.

The PureApp Appliance provides a remarkably easy to use hosting environment to implement these models. At its core, the PureApplication Server provides "Cloud-in-a-Box" hosting services. Complex workloads such as that described above for the Production Environment can be configured and instantiated within hours or less by merely answering a few questions. PureApplication Server

utilizes pre-defined and customizable Patterns, such as "Multi-tier Web Application", that instantly deploy the desired architecture.

PureApp Patterns include pre-configured and certified integration of the key middleware components such as WebSphere and DB2, with an intrinsic understanding of clustering, load balancing, multiple tiers and so forth. For example, if the engineer managing setup instructs the Pattern to deploy 3 VMs for the Application tier in a multi-tier Web Application Pattern, then PureApplication Server will automatically configure those VMs (and WebSphere) for load-balancing and clustering.

The assignment of physical resources to VMs is a dynamic, and to a large degree, self-tuning exercise within the PureApp Appliance. The VM designer has the freedom to assign exact and fixed physical resources e.g. "2 Cores of 32GB each" to a VM. However, PureApplication Server also allows the designer to specify a range of resources, and allow the server to dynamically assign/design additional capacity based on utilization thresholds. For example, the previous static VM definition could be modified to read: "Assign between 2 and 6 Cores as required to keep individual CPU utilization under 60%". PureApplication server can now flex the environment dynamically, while running the production workload, within the constraints defined. The PureSystems Manager console allows operations staff to continuously inspect and understand the server's status, via alerts, graphical displays, and dashboards. If the server cannot self-maintain performance targets within the constraints configured into the Environment, then higher-level alerts are forwarded to the Enterprise Data Center management suite, triggering human intervention. Within the physical limitations of the server box, human engineers can analyze the running Environment and assign additional resources on the fly as required to meet performance targets.

f) Network Performance Requirements;

Network connectivity varies depending on the user type and system that the user type must connect to. The network performance requirements; therefore, vary based on role and environment. As a best practice, the Production environment should connect to live legacy systems whereas the System Test, Integration Test, QA/UAT, Training, Sandbox, and Staging environments should connect to staging or test legacy systems where available for simulation of live environments. The Data Conversion environment should connect to one or more file transfer servers for exchange of prepared conversion extracts from the existing one or more legacy applications. Connectivity to the new environments from the roles should be accomplished through WAN/VPN or LAN only connection as shown in Table IV-13 below.

Table IV-13: Recommended Network Performance Design

Environment	Develop Access	Admin Access	Security Compliance
Development	WAN/VPN	LAN	WAN/VPN, LAN
System Test	WAN/VPN	LAN	WAN/VPN, LAN
Integration Test	WAN/VPN	LAN	WAN/VPN, LAN
QA/UAT	WAN/VPN	WAN/VPN, LAN	WAN/VPN, LAN
Data Conversion	WAN/VPN	WAN/VPN, LAN	WAN/VPN, LAN
Training	None	LAN	LAN

Environment	Develop Access	Admin Access	Security Compliance
Sandbox	None	LAN	LAN
Staging	None	LAN	LAN
Production	None	LAN	LAN

Network performance metrics and thresholds for each of these environments in conjunction with the Wipro/IBM team will be documented and agreed upon as part of our service level agreement (SLA).

The Data Centers' network devices, such as routers and firewalls, continuously forward performance and management data upstream to the Enterprise Management Environment. Computer Associates' Spectrum 8.0 and eHealth tools coordinate to capture this raw data, apply configured business rules to trigger required alerts, and to maintain, organize, and present current and historical performance data to both Data Center and authorized State staff.

Network capacity is continuously monitored; along with the hardware components they constitute the Data Center's network fabric. Bottlenecks are detected, and when warranted, action plans developed to modify capacity and organization to maintain compliance with State SLR agreements.

g) Meeting System response time requirements; and

SmartPro MedEE has been architectured for both horizontal and vertical system scaling. As the user population increases, more infrastructure resources can be applied to the system to meet the input and output data demands of the citizen, case worker, or designated State of Nebraska user. As data, business rule, and workflow demands changes over time, the system being proposed for the State of Nebraska is designed so that point applications can be modified without impacting all EES enterprise systems. While downtime for routine maintenance is an expected part of any technology deployment, the Wipro/IBM team has designed the solution architecture to ensure rapid change management controls are enforcement, optimal system uptime can be met, and consistent performance is experienced as the end-user population scales over time.

PureApplication Server's PureSystem Manager plus IBM ITCAM monitor ***SmartPro MedEE***'s system response times, and forward SNMP alerts to the Data Center's Enterprise Monitoring environment when response times exceed configured thresholds as agreed to with the State. The Enterprise Monitoring Environment combines Computer Associate's Spectrum 8.0, eHealth, and Service Desk modules to automatically:

- Open a trouble ticket when warranted;
- Alert appropriate Data Center staff, initiating problem resolution
- Update trend analysis and other performance reporting data that is available to both Data Center staff and to authorized State staff through the ticketing portal

Additionally, PureSystem Manager executes configured self-tuning rules when it notices resource utilization beginning to exceed configured parameters. For example, an Application Server VM that is running at too high CPU utilization will be automatically augmented with additional physical CPU resources pursuant to configured rules, to manage performance towards target goals.

h) Data dashboard capabilities to facilitate real time graphical display of technology performance metrics with drill-down capability aligned with IT Operations user's role and permissions.

Both PureSystems Manager and Computer Associate's Enterprise Management tools provide extensive dashboard, graphical, and drill-down capabilities into system and environmental performance – both current and historical.

ii. Describe the approach to providing a highly available system. The Contractor is responsible for delivering a cost-effective, high-availability environment that minimizes the frequency and impact of system failures, reduces downtime, and minimizes recovery time in the event of catastrophic failure.

SmartPro MedEE is built upon IBM's PureApplication Server, a fully integrated "Cloud-in-a-Box" appliance that is specifically engineered for high-availability applications, both in its hardware, middleware, and application deployment design. PureApp hosts a fully virtualized environment, with Workloads / Environments dynamically assignable to any of the physical resources housed in the server. PureApplication server provides:

- Fully redundant hardware, avoiding single points of failure (power supplies, processors, busses, network interfaces, storage)
- Robust internal storage, mixing both Solid State and Magnetic Disk devices in selectable RAID configurations
- Out-of-the-box support for fault-tolerant redundant multi-tier web architectures, supporting multiple nodes, clustering, and load-balancing: without detailed engineering / configuration
- Automated failover of failed Virtual Machines

Within each Data Center, the network fabric is a fully redundant design encompassing multiple outside data connections, redundant routers, firewall, and load-balancers.

SmartPro MedEE is implemented across two Wipro Data Centers for Disaster Recovery. While ***SmartPro MedEE's*** Production Environment only executes in a single Data Center at one time, as long as both Centers are available, the Production Environment transmits its database log transactions in near real-time to the backup, which immediately applies the updates to a shadow copy of the production database, in a scaled-down environment. Should a disaster befall the Primary Data Center, the recovery copy can be instantiated within less than an hour in the Secondary Center, working off of the shadow database copy with little or no data loss.

The Production Environment is implemented with clustered / redundant server tiers. Both PureApplication Server and a combination of ITCAM and the Data Center's native Enterprise Management Suite continuously monitor all levels of system availability, resource utilization, and performance. Almost all failures are automatically recovered without human intervention by the redundant hardware and architectural design.

Should hardware upgrades to the PureApplication Server become necessary, such as adding additional physical CPU Cores, these additions can be made without shutting down or negatively impacting the functioning system.

A key aspect of achieving cost effectiveness is sharing of resources in the virtualized environment, both within each Data Center, and across Data Centers. Each of the two PureApplication Servers, Primary and Secondary, is identical in configuration. Each server is configured with a balanced workload, so both servers provide value on a daily basis. For example, the Primary server hosts the Production Environment, System Testing, Integration Testing, and Data Conversion. In aggregate, this workload mix makes effective use of the box, while retaining room for capacity growth.

Meanwhile, the Secondary server hosts the Production log file Environment, Sandbox, Training, Development, Tools, and either a small QA (UAT) of large QA (Load / Stress / Performance Test) Environment.

The dynamically tunable virtual environment allows the PureApp server to automatically configure physical resources to meet performance requirements, including transient peaks. For example, additional CPU Cores can be automatically assigned to Production Web, Application, or Database Servers as needed to meet dynamic performance peaks – borrowing first from spare resources, and ultimately from Environments with less priority, such as System Test. This dynamic allocation of virtualized resources makes a significant overall improvement in the overall costs, including both capital costs for the environment, and in engineering and operational costs associated with operating and optimizing the environment.

iii. Describe the approach to planning, sizing and controlling the system as

IT Component Capacity needs change:

a) Data Base Storage Capacity;
b) Real-time Integrated/Centralized Database;
c) Data Warehouse and Data Marts;
d) User Capacity;
e) Network Capacity;
f) Server Capacity;
g) Knowledge Base; and
h) Document Repository.

iv. Describe the methodology for monitoring and reporting system performance, as well as the approach to Technology Management. This includes the methods for centrally managing system resources such as servers, backup, archiving, and recovery equipment, databases and applications. Address methods for auditing, tracing and scanning the system. Provide details on the use of specialized tools the Contractor will use to automate and track monitoring and management Activities

The overarching approach taken by ***SmartPro MedEE*** for planning, sizing, and controlling capacity is based on a closed loop model. The process starts with estimating the basic Business Drivers, such as projected numbers of users, transaction, and data volumes, and their projected growth rates. These drivers then feed the Capacity/Sizing model, converting Business metrics into sizing estimates. Business Drivers and Resource Utilization / Performance are then continuously monitored. Based on the monitoring data, discrepancies in the models are corrected: for example:

- Is Business Volume growth tracking the model estimates for growth rate?
- Are resource utilizations levels consonant with the measured Business Volumes?
- Is Performance matching expectations based on the Business drivers and Resource Utilization?

Keeping these models accurate is important to forward planning. In addition to data garnered from the live Production Environment, we have configured a complete QA – Load / Stress / Performance Test environment that fully mirrors the Production Environment's physical resources, software, and configuration. Our test simulation tool environment allows us to fully simulate realistic performance loads to calibrate our understanding of expected real-world system performance.

With calibrated models in hand, forward planning can be realistically conducted for sizing any and all of the systems components. Simple transactional growth is the easiest to plan for, as the stress/performance test environment produces a highly dependable set of models, cross-checked by experience with the Production Environment. New functionality and design is also stress and performance tested, and models corrected as required if testing produces discrepant results.

The dynamically scalable environment provided by PureApplication Server goes a long way in isolating the running environment from transient, unpredicted peaks. The system itself will dynamically assign additional physical resources based on policy rules and configuration, to maintain target levels of utilization and performance. Providing additional Compute resources, either automatically, or by human intervention, does not require a service interruption. In fact, additional physical hardware (CPU Cores and Memory) can be added to a fully functioning PureApplication server box without interrupting its service, and the new resources made immediately available to executing workloads and environments.

System Performance, Solution Availability

At the core of ***SmartPro MedEE***'s monitoring and management model is IBM's PureApplication Server Appliance, and its embedded management tool, PureSystems Manager. In a single highly unified environment, PureApplication Server combines high performance server capacity (64 cores of Power+ 750 CPUs), Storage (~50TB, mix of solid state and magnetic disk), Operating System (AIX), Database (DB2 Enterprise), Application Server (WebSphere Network Deployment), Monitoring and Management (PureSystems Manager), plus full virtualization, including VM management. ***SmartPro MedEE*** and PureApp also includes pre-configured Patterns for integrated deployment of the ESB (Integration Bus aka Message Broker), Service Registry (WSRR), and Business Intelligence (Cognos).

PureApp Server delivers out-of-the-box configurability and manageability of Virtualized Environments via its PureSystems Manager tool (PSM). PSM directly provides most of the performance monitoring and management normally associated with complex data center operating environments. Additionally, PSM and PureApp Server will forward alerts upstream to the Data Center's Enterprise Management environment, should human intervention or notice be required.

e. Technical Components

The ***SmartPro MedEE*** solution is based on a Service-Oriented Architecture and is enabled by industry leading software applications from IBM. Software that is key to making the ***SmartPro MedEE*** application SOA-based includes:

- IBM WSRR - Distribution of Services is enabled by the WebSphere Service Registry and Repository (WSRR), which provides clear visibility into distributed service associations while enabling governance across platforms of the entire services lifecycle through true end-to-end repository federation to provide multi-data center implementation of the environment.
- IBM Integration Bus - Interfaces between components and with external components is enabled by the IBM Integration Bus (IIB) which enables SOA standards-based

communications and allows you to connect virtually any application or service over multiple protocols including SOAP, HTTP, Java Message Service (JMS) and more.

- Web Service-enablement - ***The SmartPro MedEE*** components are SOA-enabled by way of:
  - The Cúram COTS package that delivers the core eligibility and enrollment function is SOA-enabled. The Cúram toolkit allows any business function to be exposed easily as a service, generating the necessary artifacts such as WSDL. It also allows Cúram to easily consume web services.
  - IBM InfoSphere Master Data Management product communicates with its providers and consumers via Web Services
  - IBM Cognos provides access to its functionality via the Cognos SDK, a toolkit you use to extend and customize IBM® Cognos® reporting products as Web services.
- The Wipro/IBM design and development approach is SOA-centric in identifying and implementing services and using the SOA infrastructure to connect and orchestrate service providers and consumers.

The graphic below depicts the overall ***SmartPro MedEE*** solution, and how the SOA-based and layered approach separates business functions allowing for loose coupling, yet high cohesion between software components within the enterprise.

This approach insulates the Department from costly changes due to policy directives from federal and state policymakers.

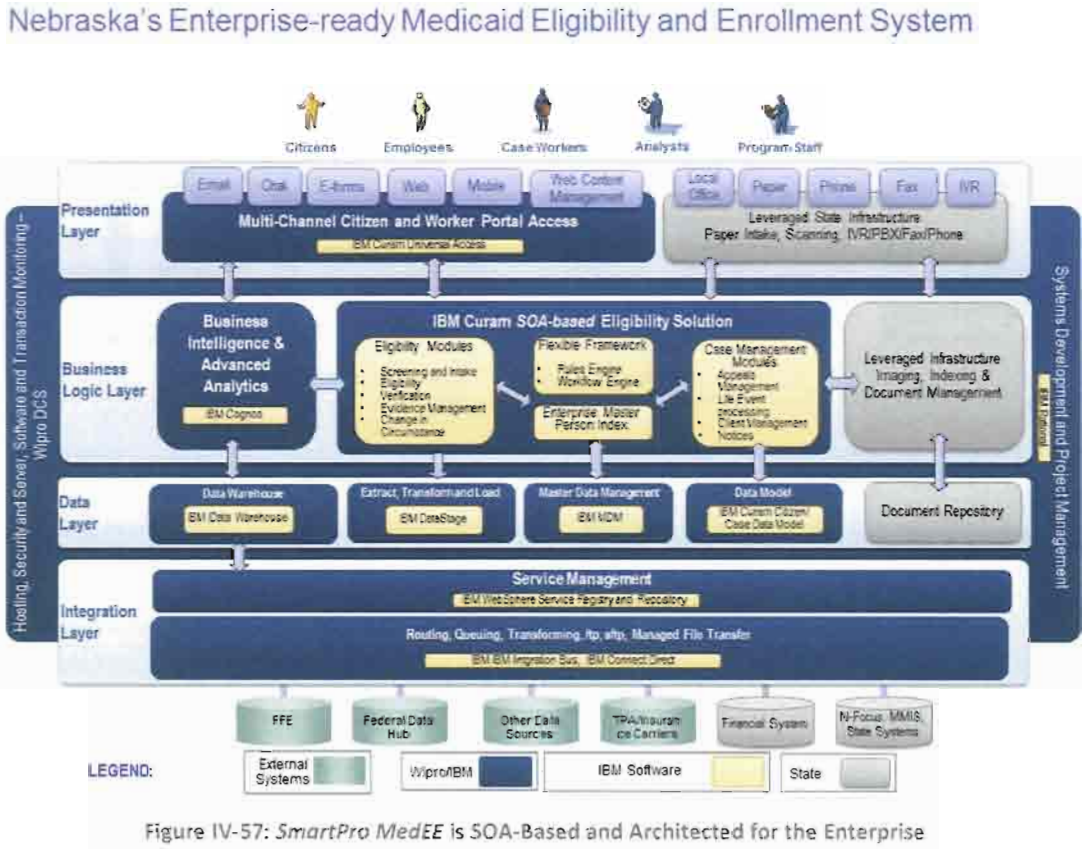


Figure IV-57: *SmartPro MedEE* is SOA-Based and Architected for the Enterprise

We are excited to bring our ***SmartPro MedEE*** solution to the MLTC. Our solution is based on proven technology and years of research and takes advantage of enabling architecture at every level to decrease maintenance costs, improve flexibility and expand meet other business needs within the Department.

The ***SmartPro MedEE*** solution is based on highly available fault tolerant redundant open systems appliance – IBM PureApp. There will be one appliance in each data center – Primary and Disaster Recovery.

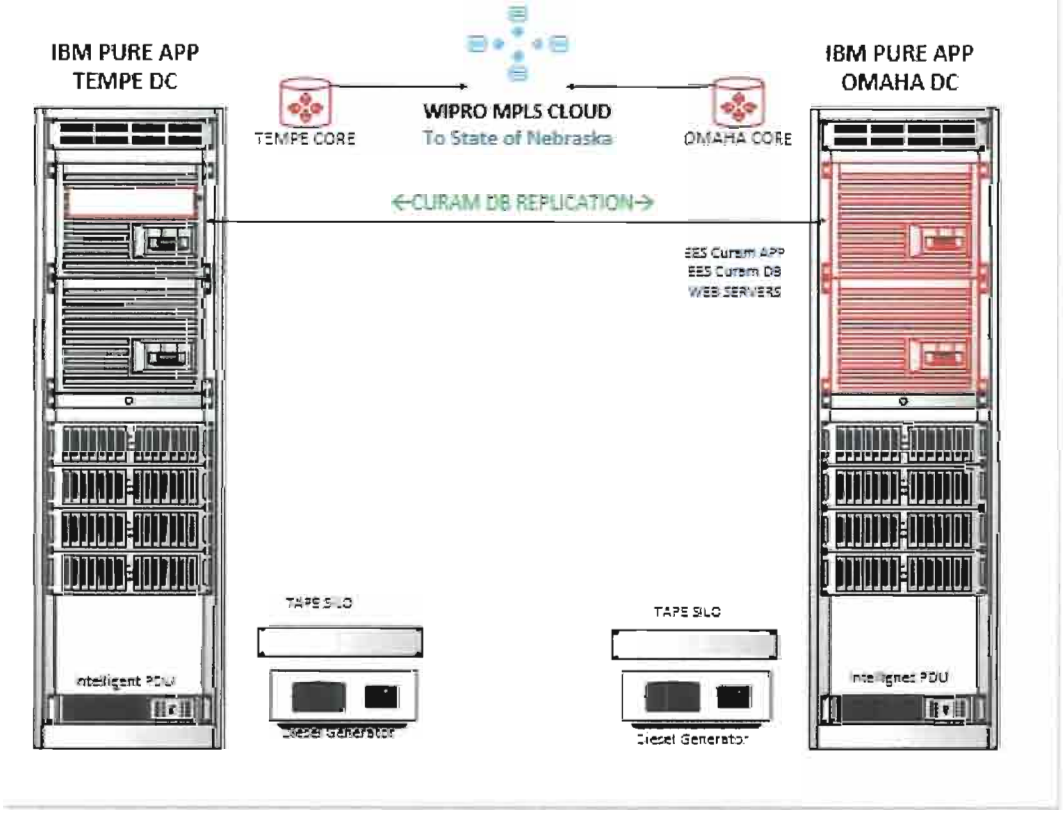


Figure IV-58: Nebraska's Eligibility Solution – Cloud-Like, Flexible, Highly Available

In the narrative below we provide additional detail regarding our enterprise-ready and SOA-based solution.

i. Describe the approach to meeting the Enterprise Service Bus (ESB) requirements as well as the messaging approach for server-to-server and client-to-server communications, if applicable. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) SOA Architecture;

b) Integration Mechanism;

c) Routing and Orchestration Mechanism;

d) Synchronous and Asynchronous Communication;

e) Reliability of Message Delivery;

f) Support for Industry Standard Messaging and Interfaces; and

g) Administration and Security.

Using the IBM Integration Bus, the ***SmartPro MedEE*** solution will provide Nebraska with an Enterprise Service Bus that supports advanced policy-based workload management, business rules, and integration with IBMs Process Server. As a best-in-class Enterprise Service Bus, IBM Integration Server supports all of the features described in the requirement above.

As MLTC works towards rationalizing their IT architecture, the IBM Integration Bus will allow systems that were previously "wired together" to be loosely coupled. This allows MLTC to adopt a component-based approach to software procurement. Instead of building and maintaining monolithic applications, a modularized architectural approach allows the department to make use of purpose built COTS products that integrate seamlessly with the rest of the enterprise using the IBM Integration Bus.

Wipro has implemented ESB architecture in our Missouri Medicaid implementation. This architecture is allowing us to more quickly and easily upgrade systems, due to the buffering that a Service Bus affords, as portrayed in the diagram below.

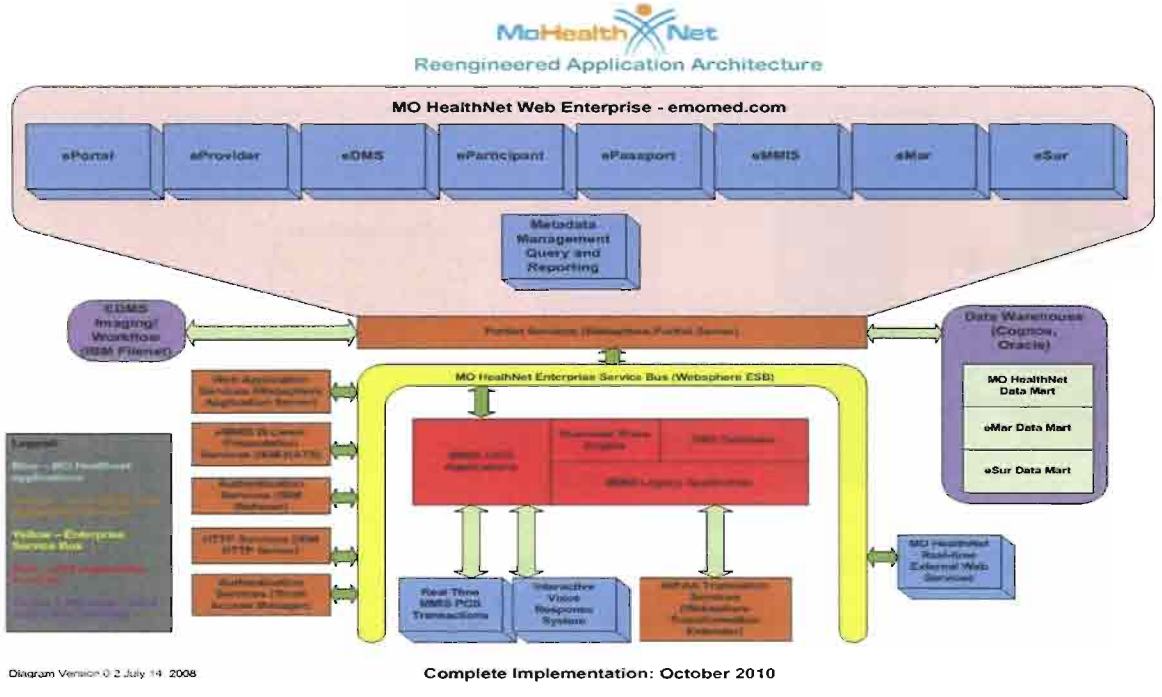


Figure IV-59: Wipro's Missouri Medicaid Operation Utilizes an IBM Enterprise Service Bus

ii. Describe the approach to Data Integration and supporting technologies for Data Extraction, Transformation and Load into appropriate target systems.

The State of Nebraska's requirement for Enterprise Data Management is to have a mixture of OLTP, Operational Data Store (ODS), Data Warehouse, and Data Mart technologies that support transaction processing systems, information integration and reporting, enterprise analysis and decision support, and functional analysis.

The design approach for the EES must take into account the following four major types of shared data:

a) Online Transaction Processing (OLTP) databases must be the read-write stores of the Department's transactional services and systems, and must be the primary point of data creation within the Department;

b) Operational Data Store (ODS) databases should be used to support operational and tactical data consolidation and data access needs of the Department. The data contained in an ODS must originate in one or more OLTP databases;

c) Data Warehouse databases should primarily support managerial and strategic decision making for the Department. A data warehouse may contain summarized data rather than detailed data as in an ODS; and

d) Data Mart databases should support departmental decision making for the Department. The scope of information stored within a data mart should be generally much smaller than within a data warehouse, and is limited to the needs of its audience.

To support MLTC's ETL requirements, the ***SmartPro MedEE*** solution includes another industry-leading suite of ETL tools from IBM's InfoSphere brand. InfoSphere DataStage extracts data from the Cúram and other peripheral applications to populate the ***SmartPro MedEE*** data warehouse. IBM InfoSphere DataStage® Extracts, Transforms and Loads the data contained in the ***SmartPro MedEE*** eligibility and enrollment application to the ***SmartPro MedEE*** data warehouse. The Wipro/IBM team will model the data mart in such a manner that most complex transformations, summary tables etc. are created at the data mart level itself. Data marts will be scalable to allow data from other sources to be integrated to meet additional reporting requirements.

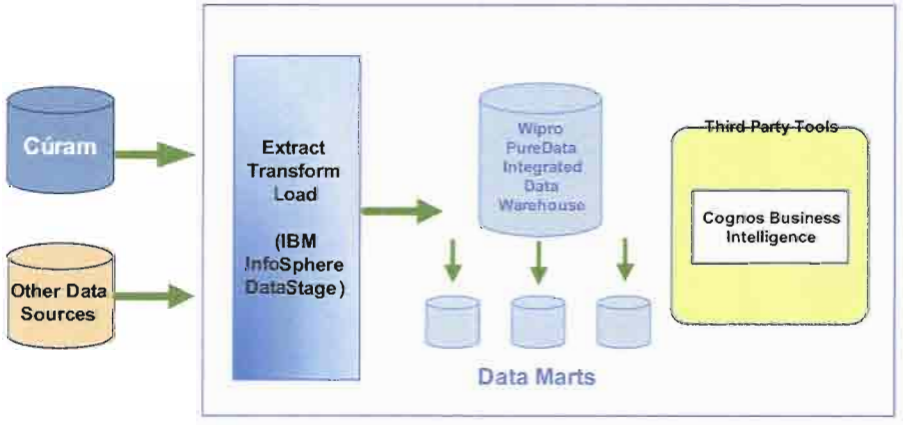


Figure IV-60: Reporting Architecture (High Level)

iii. Describe the approach to implementing the MDM technologies to build a Master Client Index/Enterprise Master Person Index to meet the Department's requirements in each phase of the implementation;

As described in our response to "Understanding Project Requirements" above, Wipro/IBM considers Master Data Management (MDM) as a foundational architecture component that allows the department to see across silos to better serve their plan participants. Currently, participant services are offered without respect to whether or not they may be receiving care from another state, federal or private organization. This means that services are duplicated, resulting in higher costs, and potentially outcomes that are suboptimal.

With understanding the importance of single version of Masters (Person, Provider), overarching Data Governance, and underlying Data quality needs for Nebraska's EES, Wipro/IBM proposes IBM InfoSphere (Initiate) as MDM solution.

Our approach to building the Master Client Index/Enterprise Master Person Index is to fold the discovery and requirements gathering process into the ***SmartPro MedEE*** SDLC processes to understand specific MDM requirements and then build an MDM solution that provides the most value to the Department. Initially, we envision that the scope of the MDM project will be contained a few programs, and will grow over time, as the Department and the Wipro/IBM team gain consensus regarding how to prioritize MDM integration activities across the enterprise.

iv. Describe the Security Architecture and Management approach supporting the EES;

As mentioned previously, Wipro maintains a dedicated information security team for Wipro's Government Healthcare business unit, led by a certified Information System Security officer. Using the baseline security policies and procedures as a starting point, the healthcare security organization works with the ***SmartPro MedEE*** team to extend and customize these requirements to meet the specific needs and requirements of the MLTC in support of their participants, state staff and other stakeholders.

The resulting System Security Plan is baseline and placed under configuration management. As components change within the ***SmartPro MedEE*** solution, the System Security Plan is updated to reflect these changes. For example, if mobile applications are introduced for field staff, then the Security Plan is updated to reflect the new security risks related to the use of these devices.

Our approach to Security Architecture is layer-based, as we address security at the physical, data center/raised for level, network level, server, operating system and application level.

From a user-identification perspective, Wipro/IBM ***SmartPro MedEE*** provides for positive user identification through two paths, one for internal users and the other for external. For internal users, ***SmartPro MedEE*** will utilize the State's Microsoft Active Directory implementation as the source of truth for User Authentication. External Users (citizens) are managed by Cúram's internal user directory, based on positive identification. Once authorized, Cúram maintains the mapping of users to roles, the basis of ***SmartPro MedEE*** solution's RBAC security design.

v. Describe the approach to the Business Intelligence (BI) platform that should deliver a balanced set of capabilities across three areas: information delivery, analysis, and development and integration with certain fundamental capabilities that need to be provided as part of the shared analytics and a user-driven BI strategy;

vi. Describe the Reporting approach for both canned and ad-hoc reports and the ability of the proposed solution to provide Dashboarding capabilities. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) BI Infrastructure;

b) Scalable Data Architecture; and

c) Data Integration Tools.

The IBM/Wipro team uses the Cognos and InfoSphere suite of tools to provide easy-to-use reporting capabilities to MLTC. The Cognos tool set includes Cognos Query Studio, Cognos Event Studio, Cognos Analysis Studio and Cognos Metrics Manager, The InfoSphere solution set includes DataStage which is used to Extract, Transform, and Load all of the data required for reporting and

analysis. These tools work together seamlessly are accompanied by support from the Wipro/IBM account team to train users to leverage these tools as much as possible.

The BI environment supports report delivery in multiple access channels including web, email, and standard office tools (PDF, Excel, etc.). Cognos also includes functionality to provide automated delivery of reports.

If the state so chooses, the BI environment can integrate with the state's advanced analytic engines, like SPSS and SAS.

A semantic layer is created using Framework Manager as a part of ***SmartPro MedEE*** development project. The availability of a semantic layer allows end users to create queries and reports without having to have a highly detailed understanding at the data model data element level. The same semantic model can be published in the BI portal for the power users and can also be leveraged to create ad hoc reports.

The framework model is designed with the understanding that the data source source of data is the data mart. Multiple Framework manager models /packages are built to support the State's business areas including:

- Program Reporting
- Member/Participant Reporting
- Utilization and Program Integrity Reporting
- Management Reporting

The ***SmartPro MedEE*** solutions BI environment is portrayed in the diagram below.

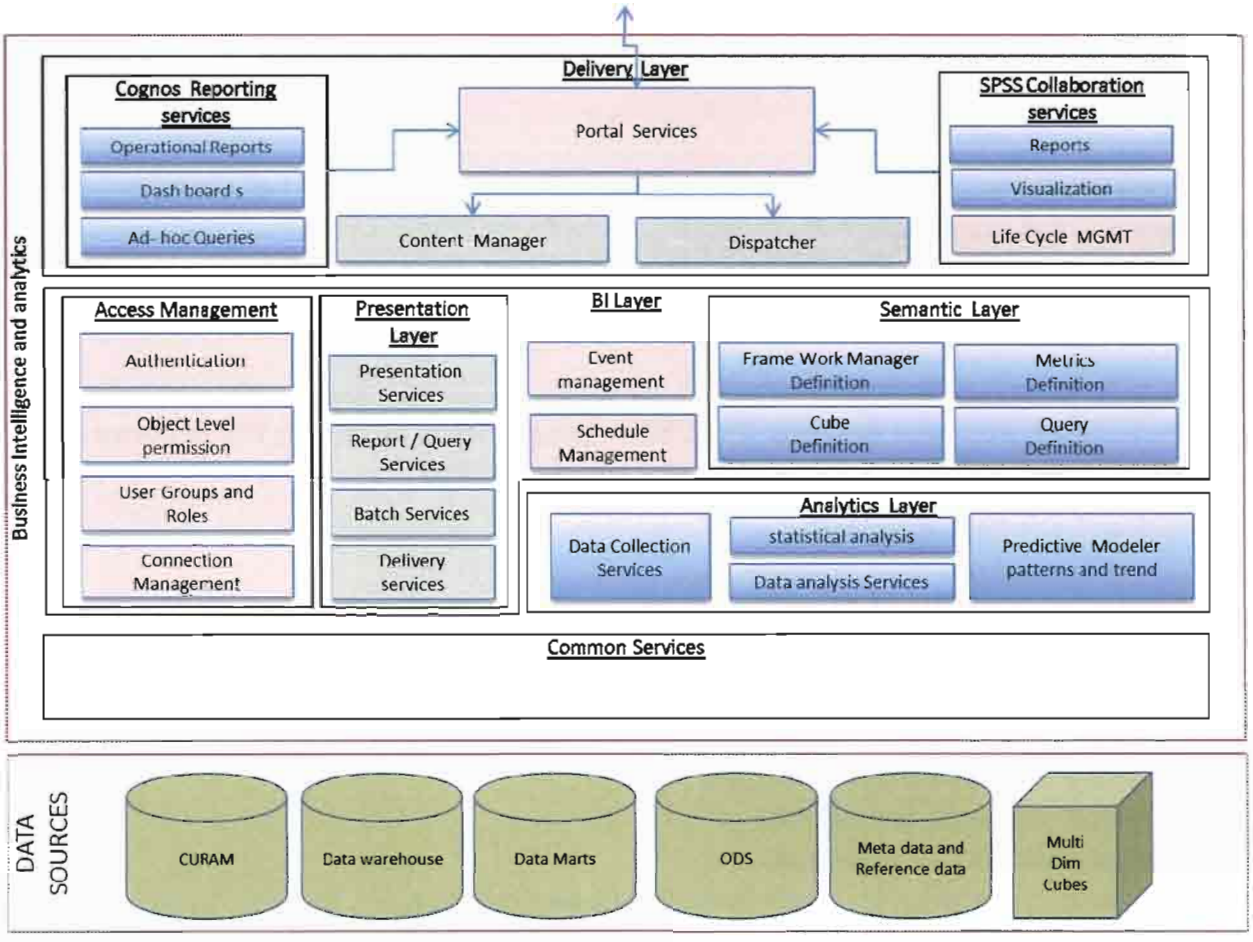


Figure IV-61: Information Delivery Architecture (Detailed)

vii. Describe the Business Rules Engine technology that will enable and support the EES for both Integrated Eligibility as well as support of other programs;

viii. Describe the approach the following topics that must be taken into consideration while providing the details:

a) Rules Engine Architecture;

b) Validation, Calculation, Decision and Generation Rules;

c) Performance Tuning and Debugging; and

d) Rule Storage and Versioning.

The IBM Cúram Rules Engine includes the IBM Cúram Express Rules (CER) environment for rules editing and execution. CER provides a highly versatile and adaptable rules environment that supports the definition, creation, testing, and execution of rules in support of a range of business functions both within and outside of the ***SmartPro MedEE*** system, such as screening, workflow, work allocation and of particular importance for MTLC, support for determining eligibility. CER also supports entitlement (payment) calculation as required for Financial Assistance programs.

CER consists of the following key components and functions:

- CER Rules Language

- CER Engine
- CER Editor
- CER Rules Search
- CER Rule Doc
- CER Decision Summaries
- CER Test Infrastructure
- CER Medical Eligibility Vocabulary

CER Rules Language

CER is an XML based rules language that enables the creation of domain specific rules vocabularies in support of a range of business functions. The CER language consists of building blocks known as expressions. CER Expressions are organized into the following groups:

- Boolean Logic (true, false, not)
- Value Comparison (equals, compare, sort)
- Constants (true, false, null, String, etc.)
- Conditional Logic (choose)
- List Aggregations (all, any, sum, min, max, concat, etc.)
- List Transformations (dynamiclist, fixedlist, filter, sort, etc.)
- Numerical Calculations (sum, max, min, etc.)
- References (reference, current, this)
- Timelines (Interval, Timeline, Era)
- Household Composition (currentunitmember, financialunitcategory, householdcomposition, mandatorymembers, mealgroupmembers, relatives, etc.)

CER Rules Expressions operate on "Attributes." An attribute has a type (e.g. Money, Number, Boolean) and a derivation. The derivation is a combination of Rules Expressions that calculate a value for the attribute. The derivation can be based on data from the database, data from remote systems accessed via web services, or other attributes that are further calculated using CER Rules Expressions. An attribute is equivalent to a 'word' or a 'term'. Multiple 'words' or 'terms' for a specific business domain make up a vocabulary.

CER Rules Engine

The CER engine is a Java based rules engine that executes CER rules on demand at runtime. When run, the rules engine first loads a date relevant version of a specified rule set. It will then start a CER session, so as to isolate multiple simultaneous executions from each other. Finally, it will attempt to evaluate the requested attribute, triggering that attribute's derivation, which will further trigger lower level attribute derivations and so on.

In line with MITA guidelines, the CER rules engine can and will be made available through SOA-based web services to enable wider adoption within DPA.

CER Editor

Given that the goal of CER is to support business rules users in creating and maintaining rules, a business focused façade must be provided that abstracts away complexity and presents an intuitive user experience.

The CER Editor provides an online graphical user interface for dynamically creating and maintaining CER rules. It enables a business rules user to draw a set of rules diagrams, and to enable/disable existing rules, without programmer intervention, using an intuitive drag and drop approach. A rules diagram represents the derivation of an attribute and so a rules diagram is a graphical representation of CER Rules Expressions.

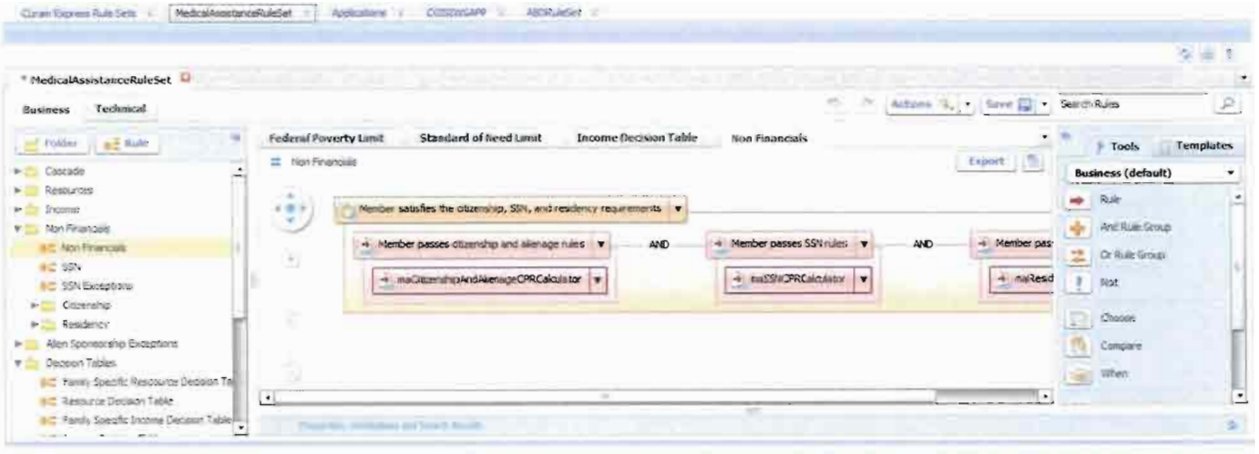


Figure IV-62: The CER Editor, with Rules Diagram

An alternative representation of a rules diagram is presented in Figure IV-63: A Decision Table is presented to the user when an attribute derivation is best represented as a lookup table.

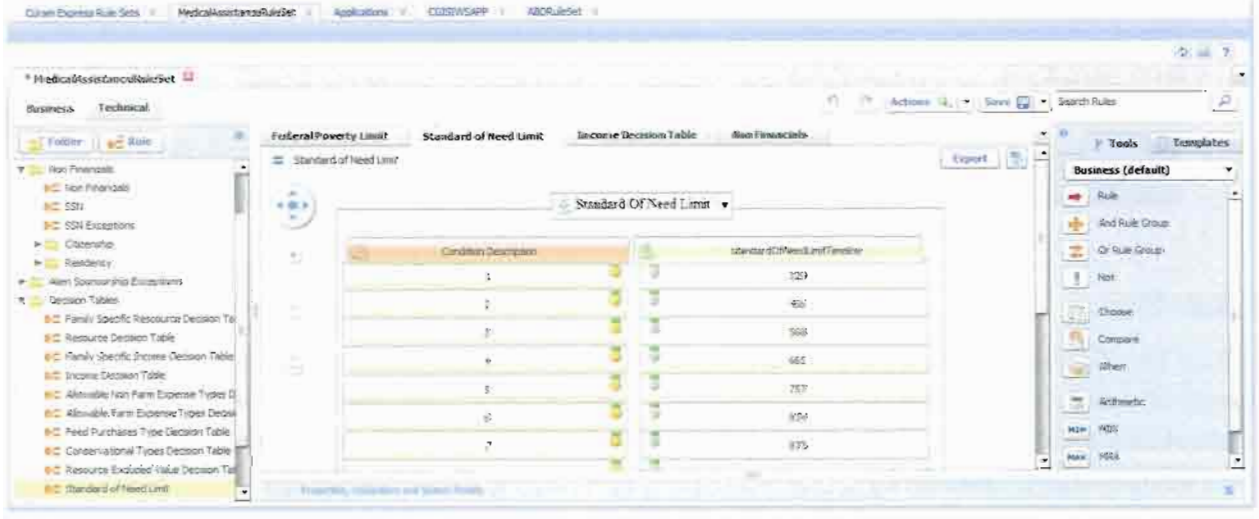


Figure IV-63: The CER Editor, With Decision Table.

The CER Editor enables a user to create a new rules diagram, modify an existing diagram, validate a rules diagram, save rules to the database, export rules to an external XML file, and import rules from an XML file. Rules export and import supports a more technical rules developer in creating

and maintaining rules directly as XML. The CER Editor also provides a comprehensive Rules Search function.

CER Rules Search

The CER Rules Search function enables the user to search for text in a rule set. Depending on the filters selected, the search function will look for the input search criteria within rules, within references to rules from other rules diagrams, within all descriptions, within folder names, and within any technical and code table data.

If the user clicks on a link under the 'Item' column, the search window closes and the relevant rules diagram is displayed in a new tab in the editor.

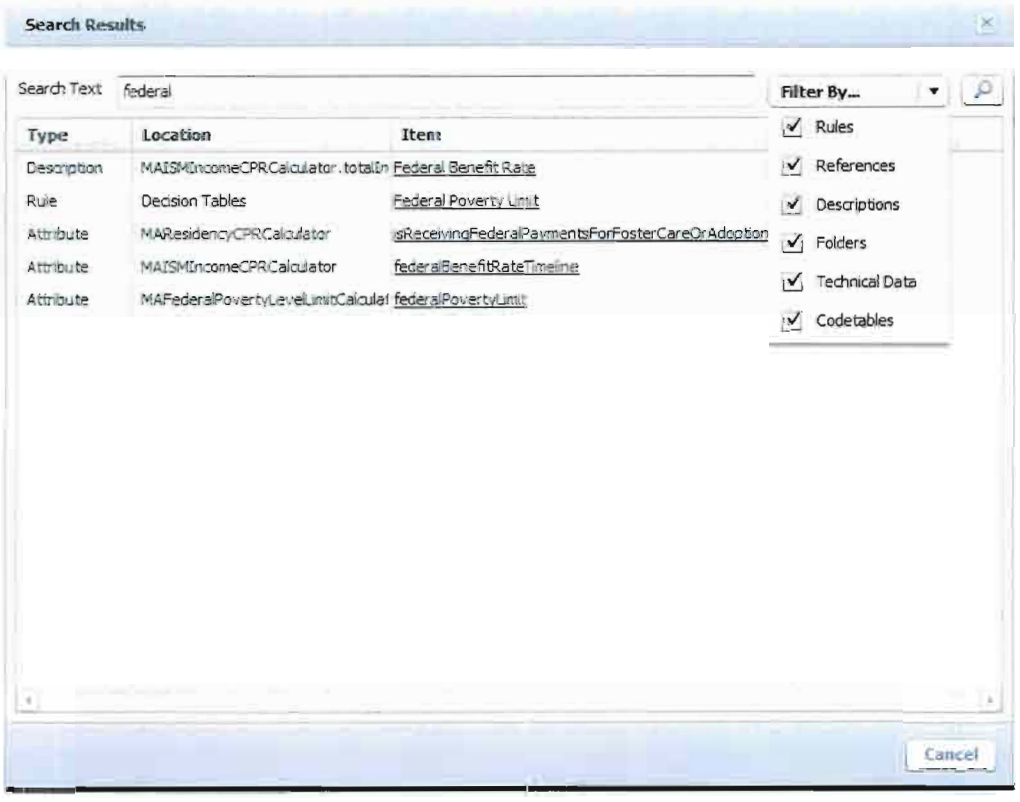
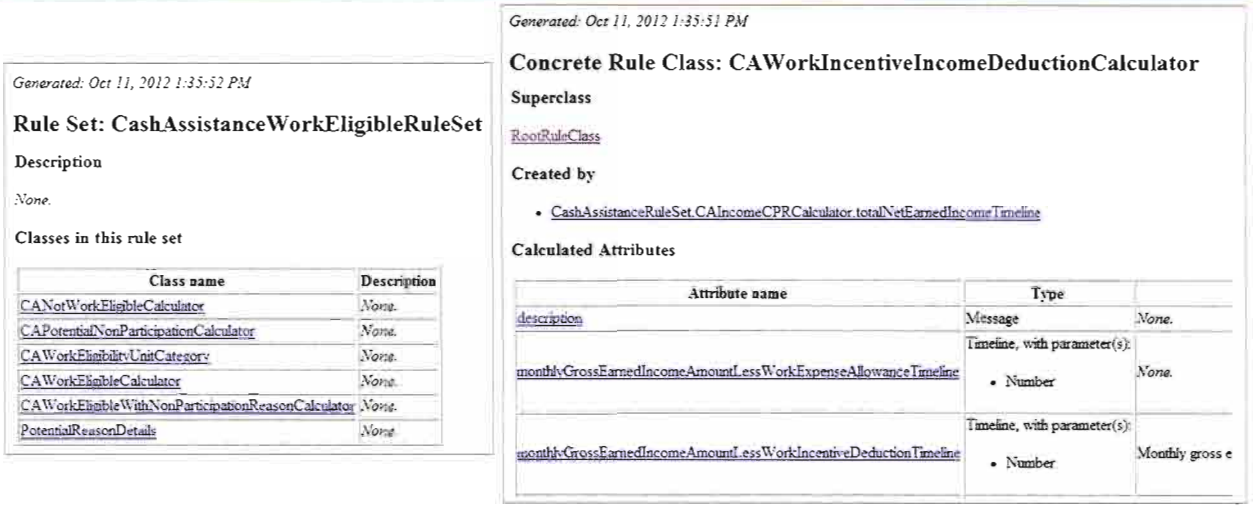


Figure IV-64: The CER Rules Search Function

CER Rule Doc

CER Rule Doc (akin to JavaDoc) is a HTML representation of a CER-based vocabulary. It is a dictionary of words (i.e. attributes) in the vocabulary. Inter-linked HTML pages enable the user to understand how an attribute is derived from other attributes and view dependency relationships between all attributes (Figure D-7.)



Generated: Oct 11, 2012 1:35:52 PM

Rule Set: CashAssistanceWorkEligibleRuleSet

Description

None.

Classes in this rule set

Class name	Description
CANotWorkEligibleCalculator	*None.*
CAPotentialNonParticipationCalculator	*None.*
CAWorkEligibilityUnitCategory	*None.*
CAWorkEligibleCalculator	*None.*
CAWorkEligibleWithNonParticipationReasonCalculator	*None.*
PotentialReasonDetails	*None*

Generated: Oct 11, 2012 1:35:51 PM

Concrete Rule Class: CAWorkIncentiveIncomeDeductionCalculator

Superclass

RootRuleClass

Created by

- CashAssistanceRuleSet.CAIncomeCPRCalculator.totalNetEarnedIncomeTimeline

Calculated Attributes

Attribute name	Type	
description	Message	*None.*
monthlyGrossEarnedIncomeAmountLessWorkExpenseAllowanceTimeline	Timeline, with parameter(s): • Number	*None.*
monthlyGrossEarnedIncomeAmountLessWorkIncentiveDeductionTimeline	Timeline, with parameter(s): • Number	Monthly gross e

Figure IV-65: CER Rule Doc

CER Decision Summaries

A Decision Summary is a configurable explanation of a rule set execution. It presents coherent high level and intermediate calculations, down to a level that is determined useful to a business user or client, to explain an eligibility determination.

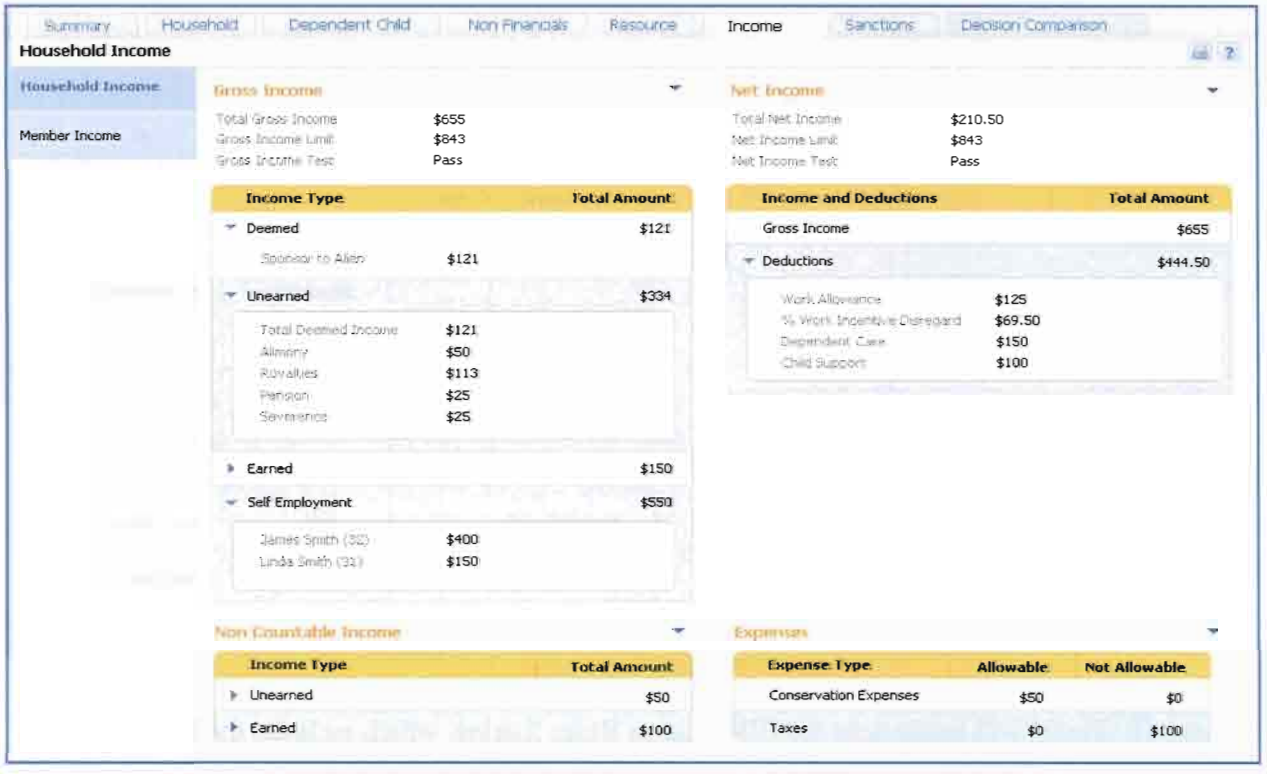


Figure IV-66: CER Decision Summary

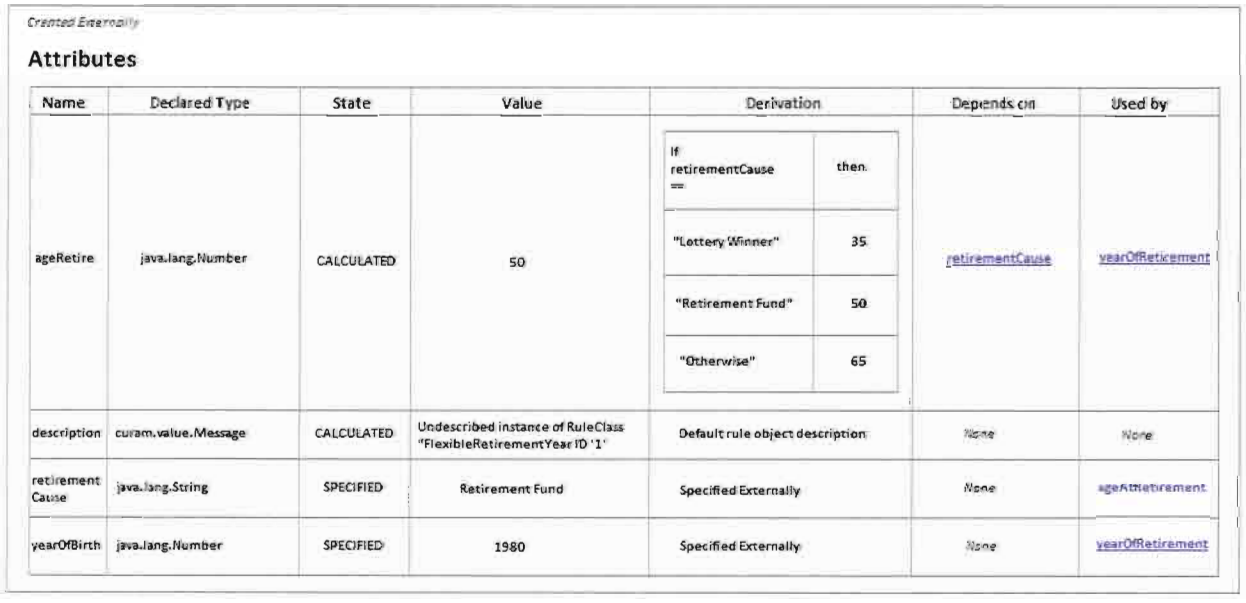
CER Test Infrastructure

Rules testing is fundamental to the success of rules creation and maintenance. The CER Test Infrastructure provides support for unit testing (individual unit tests and batch unit tests), regression testing, and test coverage. End-to-end rules testing is also supported through these basic test types.

Unit testing is a method by which individual units of logic are tested to determine if they are fit for use. A unit is the smallest testable part of a rule set. A key part of unit testing is being able to test an individual unit of logic in isolation of other units of logic. Because CER Rules are a collection of derivations, where each rule is derived either from data or from other rules, it is necessary to have a mechanism for providing test data to pre-populate dependent data.

This ability to allow tests to 'specify' values, which would normally be calculated, becomes increasingly useful as rule sets grow to implement additional functionality. It is much easier to test many possible results for a particular rule calculation if you only have to worry about its direct inputs. CER provides such a mechanism, thus ensuring unit tests can be set up that are focused on testing a known and limited set of rules. Multiple, lower level, individually proven unit tests can be set up as a higher level "unit" for testing. This practice enables unit tests to cover a wider scope.

Whenever M2E CMC executes a unit test the CER Test Infrastructure will output HTML documentation to verify the execution. When used in conjunction with the tests, this documentation output is a powerful debugging aid.



Created Externally

Attributes

Name	Declared Type	State	Value	Derivation	Depends on	Used by
ageRetire	java.lang.Number	CALCULATED	50	If retirementCause == / then. "Lottery Winner" / 35 "Retirement Fund" / 50 "Otherwise" / 65	retirementCause	yearOfRetirement
description	curam.value.Message	CALCULATED	Undescribed instance of RuleClass "FlexibleRetirementYear ID '1'	Default rule object description	None	None
retirement Cause	java.lang.String	SPECIFIED	Retirement Fund	Specified Externally	None	ageAtRetirement
yearOfBirth	java.lang.Number	SPECIFIED	1980	Specified Externally	None	yearOfRetirement

Figure IV-67: Rules Trace Output

The Wipro/IBM team will implement the IBM Cúram Rules Engine, which includes the IBM Cúram Express Rules (CER) environment for rules editing and execution. CER consists of the following key components and functions:

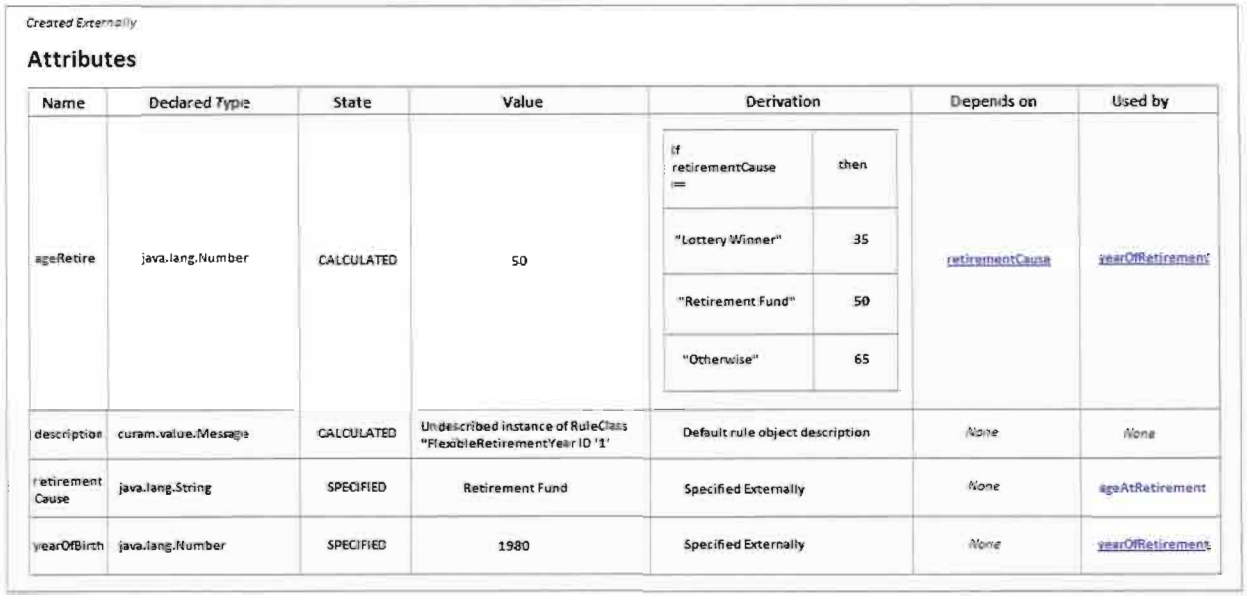
- CER Rules Language
- CER Engine

- CER Editor
- CER Rules Search
- CER Rule Doc
- CER Decision Summaries
- CER Test Infrastructure
- CER Medical Eligibility Vocabulary

CER provides a highly versatile and adaptable rules environment that supports the definition, creation, testing, and execution of rules in support of a range of business functions both within and outside of the ***SmartPro MedEE*** system.

Unit testing is a method by which individual units of logic are tested to determine if they are fit for use. A unit is the smallest testable part of a rule set. A key part of unit testing is being able to test an individual unit of logic in isolation of other units of logic. Because CER Rules are a collection of derivations, where each rule is either derived from data or from other rules, it is necessary to have a mechanism for providing test data to pre-populate dependent data.

Whenever a unit test is executed the CER Test Infrastructure will output HTML documentation to verify the execution. When used in conjunction with the tests, this documentation output is a powerful debugging aid.



Created Externally

Attributes

Name	Declared Type	State	Value	Derivation	Depends on	Used by
ageRetire	java.lang.Number	CALCULATED	50	if retirementCause == then "Lottery Winner" 35 "Retirement Fund" 50 "Otherwise" 65	retirementCause	yearOfRetirement
description	curam.value.Message	CALCULATED	Undescribed instance of RuleClass "FlexibleRetirementYear ID '1'	Default rule object description	None	None
retirement Cause	java.lang.String	SPECIFIED	Retirement Fund	Specified Externally	None	ageAtRetirement
yearOfBirth	java.lang.Number	SPECIFIED	1980	Specified Externally	None	yearOfRetirement

Figure IV-68: Rules Trace Output

The CER Test Infrastructure also accommodates batch unit tests. This is the capability that the ***SmartPro MedEE*** solution will use to conduct regression testing. Regression testing's purpose is to uncover why and where problems occur whenever logic, which previously worked as desired, stops working or no longer produces the same (correct) result or output.

Test coverage tracks the percentage of rules logic that is covered by unit testing. This color-coded report highlights the completeness of implemented unit tests.

Coverage Report

Generated: 23-Mar-2011 16:33:07

Rule Class Name	Rule Attribute Name	Rule Expressions	Fully Covered		Partially Covered		Not Covered	
Rule Set Summary		623	231	37.08%	1	0.16%	391	62.76%
AgeRangeCalculator		47	45	95.74%	0	0.00%	2	4.26%
	description	2	0	0.00%	0	0.00%	2	100.00%
	homeHelpAgeTimeline	5	5	100.00%	0	0.00%	0	0.00%
	isAliveTimeline	10	10	100.00%	0	0.00%	0	0.00%
	isHomeHelpAgeTimeline	8	8	100.00%	0	0.00%	0	0.00%
	isInAgeRangeTimeline	10	10	100.00%	0	0.00%	0	0.00%
	maximumAge	1	1	100.00%	0	0.00%	0	0.00%
	maximumAgeTimeline	5	5	100.00%	0	0.00%	0	0.00%
	minimumAge	1	1	100.00%	0	0.00%	0	0.00%
	minimumAgeTimeline	5	5	100.00%	0	0.00%	0	0.00%
	personCalculator	0	0		0		0	
CREOLEBonus		0	0		0		0	
	amount	0	0		0		0	
	evidenceID	0	0		0		0	
	type	0	0		0		0	
CREOLEBonusCalculator		5	3	60.00%	0	0.00%	2	40.00%

Figure IV-69: Test Coverage Report

ix. Describe the approach to using the Portal technologies to enable access for the variety of internal and external end users of the proposed solution. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Multiple Channel Support;

b) Search Capabilities;

c) Accessibility considerations;

d) Personalization; and

e) Usability best practices and federal guidance.

SmartPro MedEE is comprised of three primary application components: IBM Cúram for Eligibility and Enrollment; Cognos for Business Intelligence; and LifeRay for general Portal functionality. LifeRay is a feature-rich portal that supports multi-channel support, search capabilities, accessibility, and personalization. Usability best practices and federal guidance are also considered within the LifeRay portal.

To support multi-channel support, LifeRay integrates with the Wireless Universal Resource File. This integration allows the portal to sense what type of device (Desktop, Mobile Device, Tablet, etc.) is being served web content and then renders web content that is tailored specifically to that device. In addition to LifeRay's native multi-channel support, as a Value Add in our proposal, IBM/Wipro is offering to provide mobile application support from Diona. Díona applies "mobile-first" principles to provide anytime/anywhere access to social services information and eligibility by providing a new system of engagement (SOE) that integrates with existing systems of records (SOR). As a health and human services specific mobile solution, Díona GEM employs an innovative, vertical specific, mobile user experience (UX) paradigm that enhances usability and meets citizen and agency

employee expectations of modern engagement with government. Díona GEM is designed to leverage mobile technology elements such as wireless access, GPS navigation, on-device camera, and scanners, bringing productivity gains for agency staff and enabling more self-service options for citizens and service providers.

Search functionality within LifeRay can be accomplished using multiple search engines. Apache Solr is an open source search engine that is easily integrated with LifeRay to provide feature-rich search capabilities. LifeRay can also be integrated with a Google Search Appliance and other common search engines.

LifeRay also supports personalization based on group and other attributes. Calendars, events and other portal widgets can be personalized and designed to display different information based on the role of the user.

x. Describe the Application Server technology and approach supporting the EES. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Enterprise Ready and Scalable;

b) Clustering;

c) Store-and-Forward;

d) Administration; and

e) Security.

The ***SmartPro MedEE*** applications' web applications execute on IBM's WebSphere Application Server. WAS is an industry-leading application server that is proven in the enterprise, scalable, and fault tolerant using clustering. WAS also supports Store and Forward technology using WebSphere Integration Developer. This capability enables an application, granular administration capabilities, and security that support the ability for the ***SmartPro MedEE*** solution to meet HIPAA and PCI (if needed) Security requirements.

WAS supports hardening against Network-based attacks, Machine-based attacks, and application-based attacks, both internal and external.

xi. Describe the approach to database management, metadata management, load balancing and/or clustering for extended scalability and performance, performance in transaction processing and report processing, Security and Audit;

Data backup, retention, and disaster recovery are integral to any enterprise level solution. Wipro/IBM employs an extremely rigid and verifiable process of daily, weekly, and monthly data/environment backups. State of the art LTO5/6 tape libraries are used to backup many hundreds of Terabytes in our data centers. For the EES system, the solution utilizes both data replication between data centers and local tape backups of specific systems, each night. Retention of daily tapes will be held onsite at the local data center for the first 7 calendar days after use. They are then taken to an offsite retention facility and stored for the remainder of the duration that is required to adhere to Federal, State, local or customer requested data retention policies/guidelines. The offsite tapes can be recalled 24/7/365, in the event the required data to be restored cannot be obtained on tapes stored at the data center.

The EES Production database, restore point logs as well the AIX OS server environment settings will be replicated and/or synchronized and verified many times a day via the hardware appliances utilized in our solution. Additionally, the local tape silos will accommodate complete system backups of each of the systems in each of the respective data centers.

Since all of the required storage for this solution will be included in the compute appliance, there will be no external connectivity to SAN frames (although available) or other devices, allowing extremely fast and efficient local disk access. Furthermore, the intelligence build in to the IBM PURE APP systems allows each of the server compute instances to be self aware and repositories of the various Production Web, App, DB, etc. systems will synchronize to the appliance in the DR center, providing the ability to gain sub 60 minute disaster recovery in the alternate data center site.

The entire network routing between data centers is accomplished via IP layer-three network communication, which by default requires DNS routing. During the build of the EES system all servers, interfaces, and system routable components will be coded with DNS names, and not specific IP addresses, that can easily be understood via the multiple DNS servers that reside in our network. This will obviously be verified during systems implementation, and verified during the first annual disaster recovery drill, post 'go-live'. As part of the DR test and the developed enterprise support run book, adjustments will be constantly made to the processes and policies to ensure full adherence and specific outcomes in the support and management of the EES solution.

Metadata Management

A semantic layer is created using Framework Manager as a part of ***SmartPro MedEE*** development project. The availability of a semantic layer allows end users to create queries and reports without having to have a highly detailed understanding at the data model data element level. The same semantic model can be published in the BI portal for the power users and can also be leveraged to create ad hoc reports.

Clustering, Load Balancing and Database Recovery

When running in normal, Non-Disaster Recovery mode, the Production Environment running in the Primary Center ships its database log files to the Production DRR Shadow environment running in the Secondary Center. The Shadow Environment applies these log updates in near real-time to its copy of the production database, which provides a nearly synchronized database resident in the Secondary Center at all times. If it becomes necessary to invoke Disaster Recovery due to a loss of the Primary Center, the Shadow Environment is shut down, and the dormant Disaster Recovery environment is instantiated, pointing at the shadow database. The Production Environment uses clustering and load balancing, while the non-production environments do not.

xii. Describe the design approach for the EES shall address three major sets of shared data:

a) Real-time Integrated/Centralized Database – Data regarding an applicant's status, participant's profile, benefits records/account, and financial records must be stored in a centralized operational database for real-time access and subsequent follow-up and reporting;

b) Data Warehouse and Data Marts – Data extracted from the Real-Time operational databases and other external sources must be integrated, aggregated and optimized into physical data warehouses and marts a timely fashion to support reporting and business intelligence needs; and

c) Document Repository – The EES must have the capability to connect to the State of Nebraska's Enterprise Content Management System to centrally manage all documents throughout their lifecycle and share documents between various stakeholders.

The IBM Cúram application supports real-time database transaction processing with regard to applicant status, profile, benefits, and financial records. These records are stored in a centralized operational database.

The data warehouse and data marts are updated in off-line model. The operational data is extracted from the operational data store and then loaded into the data warehouse to provide for reporting and business intelligence needs.

The Wipro/IBM team will integrate the ***SmartPro MedEE*** with the state's Hyland enterprise Content Management System using CMIS compliant interface standards. This integration will allow all documents to be centrally managed throughout their lifecycle. This approach will also facilitate the sharing of documents between various stakeholders.

xiii. Describe the approach to designing and deploying the appropriate Service Oriented Governance infrastructure technologies supporting the EES. The EES and approach, at a minimum, must take the following technology sub-categories into consideration while providing the details:

a) SOA Policy Management;

b) Service Portfolio Management;

c) Compliance Engine;

d) Service Repository;

e) Service Registry;

f) SOA Monitoring; and

g) SOA Policy Enforcement.

IBM WSSR – SOA Policy and Service Portfolio Management and Compliance is enabled by the WebSphere Service Registry and Repository (WSRR), which provides clear visibility into distributed service associations and while enabling governance across platforms of the entire services lifecycle through true end-to-end repository federation to provide multi-data center implementation of the environment.

The Wipro/IBM team establishes best practice SOA and service compliance including Service Lifecycle definitions, procedures for steps in the service lifecycle, management (Service Level Agreement/Objective) metadata, service definition documents, and service dependency metadata.

xiv. Describe the Case Management and Business Process Management technologies and design approach supporting the EES. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Rules Engine;

b) Registry;

c) Process modeling support;

d) Workflow and task management; and

e) Administration.

The Case Management solution leverages the same framework upon which the core eligibility engine is built. The power of this rules and workflow framework is demonstrated in the answer to this question. There are no additional architecture tools to purchase in order implement a new business process. The rules and workflow tools remain the same as those used for core EES rules and workflow configuration. See previous answers in this section regarding rules and workflow engine processing for the ***SmartPro MedEE.***

xv. Describe the EES Monitoring and Logging capabilities. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Fault Monitoring;

b) Performance Monitoring;

c) Configuration Monitoring;

d) Network Monitoring;

e) Security Monitoring;

f) Management and Reporting; and

g) Root Cause Analysis.

DCS operates world-class global data centers and offer extensive expertise with every computing platform, including iSeries, Windows, UNIX and Linux servers, Mainframe, Cloud (iStructure), as well as networking, security and storage systems.

Wipro Data Center Services manages its customers' systems in world-class, purpose built data centers that are fully redundant, fault tolerant, highly secure, and include hardware, software, and data communications equipment. Our geographically dispersed data centers total more than 430,000 square feet. Our data centers listed below undergo SSAE16 audits, and are PCI certified. (Wipro Data Center Services manages six data centers within the continental United States and one in Meerbusch, Germany).

Secure Access Monitoring

Wipro manages the existing VPN appliances for IPSec VPN and SSL VPN clients. Wipro's Security Analysts will manage and monitor the VPN clients and access control. The critical activities include ongoing activity of management and monitoring of remote access by users, remote access servers/devices to provide ease of access for remote and distant users, address Remote Access authentication / authorization problems, Receive and solve Remote Access client application-related and Remote Access device related Service Requests, etc.

Firewalls and DMZ for External Access and Remote Access Monitoring

Without going into specific model and network configurations, Wipro has deployed and manages state of the art security and network segmentation for all types of enterprise environments/applications.

As part of the Security architecture design, Wipro creates 4 separate Data Security Zones. Each zone will be discrete and contain only applications with similar security restrictions.

Internet Access: This segment segregates the internet connection from rest of the State of Nebraska network.

External DMZ: This segment hosts the external facing servers such as Web servers, SMTP Gateways, VPNs, and other publicly available web servers.

Internal DMZ: This segment hosts the internal servers of the State of Nebraska including Anti-Virus, etc.

Internal Network: This network segment provides network connectivity to the State of Nebraska users to access corporate applications. It includes users in remote offices, local server segments as well as corporate users.

Logging of Activity/Alerts

Standard core router/Layer3 switch logs are generated via standard rules/policies. Issues deemed to fall outside of the rules/policy will send alerts to the monitoring servers and tools. Subsequent tickets and notifications will be sent to the support teams for research and resolution.

Intrusion Detection

Use of IDS sensors ensures that the security setup is not susceptible to a sustained attack by an outside presence or coordinated effort.

Separate VLANs: These would be created for segregating within the IT Infrastructure team from the servers that are deployed on-site. Appropriate access restrictions would be applied to ensure that only authorized Wipro/State users are allowed accessed. No 'citizen' connections will be connected via VPN, but rather will come across the Internet connections to the Cúram application.

Public Key/PrivateKey Encryption Secure Socket Layer (SSL) Certificates

Industry standard 256-bit encryption will be installed on all external facing VPN/non-internal interfaces and 128-bit certifications will be used on internal site and data structures. All connections will be secured via Cisco's "Secure VPN" application.

Monitoring Tools and Maintenance Routines

The Wipro data center uses the full complement of CA Unicenter management and monitoring tools. Wipro's strategic partnership with CA allows full utilization and supports the full suite of components. For network specific monitoring:

CA Nimsoft Monitor is built on a unified architecture that enables Wipro to monitor servers, networks, applications, databases, storage, private and public clouds as well as end user response time. This unified architecture allows for extremely efficient monitoring capabilities and is deployed across the Wipro data center environment.

Generate Administrative Alerts

Wipro uses the full complement of CA Unicenter management and monitoring tools. Wipro's strategic partnership with CA allows full utilization and supports the full suite of components. Since Wipro also utilizes the CA Service Desk module across our enterprise, threshold monitoring, alerts and automated ticketing is seamless and fully integrated.

CA Nimsoft Monitor is built on a unified architecture that enables Wipro to monitor servers, networks, applications, databases, storage, private and public clouds as well as end user response time. This unified architecture allows for extremely efficient monitoring capabilities and is deployed across the Wipro data center environment.

SLR Monitoring

As referenced above, the CA Unicenter suite will supply the monitoring of all systems, based upon the unique configurations, required by the State or any other groups of the EES support organization requires.

Application Performance Monitoring

SmartPro MedEE uses IBM's PureSystems Manager (PSM), coupled with ITCAM for Applications, to monitor attributes ranging from low level technical information such as CPU utilization, through subsystem and application health, and up to application response time metrics. Using SNMP, these tools forward salient information upstream to the Enterprise Data Center monitoring tool.

Root Cause Analysis

Wipro focuses on continuous service improvement (CSI) to correctly track the appropriate key performance indicators along with resolving issues effectively. Our internal service delivery process ensuring operations activities are optimized is

Wipro's Continuous Service Improvement Vision

Detailed post incident reports (PIR) are published for severity 1 problems to document root cause and correction actions taken to resolve the problems. The information gathered during a particular corrective process is used to assist the staff in resolution of future similar issues.

Wipro/IBM informs MLTC via primary, secondary, and/or tertiary contacts previously established by the State of Nebraska in the contact system. Specific callout procedures are established per MLTC requirements. Contacts are made when severity 1 or 2 network faults or performance issues arise.

xvi. Describe the approach to leveraging the State of Nebraska's Enterprise Content Management System technologies for Eligibility Determination process. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Store Electronic Forms;

b) Scan, Index and Store Imaged Documents;

c) Searching of Documents; and

d) Digital Rights Management Capabilities.

Wipro proposes to level the existing State infrastructure to store electronic forms, scan, index and store imaged documents, as well as search documents. Integration with the State's Hyland document repository will be accomplished using Content Management Interoperability Services (CMIS) protocol. For response time purposes, those documents and forms that are lined to an eligibility record may be stored in the ***SmartPro MedEE*** database. This design consideration will be determined

in conjunction with the Department. The Wipro/IBM team will discuss DRM requirements during the requirements analysis phase.

xvii. Describe the approach to Identity Management supporting the EES;

The Wipro/IBM team proposes to integrate with the State's Active Directory solution to support Identity Management. Single-Sign-on support will be facilitated using Redhat's JBOSS Single Sign-on software product.

xviii. Describe the Shared Analytics approach supporting the EES. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Shared Analytics Architecture and Design;

b) Integration and Data Quality;

c) Metadata and Data Quality;

d) Availability and Security;

e) Performance;

f) Connectivity;

g) Scalability;

h) Compliance;

i) Deployment;

j) Application Support; and

k) Administration and Backup-Archiving.

Our ***SmartPro MedEE*** "Cúram-in-a-virtual-box" solution promotes and facilitates shared analytics services. The IBM PureApp appliance is scalable, with additional storage and memory capacity, if needed. To provide connectivity, the Wipro/IBM team is requisitioning a dedicated circuit from the State data center to the Wipro data center in Omaha Nebraska.

xix. Describe the language environment(s), standards, relational databases, channels supported, hardware platforms supported, and other aspects of the technical direction for the EES; and

The ***SmartPro MedEE*** solution is a J2EE java-based solution, using the IBM DB2 relational database. The core IBM Cúram Eligibility engine is proposed to operate on a PureApp appliance running AIX. The software can also operate on Linux, if desired. Peripheral applications to the core of our solution, like WebSphere Application Server, IBM Integration Bus, LifeRay and other tools are going to be run in an AIX or Linux (LifeRay) environment.

The core IBM Cúram Eligibility engine, based on the flexible rules and workflow engines, is able to constantly evolve to meet new business needs. The IBM team is continuously adding new data models that support additional business domains – all using the same rules and workflow technical architecture.

xx. Describe the timetable for migration of the EES to new technologies, product sets, or standards.

With regard to standards, Wipro and IBM understand the importance of federal compliance and incorporates analysis of emerging standards with every release. As a result, our customers get the valued add of having an enterprise toolkit in Cúram and a domain specific product roadmap.

Cúram modules are built on top of a single data model. This single data model approach allows for integrated case management across social service programs, within the same application. While there is a single data model, it allows for incremental modernization while maintaining the integrity and independence of a single department like Nebraska's Medicaid and Long Term Care department. The architecture and decision to have a single data model within Cúram was a critical design feature. Without it, each one of the solution area such as eligibility, Medicaid, child welfare, cash assistance and food stamps would require a separate data model requiring heavily configured data architecture assets to support cross-application activity. To establish an integrated case would require several data integration tools to simply surface data at the presentation layer. Building out a reliable case takes time and understanding of the rules and workflows, which are not associated with the data model. The lack of integration would cause problems in ensuring data is normalized across modules for a public services organization.

In addition, Cúram continues to invest in data model extensions to augment our domain expertise. The Cúram product roadmap shows a focus on adding data models to expand the value of Cúram in the enterprise.

f. Software and Hardware Components

Describe the supported OS platforms and Server Configurations for the EES. Include minimum recommended specifications to support the proposed solution in all required environments (e.g., sandbox, configuration/development, testing, quality assurance, production, training, and disaster recovery);

Describe the client (desktop) architecture for the EES, including minimum recommended specifications (e.g., RAM, video RAM, disk space, processor speed) to support the EES, as well virtualized configurations to improve manageability and reduce operational costs;

Describe the proposed data storage software and hardware components;

Describe the tools and utilities used to design, build, test, deploy, report, monitor, and operate the EES and its components;

Describe the architecture of other devices such as printers, electronic signature pads, smart card reader/writer and attached disks, which are necessary or recommended for the EES, including minimum and recommended specifications to support the proposed solution; and

Describe the proposed solution approach to network topology and hardware required to achieve this architecture (e.g., load balancing utilizing hardware and software based load balancers ahead of the web servers, Virtual Private Networks (VPNs), creation of DMZs by firewalls).

SmartPro MedEE is implemented on two dedicated IBM PureApplication Server Appliances, identical in configuration. One server is housed in the Wipro Primary Data Center in Omaha, Nebraska; the other in a Secondary Data Center in Tempe, Arizona. Both boxes participate in a balanced mix of Production and Non-Production workloads, so there is no single piece of hardware that can be identified as "Production" versus "Non-Production/Development" versus "Disaster Recovery".

Either box alone is large enough to run a full capacity Production Environment, plus all other Environments with reduced capacity, at the same time. Both sites are provisioned to backup each other. When both sites are operational, each has spare physical capacity to allocate to growth and to

unexpected peaks. All "Environments" e.g. Production, System Test, Sandbox, Training, are fully virtualized.

Note that both servers must remain identical in configuration.

PureApplication Server is a totally integrated appliance, encompassing compute, memory, storage, and much of the fully integrated middleware, and monitoring (DB2, WebSphere, ITCAM) in a single chassis. The amount of internal "disk" storage quoted below is fixed, and inside the server's single cabinet – we do not reply upon any SAN storage. It is not expected that ***SmartPro MedEE*** will require additional storage beyond this configuration. If necessary, additional storage can be deployed using standard Data Center SAN technology.

PureApp Servers are fully redundant, without single points of failure. PureApp servers can be expanded while live, without loss of service. For example, new Compute Nodes of 32 CPU cores / 512GB RAM can be added without bringing down the server, and their resources made available and useful while the server is still hot.

For IBM server software that is priced based on computing capacity (PVU's), each server core allocated to this software is rated at 100 PVUs. Fractional allocations can be made i.e. one-half of a physical CPU Core would rate at 50 PVUs.

Table IV-14 lists the configuration of for one server: deployment of ***SmartPro MedEE*** requires two identical boxes for this configuration.

Table IV-14: Server and Operating System Configuration

Server	Details
IBM PureApplication Server 1700-64E	Operating System: AIX 7.1 64 Power7+ Processor Cores, in 2 Nodes of 32 Cores each 1 TB (Terabyte) of RAM – 1066 MHz, DDR3 16 x 400 GB Solid State Drives (6.4 TB total SSD) 80 x 600 GB 10k Disk Drives (48 TB total HDD) (All SSD/HDD can be configured into RAID arrays as required: total 48 TB usable) 42U Large Rack (expandable to 608 Cores / 9.5 TB RAM) Fully redundant power, fans, bus, network interfaces, management nodes

ii. Describe the client (desktop) architecture for the EES, including minimum recommended specifications (e.g., RAM, video RAM, disk space, processor speed) to support the EES, as well virtualized configurations to improve manageability and reduce operational costs;

SmartPro MedEE's components, both for internal and external users, are designed for browser based deployment: as such they have little dependency upon underlying hardware platforms. For internal user desktops, any supported Microsoft Operating System, executing on a 1Ghz+ processor with 512MB available application memory and configured with a compliant browser is minimally adequate.

While heavily virtualized on the server-side, ***SmartPro MedEE*** does not require nor depend upon virtualization of client desktops.

iii. Describe the proposed data storage software and hardware components;

The proposed hardware configurations, including data storage, are listed in Table IV-14 above.

Table IV-15 lists the software that comes as part of each PureApp appliance. This software is an integrated component of the appliance, and cannot be separated from the server. These components are licensed for unlimited use within the server and have no capacity limitations.

Table IV-15: PureApplication Server Software

Component	Description / Role / Purpose
IBM AIX V7.1	Operating System
IBM DB2 Enterprise Server Edition 10.1	Relational Database, supporting all application components.
IBM WebSphere Application Server Hypervisor Edition V8.5.5 for AIX	Java/J2EE Application Server; Web Server. Includes PureApp Deployment Patterns.
IBM PureSystems Manager V1.1	Integrated PureApp Server Appliance Management Tool

Table IV-16 lists software components required to operate ***SmartPro MedEE***, including application SW and Middleware.

Table IV-16: Application Software and Middleware

Component	Description / Role / Purpose
IBM-Cúram	COTS Application. Core Application – Eligibility, Enrollment, Case Management.
LifeRay Portal Enterprise Edition V6.2	COTS Application. Overall Portal / Entry point to all application components; general Web Information Portal; single Sign-On coordination with State's AD and Cúram Directory; Wiki; Blog; Chat; Social Media; Customized Content; Web Content Management; Published Document Management (Manuals, Guides,... - not imaging and application "docs").
Orbeon Forms Gold V4	COTS Application. Advanced forms creation within LifeRay.
Survey Monkey Platinum Edition	SAAS offering. Web based surveys; HIPAA compliant. Unlimited surveys.
Pitney Bowes Spectrum Universal Addressing	COTS Application, with address data updates. Real-time address validation and correction; Zip Code to City conversion; partial address matching.
IBM Cognos BI V10.2.1	COTS Application / Tool Business Intelligence; Production Reporting; Ad-Hoc Reporting; Dashboards; Drill-Down. Includes Server, Users, Architect (Design Tool), PureApp deployment Pattern.

Component	Description / Role / Purpose
IBM Integration Bus Hypervisor Edition for AIX, V9.0	COTS Middleware. Provides ESB functionality (Message Broker), and FTP/SFTP file transfer services. Includes PureApp Deployment Pattern.
IBM WebSphere SOA Policy Gateway for AIX, V2.5	COTS Middleware. SOA Registry (aka WSRR) and Governance Policy Management. Includes PureApp Deployment Pattern.
IBM InfoSphere Optim Data Privacy V9.1	COTS Tool. Creating sanitized data for non-production use. Software and PureApp Deployment Pattern.
IBM InfoSphere Information Server Enterprise Hypervisor Edition for AIX, V9.1	COTS Tool. ETL and Data Quality Management. Aka DataStage and QualityStage.
IBM InfoSphere Standard Edition; Master Hub and Patient Hub; V11	COTS Tool. Master Data Management; deduplication; cleansing.
IBM Sterling Connect Direct Premium Edition	COTS Tool. Connect-Direct File Transfer Protocol, used by many interfaces.
IBM Sterling File Gateway Enterprise Edition	COTS Tool. File Transfer coordination and control.
IBM Sterling Secure Proxy	COTS Middleware. Secure Proxy across DMZ for File Transfers.
IBM SmartCloud Workload Automation V9.1	COTS Tool. Job scheduling and control.
IBM Tivoli Composite Application Manager for Applications (ITCAM)	COTS Management Tool. Monitoring Application performance and availability.
Bonita BPM V6	Open Source Tool / Middleware. BPM Graphical Design (BPMN 2) BPM Execution Engine

iv. Describe the tools and utilities used to design, build, test, deploy, report, monitor, and operate the EES and its components;

Table IV-17 lists the software tools used to design, build, test, and deploy ***SmartPro MedEE while*** Table IV-18 below lists the Data Center operational tools used to monitor and manage the overall hosting environment, including ***SmartPro MedEE*** and its servers, storage, and network fabric.

Table IV-17: *SmartPro MedEE* Tools (PMO/SDLC)

Component	Description / Role / Purpose
MS Project 2013 Professional	Project Management
Adobe Captivate 7	Creation of Computer Based Training (CBT) Content
Adobe Acrobat Standard V11	CBT and general document production
SnagIt 11.4	Screen Capture for CBT and Documentation

Component	Description / Role / Purpose
ER/Studio Data Architect XE4	Advanced Data Modeling, BI Data Modeling; Physical Data Model Design
IBM AppScan Standard V8.8	Vulnerability Testing / Penetration Testing
IBM Rational Team Concert	Application Lifecycle Management (ALM) and coordination; team coordination; Change/Configuration Management; Source Control
IBM Rational Requirements Composer	Requirements Management and Traceability, integrated with Quality Management
IBM Rational Quality Management	Quality Program Management; Test coordination; QA Integration with Requirements.
IBM Rational Software Architect	Cúram System Design and logical data modeling.
IBM Rational Policy Tester / Access	508 Compliance Testing (accessibility / handicapped)
IBM Rational Performance Tester / Workbench	Coordinates Develop and Coordinate Tests. SOA Testing.
IBM Rational Performance Tester / Virtual Users	Performance, Stress, and Load Testing; User simulation.
IBM Rational Virtualization Server	Integration Test Support; Stubbing out missing components and interfaces during Integration Testing.
IBM Rational Functional Tester	System / Regression Test Automation.
Jenkins 1.547	Open Source tool for build automation and management.

Table IV-18: Data Center Shared Services Management Tools

Component	Description / Role / Purpose
Juniper VPN	VPN Services and Management
Computer Associates Spectrum 8.0	System and infrastructure Monitoring • Periodic polling of system resources (processors, memory, storage, switches, hubs, and routers) for availability • Establishing availability thresholds for various components by using industry standards, Wipro/IBM experience, and State input • Measuring actual availability against thresholds • Taking appropriate actions, as predefined by Wipro/IBM and the State, when one or more system resource thresholds are exceeded • Reporting monthly on availability • For PureApplication Servers, accepts alerts using SNMP
Emprisa	Manages network device configurations
McAfee Intrushield	Network Intrusion Detection and Circumvention
Sophos Server AntiVirus	AntiVirus / Malware Detection for Servers
Tripwire Enterprise V8	File change alert generation / File Integrity Monitoring
Tenable Nessus V5	Vulnerability scanning and reporting for network connected endpoints

Component	Description / Role / Purpose
NetIQ AppManager 6.0.2	• Coordinates with SmartCloud Workload Automation to monitor and report on Batch Jobs • Coordinates with PureSystems Manager to capture end-to-end system and application availability • Coordinates with PureSystems Manager to capture threshold alerts for system resource utilization, performance, and event log details • Storage and Data Management Monitoring
Servergraph Storage Console	Monitor and Report on Backup jobs (Tape Storage)
Computer Associates eHealth	• Provides near real-time and historical reports showing LAN and WAN usage, availability, errors, usage trends and other customizable variables. • Reports are created and made available via the customer web portal with this service.
Computer Associates Service Desk Module	• Creation and Management of Service Tickets • Service Ticket Escalation Management • Customer Self-Service Portal

v. Describe the architecture of other devices such as printers, electronic signature pads, smart card reader/writer and attached disks, which are necessary or recommended for the EES, including minimum and recommended specifications to support the proposed solution; and

SmartPro MedEE does not require these types of devices.

vi. Describe the proposed solution approach to network topology and hardware required to achieve this architecture (e.g., load balancing utilizing hardware and software based load balancers ahead of the web servers, Virtual Private Networks (VPNs), creation of DMZs by firewalls).

SmartPro MedEE is implemented on two dedicated IBM PureApplication Server Appliances, identical in configuration. One server is housed in our Primary Data Center in Omaha, Nebraska; the other in the Secondary Data Center in Tempe, Arizona. Both boxes participate in a balanced mix of Production and Non-Production workloads, so there is no single piece of hardware that can be identified as "Production" versus "Non-Production/Development" versus "Disaster Recovery". The server configuration are as described above.

Figure IV-70 depicts the recommended high-level network connectivity. Wipro/IBM will deploy a trunk line directly from our Primary Data Center in Omaha to the State's Data center. This line serves as the normal route for all internal traffic between the State and ***SmartPro MedEE***, both computer to computer and internal users. Under normal operation, traffic destined for our Secondary Center in Tempe is routed internally over Wipro's secure networks.

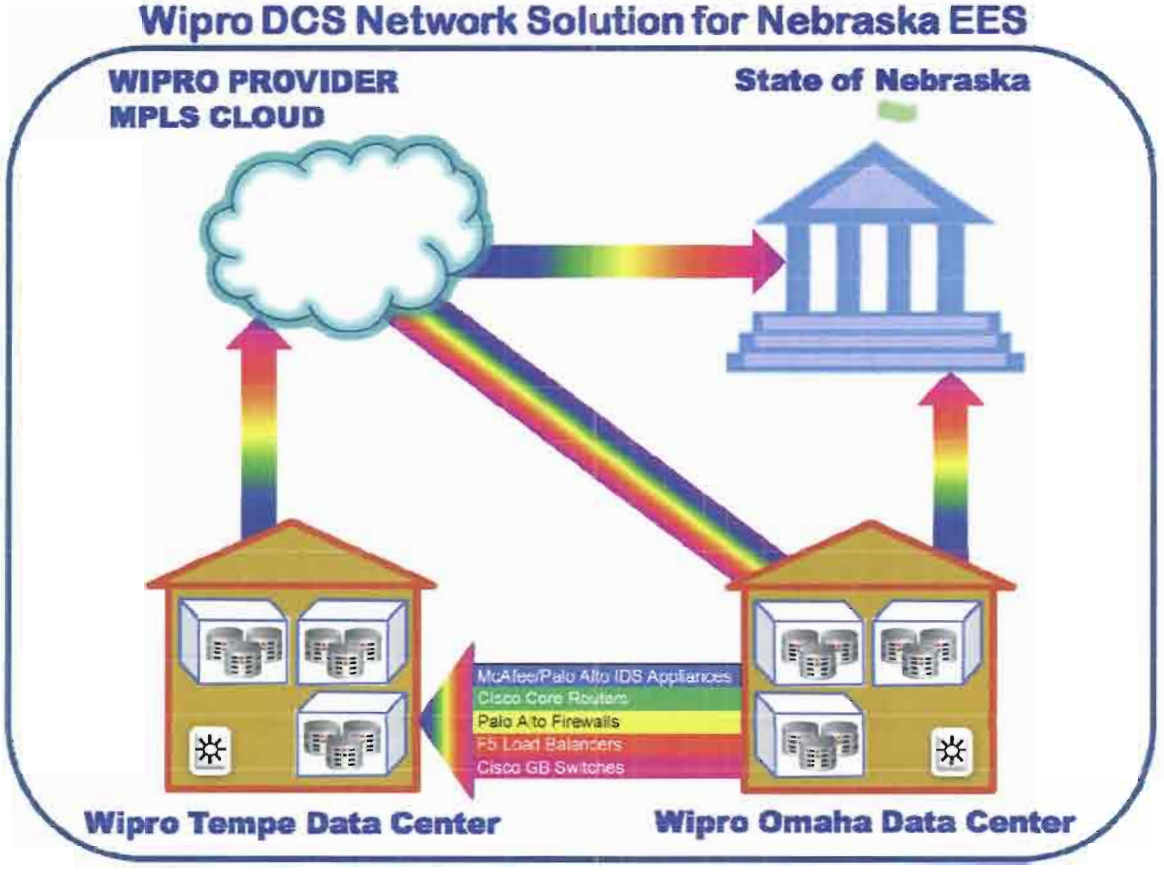


Figure IV-70: Network Connectivity

Inside each Data Center, we are deploying one PureApplication Server, as shown in Figure IV-71. Of special note, the Production Environment running in our Primary Data Center ships all database logs over to the Secondary Center in near real-time. The log files are applied immediately in the Secondary Center to maintain a shadow copy of the production database, current within moments, for Disaster Recovery.

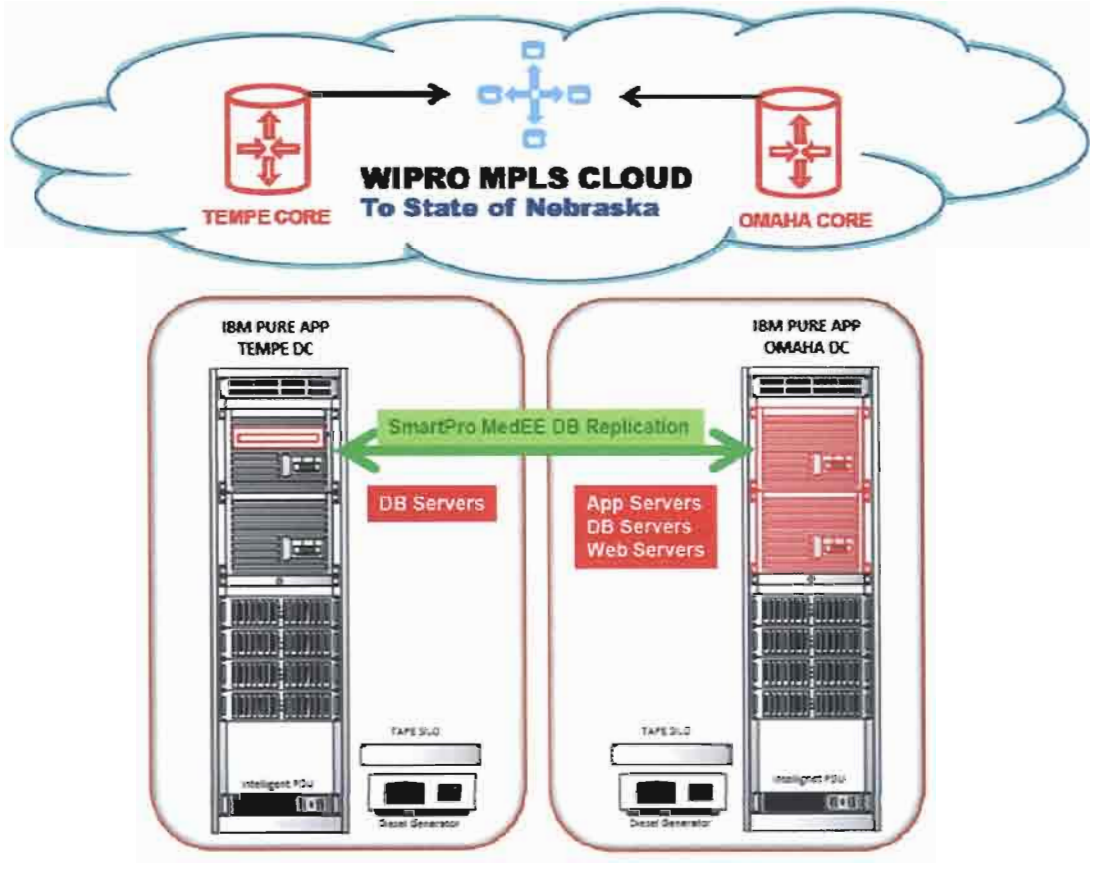


Figure IV-71: PureApplication Server Deployment

Within each Data Center, ***SmartPro MedEE***'s PureApplication Servers are integrated into our shared services network fabric. The network topology is divided into four discrete security zones:

1. **Internet Access**: This segment segregates the internet connection from the rest of ***SmartPro MedEE***'s network
2. **External DMZ**: Hosts external facing servers such as Web Servers, SMTP Gateways, VPNs, and other publicly available web servers
3. **Internal DMZ**: Hosts ***SmartPro MedEE***'s internal servers, such as Application Servers, Database Servers, Anti-Virus, etc.
4. **Internal Network**: Provides network connectivity to the State of Nebraska internal users

While the PureApplication Server is a single integrated appliance, it supports multiple redundant network interfaces, with virtualized network addresses assignable to individual virtual machines. Each virtual machine can appear to the network as a distinct entity that can be placed into its own correct network segment. This is used to segregate Production VMs from Non-Production VMs by maintain distinct Private Virtual Local Area Networks – PVLANs. PVLAN segmentation is enforced by the CISCO routers, isolating all traffic for entire environments as required by the security model.

Firewalls establish protected zones, as depicted in Figure IV-72: Network topology.

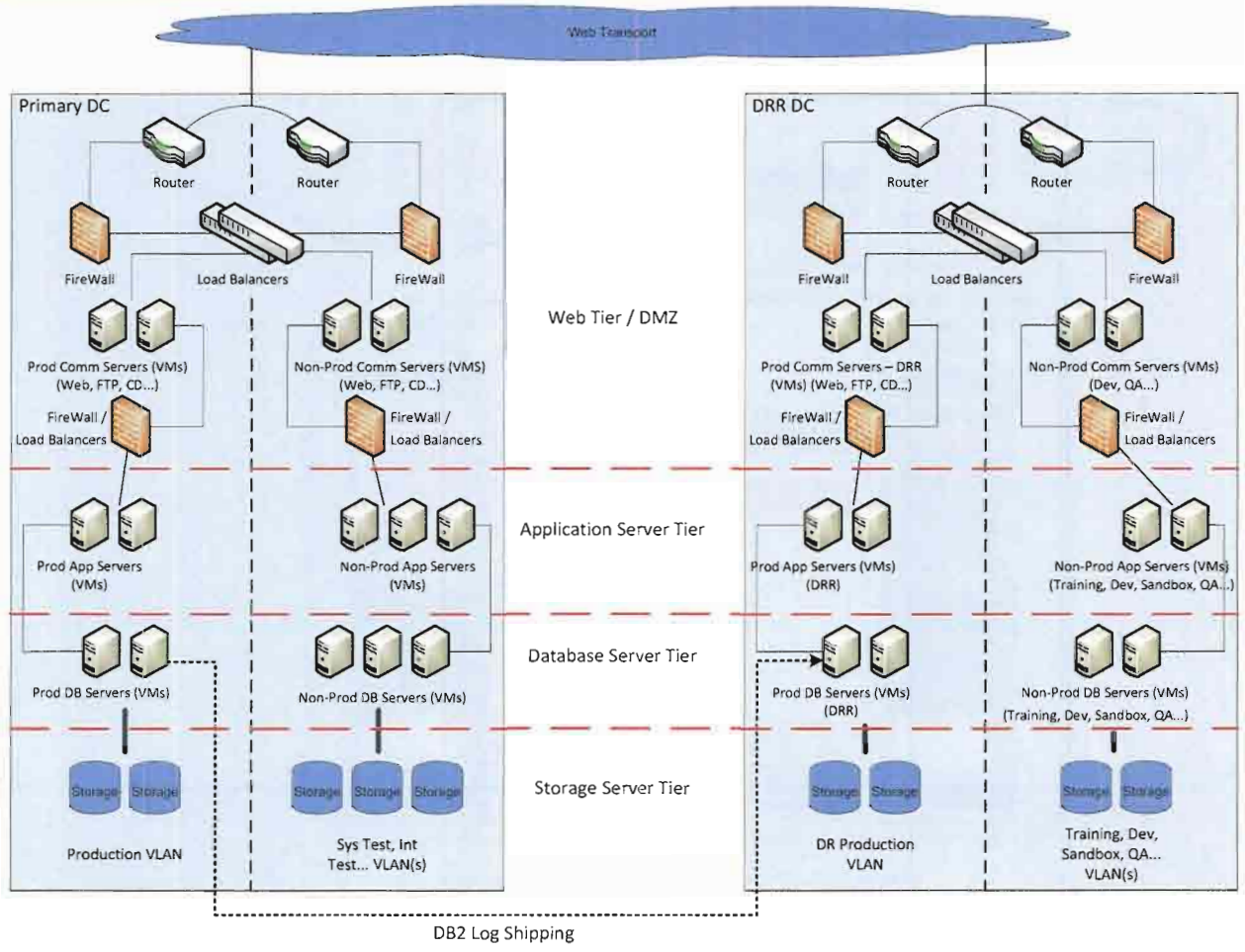


Figure IV-72: Network Topology

g. *Environmental Installation and Configuration*

The Bidder must propose, provide and operate all required environments to support its proposal for the specification, design, development and implementation of the system including, but not limited to the following environments:

a) Sandbox;
b) Configuration/Development;
c) Test;
d) Quality Assurance;
e) Production
f) Training; and
g) Disaster Recovery

These environments should be sized in accordance with planned use and be inclusive of all hardware, storage, networking, backup/restore, database, file system, monitors and other items as required to comprehensively support the development effort.

Background

The Wipro/IBM team has mapped the State's Development Environments into the set of Environments described in Table IV-19 below. We are proposing implementation of all ***SmartPro MedEE*** Environments, Development, Production, and DRR, on two identical IBM PureApplication 1700-64E Servers. These servers include all computing resources and storage required to operate ***SmartPro MedEE***: only the Network Fabric, Data Center Enterprise Monitoring and Management tools, and Tape Backup are outside of these two boxes. The two servers are dedicated to the State's EES; the Network Fabric, Data Center Management, and Tape Backup are shared services within the Data Center.

Each server consists of 2 compute nodes with an aggregate of 64 Power7+ processor cores, a total of 1 TB of RAM, and approximate 50 TB of integrated disk storage, combining a mix of Solid State and classical Magnetic Disk storage. These servers are highly resilient, with no single point of failure, redundant power, network interfaces, busses, and RAID storage.

The two servers are designated Primary and Secondary, reflecting their respective roles relative to the main Production Environment. The Primary Server sits in Wipro's Primary Data Center located in Omaha Nebraska, and services the normally operating Production Environment, and several of the Non-Production Environments at the same time. The Environments are isolated from each other using Virtual Machine (VM) technology, where an Environment consists of one or more dedicated VM configurations and related data stores, configured to meet performance, security, and availability goals unique to each Environment.

The Secondary Server is located in Wipro's Secondary Data Center in Tempe Arizona. In normal operation, the Secondary Server receives near real-time database updates to a specialized small Recovery (Production) Environment, which keeps a shadow copy of the production database in near currency with the real production database housed back the at the Primary Site. This consumes a small amount of the overall Secondary Server resources. The rest of the Secondary Server resources are dedicated to most of the Development Environments. While maintaining full performance capacity for the Production Workload without compromise, each server is capable of running all Environments simultaneously if needed, though with reduced capacity allocated to the non-Production Environments. The one exception is that both Production and QA (Large), the full sized load, stress, and performance test environment that mirrors Production, cannot co-exist on the same single server with introducing at least a possibility of performance interference between the two.

This balanced Workload makes all hardware useful at all times, with nothing specifically dedicated to Disaster Recovery. The use of VM technology allows the physical resources to be moved around as required to meet performance targets – an operation that is mostly automated, dynamic, and real-time in the PureApplication Server Environment.

Development Environments

We have mapped the State's requirements to the following set of Development Environments. Table IV-19 documents the list of Environments, and describes their general purpose.

Table IV-19: Development Environments

Environment	Description / Purpose	Default Server
Development	Supports multiple instances of configuration and development. Near full functionality is available, though often not used. Limited performance capacity, limited and sanitized data. Provides controlled updates into System Test.	Secondary
System Test	System Test brings together one or more application components for formalized testing by QA. Near full functionality is available, though often not used. Limited performance capacity, limited and sanitized data. Receives controlled updates from Development, provides controlled updates to Integration Test.	Primary
Integration Test	Integration Test brings together most/all application components, including "outside" interfaces for formalized testing by QA. Full functionality is available, and often used. Limited performance capacity, limited and sanitized data. Receives controlled updates from System Test, provides controlled updates to QA (Small and Large.)	Primary
QA (Small)	Aka User Acceptance (UAT). QA (Small) is used for most final acceptance testing, when full load / stress testing is not indicated. Full functionality, limited performance capacity, database can be full or limited as required. Receives controlled updates from Integration Test, provides controlled updates to Staging and Production. Only one of QA (Small) and QA (Large) are running at one time.	Secondary
QA (Large)	Aka User Acceptance (UAT – Load/Stress). QA (Large) is used for final acceptance testing, when full load / stress testing is indicated. Full functionality, full performance capacity, full database. Receives controlled updates from Integration Test, provides controlled updates to Staging and Production. Only one of QA (Large) and QA (Small) are running at one time.	Secondary
Sandbox	Sandbox is a specialized environment dedicated to State personnel for controlled experimentation and testing of limited changes to an existing or proposed environment – especially non-code-based changes such as rules, configuration, and Business Intelligence. Near full functionality (lacks outside interfaces), limited performance capacity, database limited or full as required. Can be rapidly refreshed to a known state. Normal refreshed state is Production functionality. Controlled updates mirror Production.	Secondary
Training	Training is a specialized environment dedicated to training staff, especially in the context of formalized instructor-led training. Near full functionality (lacks outside interfaces), limited performance capacity, limited and sanitized database. Functionality and data can be rapidly refreshed to a known state. Normal refreshed state is Production functionality, but can be imaged from QA (Small or Large) to train to a forthcoming release. Controlled updates mirror Production or QA (Small or Large.)	Secondary

Environment	Description / Purpose	Default Server
PMO	A specialized environment used to host tools used by the Program Management Office and the SDLC. For example, Requirements Management and Test Management. No connection with Production functionality, limited performance capacity, limited and specialized database.	Secondary
Staging	A small "code" environment used to stage updates into Production, after signoff and approval for implementation by the State. Staging receives its code from QA, either large or small depending upon the change, and drives the configuration into Production.	Primary

Each of these Development Environments is configured as a PureApplication Server Workload, comprising one or more Virtual Machines. The allocation of VMs is designed to reflect the performance, security, and high-availability requirements specific to each task. Generally, these environments are relatively small, with compressed tiering e.g. Web Server and Application Server placed in the same tier and VM, and do not use clustering or load balancing, either for performance or high availability. At the other extreme, the QA (Large) environment is a complete duplication of Production, with a replication of the complete tiering, clustering, and performance characteristics of Production.

Contingency / DRR for Development

Several assumptions are built into our design covering contingencies for the Development Environments:

- While RTO for Development Environments is not as aggressive as for Production, it should be possible to recover any / all Development Environments to their alternate sites, if needed. While reinstituting Production is the first focus in Disaster Recovery, once instantiated, development activities may still be required or desired while in contingency mode.
- Loss of the Secondary Center, which hosts many of the Development Environments, is a much of a DRR scenario as loss of the Primary Center. It must be possible to restore most of the Development activities into the Primary Site.
- It is acceptable to compromise the performance of non-Production Environments when running under a Disaster Recovery scenario, but Production performance cannot be compromised.
- Non-Production recovery does not require the low RPO/RTO targets of Production – it is acceptable to synch to "yesterday's" database.

To support these assumptions, we propose using PureApplication's VM shipping capability to copy an Environment and its configuration from one server to the other. Once past Development, the other Environments are under Change/Configuration Management, which will automatically include synchronizing the Environment to its backup location.

As a fully virtualized implementation, including the compute, memory, network, and storage resources, physical resources are assigned commensurate with each Environment's requirements. PureApplication Server allows resource assignments to be changed "on the fly", and is configured to automatically tune an Environment within defined limits, based on resource utilization and performance targets. Beyond PureApplication Server's configured self-tuning, staff can intervene to

make resource allocation changes nearly instantly in response to unforeseen contingencies, resulting in a highly flexible and cost-effective hosting environment.

h. Design, Development and Customization

For the State of Nebraska Eligibility and Enrollment Solution (EES), IBM's Smarter Care Platform Implementation Methodology (SCPIM) will be the overarching execution framework used to guide the project activities. The elements of SCPIM come from our extensive methodology library, IBM Unified Method Framework, which was built using the knowledge and experience of more than 138,000 professionals in 160 countries representing over a million person-years of experience. These already-proven methodology elements within the UMF Library are actively being refreshed to incorporate the latest best practices and are embedded within the SCPIM method.

SCPIM was formulated specifically with the understanding that today's business systems are no longer monolithic applications residing on a single platform, but rather a complex ecosystem of components working in concert to enable business functions. This aligns with the State of Nebraska for the EES solution. SCPIM differentiates itself from other methods in the industry by:

- Promoting interoperability between the system's components through holistic architecture design, end-to-end business requirements modeling, and full-lifecycle testing – an imperative for the EES solution.
- Allowing individual work streams to leverage their specialized techniques to increase productivity while still adhering to the overall project standards. This will benefit the MLTC KIP project by reducing required overall time and effort, without compromising on quality of deliverables.
- Aligning the non-technical project activities such as training and communication management with the technical activities to facilitate a seamless transition from the engineering stages of the project to the deployment and acceptance by clients.

IBM is experienced with combining several methodologies when developing solutions composed of multiple technologies. Client examples include the Alameda County Social Services MLTC ACES project and North Carolina NC FAST program.

i. Deployment

i. Describe the methodology, tools, and techniques for implementation/rollout planning. Address specific staging, readiness and deployment techniques that the Contractor will use to determine the proper sequencing of deployment processes and functions required for successful implementation;

ii. Describe the implementation and deployment strategy. In addition, include a realistic implementation approach and timeframe for the implementation of the EES that meets the State of Nebraska's requirements. If some of the EES' Functional or Technical requirements and capabilities are not a part of the standard EES (available now or via configuration), describe a proposed phasing methodology to deliver to the State of Nebraska's full requirements for the EES and EES Platform. Provide reference to the proposed work plan and WBS in the required work plan submission; and

iii. Describe how the Contractor will implement and comply with industry standard backup procedures and the State of Nebraska's backup requirements, as well as the State of Nebraska's record and document management policies. Describe the Contractor's backup processes and procedures.

SmartPro MedEE is the solution proposed by Wipro/IBM to replace the current N-FOCUS system.

The deployment plan will outlay the set of activities that are to be completed during the cut over phase to move from the existing old N-FOCUS system to the new EES system.

The deployment plan provides a comprehensive approach on the deployment strategies, activities, operational readiness, environment availability, cut over stage activities and also on the fall out plan which needs to be referred in case of a fallout.

Deployment Team: Roles and Responsibility

The key resources that are part of the deployment will be listed in the deployment plan. All necessary resources will be identified and agreed with the necessary stakeholders. The details of the resources including the individual name, role and contact details will be listed as part of the deployment plan.

Operational Readiness

Operational Readiness Review significantly enhances the Program success by ensuring the End-User environment is production ready. Wipro/IBM will work with the State of Nebraska to develop a readiness program in order to create the desired readiness state.

The possible prerequisites for the deployed will be identified upfront in the deployment plan. The deployment prerequisites will be discussed and agreed upon with all the concerned stakeholders. An operational readiness checklist depicting the details of tasks, responsible party and time lines to complete the required tasks will be detailed out. This checklist items current status will be reviewed on a weekly basis with all relevant stakeholders and corrective actions will be taken as discussed in the operational readiness meeting.

The operational readiness also focuses on people aspects like training to ensure the identified staff are trained in the new system. Communication is a key aspect to be taken care during any system implementation. Wipro/IBM will work closely with the change leaders to ensure a smooth implementation. The OCM (organization change management) will play a key role in the operational readiness by ensuring all transition activities identified are executed to ensure the team is ready for the implementation.

The deployment will be initiated only after all the prerequisites as indicated in the deployment prerequisites checklist are satisfied.

Cut-Over stage and Business Continuity Plan

The cutover stage is a key part of the implementation process. The cut over stage defines the process of transitioning from the old system to the new system. Wipro/IBM will define the cut over tasks that need to be performed before the actual go-live. Wipro/IBM will identify risks and mitigation plan for possible risks that are envisaged during the cut over stage. Weekends are the preferred choice of days for cut over activities since the transactional data load is the minimal over the week end.

The deployment will be carried out in a staged manner with checkpoints for each step. The step checkpoint will be set in a manner to have the ability to roll back to its earlier step in the event of a fall out.

Wipro/IBM will coordinate with all the required stakeholders and initiate the business continuity plan before the cutover activities are initiated to ensure there is minimal or no impact for the end users. The migrated data and business critical functionalities will be tested to ensure the new system is working as per the set expectations. Wipro/IBM will conduct a set of verification steps to ensure the new system is functional. The go-live announcement is communicated upon successful completion of testing the data and business critical features.

Back-out or Fallout Plan

A fall out plan will be part of the deployment plan. The fall out activities that needs to be undertaken will be defined as part of the fallout plan. The list of stakeholders who needs to be communicated about the fall out will be listed as part of the fall out plan along with the mode of communication.

The fall out plan will be invoked only if the issues that arise during deployment cannot be resolved and prior to go live announcement.

Wipro/IBM is committed to a complete install and will work through any issues encountered during the deployment. The decision to back out is an extreme situation and is made based upon technical issues in the new system which can make the system along with its associated sub systems unstable. The Wipro/IBM management team makes the decision on whether to recommend for a back out considering several factors like issues faced during deployment, issue severity, possibility to resolve within the deployment time frame etc.

A joint check point meeting will be initiated with the customer to arrive at the go –no go decision. In the event of a fall out, all the activities that were carried out in the deployment will be rolled back and the system will be made to point back to its earlier state before deployment to ensure business continuity. This will be based on the fall out tasks as described in the deployment plan.

Assumptions

The deployment plan is based on a set of possible assumptions which will be discussed with the customer and will be made part of the deployment plan. Below are some possible assumptions that will be (but not limited to) part of the deployment plan

The customer staff identified for support during deployment will be available during the deployment timeframe on an "as needed" basis in the event of any decision-making situation.

Wipro/IBM implementation team will be available and staffed in a combination of onsite and offsite during the implementation timeframe.

Wipro/IBM will designate a team of resources for support during deployment and post implementation.

iii Requirements Traceability Matrix

We have completed the three Appendices, relating to the Requirements Traceability Matrix: Appendix B – Functional Requirements Traceability Matrix; Appendix C – Non-Functional requirements Traceability Matrix, and Appendix D – Requirements Gap Analysis.

In the Functional requirements, ***SmartPro MedEE*** meets 68% of the requirements out of the box or with configuration; another 19% require modification, and less than 3% require new coding. For the Non-Functional Requirements, ***SmartPro MedEE*** meets 94% OOTB or with configuration, requiring modifications for 8%, and code development for another 8%.

In the Gap analysis, we have identified 5 gaps that require more than 1,000 hours of effort end-to-end. All five are accommodated in our project proposal and costing, all 5 will be designed and implemented fully tested by the go-live date of 3/19/2015, before entry into the Operations & Maintenance period.

Page Left Intentionally Blank

Please refer to Volume 3 of 3 for Appendix B

Page Left Intentionally Blank

Please refer to Volume 3 of 3 for Appendix C

Page intentionally left blank

Please refer to Volume 3 of 3 for Appendix D

Page Left Intentionally Blank

iv. Project Planning and Management

1. Project Management Plan

i. Describe in detail the Bidder's proposed Project Management Methodology and show how it provides an integrated approach to project management

The Wipro/IBM team proposes a governance model to establish a framework within which this program will operate to ensure MLTC's objectives are met. Through this governance model, our team will provide multiple forums for MLTC, Wipro, and IBM to jointly improve processes, share best practices, reduce risks, and quickly and effectively resolve issues. The objectives of the proposed governance model are:

- Facilitate collaboration between Wipro, IBM, and MLTC team members
- Provide flexibility to MLTC in prioritizing work items and resourcing
- Enhance speed of implementation
- Create an environment to co-innovate
- Optimize cost
- Improve quality and ensure continuous improvement

Our team's governance model is formulated towards fulfilling each of the above-mentioned objectives. Key constituents of the model are:

- **Governance Structure** with guiding principles and a partnership approach to facilitate collaboration
- **PMO** for setting up governance and sourcing processes
- **Program Review** to continuously monitor the program
- **Decision Rights** to demarcate roles and responsibilities of Wipro, IBM and MLTC team members
- **Issue and Escalation Management** to resolve disputes
- **Communication Management** to make sure all stakeholders are in synch
- **Change Management** to manage changes to scope and requirements and provide flexibility
- **Risk Management** to proactively identify and mitigate risks
- **Quality Management** to address timely resolution of defects
- **Contract Change Management** to make timely updates to the contract

Figure IV-73: Project Management Methodology Processes shows the scope of our Project Management methodology, which is supported by an extensive, online repository of intellectual capital such as process descriptions, technique papers, example work plans, and artifact templates. These make up the foundation upon which the Project Management Plan will be developed.

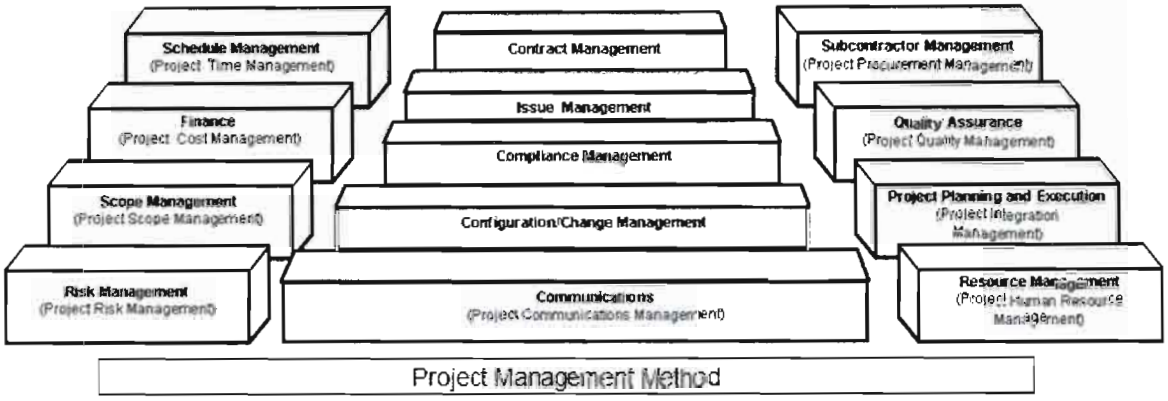


Figure IV-73: Project Management Methodology Processes

The Wipro/IBM team has adopted the U.S. DHHS Centers for Medicare & Medicaid Services Enterprise Life Cycle (ELC) and will utilize the Enterprise Life Cycle Templates which are referenced below:

(http://www.hhs.gov/ocio/eplc/Enterprise%20Performance%20Lifecycle%20Artifacts/eplc_artifacts.html)

ii. Describe how the proposed methodology is based on industry best practices

Our project management methodology includes concepts and practices from industry leading frameworks including:

- Project Management Institute (PMI) PM Body of Knowledge 4th Edition (PMBOK)
- Carnegie Mellon Software Engineering Institute (SEI)
- International Standards Organization (ISO)
- Earned Value Management System (EVMS)

The methodology provides guidance on project management practices for defining, planning, executing and controlling a wide variety of projects. It describes how to plan a project and how to manage its execution through three interrelated views:

- Project Management (PM) Domains
- PM Work Products
- PM Work Patterns

The PM domains provide the knowledge-based view and comprise a guide to 13 project management subject areas that comprises concept, planning, startup, execution, and closeout. PM work products are documents, including process descriptions, sample logs, and reusable templates and technique papers, which provide details on how to conduct the activities.

Figure IV-73: Project Management Methodology Processes depicts the components of our methodology that we will use to manage the ***SmartPro MedEE*** project. The thirteen PM domains are listed and, for the eight PM domains considered to be focus areas, we note the documents the project management team may implement when planning and managing the project. These documents have

been deployed and refined on numerous projects, providing reusable assets our team can tailor for MLTC, reducing project start up time and risk.

Like the PMI's PM Body of Knowledge (PMBOK) process groups, the PM work patterns provide steps in a thought process or a pattern of behavior that project managers may use in typical situations, such as preparing for delivery or handling an issue. There are work patterns for defining, planning, starting, monitoring, handling exceptions, handling deliveries, and closing. While they are designed to be usable on their own, the PM work patterns provide references to processes in the domains to enable easy access to more details. Each work pattern contains several elements. Our project manager can use the information within each element to help define the project's processes. Within each of the elements is information regarding the goal of the activity, interactions with other processes or activities, key work products and outputs. Figure IV-74: Work Patterns provides a top-level view of the monitoring work pattern, track, and control progress element.

Figure IV-74: Work Patterns

iii. Include a detailed narrative of your proposed PMP. This PMP narrative must be in sufficient detail to demonstrate to the State of Nebraska that the Bidder has a clear and concise understanding of project's overall complexity and all associated tasks to successfully implement the requirements in this RFP.

The Project Management Plan will be created during the Project Initiation and Planning Stage, which includes the following activities:

- **Develop Project Management Sub-Plans**. This activity, as seen in the Table IV-20 below, is focused on defining the specific control processes that will be used on the project. We will begin with a tailored version of our standard Project Management Plan (PMP) based on World Wide Project Management Method. Our team will work with MLTC to refine the processes, policies, and roles for each project management sub-plan.

- **Establish the Project Management Technical Environments (Tools)**. The tools we will use include MS Project for project schedule development, IBM Program Work Center for integrated issue, risk, and action items management, SharePoint for document storage, and MS Office for general project management documentation.
- **Conduct the Project Kick Off Meeting**. The Project Kick Off Meeting is an important milestone in the Project Initiation and Planning phase. This meeting brings the project team together to establish a common understanding of scope, schedule, objectives, and roles and responsibilities.
- **Confirm the Preliminary Release Plan**. In this step, we will confirm the Wipro/IBM team understanding and assumptions regarding the high-level functionality required in each of the application releases and the timing of when the releases must occur.
- **Develop and Confirm the Deliverable Expectations Documents**. Our team will work with MLTC to define the specific content descriptions and formats and review the procedures and acceptance criteria for each of the deliverables and artifacts required for the project. The Deliverable Expectations Documents will be defined in order of schedule priority and complexity.
- **Prepare the Baseline Project Work Plan and Schedule**. Using inputs from the other Project Management Startup phase activities, an initial Project Work Plan and Schedule is developed for the project. The plan will include a detailed task plan for a set period of time and will continuously evolve on a rolling basis during the project.

Scope of Project Management Processes

Table IV-20: Project management Plan Activities below outlines the activities addressed within the Project Management Plan:

Table IV-20: Project Management Plan Activities

PM Domain	Activities	Benefits to MLTC
Integration Management	• Assign PMP certified PM • Produce Project Management Plan • Produce Project Charter • Highlight interdependencies • Apply Change Management practices to the project • Execute project per the plan • Close project	• Uses proven, repeatable methods • Drives continuous improvement and effective collaboration between the Wipro/IBM team and MLTC
Scope Management	• Confirm Work Breakdown Structure • Update Requirements Management Plan, Requirements Traceability Matrix, and Configuration and Change Management Plans • Execute, monitor, refine, and enforce scope	• Establishes disciplined processes for managing scope to deliver tasks successfully, on-time, and within budget

PM Domain	Activities	Benefits to MLTC
Time Management	• Produce draft Integrated Master Schedule (IMS) – to include key tasks, milestones, and interdependencies (both within and between tasks) • Report monthly on progress against schedule	• Enables concurrent management of multiple project increments with clear understanding of interdependencies between tasks
Quality Management	• Produce a Quality Control Plan, including detailed processes and procedures to be used • Efforts taken promptly to address QA issues discovered during execution	• Proactive approach to managing quality • Emphasizes continuous focus on quality issues • Realizes fewer defects
Human Resources Management	• Determine number and skill mix of resources required to execute project	• Identifies staffing needs up front and is managed through the Staffing Plan
Communications Management	• Produce Communications Plan with project-specific requirements • Execute, monitor, and refine, Communications Plan	• Facilitates effective stakeholder management, and enhances organizational change and training
Risk Management	• Produce Risk Management Plan • Execute Risk Mitigation strategies. For the ***SmartPro MedEE*** project, these risks might include phase dependencies, as well as source system and other external dependencies. • Hold project increment meetings to update Risk Management Plan	• Uses a proactive approach for identifying risks • Maintains continuous team focus on identifying and mitigating risks
Stakeholder Management	• Create, Execute, and Update Stakeholder Management Plan. For the ***SmartPro MedEE*** project, stakeholders may include State leadership, system users, as well as other related agencies	• Proactively identifies State stakeholders • Incorporates Stakeholder input into design • Increases Stakeholder satisfaction
Governance	• Produce Program Charter and Program Governance documents (including Change and Configuration Management) • Execute, monitor, refine, and enforce Governance policies and procedures	• Sustains common understanding of scope, policies for changing scope, and roles and responsibilities of Nebraska and the Wipro/IBM team

iv. Describe how the Bidder's implementation of its proposed PMP will address and balance such factors as quality, scope, time, and cost

Our approach for developing a solution is driven by an integrated methodology as defined above, while offering well-established project management. These methods provide the framework for managing our project team and helping to keep the project on track. Our project management methods address key management concerns and potential impacts to scope, schedule, cost, and quality, and are designed to provide the identified Deliverable Materials.



The Wipro/IBM team will manage the schedule and scope closely to ensure that we maintain the baseline release delivery schedule. The PMO will provide a written mitigation plan for any schedule delays that potentially impact the release delivery.

v. Identify and describe all tasks and activities to be undertaken in the delivery of the EES and provide the associated timing of these activities.

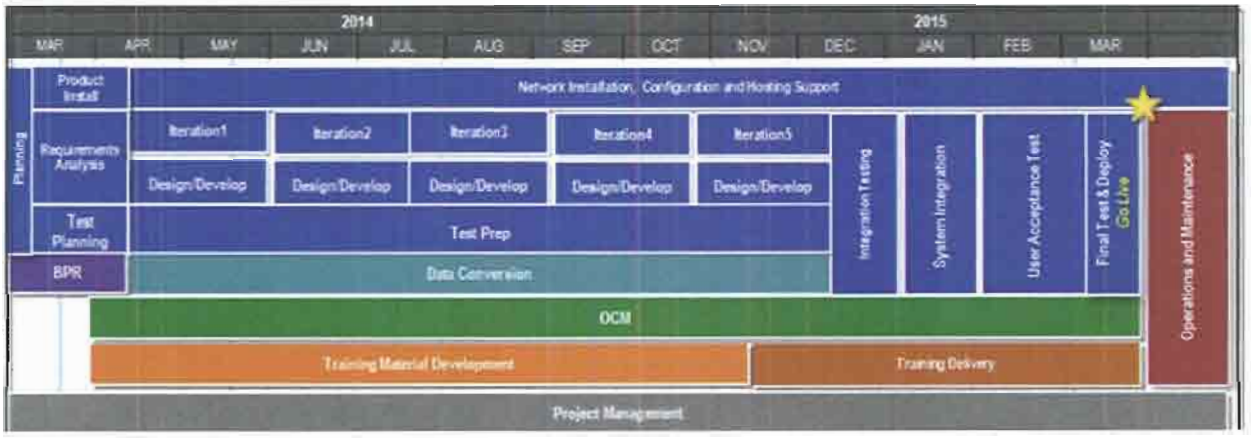


Figure IV-75: Tasks and Activities in Delivery of the EES

vi. Describe how the Bidder decomposes deliverables and projects into a WBS and work packages.

We will subdivide the work into packages by identifying dependencies and creating relatively self-contained packages of work that are coherent and have few dependencies to other packages. For example, "***SmartPro MedEE*** participant management" could be a work package. They will be scheduled by taking into account the dependencies and by scheduling higher-risk packages early using techniques such as technical proofs of concept that can be expanded later into full-function. This reduces overall project risk by eliminating technical risk early and reducing potential rework.

vii. Describe the deliverables that will be produced at different milestones in the PMP

There are 12 deliverables that will be produced. For mappings of these deliverables to the 80 State deliverables requested, please refer to Table IV-21: Deliverables.

Table IV-21: Deliverables

	Deliverable	Phase	Description
1	Project Startup Review	Initiation, Concept, and Planning	This deliverable will establish project governance, a project schedule, status report templates, as well as plans for core pillars of the project (such as training and security). An initial version of all components of the Project Management Plan will be included in this document.
2	Architecture Review	Initiation, Concept, and Planning	This deliverable will include architectural and network diagrams, as well as begin to establish all of the physical environments required for the ***SmartPro MedEE*** project (from Sandbox through Production/DR)
3	Project Baseline Review	Initiation, Concept, and Planning	This deliverable will finalize the Project Management Plan deliverables as well other plans for baseline review. It will also complete setup of the physical environments
4	Preliminary Design Review	Requirements, Analysis	This deliverable will include initial use cases, process flows, and high-level design. It will include a data dictionary and will address gaps. ***SmartPro MedEE*** canned reports will also be identified
5	Detailed Design Review – I	Design/Develop	This deliverable will include all of the design required to start development for Iteration 1, including finalized network, architecture and design documents, process models, and use cases.
6	Detailed Design Review – 2	Design/Develop	This deliverable will include all of the design required to start development for Iteration 2.
7	Detailed Design Review – 3	Design/Develop	This deliverable will include all of the design required to start development for Iteration 3.
8	Detailed Design Review – 4	Design/Develop	This deliverable will include all of the design required to start development for Iteration 4.
9	Pre-Operational Readiness Review (Integration)	Test	This deliverable will include test results for integration test
10	Pre-Operational Readiness Review (SIT)	Test	This deliverable will include test results for SIT, as well as training (delivery, competency, and assessment) reports
11	Pre-Operational Readiness Review (UAT)	Test	This deliverable will include test results for UAT
12	Operational Readiness Review	Implement	This deliverable will include all of the final

viii. Describe the Bidder's experience working with an IV&V Contractor

On government projects, our team has extensive working with IV&V contractors; in fact it is a requirement on all State projects. The IV&V contractor, who ultimately determine whether deliverables meet requirements (on the State's behalf), reviews all deliverables. Although the IV&V

contractor has a reporting relationship into the customer, they are tightly integrated into the team, with frequent meetings and daily touch-points.

ix. Include a high level Project Schedule. The proposed Project Schedule deliverable must be broken down into Work Breakdown Structures (WBS) and must include key tasks, resources, milestones, deliverables, and task dependencies.

Please see attached draft project plan in the Tab entitled "Draft Project Work Plan" in this binder.

2. *Scope Management*

i. Describe business processes and procedures for controlling the scope of the project and how they will differentiate between scope changes and progressive elaboration;

Scope management and control are critical factors for project success, particularly for achieving project milestones, key dates, and the timely completion of tasks. We anticipate and prepare for project scope change, enabling timely execution of the revised scope while eliminating or mitigating the impact to the project.

Requests to change project scope are not unusual over the course of a project. Some changes provide significant benefit to MLTC; others may be mandated by external agencies or circumstances. From our prior projects, we anticipate that, as the State and end users become familiar with the solution, they will identify additional functionality they desire, creating potential for "scope creep". Within our Project Management methodology we have established processes for managing scope, which provide for incorporation of approved changes and provide visibility of the effect upon cost, schedule, and functionality.

Upon contract award, we take steps to familiarize Wipro/IBM team members with the contract requirements and SOW. Understanding contractual requirements is a fundamental step in delivering quality products on schedule and within budget while concurrently avoiding inadvertent incorporation of "out of scope" activities that could adversely affect project delivery.

The project scope baseline will be documented in the Requirements and Scope Baseline Document. This document will be validated by both the Wipro/IBM team and MLTC stakeholders and upon approval, will serve as the scope baseline document for the functionality that will be implemented.

The PMO function manages program and project level scope definition based on business goals. In defining the scope, the emphasis is to ensure that program objectives are measurable metrics and/or tangible deliverables. These are translated into individual project objectives to define the respective project level scope.

The Wipro/IBM Project Manager has responsibility for preparation of the Change Control process and for providing oversight for compliance with the plan during project execution.

Experience has shown us that starting with a COTS product designed for Health and Human Services helps to minimize the amount of changes that a project requires since we are able to use the COTS product during the requirements JAD sessions and it helps the MLTC project team to better visualize the final system.

ii. Describe how the business processes and procedures will control schedule, cost, time, and effort;

Once the Requirements and Scope Baseline Document is approved by the State and the Wipro/IBM team, we will move forward with the scheduled iterations per the schedule in order to configure and build the functionality in the Scope Baseline Document. Any changes and deviations that result in scope, schedule, or price changes will be documented by the individual team members in a Project Change Request (PCR) form and will be reviewed by the Wipro/IBM Project Manager and State stakeholders during periodic Change Control Board meetings. An approval from both the Wipro/IBM and State leadership teams will be required before the change documented in the PCR is implemented. Scope changes may also result in schedule changes and re-pricing.

As part of the change request business process, there will be a governance process which helps to determine if the requested change makes sense for the project, should be prioritized and it what phase of the project. ***SmartPro MedEE*** is built to be configurable and flexible. However, our experience has shown that many times users familiar with the existing system sometimes struggle to see the vision of the new system and will try to make changes to exactly recreate the legacy system in the new system. Our governance process will help us to evaluate if the requested change makes sense in terms of functionality, time to implement, cost and impact to the project schedule.

During each iteration, the team will create deployable product which will be configured, developed, and tested. The overall Project Scope management will be the responsibility of the Wipro/IBM Project Manager and during the planning phase, MLTC will help determine and finalize scope for each iteration. Each team will be given one or more "capabilities" to deliver within the release, and it is the team lead's responsibility to prioritize and assign functionality from the agreed upon scope in for each iteration. The Wipro/IBM team leads in each project team will work alongside the Nebraska counterpart in managing scope for each iteration and may decide to move functionality to be implemented from one iteration to another. However, any deviations or changes in the baselined functionality in the Scope Baseline Document will be managed through the Project Change Request (PCR) process.

Our approach leverages ***SmartPro MedEE's*** delivered capabilities to the extent possible. The Wipro/IBM team has assumed a certain number of customizations to ***SmartPro MedEE*** along with reports and interfaces, based on the requirements outlined in the RFP. Wipro/IBM will validate its assumptions related to the number and complexity of these customizations during the initial phase of the project. Should the actual number and complexity required by the State turn out to be different, the Wipro/IBM team will work with the State to discuss potential trade-offs. A net increase in the number of customizations will be managed through the project change control process.

iii. Describe any tools that will be used to control scope;

Rational team Concert will be the source of truth of the Requirements Traceability Matrix (RTM). The RTM will be used to control scope by showing that each detailed requirement is in support of a confirmed higher-level requirement or that each solution element is in support of a confirmed requirement. This reduces the risk of "scope creep" where additional requirements or overly complex solutions are introduced without control during requirements and design elaboration. If it turns out that a change in requirements or solution is needed, the RTM also serves to identify the impact on

other requirements and solution elements so that the cost and schedule impact can be evaluated more easily.

The Scope Management Plan, which will be updated in collaboration with the MLTC, will include additional detail regarding our approach to controlling scope. Additionally, the integrated project management methodology will provide for updates to impact project management plans, including Schedule, Cost, and other plans as appropriate.

iv. Describe how the Scope Management Plan will be implemented into the overall PM approach including any and all tools that are used;

The Scope Management Plan is created during the Planning Phase of the project where the majority of the Planning is defined and delivered.

The Wipro/IBM team will ensure effective Scope Management with the utilization of the following:

- Program Roadmap Development
- Change Control

Program Roadmap Development

A program roadmap helps an organization in navigating through the program's execution. It identifies critical program goals and a prescribed path to achieve them. Our program roadmap development process emphasizes integrating results of other PMO processes such as scope definition, risk and quality, execution planning, resource management and benefit management in building a quality program roadmap.

Our approach recognizes the importance of applying rigorous methodologies to process areas such as execution, resource, and costs to develop respective plans and determine the impact of their integration on the quality of the program roadmap. It is recommended that the program roadmap is published for review by all the stakeholders to secure the complete buy-in of the final document. Once approved and accepted any changes to the program roadmap can only be affected through a rigorous change management process defined in this framework.

The following diagram depicts constituent processes in the development of a program roadmap:

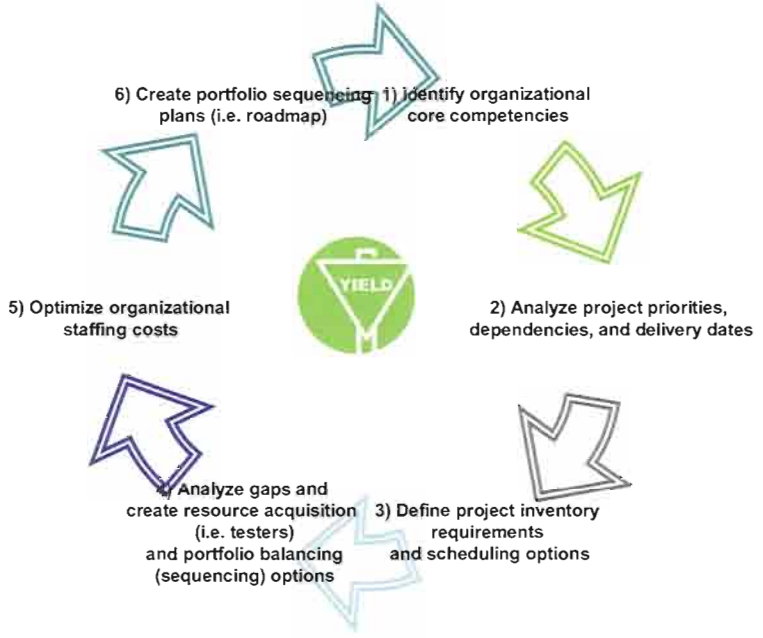


Figure IV-76: Program Roadmap Processes

v. Describe how changes in scope will be presented to the MLTC, including but not limited to prioritization of changes, budget and schedule implications;

In order to ensure effective scope management governance, a Change Control Board (CCB) is created to manage and control changes through the life of the program. The proposed PMO framework identifies a rigorous change management process at the program and project levels based on the impact and nature of changes.

All scope changes will be documented and presented for approval, including:

- Description of the change
- Benefits
- Assumptions
- Approach/level of effort
- Priority (H, M, L) based on business impact
- Resources required
- Budget and schedule implications, if applicable

Changes will be prioritized in collaboration with State staff.

vi. Describe how the PMP will be used to control scope.

The Project Management Plan will sub-divided deliverables into smaller, more manageable components at the work package level, each with a specific scope. Work is estimated and managed at the package level. Any scope that is outside of the baseline package will be managed through the change control process.

i. Describe how requirements derived from stakeholder needs, wants, and expectations will be documented and categorized.

The Wipro/IBM team will define and document project requirements via Joint Application Definition (JAD) sessions conducted with the MLTC. The steps to be followed are:

- Define the project objectives
- Identify all MLTC touch points
- Collect data from the State
- Check the strategic alignment of the wants and needs with business drivers
- Identify business process characteristics and compare with the ideal
- Identify gaps and prioritize
- Knowing priorities and capabilities
- Make recommendations

The requirements definition document will define and categorize the functional, non-functional, and technical requirements. The requirements definition document is created during the delivery phase of the project in conjunction with Joint Application Definition (JAD)/workshop sessions. The intended audience is the project manager, project team, project sponsor, client/user, and any stakeholder whose input/approval into the requirements definitions process is needed. Each business requirement will be assigned a unique ID number which is inherent to the IBM Rational Requirements Composer.

Rational Requirements Composer (RRC) is a web-based team environment that is an integral component of the Rational Jazz Platform. RRC will enable the IBM team to organize and manage requirements as specifications with modules and collections, tracking each requirement as an artifact record, and grouping related requirements into logical structures based on high-level business processes.



Figure IV-77: Rational Requirement Composer

Requirements and their associated mappings to test suites, test cases, and test scripts within RQM can be viewed within RRC in both grid and tree views to help the IBM testing team understand the relationships between various requirements, and to see the visual representation of complete requirements traceability.

RRC regularly collects metrics at daily intervals to enable quick and up-to-date reports, which can be easily distributed to appropriate stakeholders within the MLTC. The Wipro/IBM testing team will be able to provide reports indicating:

- Requirements coverage by test type;
- Requirements coverage by test suites, test cases, and test scripts;
- Requirements linked to other Work Items, such as defects.

ii. Describe how requirement changes will be analyzed and managed to ensure scope creep is identified and avoided.

Requirement changes, if not documented and controlled correctly, can become a single point of failure for projects. In order to mitigate this risk, the Wipro/IBM team will document a configuration management plan that will outline practices for release management and change management. These processes will identify timelines and approval levels where both the State and the Wipro/IBM team will be involved before changes to a configuration item can be implemented or distributed.

Wipro/IBM's overall approach to requirement changes will be governed by a change management plan. This plan will be used to request, evaluate, implement, and review changes to the system. Change Management is used for both planned and unplanned releases of software (e.g. critical defects)

Wipro/IBM will setup a Change Control Board (CCB) consisting of all relevant parties, namely MLTC business team and Wipro/IBM team. CCB reviews, assesses, approves, or rejects all changes to the MLTC environment. Changes are organized into three categories: routine-simple, planned-complex, and emergency. Each of the categories includes dedicated staff engaged to verify the change is executed completely and accurately. Change management is also integral to our release and patch management process, where we will follow best practices for installation of critical patches. Figure IV-78: Change Management Process illustrates our high-level procedures.

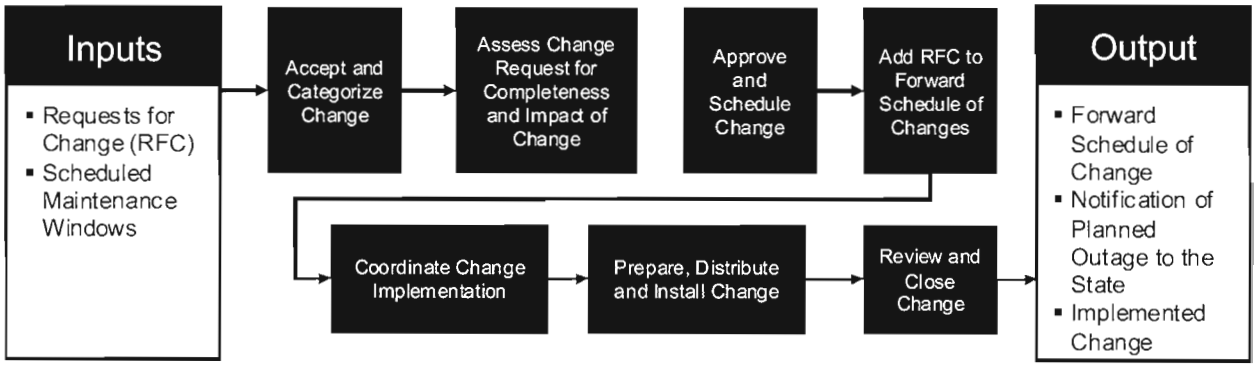


Figure IV-78: Change Management Process

When a change request has passed the initial review of the Change Control Board, we will make an initial assessment of the cost, schedule, and resources needed to implement the proposed change. If the requested change is complex, a Cost and Schedule Impact Analysis (CSIA) should be requested. This will be indicated and an estimate of the cost, schedule, and resources needed to perform the

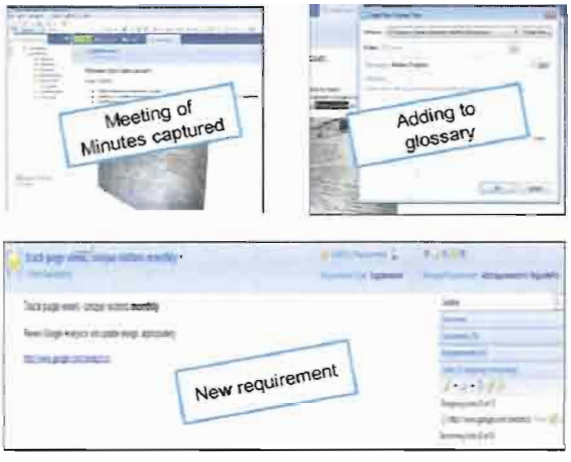
CSIA will be made. The Change Control Board will once again review the requested change and either accept, reject, or defer.

iii. Describe how requirements will be tracked, documented, and versioned.

Requirements will be gathered, tracked, managed, base lined, versioned using IBM Rational Requirements Composer (RRC). RRC is a tool that empowers us to define, manage, and report on requirements in a lifecycle development project. This web-based application supports iterative, waterfall and agile-at-scale development methodologies using lightweight requirements processes.

In RRC variety of artifacts can be leveraged, in it. These can include - Rich Text, Multiple Glossaries, Models, and User Interface (UI).

Adding and Tracking a Requirement



- From the 'Meeting Minutes' document above, Analysts decide that a new term has arisen that should be added to Glossary, in order to ensure consistency should it arise again.
- The team also realizes that they now have a new formal requirement, and denote it as such via right-clicking text and selecting 'Mark as Requirement', so that it can be managed moving forward, in the lifecycle.
- Additionally, post a process change has been 'brainstormed'. In addition to inserting a picture of this design change from the whiteboard into the repository, the analysts will tie that change to the appropriate design models.

Versioning of a Requirement

Versioning exists for each artifact. Each change to the artifact is shown in a timeline across the top (in the History view), allowing easy rollback to previous versions.



Figure IV-79: Versioning of a Requirement

iv. Describe in detail the documentation deliverables that will be produced as a result of the requirements analysis and provide samples of the documentation.

The following deliverables will be produced as part of requirement analysis.

- System Architecture Diagrams
- Requirements Traceability Matrix
- Non Functional Requirements
- Use Case Model
- Network requirements
- Security and Privacy requirements

v. Describe the tools and business processes that will be used to track requirements throughout the SDLC.

IBM Rational Requirements Composer will be used to track requirements throughout the SDLC.

Requirements and Traceability plans will be managed in IBM Rational Requirements Composer, Test plans and Test cases will be managed in IBM Rational Quality Manager software, Implementation of features/tasks will be managed in IBM Rational team Concert, Defects will be managed in IBM Rational team Concert. team creates the traceability between Requirements, Test cases to project artifacts, Defects etc. This way Platform helps to manage overall real time traceability.

vi. Describe how the Requirements Management and Traceability Plan will be implemented into the overall PM approach including any and all tools that are used.

The Requirements Management Plan will be implemented within the overall Program Management Plan according to Wipro/IBM's submitted policies, procedures, and tools. Examples of the Requirements Management tools are:

- IBM Rational Requirements Composer
- IBM Rational team Concert

Requirements and Traceability plans will be managed in IBM Rational Requirements Composer, Test plans and Test cases will be managed in IBM Rational Quality Manager software, Implementation of features/tasks will be managed in IBM Rational team Concert, Defects will be managed in IBM Rational team Concert. team creates the traceability between Requirements, Test cases to project artifacts, Defects etc. This way Platform helps to manage overall real time traceability.

vii. Describe how requirements will be stored in a repository and how the State of Nebraska and stakeholders will access the information about a requirement.

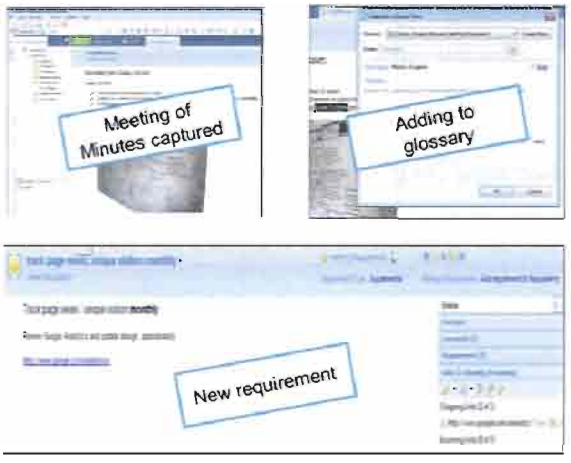
Requirements can be gathered, tracked, managed, base lined, versioned with the help of IBM Rational Requirements Composer (RRC). It attempts to exist earlier in the lifecycle, where requirements are first defined. This matches the current trend, whereby business-side resources can contribute more fully on projects, using various 'vocabularies' to collaborate on ideas. RRC seeks to serve two audiences: Analysts (who author), and Stakeholders (who review). Ultimately, it can thus serve as a collaborative repository for organizing, creating, refining, and reviewing requirements and

their related materials. This can shorten duration and increase your competitiveness in a demanding market; and also lower costs through better communication and less rework.

In RRC variety of artifacts can be leveraged, in it. These can include - Rich Text, Multiple Glossaries, Models, and User Interface (UI).

Adding and Tracking a Requirement

- From the 'Meeting Minutes' document above, Analysts decide that a new term has arisen that should be added to Glossary, in order to ensure consistency should it arise again.
- The team also realizes that they now have a new formal requirement, and denote it as such via right-clicking text and selecting 'Mark as Requirement', so that it can be managed moving forward, in the lifecycle.
- Additionally, post a process change has been 'brainstormed'. In addition to inserting a picture of this design change from the whiteboard into the repository, the analysts will tie that change to the appropriate design models.



Versioning of a Requirement

Versioning exists for each artifact. Each change to the artifact is shown in a timeline across top (in the History view), allowing easy rollback to previous versions.

viii. Describe business processes and procedures that will be used for tracking requirements from design through configuration/coding, acceptance, unit, and integration testing, as well as promotion into production.

The Wipro/IBM team will trace all project requirements via Requirement Traceability matrix Using Rational Requirement Composer. Requirements traceability and testing can be thought of as inseparable work streams, as one cannot be fully satisfied without the other. The Requirements Traceability Plan will describe the processes needed to identify the project requirements, and how to document those requirements in a system that enables bidirectional traceability. The Requirements Traceability Plan will outline how both Wipro/IBM and the MLTC will manage changes to those requirements. The Requirements Traceability Plan will also describe a process to achieve commitment to the in-scope State requirements and identify variations between these requirements and the project work.

The Requirements Traceability Plan will document how the Wipro/IBM team will identify, organize, assess, and track the project functional and non-functional requirements throughout all three project phases. The requirements management process will establish a collective understanding among Wipro/IBM, the State, and existing system participants regarding the functional, technical, and operational need to be addressed and supported during project execution.

Table IV-22: Requirements Traceability Activities

Stage	Requirements Traceability Activities
Solution Outline	Meet with Subject Matter Experts (SMEs) to: Confirm a mutual understanding of in-scope business requirements; Confirm and review our proposed Solution Architecture and assess its impact on the project requirements; Review the State if MLTC's existing systems, applications, and organization to assess impact on project requirements.
Macro Design	Establish baseline set of in-scope functional and non-functional requirements, and load those requirements into Rational Requirements Composer (RRC). Review baseline set of Use Cases and map to requirements loaded in RRC; update loaded requirements based on Joint Application Design (JAD) sessions
Construction and Solution Test Preparation	Map Unit and Integration Test Cases and Test Scripts to requirements loaded in RRC. Iteratively review Unit and Integration Testing progress and results with the State to identify requirements as candidates for modification or removal through Change Requests (CRs). Produce and review periodic requirements coverage reports with the State. Begin mapping Solution Test Execution Test Suites, Test Cases, and Test Scripts to requirements loaded in RRC.
Solution Test Execution	Finish mapping Solution Test Execution Test Suites, Test Cases, and Test Scripts to requirements loaded in RRC. Iteratively review Solution Test Execution progress and results with the State to identify requirements as candidates for modification or removal through Change Requests (CRs). Produce and review periodic requirements coverage reports with the State.

4. *Issue Resolution Management*

i. Describe business processes and procedures that will be used for the identification, definition, and evaluation of project issues related to the EES

Commitment to resolving issues jointly and swiftly facilitates successful project completion.

The Wipro/IBM team will provide a standardized method for dealing which focuses on reviewing the issues in the context of the issue's effect on the entire project. Therefore, proactive issue management helps to prevent risks and negative project outcomes as well as avoid greater costs to for mitigation and firefighting efforts. The issue management process will be reviewed weekly with the project management staff, which will result in action assignments to disposition the issues if necessary.

The ***SmartPro MedEE*** project will be managed proactively with an emphasis on team-based problem solving. The Wipro/IBM team will implement processes to identify potential issues and develop plans to mitigate their effects. Our team approach enables the team to quickly identify potential issues and initiate the appropriate corrective actions before issues become major problems. The Wipro/IBM team will use the following methods to identify potential problems and issues:

- The project work plan, project control tools, and standard processes will be maintained and reviewed to monitor progress against project milestones, thereby providing important information for identifying problems with the schedule and resources.
- Wipro/IBM team process and supporting tools will identify, document, and track project issues. This will yield valuable information that can be used to identify issues of policy, design, technology, implementation, and operations.
- Weekly status meetings will provide a forum for alerting key personnel to potential issues as well as for planning and initiating appropriate corrective actions.
- Project plans will enable the Wipro/IBM team to adjust the project schedule quickly when necessary by shifting resources from less critical to more critical tasks.
- Scheduled reviews by experienced managers and information technology specialists not regularly assigned to the project will provide fresh perspectives on key operational and technical issues.

Weekly meetings will be held between the MLTC and the Wipro/IBM management teams specifically to address issues and determine the appropriate course of action. Issues may range from requirements clarifications and adjusting build strategies to approving User Acceptance Testing scenarios. Working as a unified, committed team enables the swift resolution of issues that could potentially hinder project progress

ii. Describe how the processes and procedures will differentiate between an issue and a risk;

A risk is an "uncertain event or set of circumstances that, should they occur, will have an adverse effect on the achievement of the project or program objectives". An issue is an "event that has happened which is adversely affecting the project or program objectives".

Both issues and risks are identified, assigned an owner, logged, and given a set of actions. However, the way they are identified, and what occurs with them after identification differs.

Methods of risk identification include: Joint Application Development, Interviewing and Diagramming, SWOT (Strengths, Weaknesses, Opportunities, and Threats), and Industry Trends and Analysis. A risk management log will be generated and updated. A top 10 high-risk list will be managed daily by the PMO team. This priority will be driven by a combination of probability of occurring and impact.

Issues are identified once they occur. Once identified, root cause analysis is performed, and the issue is prioritized by team lead based on criticality and complexity of the issue.

iii. Describe how the business processes and procedures will be used to resolve issues;

Figure IV-80: Issue Management Procedure depicts the process we will follow to prioritize and resolve issues.

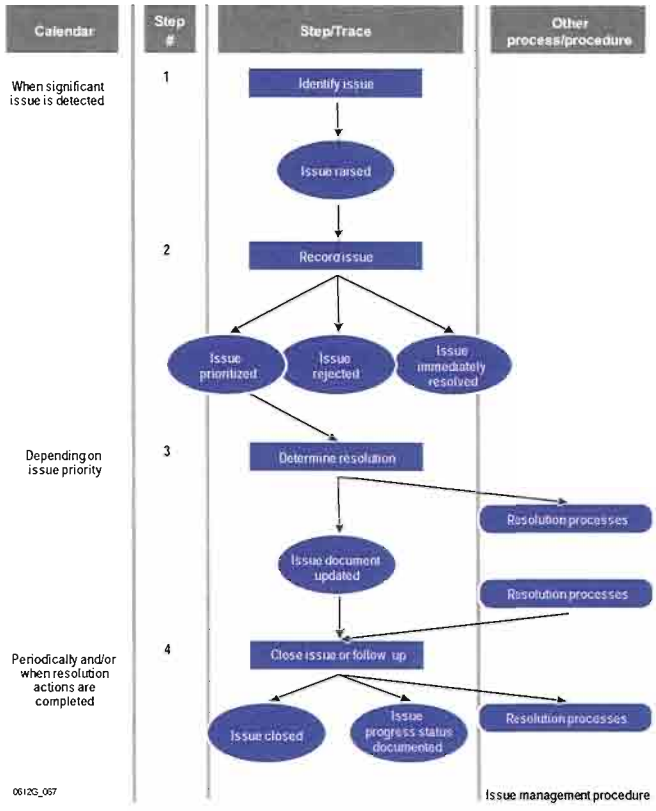


Figure IV-80: Issue Management Procedure

iv. Describe the tools that will be used to document, track and manage issues and document issue resolutions;

The Issue Management Tool that will be used to document, track and manage issues and document issue resolutions is the IBM Rational team Concert. Issues will be logged in the weekly status report, logged into the issue tracking database by the members of each team, and reviewed weekly by the project management team. The issue tracking database will be used to determine the status of outstanding issues and the resolution of closed issues. This will ensure that issues are resolved in a timely and accurate manner. IBM Rational team Concert will be used as an issue management tool.

v. Describe how the Issue Resolution Management Plan will be implemented into the overall PM approach including any and all tools that are used; and

The Issue Resolution Management Plan will include:

- Issue identification and documentation
- Prioritization and categorization rules
- Tracking procedure
- Escalation procedure
- Issue Monitoring
- Communication
- Closing

IBM Rational team Concert will be used to log and track issues. Escalation and communication will also occur through status reports.

vi. Describe how the tools will be used to support State of Nebraska and stakeholder access to information about issue resolution.

Issue resolution will be stored in IBM Rational team Concert. We can provide MLTC access to the tool over the Internet. As per license agreement with IBM we can provide review and approval access to customers for issues documents.

5. *Risk Management and Resolution*

i. Describe business processes and procedures that will be used for:

a. Identifying and defining risks

Risk identification involves the project team and appropriate stakeholders, and includes an evaluation of environmental factors, organizational culture, and the project management plan including the project scope, schedule, cost, or quality. Careful attention will be given to the project deliverables, assumptions, constraints, WBS, cost/effort estimates, resource plan, and other key project documents.

Methods to identify risk include the following:

- Joint Application Development
- Interviewing and Diagramming
- SWOT (Strengths, Weaknesses, Opportunities, and Threats)
- Identified or encountered risks from other ***SmartPro MedEE*** projects coupled with their risk mitigation plan
- Industry Trends and Analysis

b. Tracking and monitoring risks

A risk management log will be generated and updated. A top 10 high-risk list will be managed daily by the PMO team.

c. Quantifying, qualifying and prioritizing risks; and

Figure IV-81: Risk Assessment Matrix below displays a risk assessment matrix. Risks in the High areas portray a high probability of occurrence and a high level of impact. Risks in the Medium areas have a medium probability of occurring or medium impact, and risks in the Low areas have a low probability of occurring and low impact. The process for determining risk impact will be determined with the MLTC during the Project Initiation and Planning phase as part of the project management plan development.

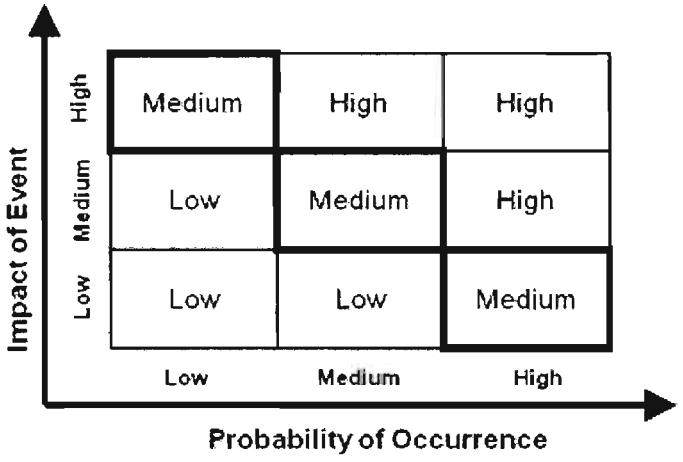


Figure IV-81: Risk Assessment Matrix

Risk impact is measured by impact on time, quality, or cost (high: >10%, medium: 5-10%, low: < 5%). Probability is measured as the likelihood of occurring (high > 50% chance, medium: 10-50% chance; low: < 10% chance).

d. Mitigating of risks

A mitigation strategy to reduce the likelihood and/or the consequences will be planned and executed. The likelihood and impact of the risk will be quantified once the action is taken. Available mitigation strategies are often a blend of the following:

- Prevention - If the consequence is too great, stop or change approach to prevent the risk happening.
- Reduction - If the risk cannot be avoided, determined ways to reduce the potential impact.
- Acceptance - If the impact is tolerable and avoidance prohibitive/impossible it might be best to plan how to manage the fall-out should the risk materialize.
- Transference - Move the risk elsewhere, either into another party (for example, financial), or onto another objective (for example, shuffling resource).
- Contingency - Create a contingency plan to implement if this risk materializes.
- Risks with ratings of "High", "Severe", and "Extreme" must be mitigated.

ii. Describe processes and procedures that will be used for risk assessment;

The process for the Risk Management Plan includes begins with risk identification and is followed by risk analysis, where the severity, timeliness, and costs of mitigation are assessed. We then plan the mitigation strategy for each risk. Finally, we track and report the status of each risk as part of our management and status reporting process. This process is illustrated in Figure IV-82: Risk Management Plan Process.

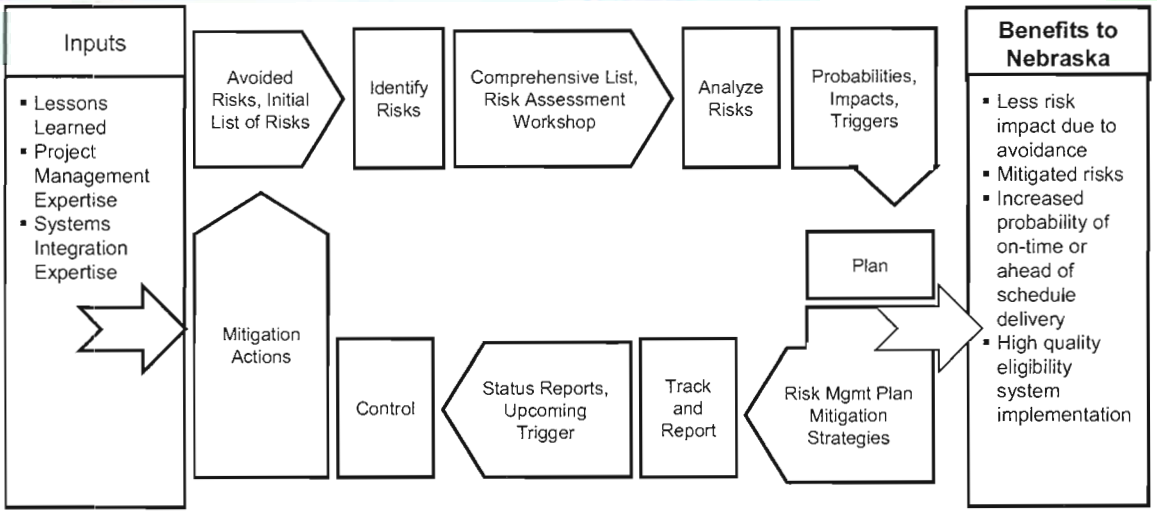


Figure IV-82: Risk Management Plan Process

iii. Describe processes and procedures that will differentiate between an issue and a risk;

A risk is an "uncertain event or set of circumstances that, should they occur, will have an adverse effect on the achievement of the project or program objectives". An issue is an "event that has happened which is adversely affecting the project or program objectives".

Both issues and risks are identified, assigned an owner, logged, and given a set of actions. However, the way they are identified, and what occurs with them after identification differs.

Methods of risk identification include: Joint Application Development, Interviewing and Diagramming, SWOT (Strengths, Weaknesses, Opportunities, and Threats), Lessons Learned from other ***SmartPro MedEE*** projects and a review of their risk logs, and Industry Trends and Analysis. A risk management log will be generated and updated. A top 10 high-risk list will be managed daily by the PMO team. This priority will be driven by a combination of probability of occurring and impact.

Issues are identified once they occur. Once identified, root cause analysis is performed, and the issue is prioritized by team lead based on criticality and complexity of the issue.

iv. Describe the tools and techniques that will be used for

a. Risk identification
b. Risk documentation
c. Risk management
d. Risk analysis
e. Risk logging and;
f. Risk mitigation

IBM Rational team Concert will be used in the identification, documentation, analysis and logging of risk per the Risk and Issue Management process.

The formal Project Management process template in Rational team Concert provides Risk and Risk Action work items for risk management.

Our team will identify risks using the following techniques:

- An initial set of risks will be identified using the IBM GS Risk tool. This tool contains a master checklist of potential risks by type of project - our team will select any that are applicable to projects of this type and tailor the recommended mitigation plans provided by the tool for this specific project. We will then transfer them to Rational team Concert for ongoing management
- Each team will hold risk identification brainstorming meetings at major milestones to identify any potential emerging risks.
- The change management process will also include identification of risks that might emerge as the result of changes if accepted.

v. Describe how the Risk Management Plan will aggressively monitor risk and identify triggers to risk events;

Risks will be regularly monitored and reviewed to determine if the planned actions reduce the risk in terms of impact and likelihood as planned or if new factors (internal or external) alter the risk quantification.

vi. Describe how the Risk Management Plan will be implemented into the overall PM approach including any and all tools that are used; and

The Risk Management Plan will include the risk management procedure, including:

- Risk identification and documentation
- Risk analysis – quantitative and qualitative
- Risk response planning
- Risk monitoring, closing and reporting

A risk log will be maintained in Rational ClearQuest by the project manager and will be reviewed as a standing agenda item for project management team meetings. Top 10 Risk Items will be fully reviewed at Executive Steering Committee meetings.

vii. Describe how the Risk Management Plan will address the risks of a single or phased EES implementation and provide aggressive mitigation strategies, including how the single or phased implementation will be leveraged to ensure a successful transition

The Wipro/IBM team has built the project plan based on a one-year implementation cycle with iteratively scheduled work packets. There is the opportunity to include or modify the project plan for a quick win. We have found that breaking the work into logical functional work packets lowers the risk of the overall project. Further, our approach of end user involvement in the JAD requirement sessions coupled with the use of the COTS product also lowers the risk to this approach as the users see the application before the design, configuration, implementation, and testing phases.

The Wipro/IBM team has developed a comprehensive implementation approach for ***SmartPro MedEE*** to enable the MLTC to achieve a successful implementation. Critical to the success of the implementation plan will be identifying risks associated with the approach as early as possible, developing comprehensive mitigation strategies, tracking the risks and should the risk arise, transitioning it aggressively into the Issue Management process. Figure IV-83: Risk Management Process depicts the Risk Management process that will be utilized throughout the duration of the engagement.

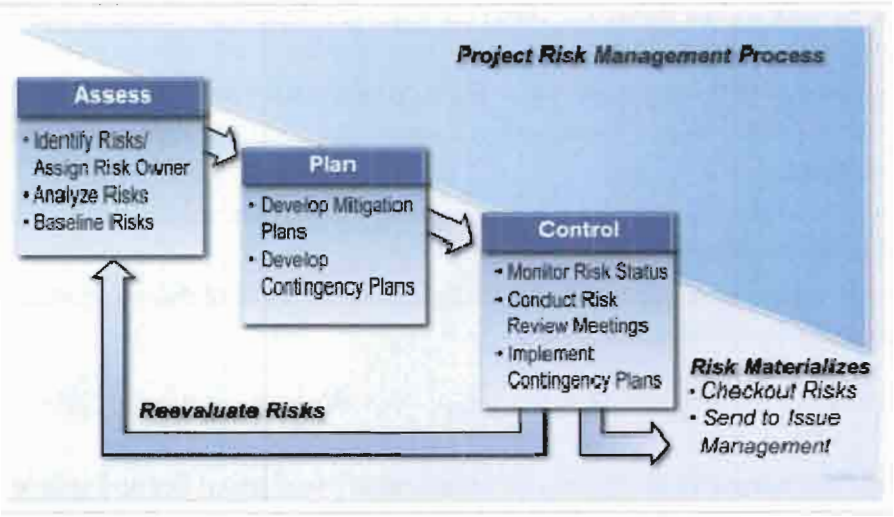


Figure IV-83: Risk Management Process

Fundamental to the success of the risk management process, is reviewing the risks by the project leadership at a consistent frequency. The Wipro/IBM team will conduct weekly meetings with MLTC leadership to review the risk and mitigation strategies so that any risk whether it is technical, organizational, requirements or staffing will have the appropriate visibility and the mitigation plan is accepted by all.

6. Configuration Management

i. Describe how changes will be tracked, documented, and versioned;

The Change Management process must be documented and followed in order to control project scope. During the Initiation, Concept, and Planning Phases of the CSPMM, the Wipro/IBM Team intends to validate the requirements and assumptions outlined in this proposal and baseline the scope of each project phase as required. The Project Baseline Document will be reviewed with the appropriate State of Nebraska stakeholders to get approval and will be used throughout the entire project lifecycle to manage and control scope of the projects.

Deviation and changes from the scope throughout the project will be managed through the Project Change Request (PCR) process which will be required to go through a structured Change Control Board's approval prior to making/accepting any changes in the project baseline. The Change Control Board will be a collaborative team consisting of members from the Nebraska MTLC and Wipro/IBM team. Only those members who are authorized to make decisions on scope, schedule, and price changes will be involved in this process. The team intends to follow a structured process using standard templates that are part of the CSPMM process. This includes change management templates to ensure successful continuity of operations.

The Wipro/IBM team members will identify the changes requested by the State team members, and changes that arise during the system implementation phases. The Change Requests will be documented in a Project Change Request (PCR) template which will include the description of the change along with the scope, schedule, and price impacts due to the change. The Wipro/IBM

Project Manager will be responsible for reviewing the PCR with the Change Control Board, and upon approval of a PCR, will authorize the IBM team members to proceed with changes. If a PCR is not approved, the change will not be implemented. All changes will be stored in a centralized repository that will be mutually agreed upon by the Wipro/IBM Team and the State of Nebraska.

ii. Describe how changes will be synchronized and distributed when multiple activities are occurring simultaneously across multiple environments (e.g. sandbox, configuration/development, test, quality assurance, production, training, and disaster recovery);

Configuration management, if not documented and controlled correctly, can become a single point of failure. To that end, regardless of the environment be it sandbox, configuration/development, test, quality assurance, production, training, and disaster recovery, the end goal is to mitigate the risk for the State of Nebraska, and all parties relying on the successful operation of the ***SmartPro MedEE*** system. In order to mitigate this risk, we will document a configuration management plan that will outline practices for release management and change management consistent with the CSPMM. These processes will identify timelines and approval levels where both the State of Nebraska and the Wipro/IBM team will be involved before any configuration item or custom code can be promoted to the Production environment. A configuration management plan will be issued for each major and minor release. Synchronization efforts between teams will be identified as part of the deliverable scheduling areas of the configuration management plan.

iii. Describe any tools and business processes that will be used to control software development, including check in/check out procedures and a responsibility audit trail;

Source code and technical change management will be managed using IBM Rational team Concert. Rational team Concert (RTC) is an optimal solution because it has the ability control code that is part of the full software development life cycle from creation to management. Source code management as part of RTC is built on a component-based JAZZ control architecture. RTC enables for code management to be distributed across varying geographies as the product supports parallel, waterfall, and agile software development methodologies. RTC offers features such as defect tracking, build integration tracking, and process automation. Source control can be control or feature driven. Code reuse and management capabilities within RTC.

Change Sets: This change set storage model, as part of RTC, provides atomic changes to sets of files. Change sets are considered a baseline for code management and can be shared (via work items), suspended, discarded, and reverted across developers, teams, or geographies if appropriate.

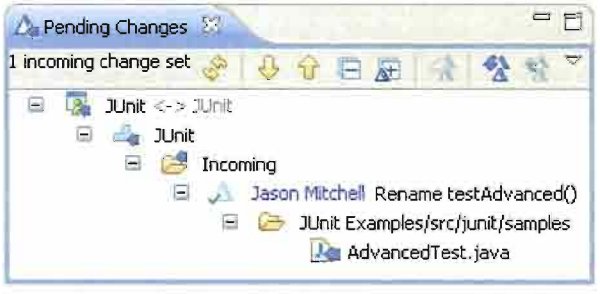


Figure IV-84: RTC Change Sets

Streams: When a team is responsible for a specific code set, RTC establishes a Stream for the teams or project owner to manage the activities as needed for the code baseline. Streams can be created easily for ad-hoc collaborations, and streams can be created from builds to reproduce shipped products. In addition, streams provide an efficient scaling mechanism where sub-teams can be isolated and flow their changes into stream hierarchies as integration is needed.

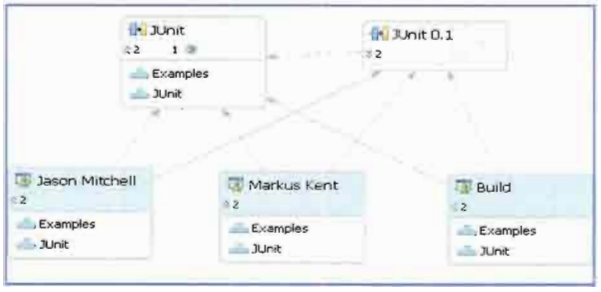


Figure IV-85: RTC Streams

Component Development: A system such as the ***SmartPro MedEE*** will undoubtedly include a complex code based. Instead of combining all change sets in the same namespace for the system, the use of RTC enables for component-based deployment. This means that there are various ways to manage code in the same repository without having to impact the entire set of system code.

Task Integration: Because code is managed in code sets, tasks can be suspended and resumed as needed within a change set without impacting an entire set of application source code.

Move and Rename Tracking: RTC offers full support for tracking file, renaming files, and moving in addition to support for merging structural conflicts.

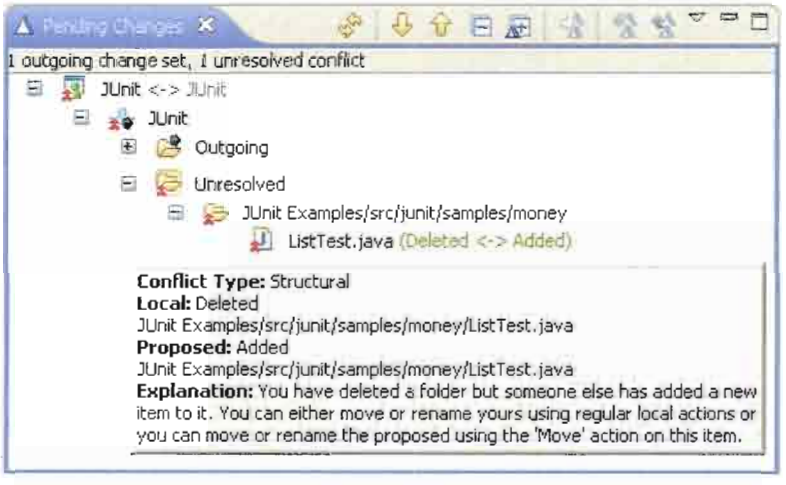


Figure IV-86: Move and Rename Tracking

Full Administrative Control to Delete Contents from Source Control: An administrator, as determined by project leadership and the Change Control Board, can delete the content associated to the version of the source code. Approval would be required for changes to be made to every environment except development.

Within the development team, changes will be documented using a combination of RTC and ClearQuest. Code changes will be documented and ownership will be clearly delineated. To the greater MLTC project team and State leadership, the control review board process includes steps to ensure change request closure is documented. A routine communication will be sent out to the appropriate parties to articulate the system modifications and impact to the user community as required. Change messaging delivery formats will be mutually agreed upon between the MLTC and the Wipro/IBM team for each incremental incident.

iv. Describe how the Configuration Management Plan will be implemented into the overall PM approach including any and all tools that are used;

The Configuration Management Plan is initially created during the Initiation, Concept, and Planning Phases of the project. The Wipro/IBM team uses a structured configuration management plan template, the MLTC SDLC Template. Configuration Management activities are supported using IBM Rational ClearQuest 8.0 as the preferred configuration management tool.

Our overall objective when executing and preparing a Configuration Management (CM) Plan is to document and inform project stakeholders about CM with the project, what CM tools will be used, and how they will be applied by the project to promote success. Key objectives in a CM plan include:

- Identifying, defining, and establishing a baseline for configuration items
- Controlling modifications and releases of configuration items
- Reporting and recording status of configuration items=s and any requested modifications
- Ensuring completeness, consistency, and correctness of configuration items
- Controlling storage, handling, and delivery of the configuration items

Each Configuration Management Plan is built on three core objectives: organization impacts, training impacts, and requisite activities. To elaborate further, the details in each section may include:

- **Organization**: Potential organizational impacts from CM activities, what organizational policies, and procedures may be impacted and organizational interfaces between organizations that may impact configuration management efforts.
- **Training**: Identify the kind and amount of training necessary to bring the performing organization up to speed on what configuration management is, any tools used to perform CM activities, and what, if any, impact CM may have on how work is performed. This may include development team orientation, tools training, and organizational awareness.
- **Activities**: The activities can contain one or more of the following requisites:
  - Configuration Item Management
  - Configuration Identification and Exploration
  - Artifact Lifecycle Reviews
  - Configuration Control Reviews
  - Configuration Audits and Reporting

Collectively, this holistic approach to configuration management provides the intuitive processes required to easily managing a large project such as ***SmartPro MedEE***; a sufficient number of checks

and balances for operational continuity are implemented from the onset of the project and can be implemented as needed throughout the entire lifecycle.

v. Describe business processes and procedures that will be used for controlling the migration of code from design through coding, acceptance, unit, and integration testing, as well as promotion into production. Explain how proposed changes will be communicated to the stakeholder.

The application hosting infrastructure hardware and software configurations are managed and maintained throughout the configuration management solution deployment process. We design, plan, and maintain the physical and logical configurations of hardware and software components. Changes to configurations are applied at installation or during our maintenance windows which are communicated through the change management process. Notifications are sent to the appropriate stakeholders through regular electronic communications, including emergency releases as appropriate. The process for managing the entire configuration management lifecycle as proposed by Wipro/IBM is described in Figure IV-87.

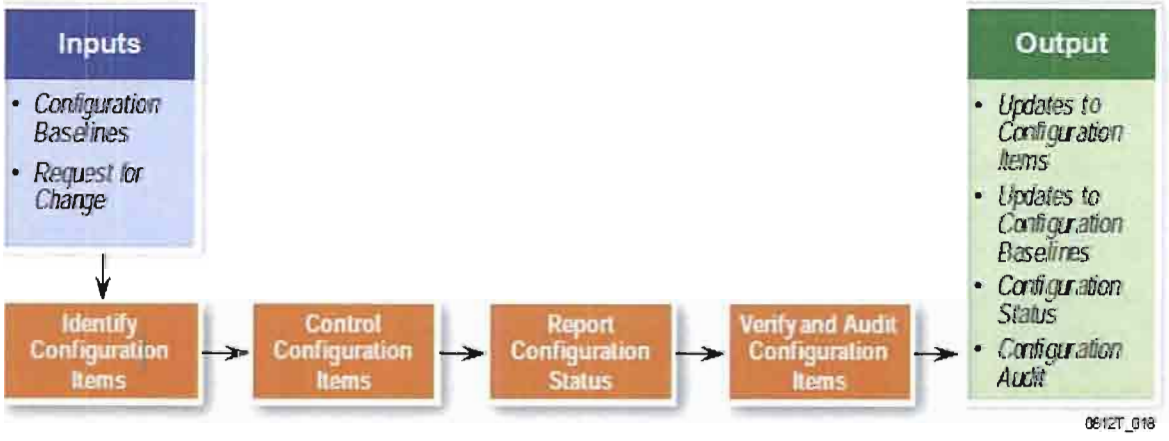


Figure IV-87: Configuration Management Process

vi. Describe how changes to the environments will be controlled so that no changes to hardware, software, or operational procedures will be implemented without the State of Nebraska's review and approval;

Part of any change management control process is ensuring that changes made during a subsequent deployment do not have any impact to operations. Operational controls must be put in place to ensure that all the appropriate authorizations are gather and agree to a change in a given environment. As part of the management of the system environment, the Wipro/IBM team reviews, assesses, approves or rejects all changes to the State's environment. Changes are organized into three categories: routine-simple, planned-complex, and emergency. Each of the categories includes dedicated staff members engaged to verify the change is executed completely and accurately so that no changes are made which can adversely affect operations. This process allows for the MLTC to approve all changes prior to being put into a production-ready state. Change management is also integral to our release and patch management process, where we will follow best practices for installation of critical patches. The change management procedure process is described in Figure IV-88.



Figure IV-88: Change Management Procedure Process

vii. Describe the software development management process that will be used, including the migration of code from design to production. This description shall include diagrams and other graphical representations to communicate the processes

Release Management is the software development management process that will be used by the Wipro/IBM team to handle the migration of code from design to production. The use of release management is considered the highest and most delicate level of configuration management as it is the control process that enables for deployment of a major system release.

A release will be defined within the configuration management tools, and all artifacts under configuration control will be traced to one or more of the releases. Major releases are associated with a ***SmartPro MedEE*** implementation phase or maintenance agreement. Minor releases are associated with functional increments within the major releases, such as defect fixes and approved change requests. The full release management lifecycle is described in Figure IV-89.

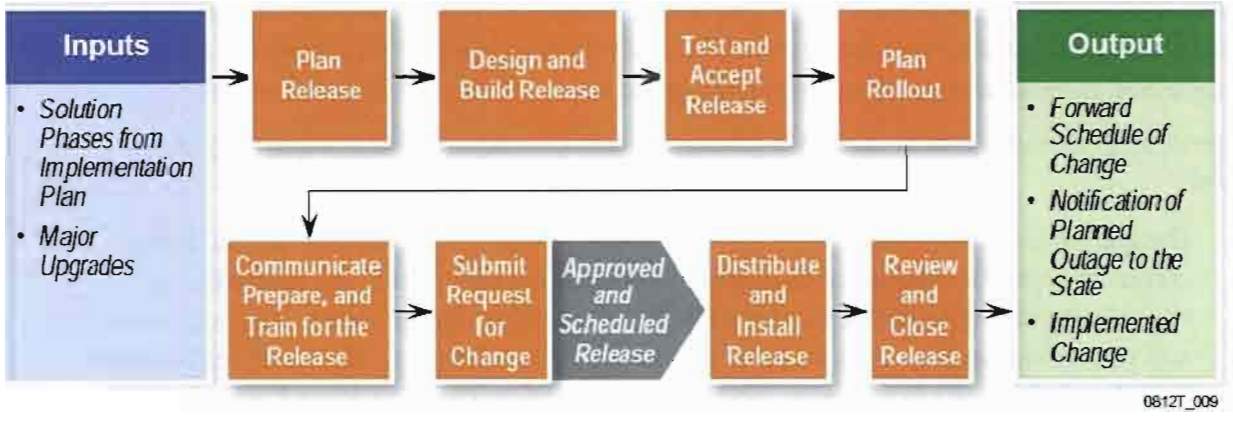


Figure IV-89: Release Management Procedure Process

viii. Identify the types of configuration changes that can be made. Categorize the changes in terms of functionality, testing requirements, quality of change and the extent of the change in terms of immutability and retractability;

As part of any release, there are several change types that may be identified. Usually it falls into changes that require a change to:

- Software code,
- Hardware sizing, or
- Process oriented change such as defined by rules and workflow modifications which can impact both the software and hardware

Functionality changes are often modifications in software code and process. A change in the way a screen must present information, a data input requirements (i.e. a validation requirement), or how an approval process works (i.e. verifying evidence associated with a case) are often examples of functional changes. Once a change is made to software code or a process, it must be tested in various environments before being deployed to production.

As part of the Development as well as the Implementation phase of our ***SmartPro MedEE*** project, configuration changes can be made. The primary objectives of the two phases are 1) complete the application configuration and development of the individual solution components according to the high level design specifications and 2) confirm that the components meet the quality standards required to proceed to the integrated testing of the end-to-end solution.
The three primary activities (Design, Develop, and Unit Test) are performed in a structured and iterative manner. The benefits of iterative construction are:

- Ability to verify working software against user and technical requirements early and often
- Ability to address high risk areas early without waiting for the entire design cycle to complete
- Ability to demonstrate achieved value

Not only does our methodology promote iterative development within multiple phases, the methodology promotes incremental development so that configuration changes can begin as soon as Requirements Analysis artifacts are completed and reviewed for a segment of the application, usually a discrete functional area (e.g. Intake, Case Management, etc). This allows for discrete retraction and immutability so that no one change can impact system wide performance

Further descriptions of the three activities (Design, Development, and Integration Test) are as follows:

- **Design**. During the Design Phase, any additional design details required for the actual construction of the executable elements of the Solution are created. Micro Design activities typically involve decisions around the fine grain specifications on how a business function will be implemented in software or to complete the final details around complex business logic (e.g. statistical calculations). Because the Eligibility ***SmartPro MedEE*** Solution is composed primarily of commercial software based on proven architectural approaches, there will be less effort in design than if it were a custom developed system or a system that is strictly a framework or collection of COTS tools. Design is typically performed in parallel with Development following the principles of Rapid Application Development.
- **Development**. The component development teams will construct or configure their components and perform a unit level test following guidelines established as part of the

overall master test plan so that a common level of quality results is achieved prior to Integration Test.

- **Integration Test**. At defined milestones within the Development as well as Implementation phase, component development teams will assemble the individual "units" of the application and confirm that the functions "within the four walls" of their component are working as specified. Integration Test verifies that the each component of the overall solution is ready to proceed to End-to-End solution testing.

During all stages of the software development lifecycle for ***SmartPro MedEE***, the individual component development teams will follow their unique implementation methodologies and techniques to perform these specific activities. This illustrates our approach enables effective integration of complex systems, while having the flexibility to incorporate domain specific methodologies.

As part of any form of process that ensures retraction and immutability, the effective use of an iterative development requires disciplined planning and management. The process starts by defining the overall scope of the "iteration" or "build cycle" that includes the specific functional and technical requirements to be addressed. From this, granular work items ("tasks") required to meet the functional scope are identified and estimated. The iteration plan is completed by assigning each work item to individual team members. Throughout the iteration, progress is tracked and the iteration plan and work item assignments are refined as necessary using the tools described within the configuration management section including all components of the Rational Team Concert software suite.

ix. Describe the organizational structure that will be in place to control changes; and

Below is a high-level view of the overall organization structure:

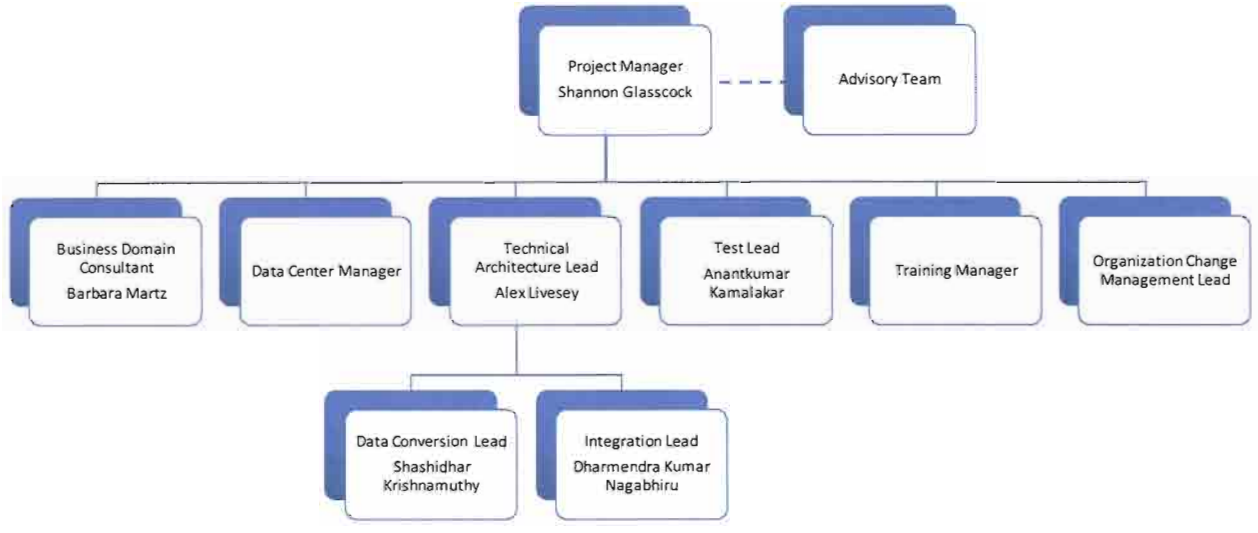


Figure IV-90: Overall Organization Structure

Each of the team leads will be responsible to control changes within their area. The project manager will report on major changes, and will flag changes that impact delivery schedules. It will be the responsibility of the change control board to approve or reject these changes.

x. Describe how the Contractor will inform the State of Nebraska of the benefits that would realize from any and all announcements of a new version of hardware, software, or COTS product.

The Wipro/IBM team, as part of regular status reports provided to the MLTC, will include any information and product suggestions, including enhancements, to the product baseline being recommended as part of this request for proposal. For ***SmartPro MedEE***, major ("X") releases occur every two to three years. Major ("dot x") releases occur semi-annually to annually. There are also patches and fixes as well as emergency patches that are made available to the project. The release notes of a new product release will be analyzed to determine its impact on the project. Addition of patches is included in the current project plan, as these typically do not provide new functionality. .x releases which may include new functionality will be analyzed for their impact and a decision to either implement or wait on the implementation will be made after review with MLTC project leadership. With the current rules and regulations and federal guidance continuing to evolve related to the Affordable Care Act, release schedules over the past year have been accelerated and this is expected to continue throughout the first half of 2014. Sometimes, ***SmartPro MedEE*** also makes pre-release information available to the project teams based on specific agreements and relevance to the State project.

7. Project Performance Management

i. Describe the performance metrics that will be established for the project;

The project manager will update the project work plan provided with our response at the task and resource level for the execution of the project. This becomes the tracking and status reporting mechanism to guide the project team's activities and provides the baseline to develop status reports and measure progress.

Every week, the Wipro/IBM team reviews cost and schedule performance for the previous week, the status of planned accomplishments, plans for the current week, project calendar of upcoming events, risk mitigation, and draft baseline changes that potentially impact project requirements, cost, and/or schedule. This approach, described in Figure IV-91, enables us to address minor variances before they impact the overall project.

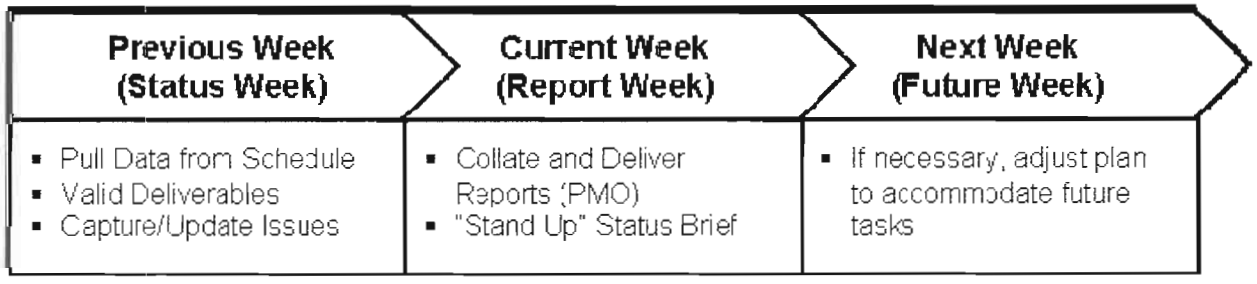
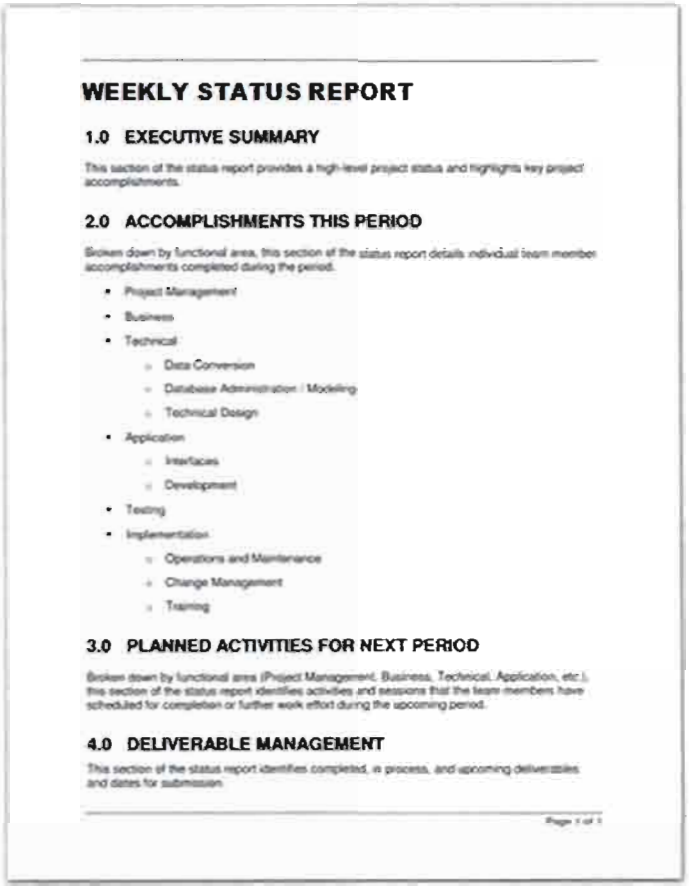


Figure IV-91: Weekly Status Reporting

A sample weekly status report is provided as Figure IV-92 "Sample Weekly Status Report" below.



WEEKLY STATUS REPORT

1.0 EXECUTIVE SUMMARY

This section of the status report provides a high-level project status and highlights key project accomplishments.

2.0 ACCOMPLISHMENTS THIS PERIOD

Broken down by functional area, this section of the status report details individual team member accomplishments completed during the period.

- Project Management
- Business
- Technical
  - Data Conversion
  - Database Administration / Modeling
  - Technical Design
- Application
  - Interfaces
  - Development
- Testing
- Implementation
  - Operations and Maintenance
  - Change Management
  - Training

3.0 PLANNED ACTIVITIES FOR NEXT PERIOD

Broken down by functional area (Project Management, Business, Technical, Application, etc.), this section of the status report identifies activities and sessions that the team members have scheduled for completion or further work effort during the upcoming period.

4.0 DELIVERABLE MANAGEMENT

This section of the status report identifies completed, in process, and upcoming deliverables and dates for submission.

Figure IV-92: Sample Weekly Status Report

In addition to the weekly status reports, our team will provide Nebraska with monthly and quarterly status reports described in the table below.

Table IV-23: Additional Status Reports

Status Report Type	Report Details and Benefits
Monthly Status Report	• Summarizes the weekly status reports • Provides measurements for project performance such as deliveries, quality of deliverables, client and project team commitment, schedule performance index, and budget performance • Includes important information from project tracking systems such as the Risk Management Log, Issue Log, Configuration Management Log, and Project Change Request Log • Compiles and lists the milestones and major tasks that are accomplished, not met on schedule, and outstanding • Includes earned value management metrics to measure our monthly project performance and progress
Quarterly Status Report	• Summarizes the state of the project and the issues, risks, and performance metrics updates for the past quarter and expectations for the upcoming quarter

Status Report Type	Report Details and Benefits
	• Provides the Nebraska executive sponsors and vendor executives with an accurate project status to provide appropriate decision support for addressing risks and issues or performance metrics

At project initiation, we will fine-tune the standard project status report, including performance metrics, from our methodology to align with Nebraska's standards. The status report will be distributed according to the Communication Plan and available online through SharePoint.

ii. Describe the EES Dashboard that will be developed based upon the Contractor's previous experience

Below is an example of a dashboard that has been used on one of our previous projects. We will work with Nebraska to build a dashboard that is appropriate for the ***SmartPro MedEE*** project.

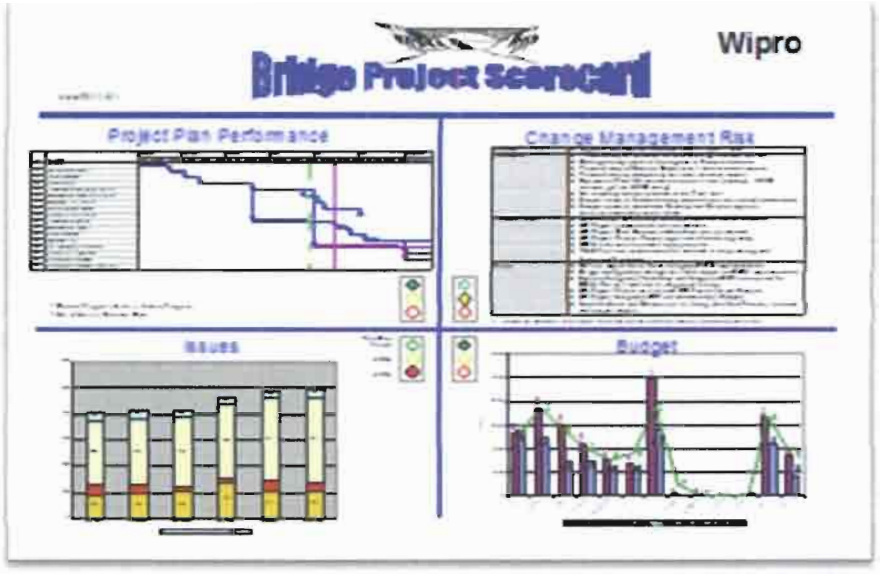


Figure IV-93: Sample Dashboard

We employ a variety of project management tools, as summarized in the accompanying figure, which support our efforts to track project progress and achieve published milestones. The following sections provide greater detail regarding how these tools are used to develop project assessment reports throughout the life of the ***SmartPro MedEE*** project.

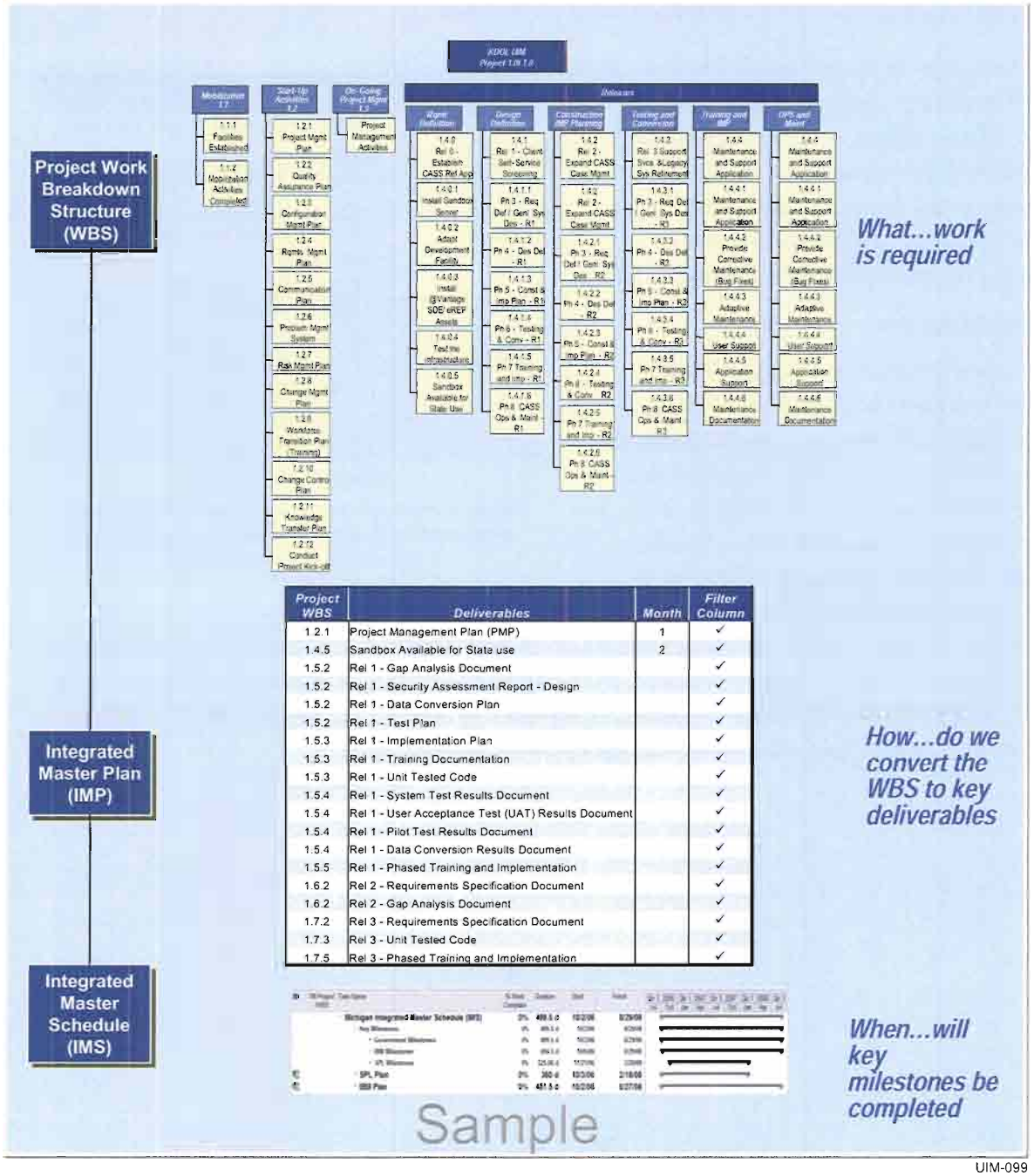
Tool	Function
Microsoft Project	Maintain Integrated Project Plan and Schedule
Microsoft Excel	Reporting project performance
Microsoft SharePoint	Web-based team room that provides a repository to store, access and version control project documents
IBM Rational Team Concert	Tool to manage and provide visibility for: • Issue management • Risk management • Defect tracking • Change requests

Figure IV-94: PM Tools

We use our project management tools individually or in integrated configurations to support a wide range of project management functions.

Project Tools in Action

The WBS shown in Figure IV-n encompasses activities and products for the phases of the ***SmartPro MedEE*** implementation project. The WBS provides the starting point for the Detailed Project Schedule (DPS). The DPS features the detailed activities required to implement the work outlined in the project WBS. This detail includes dependencies between tasks, a consolidated generic resource pool, the assignment of resources to tasks, and the identification of which branch of the project WBS a given task supports. This information helps us to manage project schedule and cost performance, deliverables and staffing. Once the contract has been initiated, the generic resources assigned to tasks are replaced by our project key personnel and other non-key personnel, which help enforce accountability for individual tasks.



Project WBS	Deliverables	Month	Filter Column
1.2.1	Project Management Plan (PMP)	1	✓
1.4.5	Sandbox Available for State use	2	✓
1.5.2	Rel 1 - Gap Analysis Document		✓
1.5.2	Rel 1 - Security Assessment Report - Design		✓
1.5.2	Rel 1 - Data Conversion Plan		✓
1.5.2	Rel 1 - Test Plan		✓
1.5.3	Rel 1 - Implementation Plan		✓
1.5.3	Rel 1 - Training Documentation		✓
1.5.3	Rel 1 - Unit Tested Code		✓
1.5.4	Rel 1 - System Test Results Document		✓
1.5.4	Rel 1 - User Acceptance Test (UAT) Results Document		✓
1.5.4	Rel 1 - Pilot Test Results Document		✓
1.5.4	Rel 1 - Data Conversion Results Document		✓
1.5.5	Rel 1 - Phased Training and Implementation		✓
1.6.2	Rel 2 - Requirements Specification Document		✓
1.6.2	Rel 2 - Gap Analysis Document		✓
1.7.2	Rel 3 - Requirements Specification Document		✓
1.7.3	Rel 3 - Unit Tested Code		✓
1.7.5	Rel 3 - Phased Training and Implementation		✓

Figure IV-95: IMP/IMS Planning Approach

The IMP/IMPS planning approach provides consistent data for work scope, timing, staffing levels, and resource assignments and supports consistent progress measurement.

We use Microsoft Project to create an integrated master project schedule. The Integrated DPS provides visibility for the handoffs between organizations and enables progress to be assessed against project milestones. The detailed schedules are used to track day-to-day activities for the Wipro/IBM team, including traceability to individual teams and personnel.

A consolidated list of key contract deliverables is contained within the Integrated Master Plan (IMP). The IMP is a top-down, event-based plan consisting of a hierarchy of program events. Each event is supported by specific accomplishments, and each accomplishment associated with specific criteria to be satisfied for its completion, typically issuance of a deliverable. The IMP represents a key mechanism for project progress visibility and control. Each of the key deliverables in the IMP is associated with a respective project WBS branch. This approach helps to maintain a reasonable association between payments and the level of effort expended to produce the deliverable.

- Issues and risks status
- Staffing by tasks and Level of Estimate (LOE)
- Issues and risks status

iv. Describe how the Performance Management Plan will be implemented into the overall PM approach including any and all tools that are used;

The Performance Management Plan will include:

- Performance Report Templates
- Frequency of reports
- Intended audience of each report

It will be integrated into the Program Management Plan.

iv. Describe the Contractor's organizational structure that will be used to track performance

Below is a high-level view of the overall organization structure.

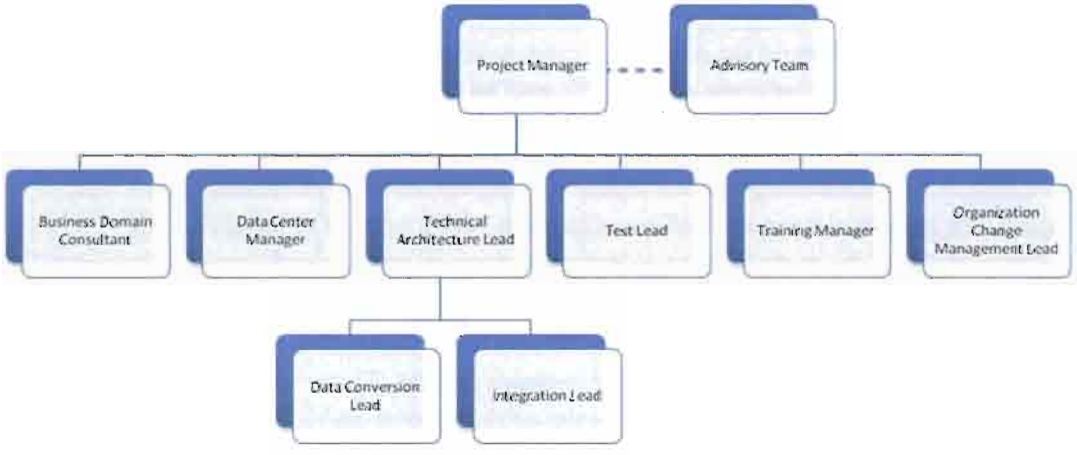


Figure IV-96: High-level View of Overall Organization Structure

The project manager will be responsible for producing the status reports and performance metrics, with input from the 6 team leads: Architecture, Conversion, Integration, Test, Training, and OCM. Ultimately, though, it is the responsibility of each team member to provide status, and to escalate issues as they occur.

8. Communications Management

i. Describe how communication with the different stakeholders will be accomplished;

For the ***SmartPro MedEE*** project, potential stakeholders will include: Medicaid department State workers, caseworkers, MLTC citizens who are eligible for Medicaid benefits or tax credits under the Affordable Care Act, MLTC citizens who are potentially eligible, community members including citizen advocates, navigators, providers, insurers, and other related departments.

We will create a stakeholder map specific to MLTC which will drive the communication plan to determine the frequency and method of communication. Key stakeholders will be involved early and communication will be more frequent – especially at the start of the project. For some of the State groups that are not directly impacted by the project, communication will be less frequent. For core project team members, communication can occur daily or more often depending on the project schedule.

The key to a successful project and a foundation for organizational change management is the communication plan. The communication plan will allow varying formats for communication. For example, in New York City, potential recipients of benefits were kept aware of AccessNYC by advertisements in subway stations. In most instances, the communication plan will include multiple formats as individuals receive information and learn differently. Some items may be communicated via social media where appropriate and where security is not an issue. Some may use printed communication and newsletters. Some will be in electronic email format. There will also be group or town meetings to keep the constituents aware of the progress of the system and its impact on them.

ii. Describe the different communication channels that will be used;

Communication channels used will depend on content of communication, urgency, whether feedback is requested, preferred method of communication, and MLTC approved channels.

The key to a successful project and a foundation for organizational change management is the communication plan. The communication plan will allow varying formats for communication. For example, in New York City, potential recipients of benefits were kept aware of AccessNYC by advertisements in subway stations. In most instances, the communication plan will include multiple formats as individuals receive information and learn differently. Some items may be communicated via social media where appropriate and where security is not an issue. Some may use printed communication and newsletters. Some will be in electronic email format. There will also be group or town meetings to keep the constituents aware of the progress of the system and its impact on them.

Communication channels may include the following:

- Regularly scheduled project meetings
- SharePoint
- Email update
- Group or town meetings
- Newsletters
- Social media where appropriate'
- Public media such as newspapers, blogs and public forums

iii. Describe how the Communication Management Plan will be implemented into the overall PM approach including any and all tools that are used; and

The Communication Management Plan will include:

- Stakeholder identification and analysis
- Communications matrix which will include frequency, style, and stakeholder
- Project meeting and project reporting schedule

A log of the stakeholders, communications mechanisms and copies of all communications, categorized by stakeholder, will be maintained. This will include all email announcements, newsletters, electronic communications, press releases, and other forms of communications.

iv. Describe the Contact Management System that will be used to track and report written, electronic and telephone inquiries from users and other stakeholders; and how it will be integrated with other EES functions and accessed by Department staff.

The Wipro/IBM team will leverage Wipro's InfoPACC service management and call tracking application to support the Contact Management requirements detailed by MLTC. The application supports the communication channels required by MLTC such as Phone, Email, and Web. Department staff (including users and other stakeholders) can submit inquiries to the application which will then flow to the appropriate tier for resolution. InfoPACC is configurable in order to meet the specific needs of Nebraska. For example, it can be configured based on user categories, as well as call categories, and has built-in workflow to route information to the appropriate tier. It is a web-based application that is accessible to Department staff and will be part of the ***SmartPro MedEE*** operating environment.

The below graphic illustrates a sample escalation process:

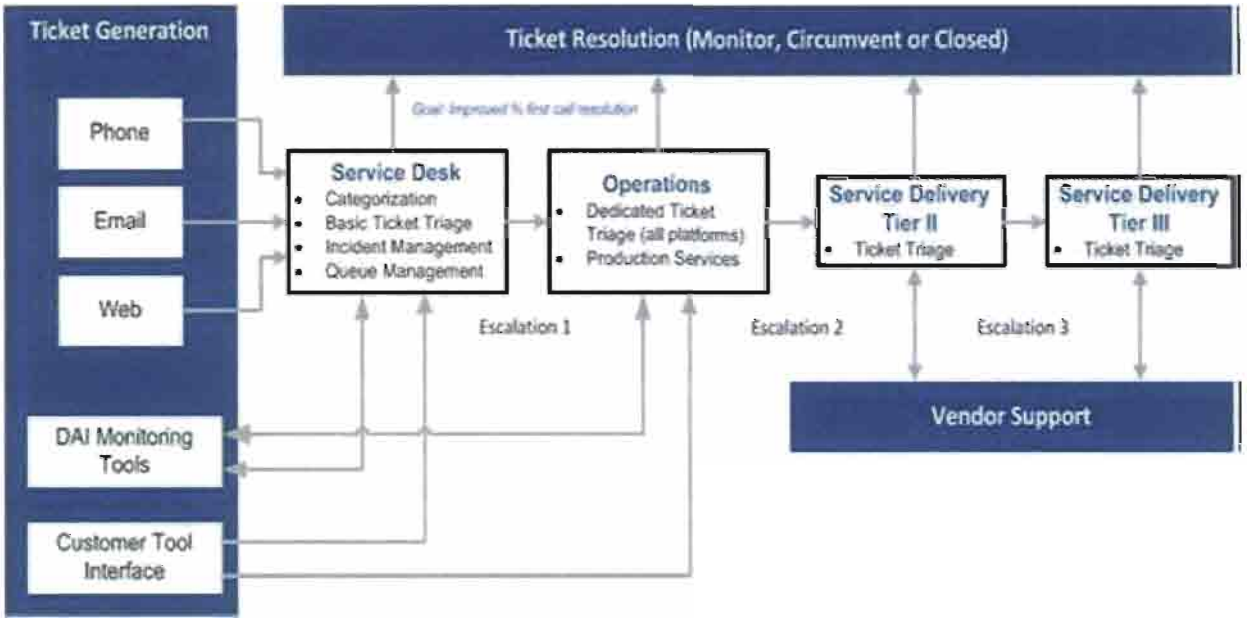


Figure IV-97: Sample Escalation Process

i. Describe the SDLC the Bidder will use in the requirements analysis, design, development, testing, implementation, and maintenance of the EES.

The Wipro/IBM team will use the ***SmartPro MedEE*** Methodology to plan and manage all activities of the ***SmartPro MedEE*** project based on specifications of Nebraska. Our methodology was developed based on successful project implementations – merging best practices from Wipro and IBM - and aligning with the CMS Enterprise Lifecycle (ELC). Figure IV-98 provides a graphical representation of the activities included in our methodology.

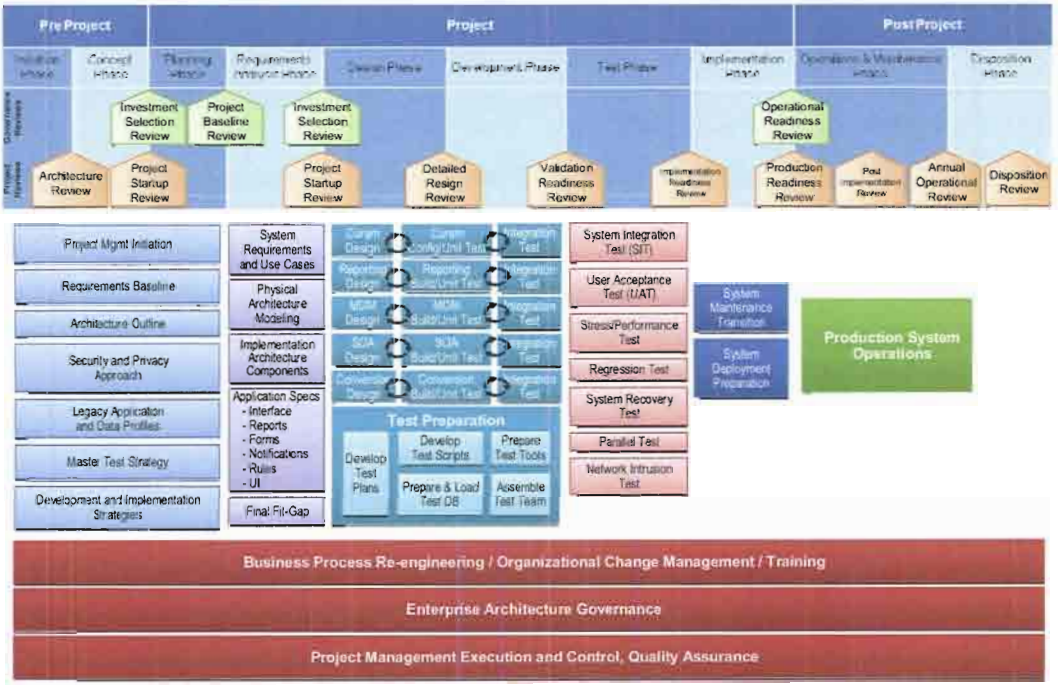


Figure IV-98: CMS Enterprise Lifecycle (ELC)

Requirements Analysis

During the Initiation, Concept, and Planning phase, we will create a requirements baseline. For this activity, we will develop a catalog of clearly defined business requirements and use cases and their relationships to one another (use case model). We will also capture relative priorities of requirements and use cases and identify those functions that are potentially challenging to achieve. An important input to this phase are pre-built versions of the requirements catalog, process models, and use case models from the collective Wipro/IBM asset library. These assets will be reviewed and refined by our domain experts on the Wipro/IBM team and tailored for use in the requirements baseline sessions. Through conferences, meetings, and work sessions, The Wipro/IBM team will use an iterative process to evolve the initial drafts of the requirements model. The outcome of the sessions is a clear understanding of application development effort and the acceptance criteria for satisfying each requirement.

During the Requirements Analysis Phase, we will elaborate the general business requirements and high-level use cases to a system level of granularity. The system requirements contain enough

information so that test cases can be developed to verify functionality and accuracy and in addition, process models, business rules, and other support requirements artifacts are evolved to a more granular level.

Design

Design takes a holistic view of the end-to-end solution. Design begins during the Requirements Analysis Phase, where we create design specifications for solution components (subsystems) and evolve the architectural model to a physical level. As the system requirements and use cases are elaborated, the various application component design teams will create specifications for each component. Using the system specifications and refined requirements from the JAD sessions, the system architecture team, under the guidance of the Design Authority, completes the definitions of the five layers of technical architecture: Application, Integration, Data, Security, and Infrastructure. An important technique used during Physical Architecture Modeling is Technical Feasibility Exploration (TFE), which uses actual working prototypes to validate that the proposed designs are deployable and interoperable.

During the Design phase, the application technical designers take the functional specifications from the Joint Application Design process and the Architectural Standards and Design Patterns to develop "Micro" level designs. Each of the specialized technical component teams will use specialized design techniques and tools best suited to their particular product to perform Micro Design. A critical element of our methodology is a highly interactive working environment with the State representatives from (1) the business community to validate the functional approach and (2) from the technical community to validate that the technical approach adheres to the required State specified standard. Technical Design Quality will be managed by (1) conducting walkthroughs with senior team members, (2) performing functional validation sessions with business analysts and users, and (3) maximizing out-of-the-box functionality over custom developed functions. At the completion of functionality within a phase, a final review will be conducted to validate that the Technical Design Document Deliverable contains artifacts as specified by the Deliverable Expectation Document and that they designs follow the overall architectural standards set for the solution.

Development

Unlike traditional waterfall methodology, Micro Design is generally performed in rapid succession with Build and Unit Testing at the component and sub-component levels. The goals of this stage are 1) to configure and/or construct the major solution components according to the Macro Design specifications and 2) to confirm that the components meet the quality standards required to proceed to the integrated testing of the end-to-end solution.

During build and unit test, the component development teams will construct (or configure) their components, leveraging application-specific development techniques and tool sets. Each developer will validate his or her work according to guidelines in the Unit Test plan in order to achieve a predictable level of quality prior to Integration Test. This illustrates how our methodology has the flexibility to incorporate domain specific methodologies, while having effective integration of complex systems under a common framework.

During integration test, the component development teams will assemble the individual units within the "four walls" of their application to validate that they are working together correctly. Our methodology follows the practice of continuous integration. Integration testing is NOT a single event, but a series of incremental steps that are repeated until the required functionality is complete. For example, the Analytics team may conduct multiple tests of an ETL stream from source system to the repository layer and later to the semantic and the presentation layers.

Testing

The Wipro/IBM team proposes a structured, iterative approach to fulfill Nebraska's testing requirements. This program will follow our Full Lifecycle Testing methodology, which incorporates levels of testing, from Unit Testing through System Regression Testing. The full lifecycle testing methodology has been incorporated into the ***SmartPro MedEE*** Methodology.

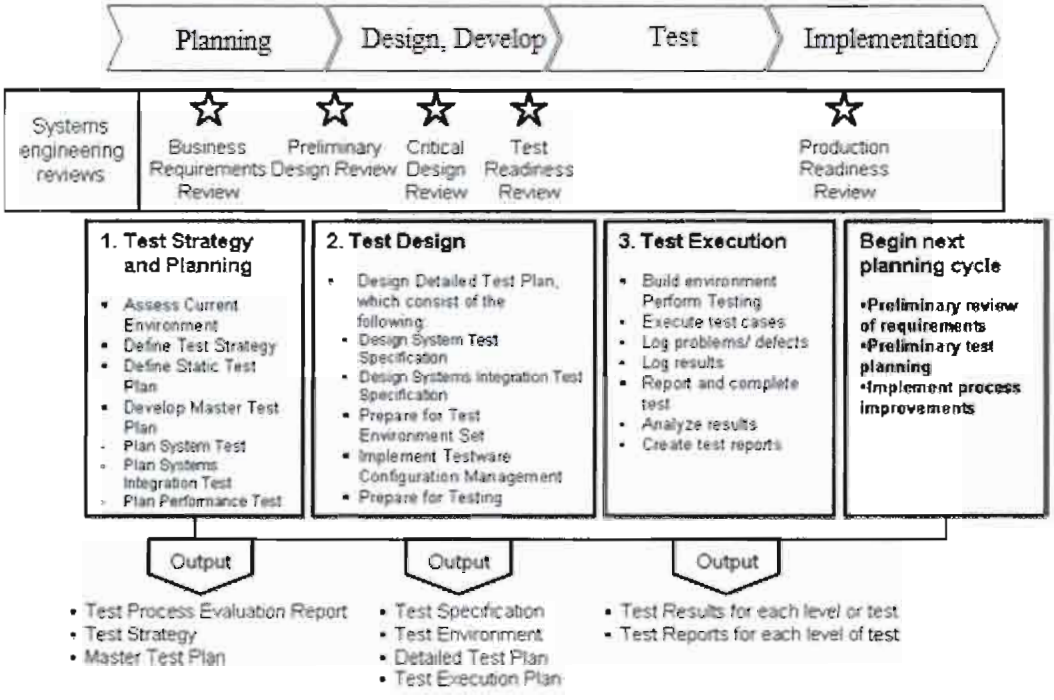


Figure IV-99: *SmartPro MedEE* Methodology

Our Full Lifecycle Testing, as seen above, describes concrete actions known as End-to-End (E2E) testing that will occur continually throughout the ***SmartPro MedEE*** project. During the planning phase, the Wipro/IBM team will process the outputs from the following activities as inputs into the Master Testing Strategy:

- Business / functional Subject Matter Experts (SME) reviews to confirm our understanding of business requirements
- Technical / non-functional SME reviews to confirm the in-scope technical requirements
  - The Wipro/IBM team will also use these SME meetings to review our proposed conceptual architectural solution, and quantify the component modules and system interfaces as either high or low risk with specific regard to testing;

- External system owner and Nebraska IT reviews to confirm our understanding of their As-Is systems, applications, and business processes to be integrated through the ***SmartPro MedEE***.

The transition from Master Testing Strategy to discrete, detailed test plans will begin during the Planning phase and finish through test preparation in the Design/Develop phases. Inputs into these test plans will come from a variety of sources, including:

- JAD sessions, which will begin with Nebraska's functional and non-functional requirements to produce detailed use cases, technical specifications, report layouts, screen designs, and data requirements for system interfaces.
- Results from Unit and Integration Testing, which will produce the first set of Nebraska-specific test cases and test scripts to be combined and later reused during test execution.

Our Full Lifecycle Testing is end-to-end in two distinct ways:

- Through concrete iterations, checkpoints, review sessions, and key inputs from other components of the ***SmartPro MedEE*** Methodology, the Wipro/IBM team will gradually build a complete test system architecture from a Master Testing Strategy to individual actionable test plans to a complete library of Nebraska test suites, test cases, and test scripts.
- Use of outputs from JAD sessions, the final Fit Gap, and the results of Unit and Integration testing to structure the developed test suites, test cases, and test scripts in a way that maps to complete, end-to-end business processes.

E2E testing is the first opportunity to view and validate the complete ***SmartPro MedEE*** solution. E2E testing is both inter- and cross-modular, and it aims to verify the Nebraska's ultimate To-Be vision of a complete solution that synthesizes information from numerous legacy business systems, setting a national standard for an Eligibility and Enrollment solution.

ii. Describe the contents of all documents and artifacts deliverables produced within the SDLC including but not limited to:

Business Design Document

The Business Design document will describe the overall Functional Architecture of the business solution including high-level process flows for key areas of the solution. The document will also include the Assumptions, Constraints, and Risks associated with the proposed solution approach.

Requirements Document (Business, Functional, Non-functional, Requirements Traceability Matrix, etc.)

The Requirements Document will be split into two, namely, 'Functional' and 'Non Functional' requirements. The original requirements will be elaborated on the following principles,

- Correct: The requirement reflects the actual needs of the organization
- Unambiguous: The requirement has only one interpretation
- Complete: The requirement detail is sufficient and stands on its own
- Consistent: The requirement does not conflict with itself, or with other requirements
- Verifiable: The requirement must be testable
- Traceable: The requirement must be uniquely identified and its origin/source recorded

The Traceability matrix will map the requirement to the appropriate functional design and the potential development branch.

Business Process Models

Upon receipt of client requirements, it is necessary to assess the extent to which they will be supported by the ***SmartPro MedEE*** solution. This often represents the start of fit-gap analysis. Each requirement will have a fit-gap done to determine if it is met Out-of-the-Box (OOTB) or if it will require customization. The Fit-Gap document will be based on the following:

- OOTB – Existing solution functions can be used with no change or configuration required
- Configuration – Standard solution configuration can be used to meet the requirement
- Customization – Standard solution functions meet most of the need, with the added specificity of the requirement driving slight tailoring using one or more of the ***SmartPro MedEE*** development tools
- Extension – Standard functions meet less of the need than customization, requiring extensions using common framework development practices and without making amendments to the core solution itself.

SmartPro MedEE has processes defined Out of the Box (OOTB). This document would include the process models that are either modified or newly identified. The process could be screen flows, workflows, and new batch processes.

Use Cases or User Stories

As the Functional Design document includes the design for changes and updates to the OOTB functionality, it will serve as the Use case document also.

Detailed Design Document

The Approach to Functional design will be to design for all requirements that are not classified as OOTB. The requirements are typically broken down by functional area to limit the scope of each design. For example: Client Management, Case Management, Provider Management, etc.

The Functional design document will include the Requirements that are addressed, the screen flow pertaining to the new or modified functionality, processes, tasks generated, and any notice triggers.

Technical Design Document

Each Functional design will have one or more Technical designs associated with it. The Technical design document will address Configurations, Server layer, and Web Layer design. It will also include a section for Unit testing.

Architecture, Network and Data Modeling Diagrams

Data model changes for only updates and new entities will be captured in the Logical and Physical data model documents. The Logical data model will include the description of the modified and/or new entities and the relevant relationships. The task of developing a physical data model begins with an approved Logical Data Model created during the Requirements Phase of the EPLC process. The

logical data model is transformed into a physical data model using several techniques including: De-normalization, Indexing, Partitioning, Views, and Dimensionality.

The Application Blueprint will provide the overview of the different solutions and their interaction that are in play for the Nebraska Eligibility and Enrollment solution.

Test Plans

The Test plan document will describe in detail the approach to testing. It will include the Testing Schedule, Test Cases, Acceptance Criteria, Test Environments and Testing phases. The document will also define the approach to Testing for each functional area including interface, integration, and performance testing. The approach to UAT testing, Smoke testing and Regression testing will also be included in this document.

Disaster Recovery

The Disaster Recovery Plan will document the process and procedures to recover and protect Nebraska's IT infrastructure in the event of a disaster. The plan will include a Network DR plan, Business Impact Analysis, Business Continuity, and an Emergency Management plan.

Training Plan; Knowledge Transfer Plan

The Training plan will outline the different training methods that will be used to train the staff that will be using the new system. This will include modules for Web based Training and classroom training. The document will also have a section on how each 'office' will be ready for a potential go-live.

The Knowledge Transfer plan will include details of operational processes, data plan, and configuration. It will also include a time line for meetings across different functional, technical, and operational areas.

Canned and Newly Developed ESS Reports

The Reports document will list each report, the business description, the frequency of use, the type of data that will be returned and the functional area that it belongs to. This will be a comprehensive list of all reports as agreed to by the stakeholders.

Project Definition

The project definition encompasses various management control procedures used on the project. It will include new hire orientation, project organization chart, including roles and responsibilities, and operational descriptions related to storing artifacts and deliverables and also logging and working on defects.

iii. Include a sample of the documents and artifacts described above that the Contractor has produced for a previous EES engagement or engagement of similar size and scope.

Please refer to the attached sample documents and artifacts completed for previous ***SmartPro MedEE*** engagements of similar size and scope.

iv. Describe the proposed estimation methodology.

The Wipro/IBM team will utilize a bottom-up estimation method. This approach begins with high-level project definition, and then decomposes the work into sub-projects and lower level tasks down to the Work Breakdown Structure. Team member experts will be consulted to provide domain knowledge in estimating at this level. The advantage of this technique is that the estimate is usually more accurate and the work is better understood.

v. Describe the organizational structure to control all system development and maintenance.

Below is a high-level view of the overall organization structure:



Figure IV-100: Overall Organization Structure

System development will be managed the Data Conversion Lead and the Integration Lead, with guidance from the Technical Architecture Lead. These leads will manage the day-to-day activities of all developers, will track the schedule, and will help to remove barriers for the team.

Maintenance will be managed by the Data Center Manager, who will be responsible for monitoring the environments, and for upgrading environments. He will coordinate changes with MLTC IT staff when appropriate.

The project manager will be the point of escalation for all team leads, and will work with the steering committee for topics that are out of his control. The project manager will be responsible for performance collection, tracking, analysis, and reporting.

vi. Describe how the SDLC will be implemented and how it will be integrated into the overall Project Management approach, including but not limited to, Quality Management, Change Management, Data Governance.

The ***SmartPro MedEE*** methodology has three work streams that span and support the entire SDLC.

- **Project Management Execution and Control, Quality Assurance**: will be responsible for managing scope, risks and issues, status reporting, and overall project health. Quality checkpoints will occur throughout the project, including gated reviews.
- **Business Process Re-engineering/Change Management/Training**: will be responsible for steering the project towards best practices in business processes, and for helping the users adapt to the new system.

- **Enterprise Architecture Governance**: will provide guidance to developers on development standards and data governance, and will guide the overall solution.

vii. Describe the levels of management authority that will be used to ensure timely direction, coordination, control, review, and approval of the SDLC process.

For the most part, the teams will be self-governing, able to make day-to-day decisions. Team leads will be responsible for cross-team communication, decisions, and issue-resolution, and will involve the appropriate resource from other teams when outside expertise is required.

In addition, there will be a joint executive steering established with the State to include Wipro and IBM senior executives, as well as key partners (such as software providers) to quickly resolve issues beyond the teams' control and to guide project direction.

We believe that the "culture that values cooperation, teamwork, and planning" is critical to project success. This is truly a multi-organizational effort with no one organization having the self-contained resources to achieve project success alone.

viii. Describe the process that will be used for developing and updating Business Process Models for the EES.

We will leverage best of class process models enabled by the package as a starting point, and will conduct working sessions so that all team members are aware of the package capabilities. In addition formal interviews will be conducted to obtain information from the stakeholders and subject matter experts. Once all interviews are completed, an enterprise business model is compiled. Business analysts will create the "As-Is" and "To-Be" models. Comparison of both models will reveal process gaps that may require minor modifications or process reengineering. The results are presented to the stakeholders and subject matter experts for subsequent review and approval.

ix. Describe the data modeling tool that will be used to model the conceptual, logical, and physical EES data structures. Include how the models will be managed and versioned from a single tool and central control point. Discuss the solution in terms of its degree of integration, flexibility, scalability, extensibility, supportability/maintainability, and affinity/relationship with other proposed components.

The primary control point for the ***SmartPro MedEE*** conceptual and logical data model is Rational Software Architect (RSA), which contains all models delivered Out-of-the-Box. Rational Software Architect is integrated, via Rational Team Concert, with Rational Requirements Composer and Rational Quality Manager so that traceability can be maintained end-to-end.

Changes to the Out-of-the-Box model are managed via ***SmartPro MedEE*** configuration rules such that extensions are kept separate and can be re-applied when new versions of the Out-of-the-Box product are installed, to provide for easy support and maintenance. It is highly flexible as the model-driven ***SmartPro MedEE*** integrated development environment automatically generates many of the supporting Java classes required when new elements are added to user interface and database to support the transport of the information through the application layers.

The physical data model is then constructed by exporting from RSA into ERStudio Data Architect which is used to generate the final data structure generation scripts.

x. Describe the degree to which the physical model that is created from the tool can be used without augmenting physical characteristics after the data structure generation scripts are created.

The physical model is created directly from ERStudio Data Architect without further augmenting the physical characteristics.

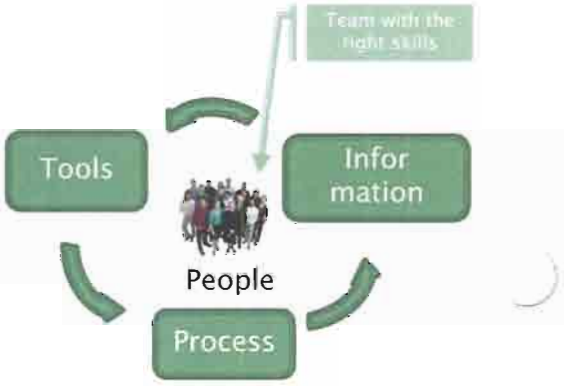
10. Project Initiation

i. Describe the Project Initiation activities that detail the approach for orienting the Project team (Department, IV&V Contractor, and other stakeholders).

A project of this magnitude involves assembling a significant organization and preparing them to execute a large number of detailed steps leading to a common goal. It needs the full power of an organizational change method to perform this smoothly.

Organizational change for the project

- Move from a collection of individuals to a collaborative team with the skills, data and tools they will use for the next few years
- Provide Communication Plan to ensure team members have the information they need and questions answered
- Other team-building practices
- Assemble and disseminate Initial Data
  - Provide the project definition – where we are going
  - Define the solution so far – starting point
  - Define the delivery process (method) – how we get there



A project has four key components and project initiation needs to focus on assembling them all according to a detailed plan that coordinates getting enough of each in place as quickly as possible without introducing unproductive confusion. The Wipro/IBM team will use a project launch process that optimizes the start-up by bringing team members on board as rapidly as possible while providing them with the information they need to become productive and the tools they need to do the job.

The Wipro/IBM approach to Project Initiation includes the following tasks to establish the project

- Establish Initial Technical Environment
- Launch project, understand scope, risk, build startup plan
- Establish project management system
- Review and revise project performance indicators
- Expand work plans
- Refine work plans and schedules to an operational level
  - Update other project plans
  - Initiate financial plan to monitor costs against budget
  - Validate technical solution
- Integrate plans and review project
  - Integrate plans, ensure consistency and completeness

  - Conduct management review

- Start staff, establish people objectives, engagement rules
  - Develop orientation material and team charter
  - Plan, verify and allocate office space and material
  - Orient staff and conduct kick-off
  - Plan ***SmartPro MedEE*** training for client staff

- Conduct Method Adoption Workshop

It is important for a project of this magnitude begin on the right track. A fast but organized start is essential to give people the information and the tools they need to become productive as quickly as possible and to provide a collaborative environment so that all work is making progress towards the desired goals with neither omission nor duplication of essential work.

It is important that all team members are aligned, working towards the same objectives and client vision, familiar with the COTS packages being implemented, following the same methodologies and standards, aware of the overall timeline and milestones, in agreement of roles and responsibilities, and aware of interdependencies. We believe that it is important that the entire project team (Department, IV&V Contractor, and other stakeholders) are in sync at the project outset to remove ambiguities and to help deliver a successful project.

Orientation of the team will include providing knowledge of the end goals of the project and the approach to reaching the goals.

Orientation towards the end goal will include project kick-off material that outlines the requirements and the proposed solution. An overview will be provided to all team members, while more detailed education on the core COTS solution components will be provided to those stakeholders who will require more detailed knowledge. The education will be tailored by stakeholder role. As the State indicated in the RFP, "The Department will modify its current business processes and retrain its staff to adopt the business processes built into the ***SmartPro MedEE***" so by providing education on the new business processes in the Out-of-the-Box solution, MLTC staff will be better positioned to participate in the early requirements confirmation workshops because they will have sufficient context.

The other aspect of orientation is to hold a series of Method Adoption Workshops (MAW). The primary goal of these workshops is to communicate an understanding of the methodology for the project and to further adapt it to the needs of the project by making any adjustments needed to align Wipro/IBM methods with MLTC methods.

The MAW will focus on those aspects of method with inter-team dependencies; each team will have detailed knowledge of their own tasks, deliverables, tools, and roles but with any large project it is necessary to confirm the expectations of each team on deliverables and dependencies that they have on other teams and that other teams have on them. The MAW will also confirm that the team members understand the collaborative tools being introduced as not every team member will have worked with the specific tools at this point. The MAW also reviews and adjusts the project schedule and identifies additional risks that emerge through the workshop.

More detailed MAWs will be conducted for those teams which include both Wipro/IBM members and MLTC members, such as participants in requirements confirmation workshops.

ii. Describe the activities that will be necessary to secure and to prepare adequate facility space.

Our team will be responsible for securing adequate facility space for all team members. During project initiation, the Project Manager will create a plan to initiate facility space based on several factors, including number of anticipated resources, meeting room requirements, and team breakout areas, as well as other special requirements (for example, raised floor room for computer equipment).

iii. Describe the steps necessary to assemble other key staff, including specific plans for disseminating individual staff responsibilities.

Our team will establish/confirm roles and responsibilities through the Method Adoption Workshop (MAW), which will include Department, IV&V, and other stakeholders. We will create a RACI (Responsible, Accountable, Consulted, Informed) matrix to facilitate this discussion.

The Matrix will specify RACI by task and by deliverable for each task and deliverable in the project method. During project initiation, this will be done at a high level and at a detailed level for the first phase. The MAW will be repeated for subsequent phases to disseminate the details for the phase. By deferring the details, we can launch the project more quickly and avoid the risk of staff forgetting details over the course of the intervening phase.

The Method contains detailed descriptions of the tasks and deliverables for which the staff are Responsible, Accountable, Consulted, and Informed.

Many of these key staff are subject matter experts who will bring their own experiences and knowledge, so the MAW is also a time during which the method will be refined based on this expert knowledge while still confirming that all dependencies are met.

Once there is buy-in from all key parties, we will incorporate this into the project kickoff meeting in order for all team members to be on the same page.

11. Requirements Validation

i. Describe the proposed approach to Requirements Validation.

Wipro/IBM utilizes a methodology called the Stakeholder Collaboration Strategy (SCS). Such a strategy is a collaboration between the various stakeholder teams to define specific needs, document those needs, implement the solution, and test the solution. Every part of the process is documented and validated using activity base tracking. The tool of choice that Wipro/IBM will use is Rational Requirements Composer.

ii. Provide a detailed description of the Requirements Validation Methodology.

The Wipro/IBM methodology to requirements management is broken down into various stages. Figure IV-101 describes the stages. A more detailed explanation is as follows:

- Identify the audience target: Who are the stakeholders and what are their contributions to the solution?
- Define the organizational needs: Requirements validation is not just about implementing, it is about documenting and creating a repeatable process. The definition of organizational needs covers the necessary administrative task necessary to accomplish the Requirements Validation process from end-to-end.
- Define the artifact: Each solution may require one or more artifacts. Subject matter experts tailoring the solution to the requirements. One or more stakeholders complete artifact development, with a single stakeholder often consolidating it using an automated tool.
- Link the capabilities: Once the artifacts are identified and created, a stakeholder must bring the assets together to create a working solution. The Wipro/IBM SPS makes this process seamless by bringing together all the stakeholders and integrating the linkages into a point solution.
- Review: Once the solution is in place, all the steps to validate, document, and ensure a repeatable process are in place will be required. The review stage is where such activities occur. In addition, future requirements elicitation and validation cross-systems may occur during this stage.

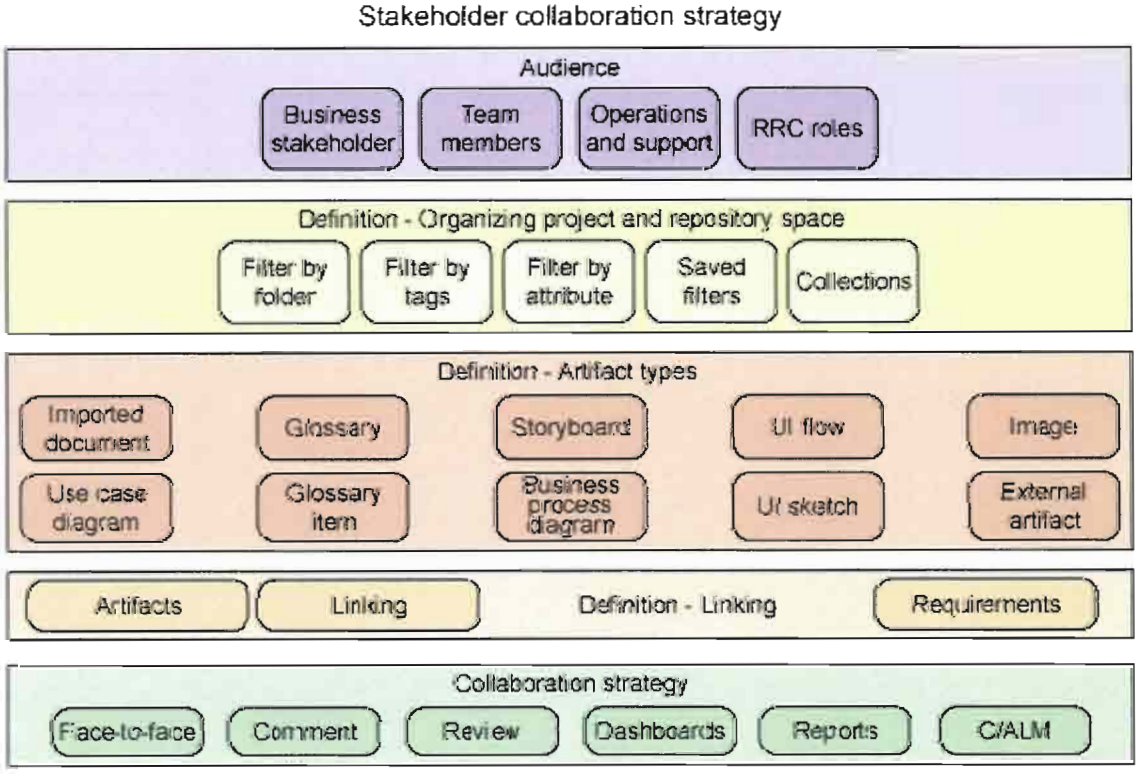


Figure IV-101: Stakeholder Collaboration Strategy

iii. Describe the methodology and analytical tools that will be used to complete the requirement validation tasks. Provide samples of templates.

The Wipro/IBM team has a structured methodology as described in Table IV-24 on how requirements validation tasks will be completed from inception to completion. The team intends to use Rational Requirements Composer because it is a centralized requirements management platform where all stakeholders can access. Formal and informal review cycles can occur as the solution evolves. Validation and agreement can occur in a collaborative manner.

Table IV-24: Example of Wipro/IBM Stakeholder Collaboration Strategy Cycle

Technique	Purpose	When to Use	Who Reviews	Feedback Required	Target Audience
Kick-off and checkpoints (presentations about progress)	Keep stakeholders aligned with goals and involved	As required	As assigned	When appropriate	Assigned stakeholders
Informal review	Output from review sessions to gain early feedback on key business and functionality decisions	After workshops or meetings	Participants and SMEs associated with designed requirement being validated	Business, architecture, and technical suitability/accuracy	Business and technical owners owning functionality being validated
Test review	To ensure proper execution of testing techniques	As needed to validate a use case testing protocol	Testers	Testability	Developer and Tester
Formal review	Agreement from business stakeholders, level of flexibility as advised by project manager	End of iteration	Assigned parties	Appropriate level of detail as required to completely document outcomes of review cycle	Assigned stakeholders

The Wipro/IBM team has adopted the U.S. DHHS Centers for Medicare & Medicaid Services Enterprise Life Cycle (ELC) and will utilize the Enterprise Life Cycle Templates which are referenced below:

(http://www.hhs.gov/ocio/eplc/Enterprise%20Performance%20Lifecycle%20Artifacts/eplc_artifacts.html)

iv. Describe how the proposed methodology and proposed tool(s) will enhance requirements validation and be supported by experienced staff

Managing requirements validation can be a cumbersome task. Finding out who owns what, what has changed, and who needs to take ownership of a specific activity during a review cycle are common areas where organizations struggle during the validation stage. Using the Wipro/IBM methodology, the ability to be proactive is achieved because people no longer have to be reactive to requests. They can understand, in real-time, where an activity is presently in the lifecycle. Getting

feedback is an iterative process; to collaborate requires a set of tools that enable dash boarding and methods of documenting requests for a variety of stakeholders. Using the Rational Composer Collaboration tools is the way the Wipro/IBM team proposes to accomplish such an objective. In Figure IV-102, you see an example of the real-time dashboard and collaboration capabilities that will be employed for the implementation of the ***SmartPro MedEE*** solution.

The user experience is customizable based on authenticated security roles. Access to specific artifacts will only be viewable based on assigned permissions. The same is true for dashboard metrics. This is accomplished using viewlets.

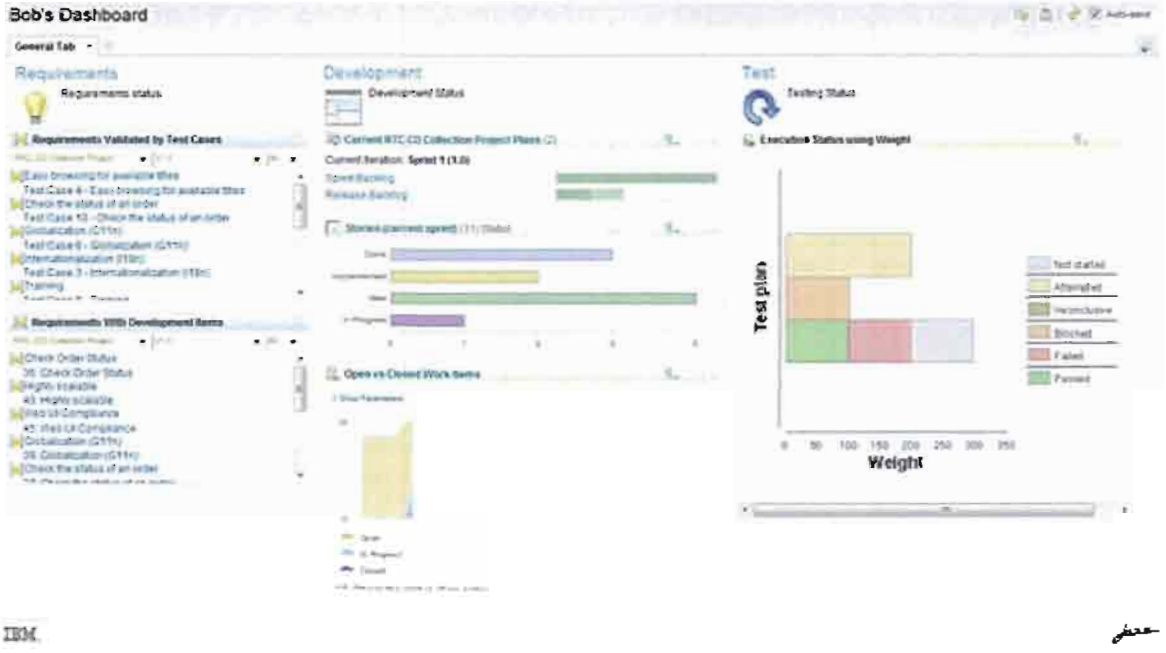


Figure IV-102: Real-Time Dashboard and Collaboration Capabilities Example

Functionality within each viewlet may include accounting of activities designated to specific stakeholders. Other activities that are part of the platform include: user driven filtering, dashboard analytics and utilization by role, and collaboration metrics.

Change Management

Change management is an integral part of the requirements validation process. The validation process is an extension to requirements management. There is still a stream of information collected during various feedback cycles. The use of Rational Requirements Composer is being recommended by the Wipro/IBM team as it is allows for detailed commenting and review auditing. While change management may take place during different iterations of a project, use cases may be a byproduct of a code change, a workflow, or a high-level architecture change. Regardless of the change, it must be well documented into a centralized single system of record. A change management tool such as Rational Requirements Composer enables the synchronization of all data points. Since input into Rational Requirements Composer is iterative, feedback by multiple stakeholders can be handled synchronously.

Project plan items will be tracked in Rational Team Concert. Requirements management activities can be linked between Concert to Composer so there is a historical reference point to all requirements decisions. Contextual decision making and accountability can be against any requirement and validation process using this combination of technologies.

v. At a minimum the Bidder's proposal must:

a) Define the goals, expectations, and output of the JAD sessions
b) Define how the JAD sessions will be conducted
c) Define how demonstrations of functionality will occur in the JAD sessions
d) Define how the requirements will be identified and documented. Provide templates and samples
e) Define how the Department's business processes will be identified and documented in the JAD sessions
f) Define the documentation that will be provided to staff attending the JAD sessions

The Wipro/IBM team intends to use JAD sessions as a way to prototype specific areas of the enterprise application lifecycle. JAD sessions are synonymous with requirements elicitation workshops. During each session, the Wipro/IBM team will establish a structured process outlining the following to all members of the team including:

- Goal: What are we to accomplishing during this requirements elicitation session?
- Expectation: What is the proposed level of effort/cost/delivery estimate of the proposed change? When should the requirements be fully documented and transferred to the delivery team?
- Output: What requirement elicitation outputs are required to deliver the end product? What are the expectations to document changes by the MLTC?

A JAD session will be conducted during a designated period of time weekly where all stakeholders involved in the required changes will be invited to a session to share the requisite knowledge to the relevant business owners that will document and make the changes required to the system. The Wipro/IBM team suggests conducting these sessions' 2x per week. Attend ***SmartPro MedEE*** to these meetings would include high level management officials, developers, business analyst, and SMEs who have a relevant role to support and represent the system functionality being modified.

Depending on the complexity of the requirement being proposed, one of three techniques will be used during a requirements session. The first technique is white boarding the requirements for capture and disbursement to the relevant development team. The second technique is rapid application development. This technique is used when the change to the system is trivial and can be done in a test environment rapidly, usually during a session. Finally, an iterative approach will be used. This approach is used when the development team has completed a task and requires feedback before proceeding to the next development milestone. The changes would not be put into product; rather the business and technical stakeholders will jointly provide feedback in a constructive setting once a change has been made.

Documentation is a critical component to both the technical team and department requesting the changes to a system during a JAD session. Requirements will be classified into two key categories: functional and non-functional. Functional requirements are associated with technical requirements,

workflows, rules, and business-oriented processes. Non-functional requirements are user-experience centric requirements. The JAD session lead will prepare a PowerPoint presentation and/or paper-based agenda for each session. The JAD session agenda will be distributed 24 hours before a meeting to the invited stakeholders. In the agenda, the items to be discussed will be outlined. All stakeholders receiving an agenda should attend the meeting. During each session business owner/SMEs to a given departmental process will also be invited. For each requirement, the JAD session leader will defer to the SME to explain the objective and expected output. The JAD session business analyst/recorder will document the relevant information conveyed and disperse the knowledge presented to the team post-session. All decisions made during the JAD session will also be documented and presented in one of the Wipro/IBM team's standard templates used during a JAD session. Depending on the complexity of the requirement, the output may be a simple change log request output to an extensive modification through the use of a software requirements specification. The Wipro/IBM team believes that a JAD session should be fluid; processes should be appropriate for the size and scope of a work change.

The Wipro/IBM team has adopted the U.S. DHHS Centers for Medicare & Medicaid Services Enterprise Life Cycle (ELC) and will utilize the Enterprise Life Cycle Templates which are referenced below:

(http://www.hhs.gov/ocio/eplc/Enterprise%20Performance%20Lifecycle%20Artifacts/eplc_artifacts.html)

vi. Describe how the Bidder has planned, organized and facilitated requirements sessions in the implementation and/or transfer, design and implementation of an EES or other healthcare systems

The Wipro/IBM team intends to use the processes defined as part of the ***SmartPro MedEE*** methodology to plan, organize, and facilitate the requirements session. The methodology has been proven to work in other implementation similar to the Nebraska ***SmartPro MedEE*** and in healthcare environments. Wipro has utilized the ***SmartPro MedEE*** methodology to support the Medicaid program's MMIS since 1987.

vii. Describe how Department staff, IV&V Contractor and other stakeholders participating in JAD sessions will be oriented into the processes and trained to participate in the JAD sessions

Following the team role identification, team members will receive role-based training regarding the methodology and tools. Wipro has utilized the ***SmartPro MedEE*** solution methodology to support the Medicaid program's MMIS since 1987.

Table IV-25: Team Role Identification

Team Role	Project Responsibilities	Rational Requirements Composer Role
Solution Sponsors	Responsible for steering the project delivery to meet business goals and objectives. Providing organizational support as needed by finding funds or assisting in navigating the organization.	Commenter
Subject Matter Experts	Responsible for validating and clarifying the business needs for the solution, as well as for deciding what is	Commenter

Team Role	Project Responsibilities	Rational Requirements Composer Role
	suitable for the business purpose.	
End Users	Either direct or indirect users of the system (see the first citation in Resources for more about this)	Commenter Author (optional)
Insiders	Managers of users, program or portfolio manager, developers working on other systems that integrate or interact with the one under development, maintenance professionals potentially affected by development and/or deployment of your system, auditors (see the first reference in Resources)	Commenter Author (optional)
Project Manager or Team Lead	Responsible for delivering the project. Leads and manages the project team. Needs to understand the requirements in order to scope and plan the project in conjunction with other team members. Might be aware of when to take a snapshot (for example, when artifacts have reached a level of maturity or at the end of an iteration or review cycle).	Commenter or Author Administrator (optional)Project Snapshot Administrator(optional)
Product Owner	Defines and promotes the vision, goals, and capabilities of the product so the team can make decisions. Determines the scope and content of the release. Defines acceptance criteria for the release and determines when the system is ready for release.	Author Administrator (optional)Project Snapshot Administrator(optional)
Business Analysts	Traditionally responsible for translating between business needs and delivery capabilities. Document the business problem and solution vision in a way that	Author Administrator (optional)

viii. Describe the documents that will be produced as a result of the JAD Sessions, i.e. business requirements, uses cases, etc.-

The Wipro/IBM team proposes a standard set of deliverables. Depending on the requirement need one or more of these document types will be leveraged as part of the output from a JAD session. The outputs are outlined in the table below.

Table IV-26: Reports Included with Rational Requirements Composer

Report name	Description	Target stakeholders
Audit History	Presents an audit history of each folder and artifact in your project to provide an overview and a detailed artifact activity table. This is useful for reviews and regulatory checks.	For reviews or for regulatory checks: Solution sponsors Project managers Business analysts
Requirements Specification	Presents attributes by artifact, where attributes are organized by requirement type	Business analysts Architects Testers Developers Solution sponsors Subject matter experts (SMEs) Project managers

Traceability	Presents each artifact, plus and a table for all outgoing links and one for all incoming links	Solution sponsors Business analysts Project managers
UI Spec (by screen flow diagrams)	Displays screen flow diagrams first and, subsequently, selected user interface sketches	Lines of business, SMEs Business analysts Architects
UI Spec (by storyboards)	User Interface Specification with selected storyboards as scope (the report is presented in storyboard steps with a corresponding UI sketch for each, and the scope is defined by the storyboard)	Lines of business, SMEs Business analysts Architects
UI Spec (by UI sketches)	User Interface Specification that comprises selected UI sketches with corresponding widget details for each sketch (the scope is defined by the selection)	Lines of business, SMEs Business Analysts Architects
Use Case Spec (by use case diagrams)	Reports on a specified use case diagram; includes a list of actors and use cases and provides details of all use cases specified in that diagram (includes only full use cases, not proxy use cases)	Lines of business, SMEs Business analysts Architects Testers
Use Case Spec (by use cases)	Reports all use case details by use case name	Lines of business, SMEs Business analysts Architects Testers
Review Progress	Details the progress and content of selected reviews (includes lists of reviewers, artifacts, and comments according to artifact)	Business analysts Project managers Lines of business, SMEs

ix. Describe any tools that will be used in these sessions and the orientation and training participants will receive in using these tools.

IBM Rational Requirement Composer is the requirement elicitation and collaboration tool, which can be accessed using a standard Web browser that the Wipro/IBM team intends to use. Rational Requirements Composer allows for the creation of a custom dashboard with multiple pages, each displaying a customizable view of a given project. Such functionally allows an individual managing one or more requirements to quickly investigate the desired information. Each page contains custom viewlets, each with a specific purpose. As part of the project inception, the Wipro/IBM team will work with the ***SmartPro MedEE*** leadership team to identify the required view to meet the State's desired needs. An example interface for requirements management orientation and training participants is presented in Figure IV-103.



Figure IV-103: Sample Interface for Requirements Orientation

x. Describe how the documentation from the JAD Sessions (e.g., Department decisions, approved notes and updated requirements) will be collected and stored in the State of Nebraska's Document Repository. This description must include the process for collecting the data that will update the Requirements Traceability Matrix.

Documentation from the JAD sessions will be stored in IBM Rational Requirements Composer. We intend to provide the MLTC access to the tool over the Internet. As per license agreement with IBM, we can provide review and approval access to customers for documentation review.

Traceability is the backbone of a requirements management tool. Being able to create relationships (links) between requirements and from requirements to other lifecycle elements is one of the primary reasons that organizations choose a requirements definition and management solution. Tracing and understanding relationships between requirements and lifecycle artifacts are crucial to project success. Links not only denote simple connections from one piece of information to another, they also indicate further meaning or significance. There is usually a justification for why a link is created, which motivates further analysis of that link in a query report.

Requirements Composer now provides a built-in graphical links explorer that allows the analyst to interact with requirement links and to use them as primary elements in a requirements process. Figure IV-104 provides an example output of the graphical relationship between Composer to a series of related requirements gathered during a single JAD session.

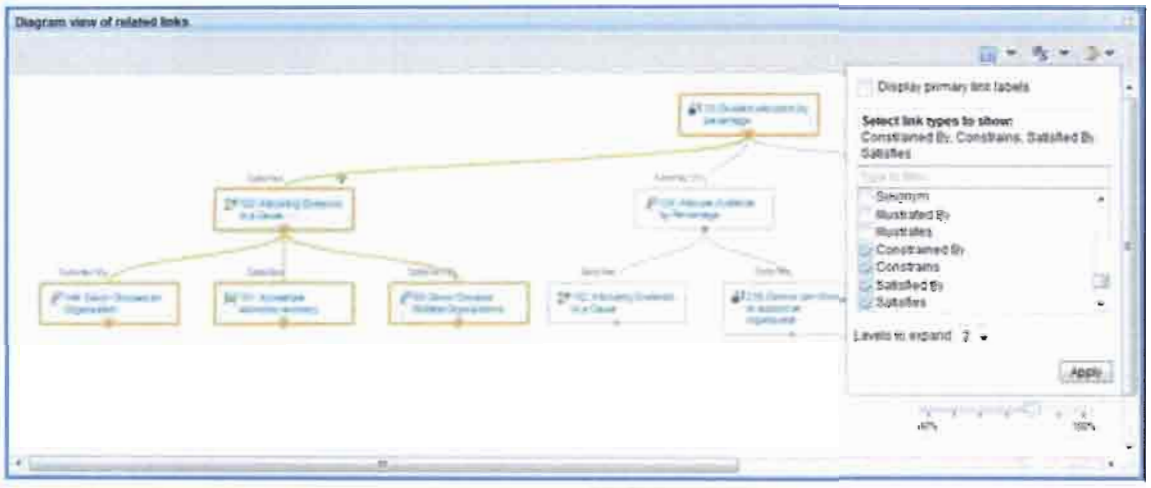


Figure IV-104: Graphical Relationship of Rational Requirements Composer to Requirements

xi. Describe the process for finalizing requirements, documenting the results and incorporating information from the JAD Sessions, maintaining a Requirements Repository throughout the life of the project and ensuring the requirements continuously reflect the approved project scope. The requirement repository must reflect the current scope of the project.

Each requirement created during a JAD session is assigned a unique identifier. Relevant categories will be assigned to a requirement that covers all the phases of the JAD cycle, including validation. The expectation is that the following will be accomplished for each given requirement submitted as part of the project.

1. **Requirements reviews**: An overview of the requirements for the given problem will be documented. The business analyst will provide a high-level state of what the problems are and what are the assumed needs identified by the stakeholders.
2. **Systematic manual analysis of the requirements**: The business analyst shall document all the requirements and approaches discussed during the JAD session. The final approach shall be documented in the greatest detail so that a proposed prototype can be created.
3. **Prototyping**: All paper prototypes shall be submitted to the system as an attachment. Any links to systems iterations shall be submitted to ensure a consistent system of record.
4. **Using an executable model of the system to check requirements**: A repeatable use template will be leveraged to ensure to ensure all checks and balances are completed as part of the executable model.
5. **Test-case generation**: Upon completion of a requirement being prototyped and documented completely, a test case shall be generated for one or more parties to test the application for completeness and operationalization.
6. **Developing tests for requirements to check testability**: A repeatable benchmark test, which will be identified at the beginning of the ***SmartPro MedEE*** project, will be executed by the appropriate team to ensure the requirements meet rigorous testability.

7. **Automated consistency analysis**: By using a COTS requirements management tool, the Wipro/IBM team is ensuring automated consistency and analysis for the entire JAD process associated with each requirement.

8. **Checking the consistency of a structured requirements description:** Similar to automated consistency analysis, the requirements management tools being proposed link functional and non-functional needs together in a consistent manner using a repeatable, predictive process.

xii. Describe the process that will be used to identify new requirements and describe how these will be presented to the Department.

All requirements are baselined in the Requirements Traceability Matrix, which is contained in the IBM Rational Team Concert application. RTC supports configuration management and traceability of each requirement to other project artifacts. Before a requirement is approved, it is placed into a requirements workflow. In collaboration with the Department, this workflow will be configured to support our change management processes. This process includes a change control board that approves all processes that have been previously baselined. The change control board is represented by key staff from both the customer and the vendor organizations. Prior to the change control board meeting, the requirements under consideration will be provided to the board, with accompanying documentation to clarify the nature of the requirement. Accompanying documentation will include the cost of the change (if any), the scope of the change (hours) and the impact to the project (schedule) as well as any accompanying risk.

Based on the decision of the change control board, the requirement will be approved, pended for further review, or denied. If the requirement is approved, then accompanying project management artifacts (Schedule, Cost, etc.) will be updated.

xiii. Describe the process for developing the Business Process Gap Analysis including how changes to the Business Process Models and Requirements Traceability Matrix will be tracked, and the content of the Gap Analysis Report.

During the RFP proposal process, the team has created the gap analysis report, which is contained in our response to Appendix D. This gap analysis is created by analyzing the detailed Appendix B and C requirements, against the baseline ***SmartPro MedEE*** solution. Any differences between our baseline solution and the requirements contained in the Appendices are noted as gaps. These requirements and associated gaps are then considered when developing the To-Be business process diagrams.

As the Business Process Change team works with the MLTC to create the To-Be process models, the team is noting any additional gaps, and capturing these gaps as new requirements in the Requirements Traceability Matrix. These new requirements are then processed through the change control process using mutually agreed-upon thresholds. These thresholds will be based on impact to the project schedule, quality, cost, and resource allocations.

xiv. Describe the interaction that will take place among the Contractor's staff and the Department's Business Analysts and Technical Review Teams during the Requirements Validation process.

The Wipro/IBM team believes the relationship between the State and our team shall be one of collaboration. During each working session to identify requirements, including the validation

meetings, members of the Business Analyst Staff and Technical Review Team will be invited to participate. We fully embrace feedback during these sessions as the MLTC is our customer. If interactions occur outside of working sessions, the Wipro/IBM team will have a point of contact for functional requests made by the Business Analysts and a Technical point of contact for technical related matters. These delegated members of the Wipro/IBM team will mitigate all issues by assigning the questions to the appropriate party so that the requirements validation process is operationally succinct and technically smooth.

12. Business Rules Configuration

The Wipro/IBM team will follow the ***SmartPro MedEE*** best practices for identifying rules changes and configuration. These best practices have proven successful on multiple Medicaid and Health Insurance Exchange implementations. As part of the construction process the project team will ensure that the MLTC staff has a thorough understanding of the rules lifecycle, development, and usage.

Key Features of IBM SmartPro MedEE rules management capabilities include:

- **Flexible and high performance rules environment**
- **Business user friendly rules editor with Health and Human Services specific content**
- **Easy to understand summary of complex eligibility rules**
- **Automatic change in circumstances detection and handling**
- **Configurable deduction rules to recoup payments**
- **Extensive Out of the Box capabilities compared to**

The Wipro/IBM solution delivers comprehensive rules management capabilities by providing rich, prebuilt rules content, a rules composition and execution environment with the MITA compliant ***SmartPro MedEE*** rules engine. ***SmartPro MedEE*** provides robust capabilities to handle eligibility and entitlement determination in automated fashions including rules-based business processes; ***SmartPro MedEE*** has been designed to address the unique challenges faced by Health and Human Services agencies with regard to rules management in support of program delivery, organizational efficiency, and enhanced client service. The Cúram Express Rules (CER) environment provides the functionality necessary to support a range of rules-based business processes in ***SmartPro MedEE*** solutions. The web-based documentation provides comprehensive coverage with context and extensive documentation on CER.

Cúram Express Rules (CER) Environment

- CER is a versatile and adaptable rules environment that supports the definition, creation, and execution of rules to support a range of business functions commonly required by social enterprise agencies allowing for ease of extension and maintenance. CER supports a multiple step decision business process for areas such as Triage, Screening, Eligibility, and Change of Circumstance. The CER environment consists of the following components.
- CER Editor – provides a user-friendly tool for business analysts and developers to storyboard, design, validate and construct rules, and link rules to data.
- CER Engine – executes rules on demand at runtime in order to output business-based calculations. The CER Engine is a backward chaining "calculation engine" that calculates

"attributes" that represent logical results. An attribute can be calculated from other attributes, from data on the Cúram data model, or obtained from an external source. Attributes are automatically verified to their data types and format.

- Pre-built rules objects and paths for various business processes to follow allowing for object reuse and inheritance.
- Rules are exportable and storable within easy to interpret XML formats that the CER Engine interprets for execution.

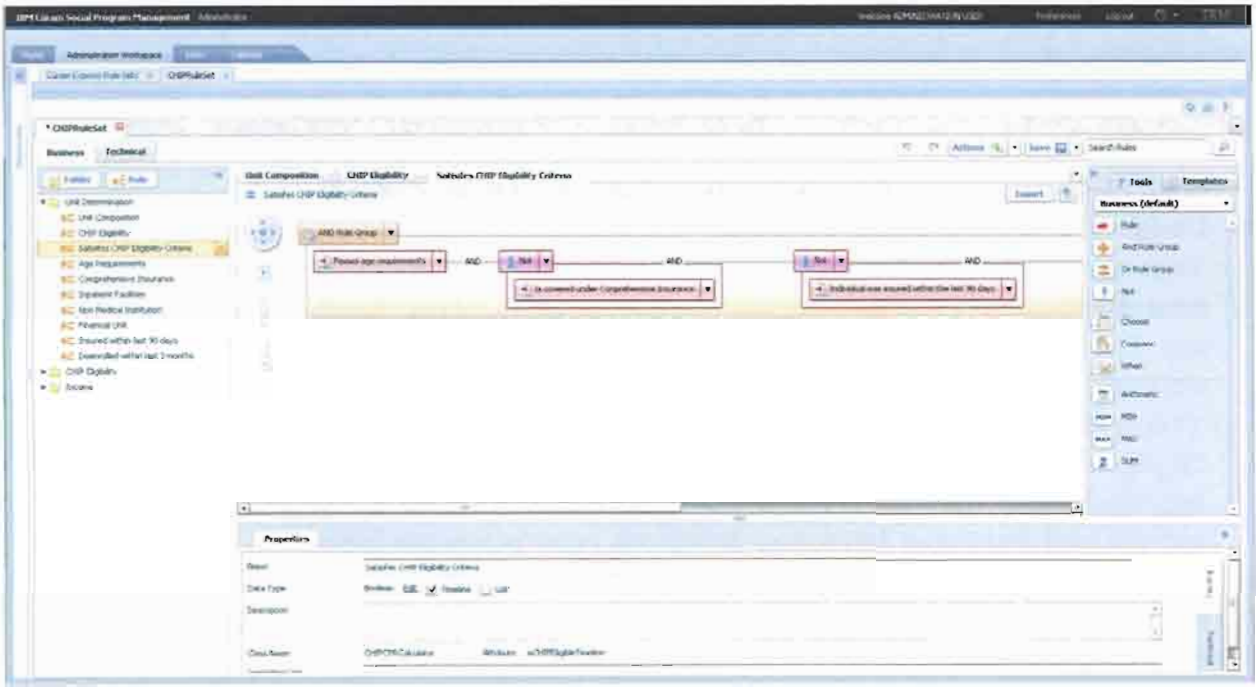


Figure IV-105: CER Rules Editor

Six major steps are identified for creating and deploying rules, as depicted in Stages in Deploying Rules using the ***SmartPro MedEE*** graphic. These key steps will be used to leverage the OOTB rules along with adapting to the legacy rule sets in the mainframe system. The CER Editor is designed to reduce the effort involved in each stage.



Figure IV-106: Stages in Deploying Rules using the *SmartPro MedEE* solution

- **Requirements Identification**: The starting point for development of a ***SmartPro MedEE*** rule is usually a change in legislation or mapping to a specific local government policy. Often, a change in legislation will not require a distinct business or process rule. Understanding and interpreting the meaning of the rule almost always involves significant investigative work, which simply cannot be performed by a software tool. The complexity of this step can be alleviated by the fact that either: (a) the rule is delivered OOTB in the ***SmartPro MedEE***

solution, or (b) the rule, or a subset of the rules from which the rule is derived are already available in a prebuilt, searchable, and cross-referenced vocabulary.

- **Analysis/Interpretation**: First, a new rule or an extension to an existing rule, and the related dependent rules are identified and collated into a discrete requirement description. The next step is to identify references to existing rules and data and then to identify what other rule derivations need to be produced. As part of this step, data is identified that needs to be captured to support the new (composite) rule. At this point in the process, a business analyst will start using the CER Editor to construct conceptual rule diagrams. Navigating the business diagrams in their rule and associated rules, the analyst can determine if prebuilt content already exists that will satisfy the modification. Rules development within ***SmartPro MedEE*** is designed to reuse prebuilt and locally developed rules. The purpose of this stage is to start the process of defining the new rule, in preparation for its design.
- **Design**: The next step in the rules development process is to further enhance the rules diagrams created in the Analysis/Interpretation step. This step is usually carried out by a designer/developer using the same artifacts that the analyst worked with in the previous step. The designer always has the option of switching to a more technical view of the rules artifacts if desired. The advantage of this approach is that as the analyst and designer work in tandem to elaborate each other's work, they are dealing with the same familiar rules diagrams. Changes made by one will immediately be recognizable to the other. During this step, the designer will work to improve the overall rules design. Once the designer is satisfied with the rules design and data source definitions, construction can begin.
- **Construction**: The Construction step further enhances the rules diagrams, introducing a number of key concepts that are fundamental to successful eligibility and entitlement processing, including:
  - Linking rules to data using a Rule Object - which is a reference to actual data in the ***SmartPro MedEE*** database, for example, client, case, or rates data.
  - Addressing Timelines - Data (evidence), rules and rates change over time and these changes affect eligibility and entitlement. In ***SmartPro MedEE***, a timeline is associated with a Rule Object. Change in a timeline will be immediately reflected in the eligibility and entitlement calculation.
  - Allowing for Data Attribution - Different programs can have different rules regarding which data should be used for which period; these are referred to as Attribution Periods. Even though the same data may be used in multiple programs, each program may attribute it differently, for example, Program A may consider a bank balance increase from the start of the next month, while Program B may consider it from the start of the current month.
  - Creating Decision Summaries - A Decision Summary is a configurable explanation of an eligibility and entitlement calculation. It is targeted at both the user and the client and contains facts and intermediate calculations relating to an eligibility and entitlement determination.
- **Testing**: Fundamental to the success of rules testing is the creation of unit tests that automate the testing of rules. The recommended approach to testing rules is to conduct

testing along the way as part of the construction process. Developers may test in their local environment iteratively from single rule attributes, to end-to-end case scenarios separate from application logic. ***SmartPro MedEE*** enables the execution of rule unit tests in batch mode, which facilitates regression testing of rules.

- **Deployment**: Rules construction and testing will usually occur in a test environment, separate from the production environment. As such, changes made in the test environment first need to be migrated to the production environment. The Cúram Configuration Transport Manager (CTM) provides the capability to transfer configuration data such as CER data between environments; development, test (System Test, UAT) and production. Once the rules configuration data has been transferred to the production environment, a user with appropriate security access must publish these changes for the new configuration to take effect. The CER Engine will detect the changes that have occurred and schedule a reassessment that is executable online or through batch processing.

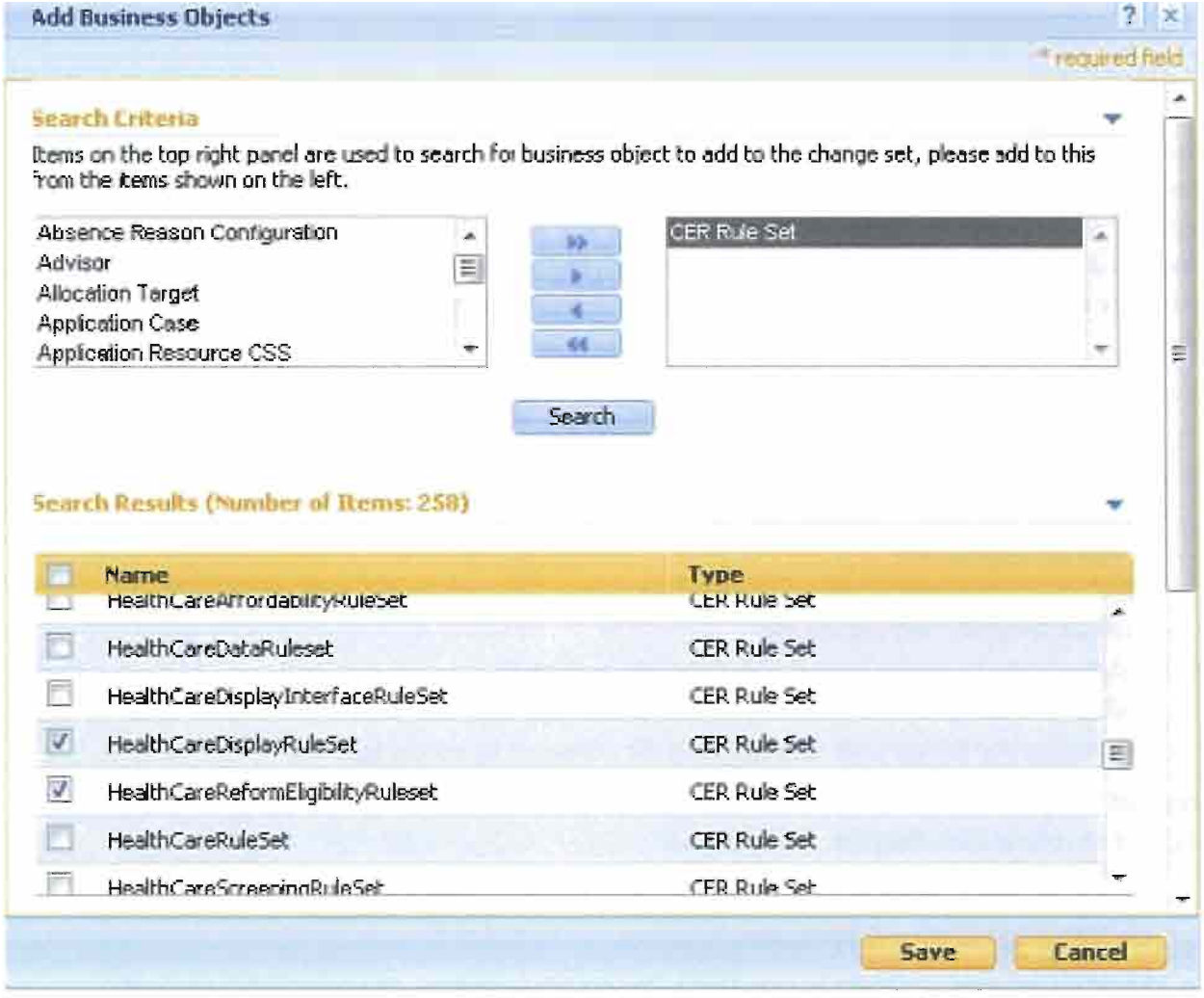


Figure IV-107: Configuration Transport Manager Example

Skills for Configuration of Business Rules

SmartPro MedEE provides detailed documentation, automatic business diagram construction and out-of-the-box pre-built content examples that minimize the learning curve for business rules configuration. Typically the key part of maintaining rules is knowledge of the local policies and the overall business processes on a multi-year cycle. The Wipro/IBM rules analysis and development team will have a high level of understanding for:

- Storyboarding, fit/gap, and understanding the impact of a government policy throughout an eligibility and enrollment system
- Subject matter expertise in the Affordable Care Act as pertaining to a federal based exchange and State Medicaid system
- Rules documentation experience in table and written form
- Previous experience in simple to complex test cases for rules and Medicaid scenarios

13. System Design

i. Describe how the SDLC will be applied to accomplish the System Design Task;

The system design phase of the SDLC will target in arriving at a robust design taking into consideration the objective set in the requirement phase. The system requirements along with the various constraints identified in the requirement phase will be analyzed to derive the system architecture design. All design alternatives will be analyzed through quantitative analysis before the finalizing the high-level design. Some of the key tasks that will be carried out to accomplish system design are:

- Evaluate the constraints identified in requirement phase
- Identification of possible sub systems and interfaces
- Identify design alternatives and identify the right design by using quantitative measurement approaches like field force analysis
- Design the application
- Establish effectiveness of design considering factors like robustness, performance, risk, schedule, Security, integration etc
- Design review by design team headed by lead architect
- Produce the design spec which will be defined at high level and detailed level tech spec
- Conducting the design walk through with the customer to get the sign off

The detailed design feeds the input for the development phase. Wipro/IBM will apply the ETVX criteria for each phase including the design phase.

ii. Explain how Project Management, Quality Management, and SDLC methodologies will be employed to control the development of deliverables;

Wipro Talent Transformation team has created a Project Management Academy (PM Academy) which includes the best of PMP and Prince global project management trainings. The Wipro Talent Transformation team ensures that all our project managers are PM academy certified to ensure we provide the best of project management experience to our customers. Below are some of the key project management activities to ensure control over development of deliverables.

- The project manager has the overall accountability for the on time delivery.
- The project manager coordinates all the review activities for the deliverables
- Identify the risk identified with the deliverables and arrive at mitigation plan
- Define a mitigation plan and alternative approaches to key issues identified in the project
- Define the review and testing cycles for the deliverables
- Coordinate the defect triage meetings and decide the priority and severity of the defects
- Ensure the defects are allocated and addressed by the team based on priority
- Coordinate with quality team and customer team for the quality gates
- Coordinate with quality team on review effectiveness and defect prevention Wipro initiatives like DRFT
- Conduct LAM (Look Ahead Meeting) and lessons learnt whenever required to ensure the lessons captured from one deliverable are taken care in the future deliverables

Wipro has a dedicated Mission Quality team which guides delivery team to deliver projects of the highest quality. A quality management plan which will act as a quality roadmap for the account will be drafted and shared with the team. The quality management plan will cover both quality control and quality assurance activities. Wipro has defined all the process, procedures, guidelines, and checklist in Velociq (Wipro QMS) which acts as the guidance to delivery and quality teams to ensure delivery with quality. The process controls are put in place to avoid undesirable outcomes. These are validates through well-defined checklists which are defined at phase and deliverable level.

The following key tasks will be employed as part of quality control activities.

Review and Inspection – Reviews and Inspections are performed to ensure that the items that are reviewed or inspected are complete, correct and fit for use. The process applies for both documents and code written. Wipro has implemented DRFT (Doing Right First Time) as part of its quality process. This is achieved by implementing effective reviews and inspection throughout the life cycle of the project. All reviews are planned as part of the project plan. Wipro's QA procedures include the reviews performed by Peer Review team (PRT). Normally, PRT reviews are sought for all client deliverables. The concept of PRT reviews is implemented in Wipro to ensure validation of the quality of the deliverable by someone other than the author of the document / code.

Testing - Wipro follows a comprehensive approach for testing to make sure that the product developed meets the requirements. Testing is conducted at several levels during the project development life cycle. Some of the typical testing cycles that are conducted during development phase are Unit Testing, System and Integration testing, User Acceptance tests, and Performance testing. Errors/defects are classified as fatal/major/minor for severity. Defect logs are tracked and analyzed to identify and improve the weaker areas. Daily defect triage meetings have been implemented by Wipro in many projects with significant success.

Quality Gates: Wipro has defined quality gates which incorporated the EXTV model. ETVX stands for

E- Entry Criteria which is an input to the current phase and usually an output of the preceding phase

T- Tasks or procedures that are performed on the input to produce the necessary output

V- Refers to the verification and validation activities like reviews and testing activities that are performed on the output to validate whether the deliverables are created right and whether the output deliverables match the desired expectations

X – defines the exit criteria that should be fulfilled to end the process or phase

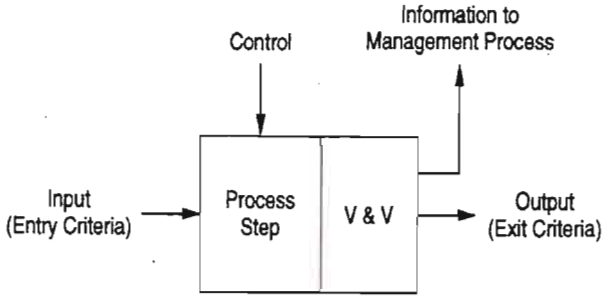


Figure IV-108: Quality Gates

It is important to follow ETVX concept for all phases in SDLC. The Quality representative either a QC or QA who are an independent entity will coordinate with the delivery team to perform the quality gate. This is to ensure there is no compromise in the quality of the deliverables.

Audits: Test audit is conducted for all the major deliverables of the project like design document, unit tested code etc. by an External Review Team (ERT). The External Review team (ERT) typically comprises of members who are not part of the project team. This helps to bring in an external perspective to ensure product quality.

Traceability: A bi directional traceability matrix will be maintained by the team which gives the mapping between requirement and all the deliverables spread across all the phases. This will be validated by the QC or QA as part of the exit criteria for each phase

iii. Describe the format and medium that will be used for the design documents and demonstrate how the design will be presented in a fashion that can be understood by a wide range of users using the tool to cross-reference requirements;

The Software Development Life Cycle (SDLC) helps to manage project complexities. The formats recommended by SDLC which is adapted by Wipro for representing design are

- Hierarchy Charts – is a pictorial representation showing the relationship between the various modules of the system
- Data flow diagrams - is a graphical representation of the flow of data in the system
- Structured representation through deliverables is achieved through clear and concrete explanation of the design which covers both HLD (High Level Design) and LLD (Low Level Design)
- Entity Relationship diagram is a data model to represent data in an abstract way to give a visual representation of different data and how the data are related to each other
- Structure charts – helps to breakdown a system to its lowest manageable levels

The Architect will use the most suitable formats required based on the audience to ensure the design is understood by the wide range of users

iv. Describe the system design deliverables and artifacts, and provide samples;

The description of the system design deliverables are listed below. Please refer to Appendix C1 and C2 for more details on the deliverables as per phase and template.

Table IV-27: System Design Deliverables

Artifact	Description
Design Document	Contents are Purpose, Assumptions/Constraints/Standards, and Alignment with Federal Enterprise Architecture, Architecture Design, System Design, Version Control, Approvals, References, and Key Terms.
Physical Data Model / Data Model Diagrams	Contents are Purpose, Assumptions, Constraints, and Logical data model standards, Logical Data Model, Version Control, Approvals, References, and Key Terms. Contents are Purpose, Assumptions, Constraints, and Physical data model, Physical Data Model, Version Control, Approvals, References, and Key Terms.
Release Strategy	Contents are Overview, Assumptions, Constraints, Risks, Release rationale, Strategy, Content, Schedule, Impacts, Notification, Management, Numbering, Approvals, Version Control, References, and Key Terms.
Data Conversion	Contents are Purpose, Data Conversion Objective, Assumptions, Constraints and Risks, Conversion Scope, Approach, Roles and Responsibilities, Schedule, Data Quality Assurance and Control, Conversion Preparation, Specifications, Version Control, Approvals, References and Key Terms
Interface Control	Contents are Interface Controls, Version Control, Approvals, References, and Key Terms.
Implementation Planning	Contents are purpose, assumptions, constraints, planning, workforce changes, employee transition, business process, technology requirements, implementation, transitioning, and training.
Capacity Planning	Contents are purpose, solution requirements, assumptions, constraints, analysis of capacity and findings summary
Contingency Plan	Contents are purpose, background, applicability, scope, assumptions, system description, line of succession, responsibilities, testing and maintenance, notification and activation, recovery operations, return to normal operations, original or new site restoration, concurrent processing and plan deactivation
System of Record Notice (SORN)	Contents are system name, system classification, system location, categories of individuals covered by system, categories of records in the system, authority for maintenance, policies and procedures for storing, retrieving, accessing, retaining and disposing of records in the system
Test Plan	Contents are Purpose and Scope, Resource Requirements, Assumptions, Constraints and Risks, Testing Approach, Unit Testing, Functional Testing, Load Testing, Volume Testing, Acceptance Testing, Usability Testing, Compatibility Testing, Conformance Testing, Regression Testing, Stress Testing, Vulnerability Assessment Testing, Progress Reporting, Appendix Summary, Test plan approvals, References, Key Terms, Test Summary Report, Bug Report/Defect Log and Versioning.

v. Describe the Technological Overview of the proposed architecture and clearly describe how the design and development approach will be specifically tailored to this technology;

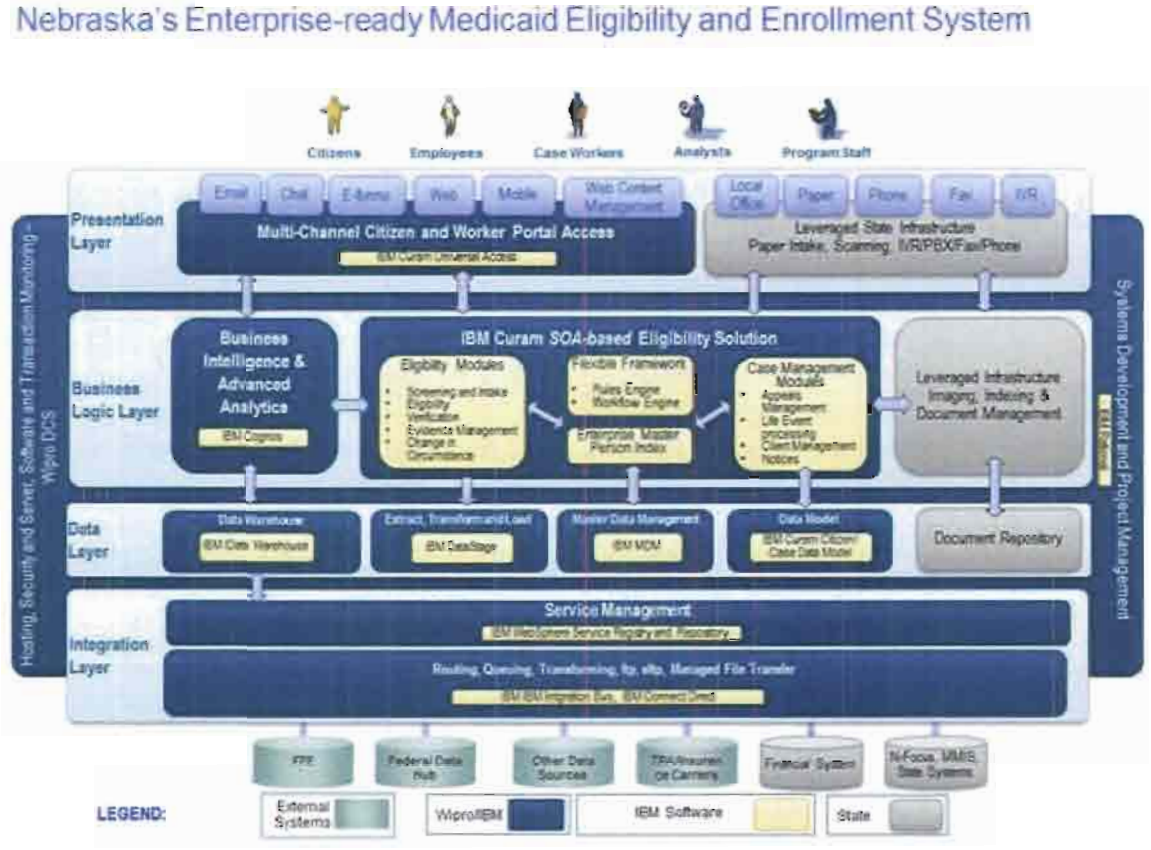


Figure IV-109: Technological Overview

We propose a four layer SOA based technical Architecture:

1. Presentation Layer
2. Business Logic Layer
3. Data Layer
4. Integration Layer

System Design and Development approach is customized to align with the technical architecture. These phases will have 5 work tracks, working very closely to ensure dependency among various components of projects are tracked and managed. These tracks will be:

1. Portals and user presentation
2. Cúram functional customization
3. Data Warehouse, Analytics and Reporting
4. In-bound and out-bound interfaces integration
5. Independent Testing team

Activities across various tracks will be monitored and coordinated through PMO (Project Management Office).

vi. Describe how the tool(s) will be configured to assist both Contractor and the Department staff in the system design tasks;

We propose to use below tools for Design phase:

- ER Studio – Data Model Design
- IBM Rational Team Connect – Communication, Change Management, Configuration Management
- Rational Software Architect – System Architecture design
- MS Project Professional – Project Management
- Adobe Acrobat XI – Design document production

These tools will be configured for contractor staff (working on the projects) as user of the tools to develop system design components and documents. These tools will have view access for department staff to review deliverables produced, provide feedback and comments on the Work In Progress deliverables.

vii. Describe the process that will be used for the review and walk-thru of the design documents; and

Wipro recommends a three staged approach for architecture and design document review. The design review process stages are

- **Discovery** - Focuses on understanding the context, requirements and the architecture
- **Review** - Core of the review process where the architecture is validated using a review checklist and framework
- **Recommend** - Discuss, validate and implement the review findings

The key team members who will be associated in the design review are Architect, Project Manager, Business Analyst, Review Lead, and review team members.

The Architect acts as the single point of contact through the review process. Architect presents the architecture decisions, quality attribute requirements, architecture views, and thought process behind the architecture

The design documents (high-level design and low-level design) walk through will be headed by the Architect where the design architecture will be presented to the client. The presentation will cover application, technology and data architectures, environmental constraints, risk mitigation strategies if applicable.

viii. Describe the interface and interactions that will take place among the Contractor's staff and the Department's Business Analysts, Technical Review teams and other stakeholders during the System Design process.

System design is an important phase in the SDLC where the high level and low-level design for the system are derived. The design alternatives are evaluated using quantitative models like field force analysis to derive the best possible system design. An effective interactive platform between the business staff and Wipro/IBM plays a key role to arrive at an effective and robust design.

Requirement elicitation meetings with the Wipro/IBM delivery team, architect, and Business analyst will be conducted to understand the details of the requirement and the possibilities of converting the requirements to system design. Wipro/IBM team will be collating all the queries where they need clarification from the customer and periodic clarification meetings will be conducted between Wipro/IBM and customer team

The architect team and the lead architect for the project will conduct periodic discussions with the delivery team to review the progress and provide any directions if required for the delivery team on the architectural aspects of the design

The test lead and the test team members will have weekly meetings with the delivery team to understand the design and accordingly design the test plan and test case for the project. This will be an internal meeting and a customer interaction will be required only on a need basis

Discussion meeting between the team and security team will be held to ensure all the information security aspects are evaluated. The counterparts on the customer information security team (if exists) will also be included in the design review meetings to get the signoff from the customer security team.

Design review meetings will be planned at two different stages where the first stage is an internal meeting where the system design is derived based on all the inputs received will be reviewed.

Design review comments are logged and tracked to closure. The second stage of design review will be with the customer team where the design will be reviewed to get the customer review comments and make any necessary changes as needed.

Wipro/IBM team will conduct a joint design walk through which will be attended by Wipro/IBM and customer team leading to the sign off unless and until there is a need for rework.

14. Development

i. Describe the relationship between the System Development Task and other SDLC tasks;

SDLC or Software development life cycle tasks start from the statement of work or SOW for the new system till the system is developed, tested, and handed over to the maintenance and support team. The SDLC methodology for this project recommended by Wipro/IBM is ***SmartPro MedEE*** Methodology which is a combination of waterfall and iterative approach in design and development phase. The SDLC tasks are classified into 3 broad areas which are:

- Pre project – Focuses on project initiation and conceptual phase to ensure a smooth start to the project
- Project – This is the main lifecycle starting from planning till implementation phase
- Post Project –This phase is to ensure the smooth hand over to the maintenance and support team

The system development tasks are more focused on creating the system based on the design finalized in the earlier phase. A requirement traceability matrix will be maintained by the team to ensure the system developed is in line with the requirements and design expectations. The system development

tasks will also ensure a complete unit testing of the system before ensuring a smooth hand over to the system testing team.

ii. Provide an overview of software development activities that will be performed by the Contractor and the environment in which this work will be completed. This will include issues such as security, privacy, standards, and interdependencies in hardware and software development;

The infrastructure activities of procuring, installing, configuration, and testing the environment will be taken starting from the initiation phase. This will be completed before the end of requirement analysis phase. This approach will ensure the environments are available in time without any delay. The network installation, configuration and support activities will be provided from design till hand over. This approach will eliminate the interdependencies between hardware and software development

<table>
<tr><th>Environments</th><th colspan="10">SDLC Phases</th></tr>
<tr><th>D - Development team
T - Test Team
A- System Admin
U- Business users</th><th>Initiation</th><th>Concept & Planning</th><th>Requirement & Analysis</th><th>Design</th><th>Develop</th><th>Integration Testing</th><th>System Integration Testing</th><th>User Acceptance Testing</th><th>Implement</th><th>Operations and Maintenance</th></tr>
<tr><td>Production</td><td rowspan="14">A - Planning for the environments to be set up</td><td rowspan="14">A- Install and Configure activities</td><td rowspan="14">A- Test environments, Host tools required for SDLC</td><td></td><td></td><td></td><td></td><td></td><td colspan="2">A,U - full performance, live data in real time</td></tr>
<tr><td>DRR Prod (IDLE)</td><td></td><td></td><td></td><td></td><td></td><td colspan="2">A- limited non DRR mode receive updats from prod in near real time</td></tr>
<tr><td>DRR Prod (Active)</td><td></td><td></td><td></td><td></td><td></td><td colspan="2">A- disaster recovery version</td></tr>
<tr><td>Development</td><td></td><td>D - Near full functionality is available with limited capacity</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>System Test</td><td></td><td></td><td>D, T - System testing and updates</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Integration Test</td><td></td><td></td><td></td><td>D, T - System integration testing</td><td></td><td></td><td></td></tr>
<tr><td>QA (Small)</td><td></td><td></td><td></td><td></td><td>U-UAT with full functionality and limited capacity</td><td></td><td></td></tr>
<tr><td>QA (Large)</td><td></td><td></td><td></td><td></td><td>U- UAT Load, Stress testing with full capacity</td><td></td><td></td></tr>
<tr><td>Sandbox</td><td></td><td></td><td></td><td></td><td>U- dedicated state users for controlled testing</td><td></td><td></td></tr>
<tr><td>Training</td><td></td><td></td><td colspan="2">D,A, U - for training staff</td><td>D,T - for any updates required</td><td></td><td></td></tr>
<tr><td>Data Conversion</td><td colspan="4">D, T- Data conversion activities</td><td>D,T- Promoted from QA small or large</td><td></td><td></td></tr>
<tr><td>PMO</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

Figure IV-110: SDLC Phases

iii. Describe the software development methods that will be used, including the use of iterative or phased development, if appropriate. This should include descriptions of manual and automated tools and procedures that will be used in support of these methods;

Wipro/IBM recommends ***SmartPro MedEE*** Methodology which is a combination of waterfall and iterative approach in design and development phase. This methodology includes the best features of both waterfall and iterative methodologies. Wipro/IBM's repository of comprehensive project management tools, processes, templates, artifacts and other resources will help the Wipro/IBM

team project delivery staff and the Department plan and execute projects with a detailed service-orientation focus. We will tailor our standard methods to include best practices for managing projects that have a diverse group of stakeholders. The methods Wipro/IBM brings to managing, controlling, and supervising contract services will offer the Department a proven and transparent project management strategy based on industry best practices.

Wipro/IBM will employ quality gates at the end of end phase to ensure all the activities required to be completed in the phase are completed. This will ensure the phase containment or the defects associated with a phase to be contained within the same phase and not move through the SDLC cycle.

Ecube is the project management tool used by Wipro/IBM to define the methodology and metrics used in the project. The tool generates the required metrics in the form of a report called the PDMR or project data metrics report which is reviewed by the project manager and delivery manager for corrective actions

The below diagram shows the pictorial representation of the ***SmartPro MedEE*** Methodology:

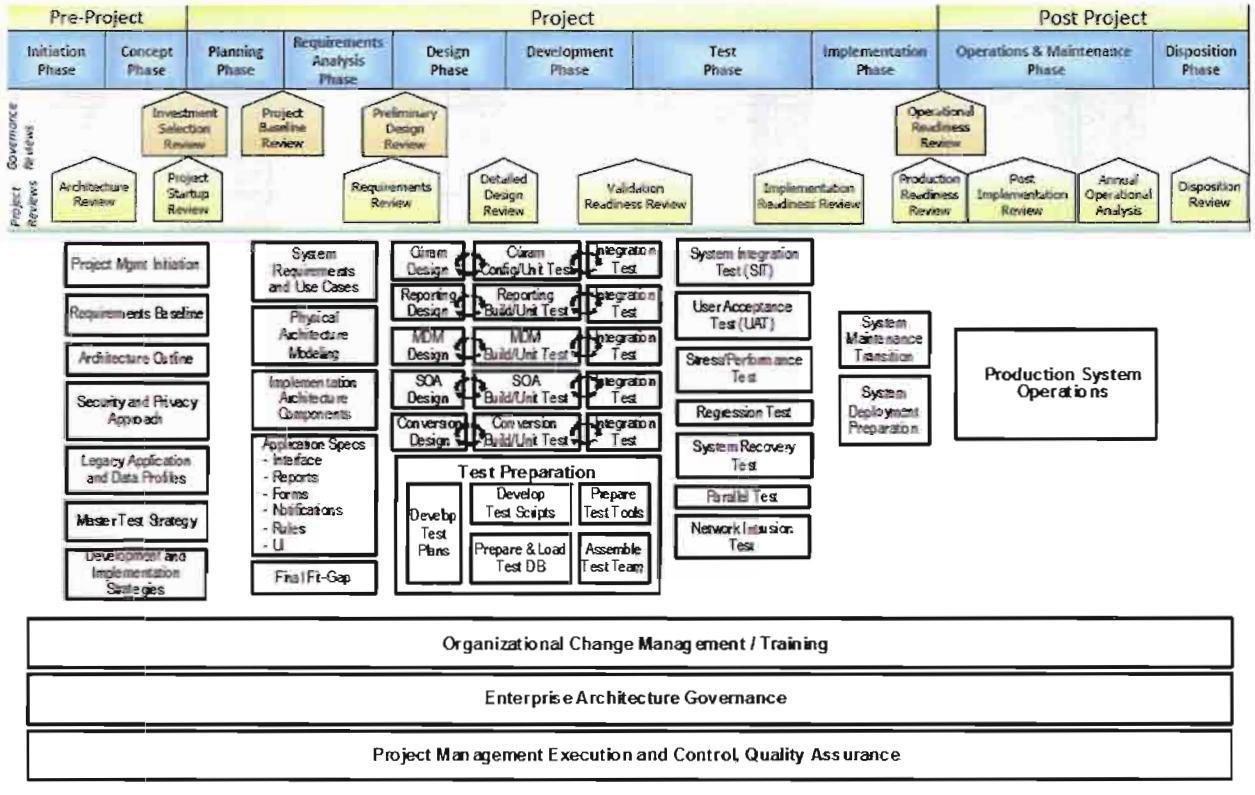


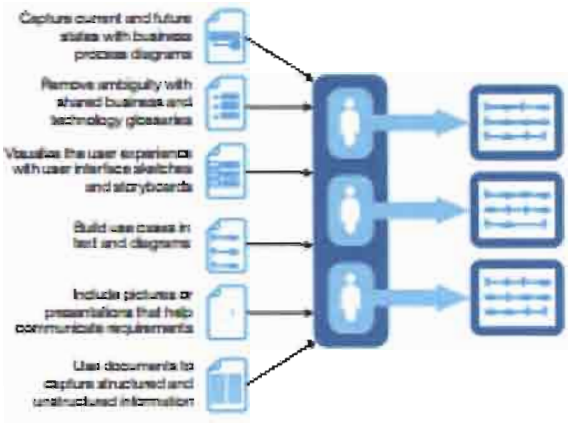
Figure IV-111: *SmartPro MedEE* Methodology

iv. Specify development tools that will be used, and explain its specific roles;

IBM Rational Team Concert, IBM Rational Software Architect, and Jenkins are the development tools that will be used during the Development phase

IBM Rational Team Concert - IBM Rational Team Concert software provides the essential development and business support to define and capture business needs and manage virtually all the requirements throughout a project lifecycle.

- Defining and managing the requirements - IBM Team Concert can help team members to link requirements artifacts to related information in a centrally located repository or project dashboard. With the IBM solution you can capture and connect rich information in multiple formats and share it with multiple users and projects. It offers search and filtering capabilities to help stakeholders more easily navigate volumes of requirement information.



- Addressing the entire extended team - The Rational Team Concert tool can help software development teams to maintain information in a central location or a project dashboard and also provide greater information visibility to the stakeholder. It offers a web-based interface to elicit, capture, elaborate, discuss, and review requirements.

IBM Rational Software Architect - IBM Rational Software Architect is an advanced model-driven development tool. It leverages model-driven development with the UML for creating well-architected applications and services. Rational Software Architect is a tool that enables software architects to model and design the architecture of their applications. The content that can be created within Rational Software Architect includes all kinds of UML 2.2 diagrams. It also includes features for automatic code generation starting from the models developed within the application. All content created in Rational Software Architect can be published to HTML and deployed to Web servers for distributed viewing. Rational Software Architect can also be connected to a number of other Rational lifecycle process tools in order to be fully used into the software process.

- Exploit the latest in modeling-language standards
- Modeling flexibility for teams
- Tap into the power of model-based automations
- Bridge the gap between models and code in Java, Web services, SOA, portal and C++ applications
- Integrate with other facets of the lifecycle

Jenkins - Jenkins is an open source continuous integration tool. Jenkins provides continuous integration services for software development. It is a server-based system running in a servlet container. Jenkins monitors executions of repeated jobs. Jenkins offer the following features

- Easy installation and configuration – Jenkins can be configured entirely from its friendly web GUI with extensive on-the-fly error checks and inline help

- Helps continuous integration by supporting automation builds, artifact management and deployment processes\
- The tool gives the flexibility to fit in a variety of environments and help streamline development process
- Supported by over 400 plug-ins
- The tool can also generate test reports and integrate with many version control systems
- Can be used to deploy directly in test and production environments

v. Describe the approach that will be used for unit and integration testing and the tools developers will have available to ensure testing is thorough and accurate;

Unit Testing

There will be a pre-established Unit test suite that will be run prior to any code release to a test environment. This test suite will be further divided into critical and comprehensive test suites. At a minimum, all critical test suites must pass with no errors prior to releasing to the test environment. Prior to release to the production environment, all comprehensive test suites must pass

Integration Testing

Given below is a high-level approach for Integration Testing.

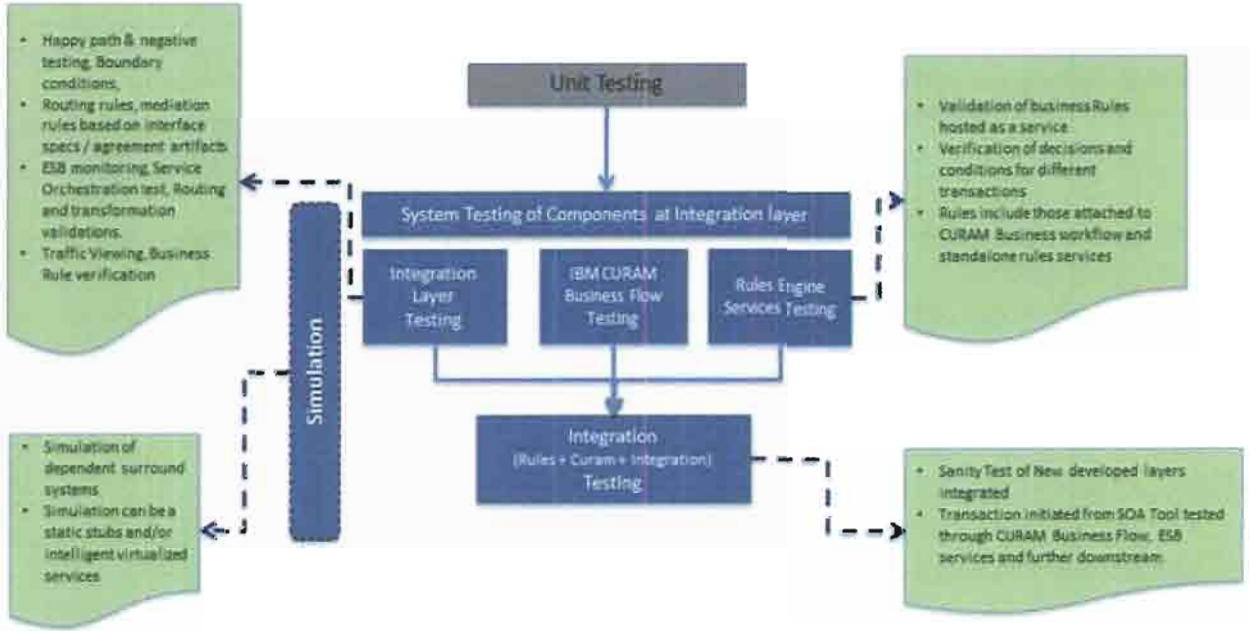


Figure IV-112: Integration Testing Approach

Integration testing will consist of the following Phases of testing

- System Testing of individual Components at Middleware and Integration Layer
- Integration Testing between different Components

System testing of individual components at Middleware at Integration Layer

System Testing will consist of testing the following Components at Integration layer

- ***SmartPro MedEE*** Business System Testing
- Rules Engine Services System Testing
- Integration Layer Services System Testing

***SmartPro MedEE* Business System Testing:**

Objective: System Testing Phase to validate and verify Business Process and/or Business Rules Management which delivers business workflows comprising processes, decisions, activities, and rules. This BPM/BRMS component of the middleware is the ***SmartPro MedEE*** capable of orchestrating multiple services in the landscape required for the success of the business operations initiated by the consumers. Some of the specific objectives are:

- Validation of Processes and its associated sub processes
- Validation of Manual Processes part of the overall workflow
- Validation rules, decisions and conditions

Approach: Business Process Management (BPM) is a process in which the business processes are aligned towards customer service expectation. This is well-planned and modeled end-to-end process orchestration of a complete customer service process. In this case ***SmartPro MedEE*** holds the business workflow for various processes.

Business Process Testing is performed in different test phases based on the complexity, constraints, dependencies, and challenges during the early phases of implementation. This Testing can be performed in three different phases/levels of testing as mentioned below in the picture

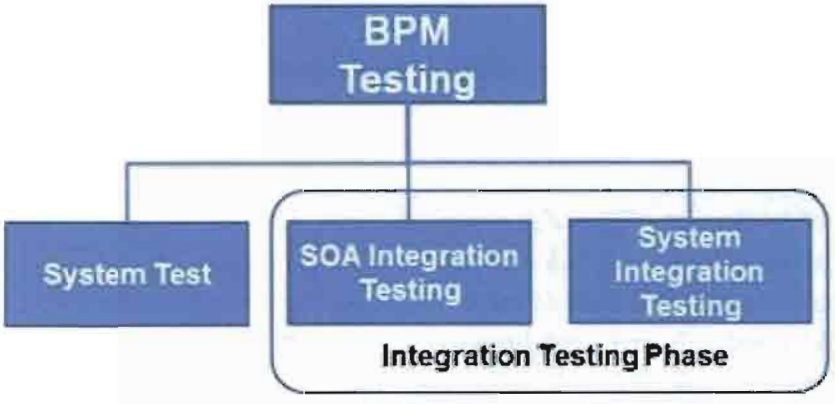


Figure IV-113: Business Process Management Approach

Choosing the appropriate phase to test the Business Process will be a decision made by the SOA Test team post the analysis of the size, complexity, surround systems dependencies, and other environment challenges.

In a System Testing we expect a medium to simple processes with limited constraints or dependencies which can be created in quick time in the test environments. With that assumption the following is the topology of a System Testing in a Test Environment.

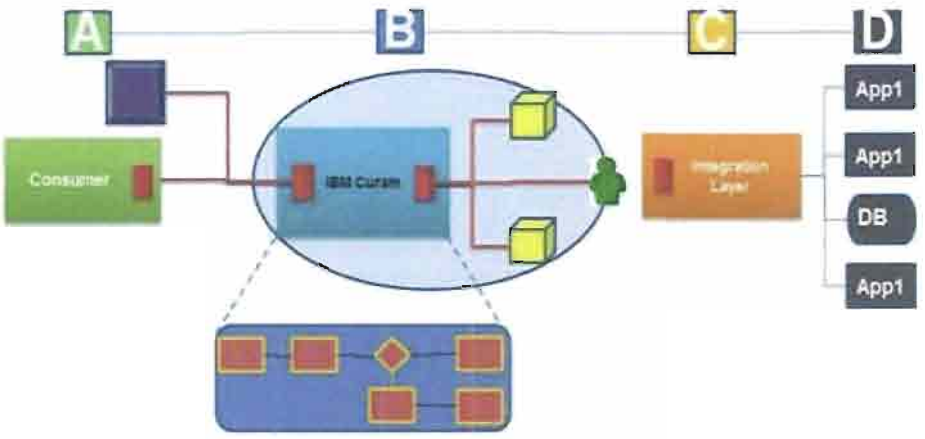


Figure IV-114: Test Environment Topology

Initiating System/Consumers [A]

As an initiating system for a ***SmartPro MedEE*** Business Processes System Testing, it can be the SOA Testing Tool client and/or the Consumer User Interface as well.

It is a challenge to generalize a ***SmartPro MedEE*** Business Processes System Testing to particular format and it is very much project or enterprise specific. Considering this section is about generic ways of testing a BPM, the providers services have been represented to cover all those touch points possible in a System Test on a Test Environment.

Rules Engine Services System Testing

Commonly called as Web Services Testing in a SOA testing world however in this document I have referred to this as a Services Testing representing the validation of Rules Engine as a service.

Objective:

- Verification and Validation of the rules engine services
- Testing of composite and atomic rules hosted on the rules engine
- To flush out early defects in the list of rules
- Validate custom error code and exceptions

Scope:

The scope of services testing is the rules exposed as Services exposed to other systems within MLTC infrastructure. These are the services apart from those rules attached to ***SmartPro MedEE***.

Approach:

The general approach towards testing services is applicable in this case. The services are tested using a SOA Test Tool Client initiating the request messages in to the provider service.

Provider service will work on the request message and get in touch with further downstream systems if any and get back to the SOA Test Tool Client with a response. The response message is automatically validated against an expected result configured in the SOA Test Tool.

Integration Layer Services System Testing:

Objectives

- To verify and validate the functional and technical requirements of the Integration layer services
- Test various configured features and properties of the middleware in specific detail
- To flush out early defects with specific configuration and changes implemented
- Creation of Simulated Services using a recognized tools
- Validation of transformation, routing, aggregation features of the Message Broker and B2B Gateway specific to individual transactions or business flow
- Validation and conformance of all regulatory transactions against a Simulated Services

Scope

The Integration Layer services will cover the following components

- IBM WSRR
- IBM Integration Bus
- IBM Sterling Direct Connect

Approach

The following is the middleware System Test topology that will be in use during the system testing.

System testing of an Integration Layer will involve the following in a test environment

- SOA Test Tool - Initiating ***SmartPro MedEE*** Inbound Transactions
- IBM Integration Bus System under Test
- Downstream Service Simulation – Virtualized Provider Services

The same type of test environment will be used for Isolated Performance Testing. This is under the assumption that the environment has the capacity planned to host a limited performance testing.

Integration Testing between different Components

The high-level expectation of this phase is to test the layers built to support SOA brought together for the first time. This validation will certify the Test Environments and limited Integrated layers which will be used for End-to-End System Integration Testing.

Objective

- Validate the first time integration of layers which has undergone change and impact
- Shakedown tests when integrating the Integrated Layer, ***SmartPro MedEE***, Rules Engine, downstream Service Layer and other surround services
- Exhaustive End to End Business Process Testing which is ***SmartPro MedEE*** and Rules Engine
- To flush out early defects during integration

- Validation of Integration scenarios below consumers with real surround and third party systems. Any service or application availability constraints will be Simulated but will be kept at minimal Basic Orchestration for selected popular business flow
- Service Versioning and Discovery

The below is the test topology of the SOA Integration Testing which is about testing the integration of Middleware components with provider services and other surround systems.

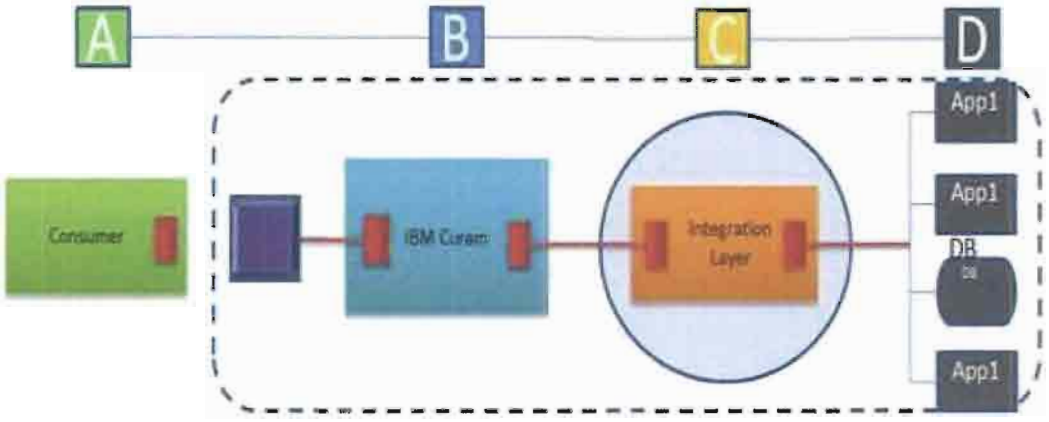


Figure IV-115: SOA Integration Testing Topology

Consumer [A]

This phase would have a SOA Test Tool Client replacing the consumer front end systems which would reuse the test suite prepared from the System Test Phase to be re-executed in the this new Test Environment integrated for the first time recreating the SOA Platform.

Cúram[B]

This is the ***SmartPro MedEE*** and Rule Engine component which is under test that will be integrated for the first time post the change with the downstream services and third party applications.

Integration Layer [C]

These are services hosted by the Integration Bus and IBM Sterling Direct Connect.

Host Systems [D]

The internal and external host provider systems delivering the services required to complete the workflow.

Tools

For the MLTC program, the Wipro/IBM recommended tool choice is Rational Integration Tester.

The recommendation is based on the overall technology stack and larger IBM platform presence both in Business and integration layers of the ***SmartPro MedEE*** solution. Rational Tool Product can integrate and interlock seamlessly with various IBM integration platform products and technologies that are implemented as part of this product.

vi. Describe the approach that will be followed for tracking requirements during development;

Requirements Composer will automatically track and record who modifies information, what changes took place and when it happened. This information will be crucial when there is need to run reports like project efficiency or the churn in a project leading to delivery. Beyond tracking history Requirements composer also lets us capture baselines (or snapshots) of the project requirements which will give a version of the project at any point in time. Once again using a project baseline we will be able to compare change over time to see what areas of your project have had the most churn and change.



Rational Team Concert lets us capture and define requirements in records called artifacts. These artifacts have many special functions but one most important is the way each artifact history is tracked and maintained.

When we review and analyze our project information and explore requirements change or just want to know what has happened to a particular requirements we can access all prior revisions of the artifact to see what modifications have taken place (in red-line mark-up). We can discover when the change happened and when the change was made giving us important insight to the way the project will progress over time. The history of a requirement artifact also lets us restore any previous versions if a mistake was made or a change decision is reversed.

A bi directional traceability matrix will be maintained by the team which gives the mapping between requirement and all the deliverables spread across all the phases. This helps in ensuring all the requirements are addressed in the right form through the deliverables across all the phases leading to the complete solution. It is recommended to have the updated bi directional traceability matrix as a deliverable across all the phases.

vii. Describe the approach that will be followed for allocating computer hardware resources and monitoring their utilization;

Wipro/IBM has a dedicated IT Management Group (IMG) which is responsible for providing all computer hardware and support. The network and LAN/WAN teams are part of the IMG group. An expert analysis will be conducted by the IMG group to understand the hardware resources. Hardware resources will be allocated based on the outcome of the expert analysis and will be monitored by Wipro IMG group. Wipro IMG group has alliances with global partners and some of the key partners are CISCO, AVAYA, Juniper networks, Alvarion, ECI, ADVA, ARISTA, and HP to name a few.

viii. Describe the method to be followed for recording issues and information that will be useful for key decisions made during development activities;

The Issue Management Tool that will be used to document, track and manage issues and document issue resolutions is the IBM Rational team Concert. Issues will be logged in the weekly status report, logged into the issue tracking database by the members of each team, and reviewed weekly by the

project management team. The issue tracking database will be used to determine the status of outstanding issues and the resolution of closed issues. This will ensure that issues are resolved in a timely and accurate manner. IBM Rational team Concert will be used as an issue management tool. Issue resolution will be stored in IBM Rational team Concert. We can provide MLTC access to the tool over the Internet. As per license agreement with IBM we can provide review and approval access to customers for Issues documents.

A decision tracker will be maintained to track key decisions taken in the project. Quantitative decision making approach like the force field analysis will be used to arrive at the right decision. This will help in adopting a quantitative scientific approach rather than a perspective based approach.

ix. Describe the quality assurance methodology and activities that will be used to ensure adherence to design requirements;

Wipro has a dedicated Mission Quality group to help account deliver projects at the highest quality. The Quality assurance for any project in Wipro is divided into the following broad activities:

- Review and Inspection – Review on the documents/source code and outputs/deliverables
- Testing – Testing on the work product developed
- Test Audit – Verification on the testing.
- Metrics collection and analysis
- Defect prevention
- Reviews by Quality Improvement Council

Wipro's process automation tool e-Cube is used for ensuring that the projects executed at Wipro offshore centers are in compliance with its quality processes. Wipro uses the following techniques to assure quality of the deliverables:

Review and Inspection - Reviews and Inspections are performed to ensure that the items that are reviewed or inspected are complete, correct and fit for use. The process applies for both documents and code written. Wipro has implemented DRFT (Doing Right First Time) as part of its quality process. This is achieved by implementing effective reviews and inspection throughout the life cycle of the project.

All reviews are planned as part of the project plan. Wipro's QA procedures include the reviews performed by Peer Review team (PRT). Normally, PRT reviews are sought for all client deliverables. The concept of PRT reviews is implemented in Wipro to ensure validation of the quality of the deliverable by someone other than the author of the document / code.

Testing – To give more focus on Testing and defect management, Wipro has a dedicated Testing services practice which focuses on the various types of testing and has a trained team of qualified testers. Wipro follows a comprehensive approach for testing to make sure that the product developed meets the requirements. Testing is conducted at several levels during the project development life cycle. Some of the typical testing cycles that are conducted during development phase are Unit Testing, System and Integration testing, User Acceptance tests, and Performance testing.

* Errors/defects are classified as fatal/major/minor for severity. Defect logs are tracked and analyzed to identify and improve the weaker areas. Daily defect triage meetings have been implemented by Wipro in many projects with significant success.

Test Audit - Test audit is conducted for all the major deliverables of the project like design document, unit tested code etc. by an External Review team. The External Review team typically comprises of members who are not part of the project team. This helps to bring in an external perspective to ensure product quality.

Metrics Collection and Analysis – SEPG (Software Engineering Process Group) and Mission quality team are involved in the Quantitative analysis of metrics. All the metrics as defined for the project in accordance with the Wipro QMS (Velociq) are captured and analyzed. For development projects, Wipro captures and analyze metrics across Schedule, effort, defect density, phase containment, productivity to name a few. These metrics are analyzed every month through Ecube a tool used to capture metrics. The captured metrics will be analyzed through a metrics report called as PDMR (Project Data Metrics Report). The PDMR metrics are used to identify potential risks in the project and address them. The project progress and quality metrics are reported in monthly Project Status Report that is reviewed by the Delivery Manager with the Project Manager.

Defect Prevention - The purpose of the process is to prevent defects from recurring in the current and future project. Defect Prevention planning will be initiated when project metrics exceeds the specified norm. The following activities are carried out as part of Defect Prevention Plan:

- Analysis of Root Cause using 5 Why technique which is also called as Ishikawa diagram
- Preparation of Prevention Plan
- Review of the Prevention Plan
- Implementation of the Prevention Plan
- Sharing of the implementation across the Business Unit / Organization

Reviews by Quality Improvement Council - Quality Improvement Council constitute members drawn from cross functional groups of the development centers, led by Development Center Head, co-coordinated by Quality Manager. The implementation of the quality plan, audits, and reviews by senior management ensures the deliverables are of high quality.

x. Describe how developer performance will be monitored against defect tracking and the corrective measures taken to improve developer performance;

Effective defect management techniques play a key role in the testing life cycle. Wipro, as an organization, has achieved a Defect Removal Efficiency of 99.8% due to use of innovative techniques and procedures. Wipro will implement these techniques to identify, contain, and prevent defects occurring in later stages of the testing cycle.

Defect Management Process:

Wipro recommends following the 3-step process towards identifying and containing the defects early in the testing cycle.

- Early detection: This will be achieved by:
  - Involvement of the testing team early in the SDLC

- Reviews, Inspections and Audits
- Well-defined entry-exit criteria for each phase of testing which are termed as quality gates
- Phase Containment

- Defect Isolation: This will be achieved by:
  - Well-defined classification mechanism for the defects. The classification will be around:
    - Module / Functionality
    - Severity / Priority
    - Type of defect – UI, Interface, data etc
    - Environment and Sprint – on which the defect was identified
- Defect Prevention: This will be achieved by:
  - Six Sigma Techniques like DSSS that provide proven tools and techniques
  - Executing Lean projects by effective usage of required Lean tenets
  - Design of Experiments technique to optimize the Verification process

The progress of test activities and status shall be monitored and reported to the project management through the following channels:

- Daily Triage meetings during test execution for early visibility of defects and to prioritize the defects that arise out of the test phases
- Daily Dashboards
- Weekly Status Reports highlighting plan v/s actual for the previous week, plans for the current week, key issues and concerns, critical show stoppers etc.,
- Weekly Status Meetings to discuss the outcome of test phase and to agree on the plan for the subsequent week.

At the end of testing phase for each application pillar, a Test Summary Report shall be produced by the Onsite Test Lead outlining details on the outcome of the test phase including

- Test execution coverage
- Adherence to the exit criteria as documented in the test plan document.
- References to all the defects and issues found during the phases of testing

xi. Describe the process that will be used for the review and walk-thru of the source code;

Traditionally, review done by domain experts along with testing has been the way to ascertain software quality. However, this approach to software quality assurance is limited by the availability of testing resources and domain experts. With increasing computing power from improvements to hardware and consistent research, Static Code Analysis (SCA) has evolved to cater to the serious needs of software quality assurance.

The Code Review (CR) Practice is focused on inspection of software at the source code level in order to find security vulnerabilities. Code-level vulnerabilities are generally simple to understand conceptually, but even informed developers can easily make mistakes that leave software open to potential compromise. To begin, an organization uses lightweight checklists and for efficiency, only

inspects the most critical software modules. However, as an organization evolves it uses automation technology to dramatically improve coverage and efficacy of code review activities. Sophisticated provision of this Practice involves deeper integration of code review into the development process to enable project teams to find problems earlier. This also enables organizations to better audit and set expectations for code review findings before releases can be made.

DeepCheck is Wipro's answer to software quality assurance needs. With its strong analysis capabilities DeepCheck can look deep into the source code and dig out programming bugs that are detrimental to runtime behavior. With its low False Positive rate, ease of integration and strong OS and other platform abstraction capabilities, DeepCheck comes handy in developing defect proof software.

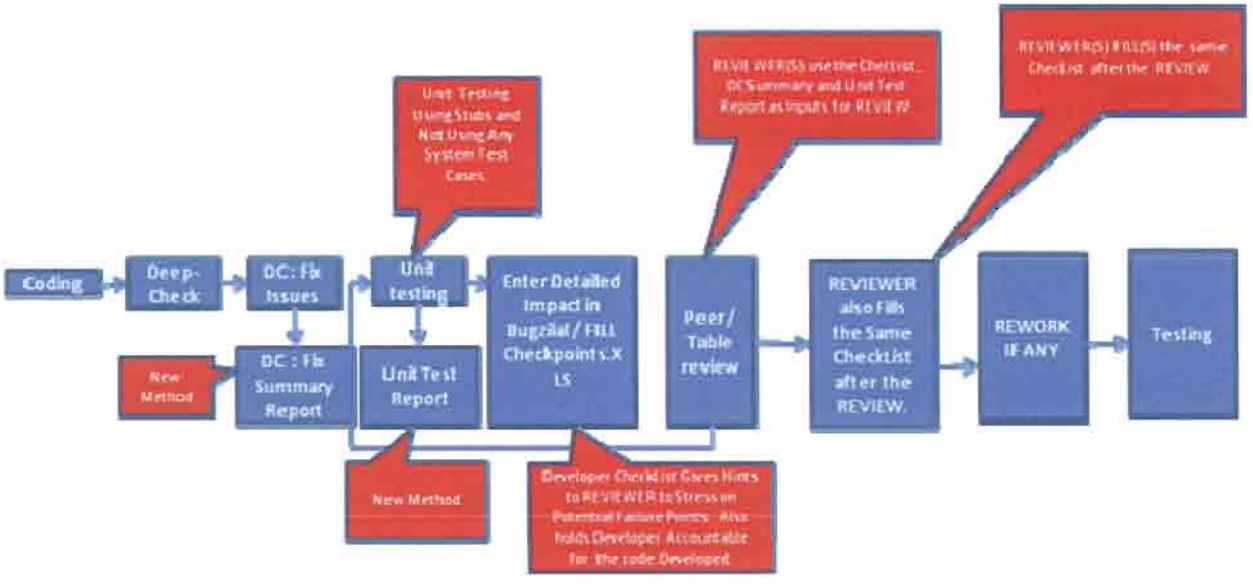


Figure IV-116: DeepCheck

xii. Describe how the tool(s) will be configured and assist in the system development tasks.

We propose to use below tools during system development phase:

- Life Ray portal – Portal development, Single Sign-on
- Rational Quality Management – Quality management, assurance and control
- IBM Rational team Connect – Communication, Change Management, Configuration Management
- MS Project Professional – Project Management
- Adobe Acrobat XI – Design document production

15. Testing

Wipro Testing Service – Industry Leader

Wipro has been offering Independent Testing and Validation for over 16 years, starting in 1997 and is one of the largest testing service providers for the last 10+ years. We have 280+ Clients and 9500+

Strong Testing Professionals. Wipro has been rated highly by leading Analyst across the globe. Some of the views shared by analyst are as given below.



Figure IV-117: Views of Wipro as a Testing Provider

Case in Point

End to end QA of Membership Management system and claims processing system for an American drug manufacturing company

- Defined an end to end test strategy and Test Plan for Membership enrollment system
- Created Membership registration and enrollment process maps and developed reusable test scenarios
- Developed point/business solutions for membership enrollment, claims processing, Mail order and specialty pharmacy

Benefits:

- 100% delivery on time.
- Delivered 99% of the projects with zero functional defect slippage
- 30 % effort savings realized by implementing best point solutions.

Wipro Differentiator and Innovations mapped to Value for MLTC ESS Solution

Methodology – Wipro Way of Testing

Wipro would adopt Shift Left Methodology which has been rated as #1 by Gartner for testing of ESS system. Shift Left Methodology approach helps phase containment of defects through early Involvement of Wipro testing team in SDLC. In order to reduce the defect slippage into production, we believe that there is need for a 'Left Shift' of QA engagement and participation in the early days of a program, rather than the status quo approach of QA engagement later in the SDLC. The

upstream involvement of Testing Business Analyst/Quality Analyst (BA/QA) from the planning phase injects business process knowledge into the testing lifecycle for enhanced test coverage and Business Assurance.

IBM Testing Tool Suite

Wipro has alliances with leading Testing tool Vendors in the market including IBM rational tool suggested for this engagement. Wipro would be able to leverage its relationship to provide cost benefits and testing tool expertise which is necessary for this kind of complex engagement with multiple testing types, complex environments, and Test Data Security.

Wip-DVA for Data Centric Testing

For Data Centric Testing Wipro will utilize its in house developed tools Wip-DVA. Given below are some of the highlights of the tool

- Data validation tool WipDVA for automated test case generation, SQL scripting and test execution
- Benefits include effort reduction by 30%, faster time to market, data integrity and accuracy, standardization driving reusability and consistency
- Wip-DVA would support complex ESS system environment with different transaction systems, different warehouse systems, custom transformation, reusability challenges etc.
- It is a web based Secured application, login IDs will be created for the user as required on need basis.

Accelerators

End-to-End Lifecycle Automation and Easy Automate accelerator

Wipro's Easy Automate accelerator is a script-less reusable Automation framework which helps to 'quick start' automation. It addresses the challenge of maintenance of automation scripts by leveraging the concept of Abstraction and late binding to physical objects in the Object Repository. Faster script creation, minimal scripting and less trouble shooting increases productivity and results in faster automation ROI.

Wipro's innovative tools and accelerators throughout testing Lifecycle

Wipro has a dedicated Centre of Excellence lab to reach and develop tool/utilities that support every levels of the Software Testing Life Cycle – starting from the Test Design phase to the Test Execution Phase. Following are few of the innovation solutions in lined with Test optimization.

- StORM tools (Test Suite Optimizer [TSO]) - Test Suite Optimizer is a Systematic and statistical tool that allows creating a method of pair-wise combinations of factors across different levels. This creates an optimized effective test suite by eliminating the redundant test cases. This test suite increases the confidence of the testing activity as it uncovers most of the bugs of the system
- CoDeC tools (DSM, SCE, SCIM) - Wipro Codec tool is a collection of Wipro in-house tools and utilities (Dependency Structure Matrix (DSM), System Complexity Estimator (SCE)

and System Change Impact Matrix Analysis (SCIM)) to support the test optimization activities like Test Sequencing, Effort Estimation etc

- Defect Flow Analysis (DFA) - Wipro in-house DFA- Defect Flow Analysis tool helps in capturing the test results and bringing in standardization and uniformity in analysis and reporting of test bed data. It provides a graphical/tabular representation of defects and cumulative trends, test case productivity, pass/fail efficiency. Analysis of these Test bed data helps to determine the quality of the product or release by predicting the number of residual defects in the system. DFA also approximates the effort required to uncover the defects in the system. Tool is built on mathematical proven reliability prediction models and uses regression analysis for simulating trend patterns and predicting residual defects.

Test Business Process Pack for Enrollment Process

Wipro has invested in developing and building Business Test Process Packs for Enrollment Process Based on our experience from various engagements key Business process flows has been identified and Modeled for Enrollment process. These Business process packs help the testing delivery teams to achieve faster time to market, enhanced productivity, and knowledge management. Test process packs cover end-to-end functional coverage test cases for common business functions and can be easily customized for customer specific requirements.

i. Describe the Contractor's proposed methodology for executing the nine (9) required types of testing (Unit, Integration, System Integration, User Acceptance, Stress/ Performance, Regression, System Recovery, Parallel, and Network Intrusion,);

Given below is Wipro's Testing Methodology.

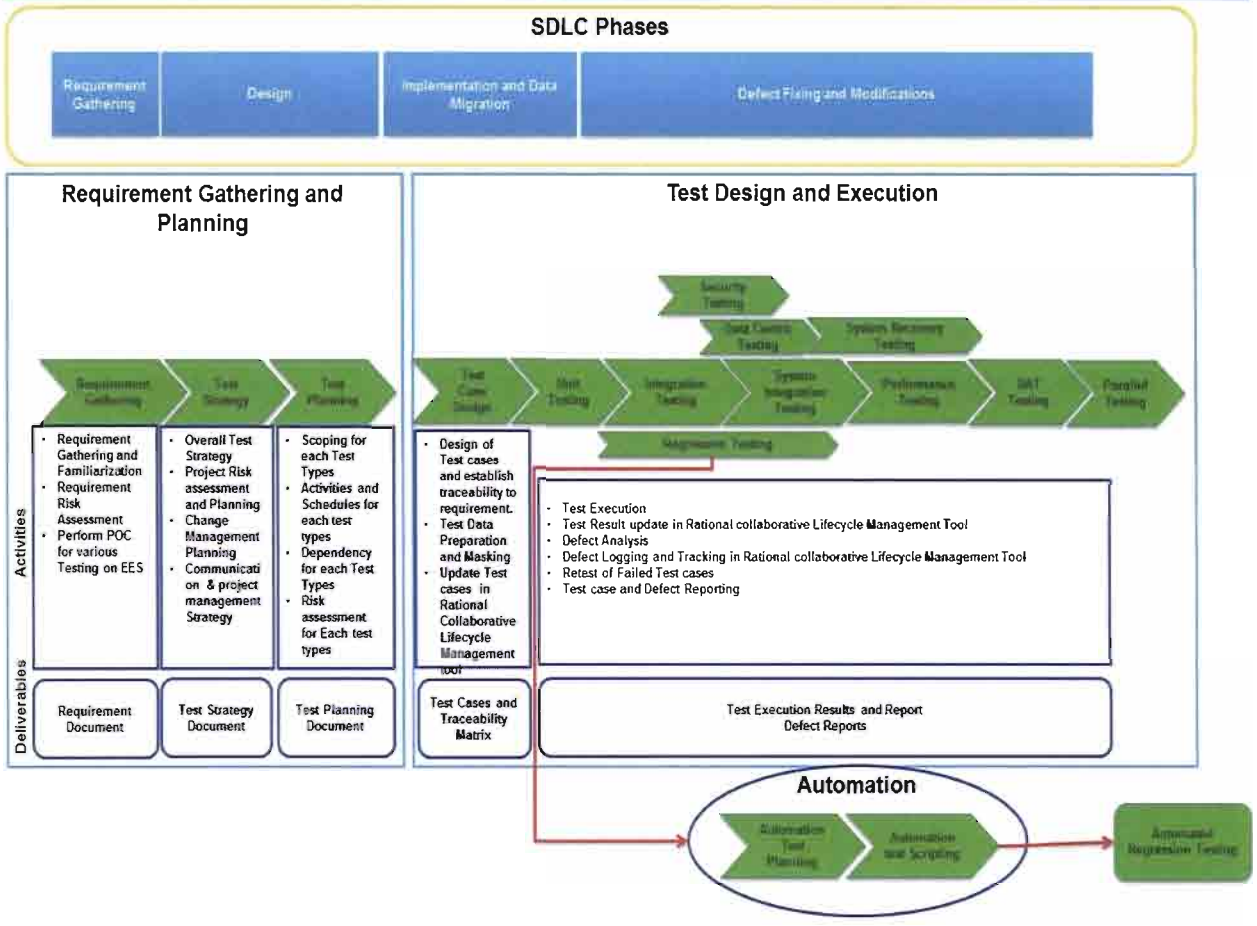


Figure IV-118: Wipro's Testing Methodology

Unit Testing

Objective

Unit testing is conducted to ensure that proper functionality and agreed coverage has been achieved during coding. Testing will be conducted by the developers and will focus on verification of their module of code developed for ESB services.

This phase will be totally owned and driven by the development teams across locations or in house depending on the arrangement of that project or program.

Unit testing will consist of the initial segregated testing of individual Components at Middleware and Integration Layer

Scope

Unit Testing will consist of testing the following Components

- ***SmartPro MedEE*** Functional Testing
- Rules Engine Services Testing
- Integration Layer Services Testing

Approach

The contractor will provide a Test Plan to include the detailed approach to be taken, to fully test all developed components of the system. The plan will include:

- Unit Test Phase and Objectives
- Entrance Criteria for the Unit Test Phase
- Exit Criteria for the Unit Test Phase
- Key milestones associated with Unit Test Phase:
  - Test Case Approval
  - Test Environment Readiness
  - Test Start and End dates
  - Code Baseline Configuration Established
  - Required Approval Dates for Test Cases, Entrance and Exit Criteria, etc.

Integration Testing

Given below is a high-level approach for Integration Testing.

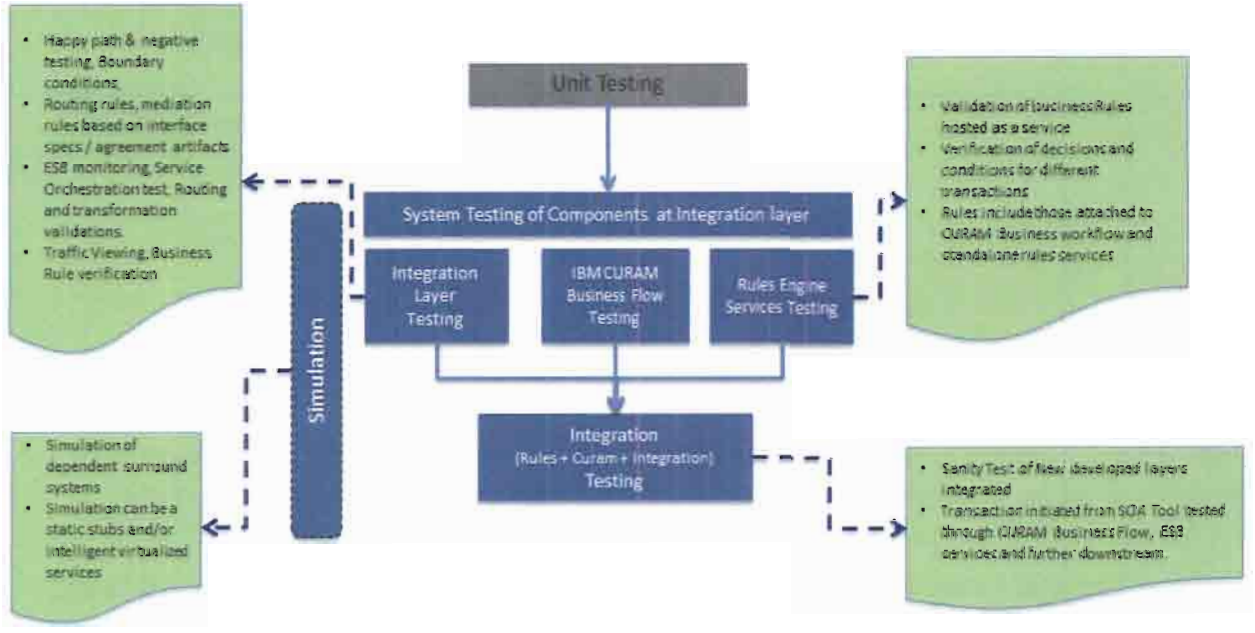


Figure IV-119: Integration Testing Approach

Integration testing will consist of the following Phases of testing

- System Testing of individual Components at Middleware and Integration Layer
- Integration Testing between different Components

System Testing of Individual Components at Middleware and Integration Layer

System Testing will consist of testing the following Components at Integration layer

- ***SmartPro MedEE*** Business System Testing
- Rules Engine Services System Testing
- Integration Layer Services System Testing

SmartPro MedEE Business System Testing:

Objective

System Testing Phase to validate and verify Business Process and/or Business Rules Management which delivers business workflows comprising processes, decisions, activities, and rules. This BPM/BRMS component of the middleware is the ***SmartPro MedEE*** capable of orchestrating multiple services in the landscape required for the success of the business operations initiated by the consumers.

Some of the specific objectives are

- Validation of Processes and its associated sub processes
- Validation of Manual Processes part of the overall workflow
- Validation rules, decisions and conditions

Approach

Business Process Management (BPM) is a process in which the business processes are aligned towards customer service expectation. This is well-planned and modeled end-to-end process orchestration of a complete customer service process. In this case ***SmartPro MedEE*** holds the business workflow for various processes.

Business Process Testing is performed in different test phases based on the complexity, constraints, dependencies, and challenges during the early phases of implementation. This Testing can be performed in three different phases/levels of testing as mentioned below in the picture.

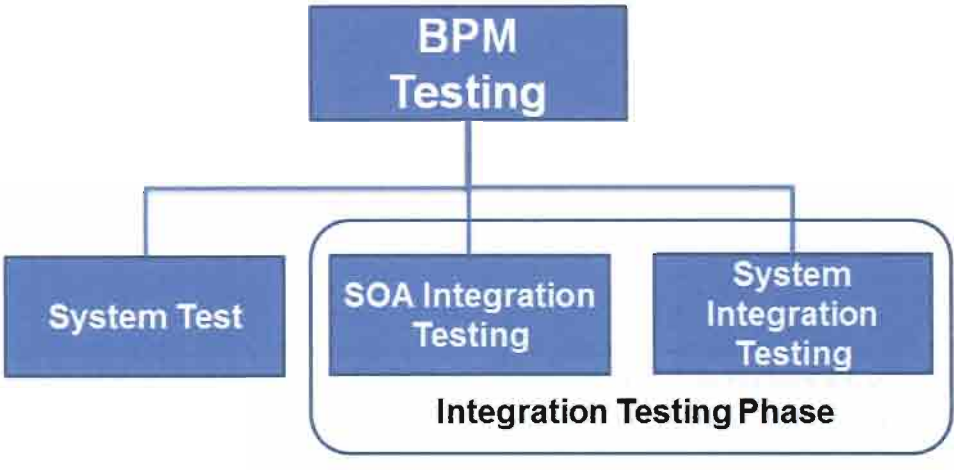


Figure IV-120: Business Process Testing Phases

Choosing the appropriate phase to test the Business Process will be a decision made by the SOA Test team post the analysis of the size, complexity, surround systems dependencies, and other environment challenges.

In System Testing we expect a medium to simple processes with limited constraints or dependencies which can be created in quick time in the test environments. With that assumption the following is the topology of a System Testing in a Test Environment.

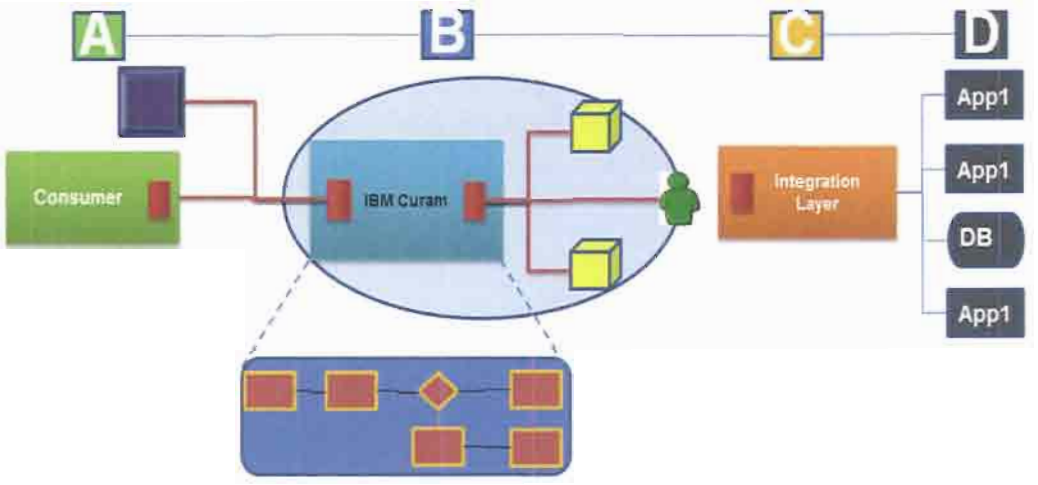


Figure IV-121: System Testing Topology

Initiating System/Consumers [A]

As an initiating system for a ***SmartPro MedEE*** business processes system testing it can be the SOA Testing Tool client and/or the Consumer User Interface as well.

It is a challenge to generalize a ***SmartPro MedEE*** Business Processes System Testing to particular format and it is very much project or enterprise specific. Considering this section is about generic ways of testing a BPM, the providers services have been represented to cover all those touch points possible in a System Test on a Test Environment.

Rules Engine Services System Testing

This is commonly referred to as Web Services Testing in a SOA testing world, however in this document we have referred to this as a Services System Testing, representing the validation of the Rules Engine as a service.

Objective:

- Verification and Validation of the rules engine services
- Testing of composite and atomic rules hosted on the rules engine
- To flush out early defects in the list of rules
- Validate custom error code and exceptions

Scope:

The scope of services testing is the rules exposed as Services exposed to other systems within MLTC infrastructure. These are the services apart from those rules attached to ***SmartPro MedEE***.

Approach:

The general approach towards testing services is applicable in this case. The services are tested using an SOA Test Tool Client initiating the request messages into the provider service.

Provider service will work on the request message and get in touch with further downstream systems if any and get back to the SOA Test Tool Client with a response. The response message is automatically validated against an expected result configured in the SOA Test Tool.

Integration Layer Services System Testing:

ESB Services System Testing (Integration Layer Services)

Objectives

- To verify and validate the functional and technical requirements of the Integration layer services
- Test various configured features and properties of the middleware in specific detail
- To flush out early defects with specific configuration and changes implemented
- Creation of Simulated Services using a recognized tools
- Validation of transformation, routing, aggregation features of the Message Broker and B2B Gateway specific to individual transactions or business flow
- Validation and conformance of all regulatory transactions against a Simulated Services

Scope

The Integration Layer services will cover the following components

- IBM WSRR
- IBM Web sphere Message Broker
- IBM Sterling Direct Connect
- HIPAA Transformation Extender

Approach

The following is the middleware System Test topology that will be in use during the system testing. System testing of an Integration Layer will involve the following in a test environment:

- SOA Test Tool - Initiating ***SmartPro MedEE*** Inbound Transactions
- Message Broker or WTX System under Test
- Downstream Service Simulation – Virtualized Provider Services

The same type of test environment will be used for Isolated Performance Testing. This is under the assumption that the environment has the capacity planned to host a limited performance testing.

Integration Testing between Different Components

The high-level expectation of this phase is to test the layers built to support SOA brought together for the first time. This validation will certify the Test Environments and limited integrated layers which will be used for End-to-End System Integration Testing.

Objective

- Validate the first time integration of layers which has undergone change and impact
- Shakedown tests when integrating the Integrated Layer, ***SmartPro MedEE***, Rules Engine, downstream Service Layer and other surround services
- Exhaustive End to End Business Process Testing which is ***SmartPro MedEE*** and Rules Engine
- To flush out early defects during integration
- Validation of Integration scenarios below consumers with real surround and third party systems. Any service or application availability constraints will be Simulated but will be kept at minimal Basic Orchestration for selected popular business flow
- Service Versioning and Discovery

The below is the test topology of the SOA Integration Testing which is about testing the integration of Middleware components with provider services and other surround systems.

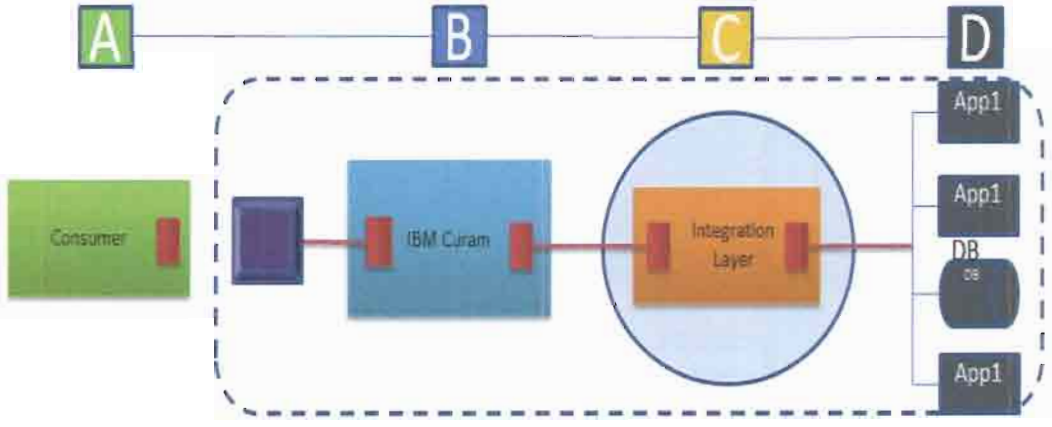


Figure IV-122: SOA Integration Testing Topology

Consumer [A]

This phase would have a SOA Test Tool Client replacing the consumer front end systems which would reuse the test suite prepared from the System Test Phase to be re-executed in the this new Test Environment integrated for the first time recreating the SOA Platform.

***Cúram* [B]**

This is the ***SmartPro MedEE*** and Rule Engine component which is under test that will be integrated for the first time post the change with the downstream services and third party applications.

Integration Layer [C]

These are services hosted by the Message Broker, IBM Sterling Direct Connect, and Transformation Extender.

Host Systems [D]

The internal and external host provider systems delivering the services required to complete the workflow.

System Integration Testing:

Approach

System Integration Testing will involve functional and End-to-End business scenario testing. There will be two cycles of SIT execution:

- Cycle 1: Will include testing the functionality of the initial code drop; any defects identified will be raised and assigned to the development team
- Cycle 2: Will include testing defect fixes and any functionality marked for the iteration that was not released in the first code drop

Overview of the key functionalities which will be tested as part of System Integration Testing



Figure IV-123: System Integration Testing Key Functionalities

System Integration Testing will involve testing of all the functionalities listed above and also End-to-End Business Process Workflows cutting across multiple modules.

The following approach will be followed as part of System Integration Testing:

- Wipro will work with MLTC SMEs to understand and Identify End to End business processes.
- Wipro will analyze the existing resources for E2E testing like Stubs, Integrated System etc

- Wipro will prepare a System Integration test plan, where all the business process that will be tested as part of E2E testing.

All upstream systems and downstream systems integration points will be tested.

User Acceptance Testing:

As part of User Acceptance testing, MLTC Business users will perform testing of whole system and validate it against expected result from Business aspect as well as from usability front. UAT happens after completing the SIT and Performance testing. It is carried out in UAT environment or environment which resembles the production environment.

For ESS system UAT testing, Wipro test team will perform below activities:

- Identify the test scenarios for UAT
- Prepare the acceptance test cases
- Review test cases
- Get approval from Business users regarding the coverage
- During Execution Test team will support the Business users

Performance Testing:

The following are details of the Performance Testing approach for proposed solution for MLTC requirement specific to Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (***SmartPro MedEE***). Wipro proposes performance testing for the most critical and highly accessed scenarios.

Table IV-28: Performance Testing Considerations

Consideration	Description
Wipro has considered the following number of scenarios	Web\Web Services Based – 30 critical scenarios from Web\Web Services protocol (http\html) of IBM Rational Performance Tester with various roles available i.e. Citizens, Employ ***SmartPro MedEE***, Case Workers, Analyst or Program Staff
Wipro performance test team will design\develop performance test scenarios in IBM RPT.	The critical scenario selection will be depended on High Volume, Complexity, and Business\Service Impact

Wipro along with Implementation team for MLTC SMEs will identify the business critical scenarios\work flows\Internet flows\ application navigation etc (for which the performance test scripts will be created). The identified and critical scenarios will be automated and scripts will be generated using the Automated Performance Test Tool IBM RPT. The RPT Tool helps in designing scenarios and simulation of users as per the test scripts and workload. Subsequent step of test execution (with sanity check) ensures the Performance Benchmark is achieved as per SLAs and other execution of another set of high load tests for identification of Performance Bottlenecks

Performance test team will follow incremental-iterative model, whereby, in different cycles, users will be increased with the corresponding data. The main outcome and objective at the end of this

testing is to verify overall system behavior and end user experience under varied load, system resource utilization, compliance with defined SLA as per page complexity, performance bottleneck identification and room for performance improvements. The objective is also to establish performance baseline.

Types of performance testing

Based on the understanding of the user requirements and identified performance test scenarios, Wipro would define the level of performance testing required to be executed for proposed solution. Given below are various types of typical performance tests that are usually considered.

Table IV-29: Type Performance Tests

Test Type	Performance Objective Addressed
Benchmark	Provides benchmarks of the performance of the Applications and compare with previous performance testing benchmark
Performance	Measures the end user response time under varying load conditions and reliability of the function\system being exercised under load
Load	Determine whether the system will be able to handle and exhibit consistently the required performance characteristics Evaluate whether system capacity meets the performance characteristics under normal and peak load and futuristic usage conditions
Stress	To identify the optimum configuration for a specific application\system
Endurance	To identify memory issues etc that occur during continuous usage of system over prolonged time duration

Performance Test Monitoring

All the hardware server resources and software resources should be monitored for various metrics (Transaction Response Time, Transactions per Second (TPS), Throughput, CPU Utilization, Memory Utilization, and Database etc.) during the test with the support from application team, environment teams. This would help to record performance benchmarks and identify performance bottlenecks.

Performance Testing Methodology

Wipro shall use its proven End-to-End performance testing methodology as shown in the below figure for carrying out performance testing for MLTC. The overall approach will be implemented in 4 phases as depicted pictorially and explained below. Sub-phases, activities and deliverables in each of these phases are also given in the same diagram. Details of the phases are given in the table below.

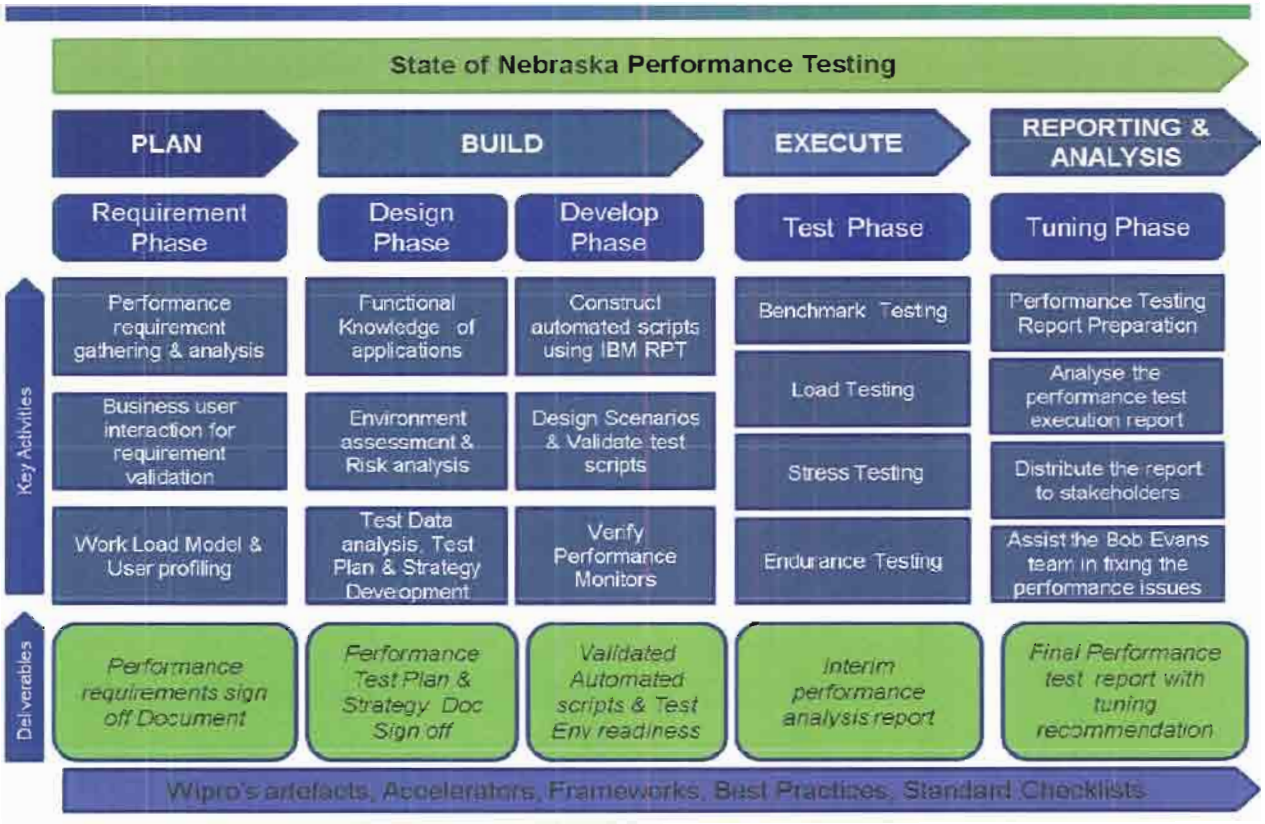


Figure IV-124: Performance Testing Methodology

Table IV-30: Performance Testing Methodology Details

Phase(s)	Activities
Requirement and Design	Study of the business scenarios, finalization of the business scenarios and load distribution Finalize performance test requirements and functional knowledge acquisition of EBS processes in scope Understanding work load model and user profile Creation of Performance Test plan and sign off from MLTC
Develop and Test	Test Scripts will be developed based on the performance test scenarios Script enhancement will be carried out by using parameterization with test data Test bed that is same \ similar to production environment will be validated by Wipro performance testing team. Wipro will need Production sized database to be made available during this phase Test data will be created and validated by Wipro against each business function requirement and dependency between business functions Help Setting up performance monitors on MLTC servers Dry runs to ensure the scripts are working fine with all the business functions Execution of test scenarios for various types of tests such as load, stress, endurance. Analysis of performance test reports
Analysis and Tuning	Monitor and gather the performance test results for analysis Analysis of performance test results to identify the bottlenecks and measure against Business goals

Phase(s)	Activities
	Defect reporting and Suggestions to improve the application performance Test scripts, scenarios, results, reports and log files will be managed and archived for future use At the end of this phase, Wipro will submit final test completion report to MLTC stakeholders' highlighting the overall performance test report with performance tuning and recommendations

Regression Testing Manual

Regression testing will be carried out to ensure that the existing functionality is not affected by any new functionality added/ code changes/ bug Fixes or releases. Critical test cases will be leveraged from System and System Integration test cases. The test cases for regression testing will be selected based on

- Business Critical Scenarios: Business Critical scenario would consist of test cases which are most critical for Daily running of Business for example User Profile management etc.
- Transactional Critical Scenarios: Transactional critical scenarios would consist of scenarios where transactions are critical like Report validation, workflow management etc.
- Risk Based Scenarios: Risk based scenarios will consist of scenarios which would emphasis on the changes on the UI and the impact it could create on a particular functionality for example verifying the functionality works as expected if a multiple list elements is changed to a Dropdown box.

Regression Testing Automation

Given below is the proposed Automation approach for Automation testing:

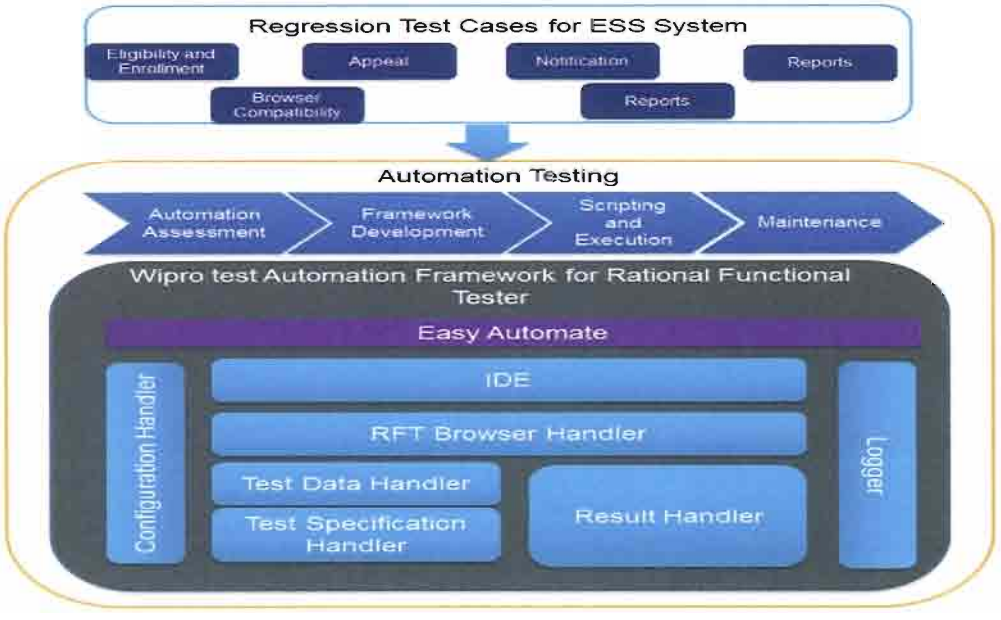


Figure IV-125: Automation Approach

Strategy for automation of test cases for Regression test suite can be described in a four-phased approach:

1. Automation Assessment
2. Framework design and development
3. Scripting and execution
4. Maintenance

In this approach, the automation assessment would determine how the automation is taken up for the ***SmartPro MedEE*** system. The automation assessment covers the automation readiness of all the modules in the application and assessment of Easy Automate on ***SmartPro MedEE*** system. The framework design and development follows the assessment phase. Reusable functions and actions are scripted into a library for reuse. The traditional scripting and execution is the next phase. This is then followed by ongoing maintenance of scripts.

In this strategy, the critical success factors are:

- Development of framework for scalability, performance and reusability
- High degree of reusability and productivity for better return on investment

System Recovery Testing

Objective

To ensure that the implemented business solution will be capable of recovering and being restored from an unexpected disastrous termination.

Approach

This activity requires the development of a Contingency Planning and a Disaster Recovery plan that defines procedures and processes throughout the life of the contract. This will require the development of:

- Contingency Plan
- Disaster Recovery Plan

Network Intrusion Testing: Security team:

IBM Security Network Intrusion Prevention System

IBM Security Network Intrusion Prevention System appliances are designed to stop constantly evolving threats before they impact your business.

IBM Security Network Intrusion Prevention System:

- Achieve unmatched levels of performance without compromising breadth and depth of security
- Protect business-critical assets—such as networks, servers, endpoints and applications—from malicious threats
- Reduce cost and complexity by consolidating point solutions and integrating with other security tools
- Gain advanced threat protection, powered by the IBM® X-Force® research and development team

ii. Describe the tool that will be used by the Contractor, the rationale used to select the product and how the State of Nebraska will have access to it;

Wipro plans to use the following test tools for the engagement:

Table IV-31: **Test Tools**

Tools Used	Rationale
Rational Collaborative Lifecycle Management Tool	Rational Collaborative Lifecycle Management tool is a single platform End-to-End Software lifecycle management tool. It features Requirement Management, Test Management, Defect Management, and Reporting modules under a single umbrella providing 100% traceability between Requirement, Test cases, and Defects. Wipro propose to use IBM tools suite as the tools suite will provide seamless compatibility with ***SmartPro MedEE*** solution additionally Wipro will also be able to provide Cost benefits through Wipro/IBM alliance and Wipro accelerators.
Rational Functional Tester	Rational Functional tester would assist in Quick generation and execution of automated test scripts. Due to its Strong Framework and Object Oriented nature RFT is ideal to script in complex environment with multiple integrations and complex business workflows. Wipro would also be able to provide Cost and Effort benefits to MLTC by using various In house developed Frameworks, accelerators, and tools built on top of RFT. With implementation across 60 customer projects, we have seen good success with these Frameworks, tools, and accelerators.
Rational Performance Tester(RPT)	RPT will provide automated performance testing capabilities to validate the scalability of web and server based applications. It supports load testing against a broad base of applications such as HTTP, SAP, Siebel, SIP, TCP Socket, and Citrix. The following key features makes the tool of choice for the engagement: Rational Performance Tester goes beyond problem identification to problem diagnosis Integrated Resource Monitoring Run large multi-user tests with limited hardware Automatic identification of, and correlation of dynamic server responses Rendered HTML view of Web pages visited during test recording Java code insertion for flexible test customization Entrust security protocol support
Rational Integration Tester and Rational Virtualization Server	Rational Integration and Rational Virtualization Server would assist in Reduce dependency on UI availability Built in editors to create structured messages/requests Multi-protocol and native platform support Non-invasive invocation, multi-layer verification and validation

Tools Used	Rationale
	Test automation Stub creation and service simulation The recommendation is based on the overall technology stack and larger IBM platform presence both in Business and integration layers of the ***SmartPro MedEE*** solution. Rational Tool Product can integrate and interlock with various IBM integration platform products and technologies that are implemented as part of this product. In addition, the existing testing toolset being Rational it is appropriate to bring in the Rational integration tester to seamlessly integrate in to the existing tool chain with minimum disruption.
Wip-DVA (Wipro In House Tool)	WipDVA is a Data validation tool used for automating test case generation, SQL scripting and test execution Benefits include effort reduction by 30%, faster time to market, data integrity and accuracy, standardization driving reusability and consistency Wip-DVA will support complex ESS system environment with different transaction systems, different warehouse systems, custom transformation, reusability challenges etc. It is a web based Secured application, login IDs will be created for the user as required on need basis.

MLTC will be able to access the tools by using the infrastructure where hosting of these tools will be done.

iv. Describe the tool that will be used for the automatic generation of test transactions;

Wipro will use the following tools to automate test transactions:

RFT: Rational Functional Tester

IBM Rational Functional Tester is an automated functional testing and regression testing tool. This software provides automated testing capabilities for functional, regression, GUI, and data-driven testing. Rational Functional Tester provides the following Feature Benefits

- Storyboard testing: Simplifies test visualization and editing using natural language and rendered screenshots.
- Automated testing: Enables testers to automate tests resilient to frequent application user interface changes with Script Assure technology.
- Data-driven testing: Lets you perform the same series of test actions with a varying set of test data.
- Test scripting: Combines a recorder of user actions with multiple customization options and intelligent script maintenance capabilities.
- Integrations: Integrates with IBM Rational team Concert and IBM Rational Quality Manager to provide access to work items and logical or compound SCM test asset support

RPT: Rational Performance Tester

IBM Rational Performance Tester is a performance testing solution that validates the scalability of web and server applications. Rational Performance Tester identifies the presence and cause of system performance bottlenecks and reduces load testing complexity.

Rational Performance Tester helps you quickly execute performance tests that analyze the impact of load on your applications.

- Code-free testing enables you to create test scripts without programming.
- Root cause analysis tools find and diagnose the cause of performance problems.
- Real-time reporting enables immediate recognition of performance problems and renders a browser-like view of test results in web pages.
- Test data can be generated from scripts, data pools with automated variation, and the insertion of custom Java® code for flexible test customization.
- Load testing helps ensure applications are able to handle large user loads prior to deployment.

Rational Virtualization Server and Rational Integration Tester

IBM Rational Test Virtualization Server allows you to use virtual services developed in Rational Integration Tester to create, share, and deploy virtualized test environments.

IBM Rational Integration Tester (RIT) is integration testing and application (service) virtualization too. RIT is part of the Rational Test Workbench offering and it enables

- Continuous Integration Testing
- Test virtualization

Wip-DVA

Wip-DVA is an In house tool developed by Wipro. The objective of this tool is to automate to maximum extent the tasks involved in the testing / quality assurance of data warehouse and migration projects. It would assist in addressing/ resolving the following business problems and challenges:-

- Business Challenges
  - Small Cut over windows for new application go-live
  - No possibility of feedback mechanisms -One chance at correcting data quality
  - Migration Performance and Scalability
- Data Challenges
  - Complexity of Target Data Structures and data flow
  - Data Volume, Data Quality and Integrity
  - Transformation Complexity
  - Data Latency, Loss of data

iii. Describe to what extent the tool being proposed will automate the testing process;

Please refer the below diagram that describes the percentage of automation that can be done for the testing processes:

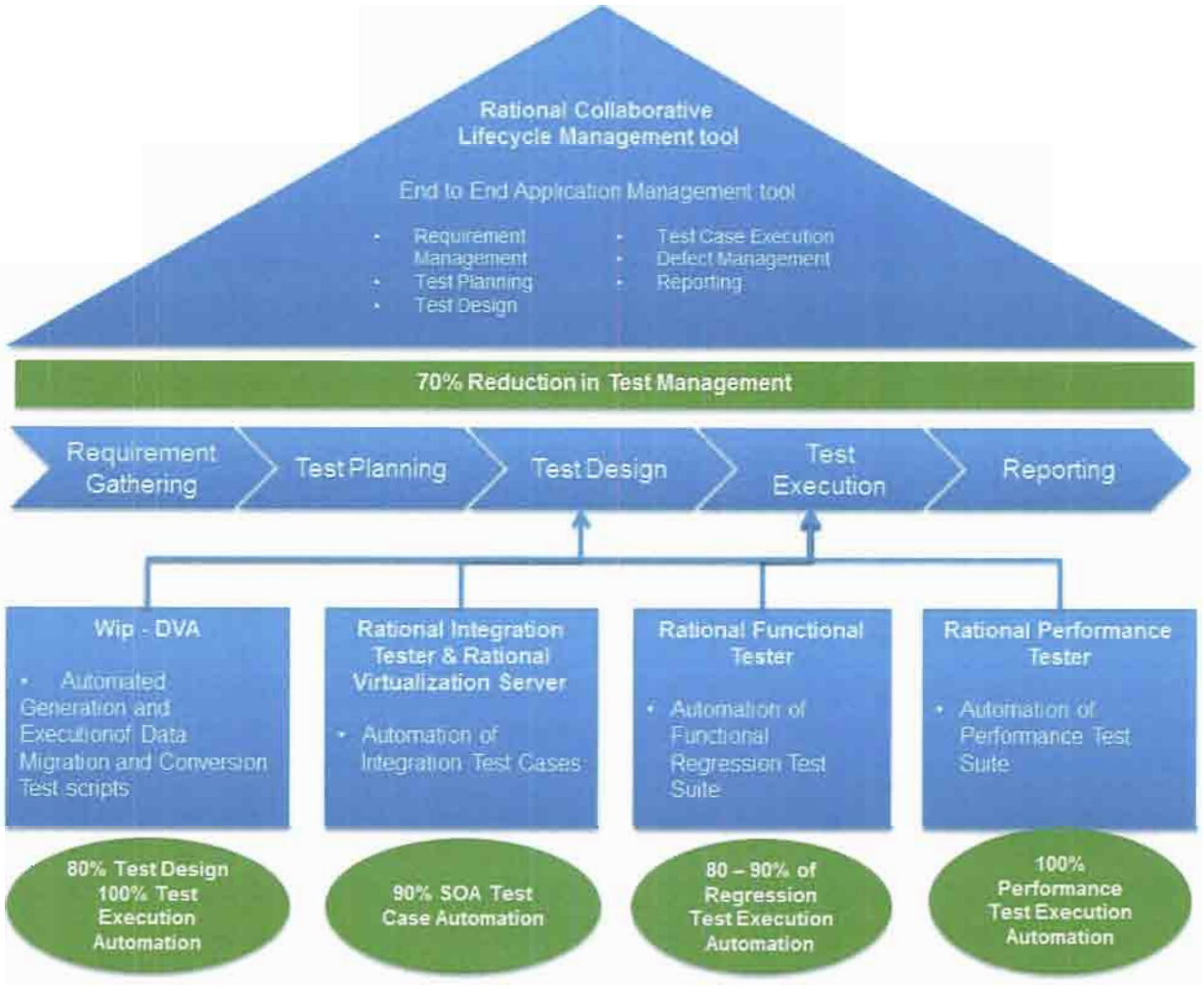


Figure IV-126: Automation Roadmap in Testing Lifecycle

Rational Collaborative Lifecycle management tool provides platform from requirement management to test management. Test plan will be linked to releases and test cases will be linked to each of the requirements. Tool also helps in ensuring 100% traceability. During the test execution in case if the test fails, tool provides an option to raise defects and it creates automated traceability.

v. Describe how test cases and test scripts will be tied back to requirements;

The test cases and test scripts will be tied back to the requirements with the help of Rational Quality manager as depicted in the diagram below:

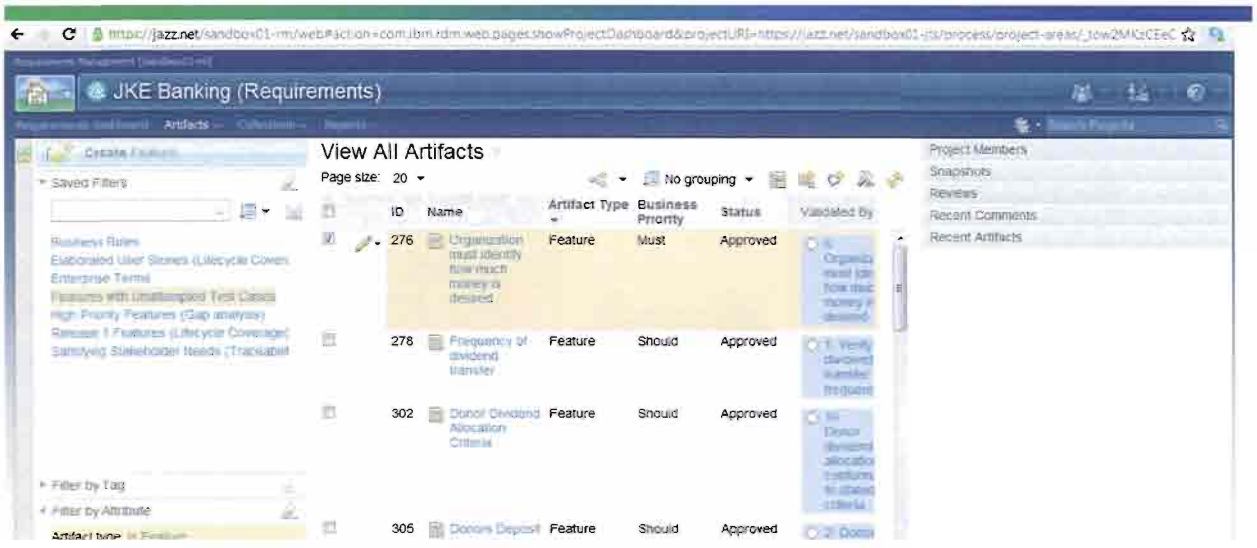


Figure IV-127: Establish Traceability Between Requirements and Test Cases

In addition, a test plan can be linked to the Requirement as follows:

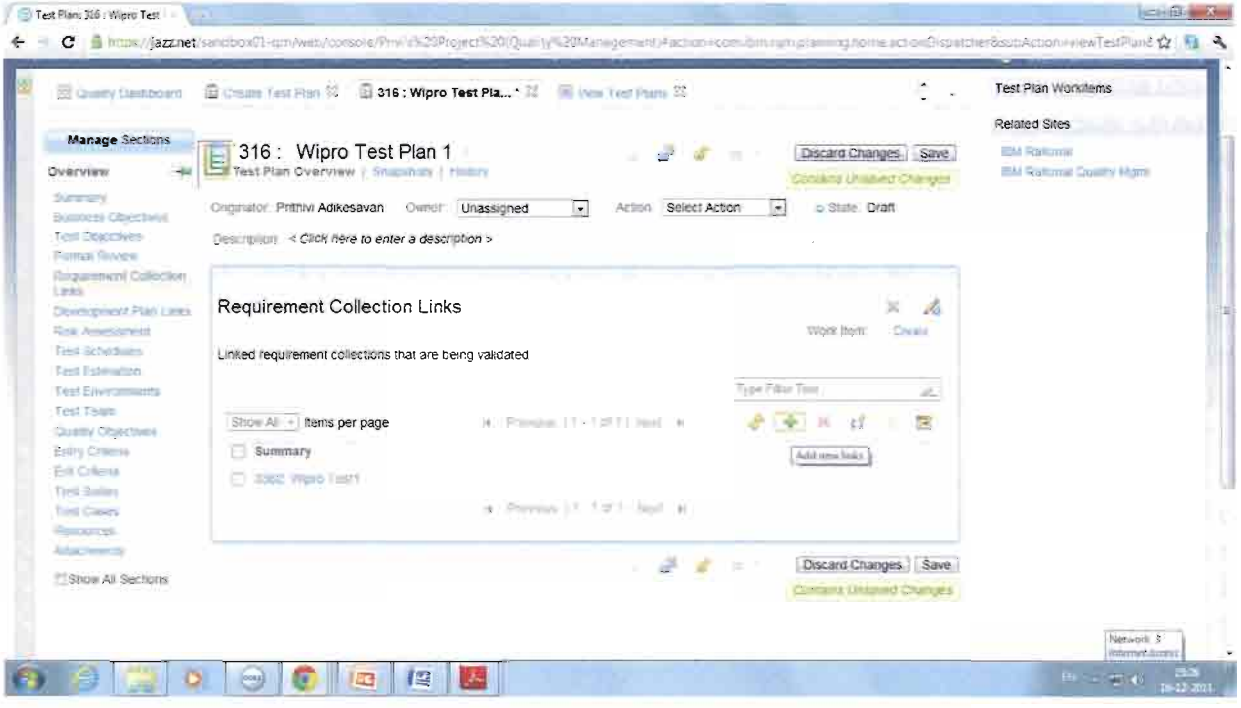


Figure IV-128: Associate Test Plan with Existing Requirements

The Test Plan can be associated with the existing Requirements using Click "+" icon in the Test Cases section and also removed by Clicking "X" icon

vi. Describe the methodology that will be used for Parallel Testing including the State of Nebraska's requirement for the IV&V Contractor oversight;

Wipro/IBM understands the need for validating the functional integrity and accuracy of the proposed COTS solution to be exactly in line with the existing N-FOCUS Solution. This becomes one of the fundamental requirements to establish that the COTS solution is operationally verified and validated to accurately replicate the results that would have come out of the N-FOCUS.

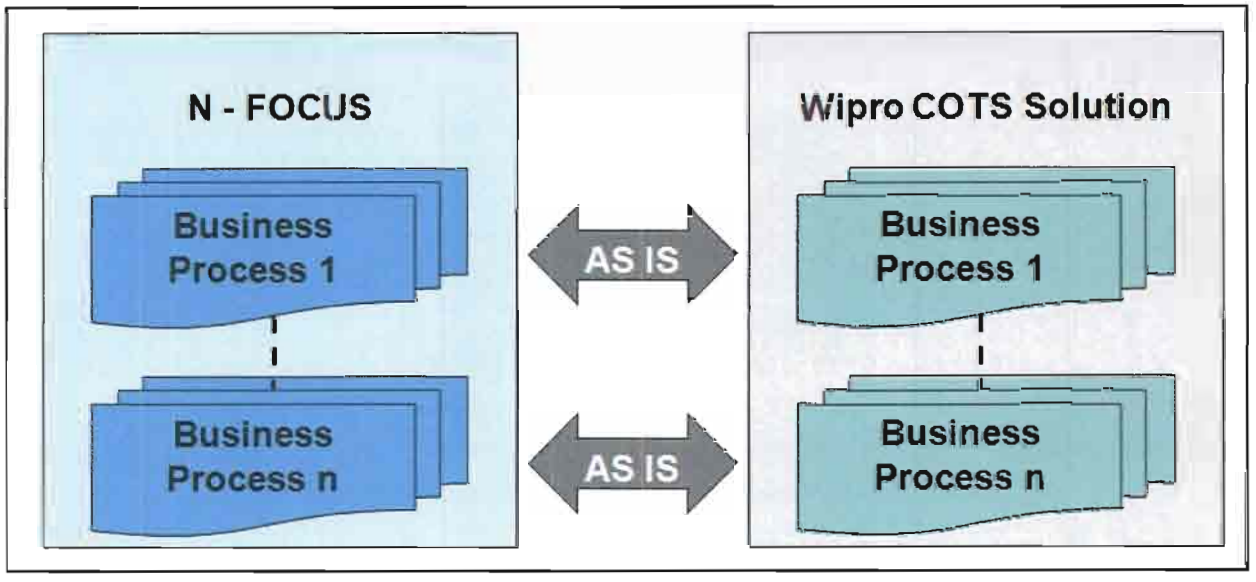


Figure IV-129: Parallel Testing Methodology

Wipro/IBM collects all the different business processes that are part of the N-FOCUS and create a corresponding mapping list with the COTS Solution. For example one of the Business Process (Enrollment/Renewals) is a process used for enrollment of members and renewal of existing member towards the end of the enrollment cycle. As part of the enrollment process the new ***SmartPro MedEE*** would be put through several forms which would be verified through the existing system by entry and validation. In our parallel testing methodology, we take this scenario and create test case to validate this process is taken over as-is as shown in the figure above in the COTS solution. The input data fed into the existing legacy system and the COTS are same and the outcomes from this test indicate the result of enrollment which is validated from both the system. When the test plans and test cases are created we would work jointly with IV&V vendor for their approvals. The results will again be validated with the IV&V vendor and their sign off would be taken on successful completion. If the results vary then we will redo the testing cycle for the business processes that is on test. We are equipped with tools to run compares and produce a validation report for the results. In summary, we would closely work with MLTC to collect the Use Cases/Test Cases for the current Business Processes which are used to create the test platform for parallel testing.

We understand that the N-FOCUS is a disparate system that has a major component of Mainframe COBOL/CICS and Open System Portal which feeds Medicaid Eligibility Data to various other systems. Our team has studied the existing functional blocks of the Legacy System and would provide a detailed plan to Parallel Test for various components of the Legacy System. Our approach includes a level of automation, creation of baseline test scenario, baseline production data which are used in modeling the Parallel Test Process.

vii. Describe the approach to parallel testing; and, based on past experience, identify potential risks and problem areas;

Wipro/IBM's approach for Parallel Testing is depicted below and starts with Test Planning during which the strategy, staffing, automation, scheduling, and tool deployment occurs. Prior to the planning stage the detailed test cases/scripts and data that are used for the existing legacy system will be made available to our team by MLTC. The figure below shows the steps we follow in the Parallel Test Life Cycle. We propose to bring appropriate tools as listed earlier to test the COTS solution we are bringing in and look for support from MLTC team to provide the needed support/test assistance to conduct the parallel tests and test options for some of the standalone components.



Figure IV-130: Approach to Parallel Testing

Risks and Problem Areas:

- Delay in supply of Test Scripts and Test Cases for the Legacy System, will delay the Parallel testing
- On-going System Changes installed into the Legacy System as part of Business As Usual maintenance cannot be tested
- Enhancement to the existing functionality or business process on the legacy system needs to be dealt appropriately
- Shared Test Environment, Test Data Availability can cause delays in completion of Parallel testing
- Availability of personnel for Data analysis, Defect analysis, proprietary system related inputs to be available prior to start of parallel testing
- Error handling – Parallel testing is not expected to fix the error in the existing system but will merely reproduce
- Disparate components that are standing alone and needing data entry staff to be available
- Interconnects needed to various functional units of the Legacy System to be readily available for the test team
- Sign-off for start of parallel test and the results validation is required to be timely
- Risk assessment, management and mitigation – team to be constituted with representatives from Department, Contractor and IV&V
- Interdependencies and Constraints – Department to provide a background of any that would impact the Parallel testing

xix. Describe the parallel testing strategy, methodology and schedule; including a description of the tool(s) for tracking and reporting of testing activities including, but not limited to, documentation of test scripts, test results, error resolution and re-testing; and

Having experience in State projects our strategy is to run the parallel testing in parallel with integration, systems integration and UAT testing. This strategy will ensure that we proof the new system, functionality by functionality and do not leave the comparison at the end which can be a

cumbersome task. The parallel testing will span across four and half months as per the proposed project plan.

This strategy will ensure that the new system will function exactly the same as the existing N-FOCUS system. If there are any disparities in the new systems they will be fixed before deployment.

Wipro proposes Rational Collaborative Lifecycle Management tool for Test Management across all Phases and Types of Testing. Rational Collaborative Lifecycle Management tool is a single platform End-to-End Software lifecycle management tool. It features Requirement Management, Test Management, Defect Management, and Reporting modules under a single umbrella providing 100% traceability between Requirement, Test Cases, and Defects.

xx. Describe the strategy for coordinating the parallel test, including the respective responsibilities of the Contractor, the Department, and IV&V Contractor

Our strategy to coordinate revolves around the Staff, Schedule, Scope, Deliverables, Change Control, Inter-dependencies, and Risk Management. We propose to handle this by devising a RACI Matrix that would be finalized in conjunction with Department and IV&V. The test team will be steered by a Test Manager along with a PMO team from Wipro who would create the strategy and execute the process involving Department and IV&V.

Table IV-32: RACI Matrix

Tasks	Wipro	Department	IV&V
Test Objective/Scope	R,A	C	I
Test Schedule/Timelines	R,A	C	I
Tools and Utilities	R,A	C	I
Environment and Data	R,A	C	I
Execution and Results	R,A	C	I
Verification and Validation	R,A	I	C
Deliverable Sign-off	I	C	R,A
Change Management	R,A	C	I
Metrics and Reporting	R	I	I,A
Risk/Issues Management	R,A	C,I	C,I

viii. Describe the methodology that will be used for the testing during the data conversion task;

Testing Approach for Data Conversion and Migration

Given below is the approach to be followed for Data Conversion and Migration.

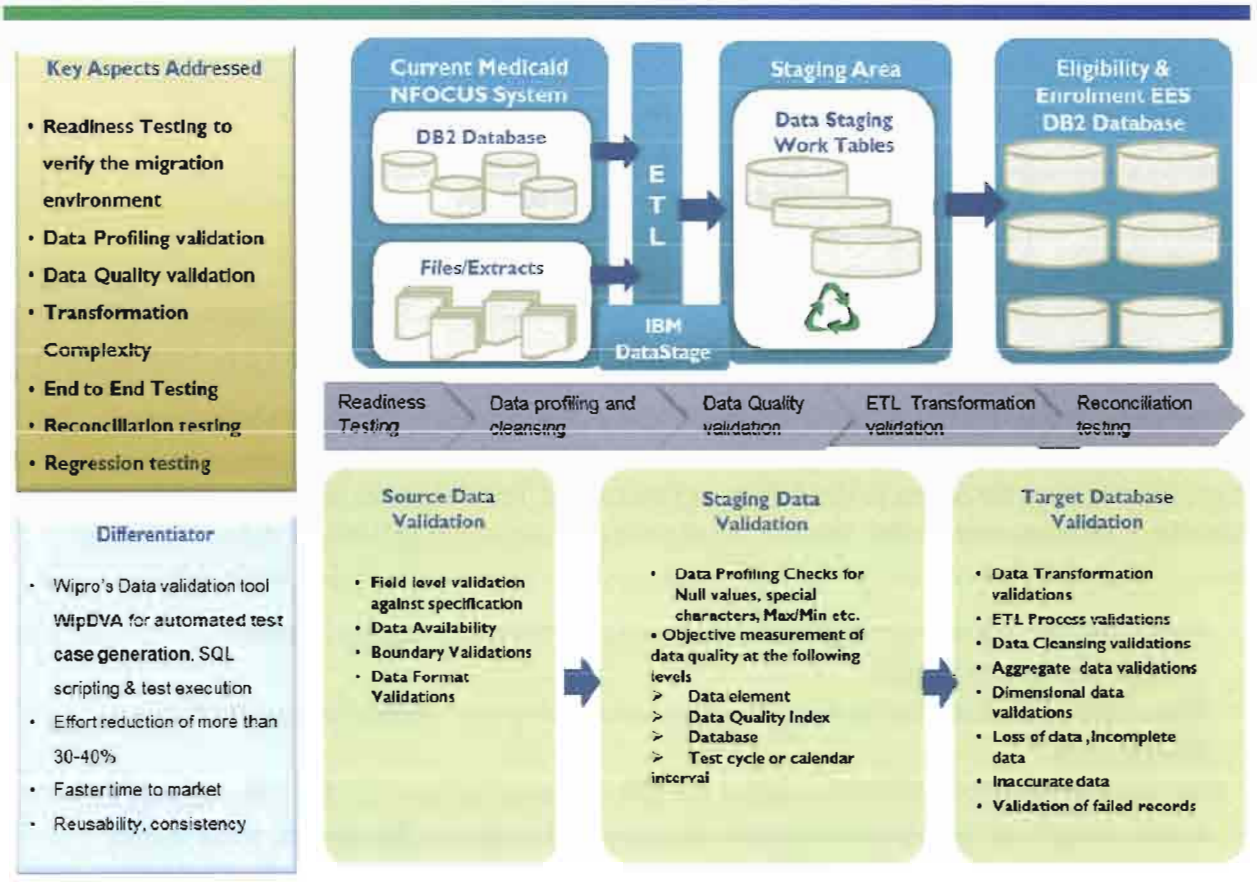


Figure IV-131: Approach for Data Conversion and Migration

The following table explains activities to be performed for each phase of Data Conversion and Migration Testing.

Table IV-33: Data Conversion and Migration Testing Activities

Phase	Activity
Readiness Testing	Scheduler set-up verification Data Sample Size (DSS)
Data profiling and Cleansing	Null / Not Null fields, Min / Max values the fields can hold, Presence of Special Character?UTF-8 Data Types of individual fields, Number of Fields in the source Field validations for Data Types, Uniformity, and Null records from Sources Validation of Count of Records, Defaulted Value Check from Source Error / Rejected Records validation
Data quality verification	Accuracy, Validity, Integrity, Completeness, Non-duplication, Timeliness, Accessibility Coverage of all business rules as per the data quality requirement Design strategy to verify each or group of similar business rules Report Data quality deviations as defects in the defect management tool
Data mapping and transformation validation	To verify various disparate components of the Database extraction, which involves integration and system level kind of testing applicable at a component level

Phase	Activity
Data load validation	To verify various disparate components of the Database Load Verification of data loaded by ETL Jobs
Data Reconciliation testing (for completeness of the migration)	To provide independent verification to the business Ensure no material loss of information Test the integrity of data after migration

ix. Describe how defects will be tracked and reported;

Defects will also be tracked and reported using Rational Collaboration Lifecycle Management. Rational Collaboration Lifecycle Management tool is a single platform Test management system which provides immediate access to the defects at End-to-End Test Processes levels i.e., from functionality down to test execution levels. This provides a clear mapping between defect and other test assets. Rational Collaboration Lifecycle Management tool provides the following benefits

- Single platform for defects reporting and tracking enabling consistency in defect management across project.
- Transparency and visibility to both developer and testing communities as well as higher management
- Categorically extract defect information for different stakeholders. For E.g.: Developers and testers can upload or download relevant data required to resolve the defects, while higher management can extract the metrics at a project or a program level to aid major roll out decisions

Wipro recommends the following defect metrics to be tracked during the engagement from testing perspective.

Table IV-34: Defect Metrics

Metric	Description
Defect arrival metric	This metric measures the number of defect found by Test team and arrived to fix in the release during execution. This count gives total number of defects found in different releases based on number of test cases executed. These defects categorize in different section like Defect type, Defect severity and fixing priority of these defects
Defect Rejection metric	This metric determine the number of valid defects that testing team has identified during execution. $\text{Defect Rejection} = \frac{\text{Number of valid Defects}}{\text{Total Number of Defects}} * 100$
Defect resolution metric	This metric determine the number of defects fixed during execution. The number gives us clear idea about percentage of defects fixed per builds/release out of new logged valid defects. The value of this metric can be compared with previous release to prepare the Bug Resolution Report.
Defect reopened metric	The metrics of reopened defects shows the number of fixed defects get failed during retesting or regression testing. Defect Reopened rate is equal to number of defects reopened by number of defects fixed for the releases.

Metric	Description
	$\text{Defect Reopened Rate} = \frac{\text{Number of defects reopened}}{\text{Number of defects fixed}} * 100$

Rational Collaborative Lifecycle Management tool offers customized reports to suit the needs of all the stakeholders. Typically the following reports are generated and shared

- Defect Severity Report
- Functionality Defect Trends
- TimeLine Defect Trends
- Build/Release Defect Trends

Wipro Test manager will be responsible to track and report the defect to all stakeholders identified for the engagement including the IV&V Contractor.

x. Describe the processes, procedures, and tools that will be in place for problem identification and resolution;

Shortly before rollout, IBM will set up a Deployment Control Room where a Deployment team will be available to the MLTC for collaboration, coordination, and problem resolution. The Deployment Plan will identify the specific number, type, skill level, and roles of the Deployment team.

IBM will also establish an issue management process for issue resolution. Issues are documented, actions are defined with responsible parties identified, and solutions are tracked to completion. Unresolved issues are automatically escalated through technical and management chains until tough issues are resolved.

IBM will also identify and define the key tasks, milestones, and dependencies as necessary. This will be integrated into the work breakdown structure while aligning to the Project Management Plan. Operations and administration procedures related to deployment will be included at this stage.

xi. Describe how defect tracking will be used to identify organizational or procedural weaknesses and track the resulting corrective actions;

IBM will provide a software-based defect tracking system capable of providing a level of detail and reporting and, at a minimum, facilitate the following functions:

- Capture details about each defect
- Review all open issues and assign a priority and resources responsible for resolution
- Record a resolution time estimate during and delivery date with an explanation upon resolution
- Recurring reports throughout the project where the reporting of defect root cause trends will aid to identify operational issues or gaps

xii. Describe the Contractor's proposed organizational structure and management of the testing function;

Please find the diagrammatic representation of testing organization

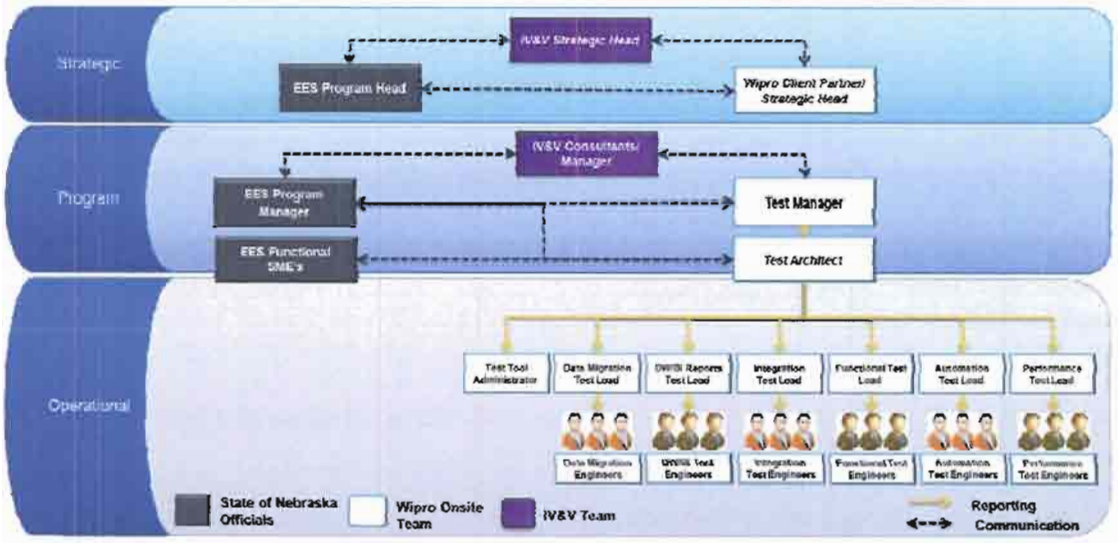


Figure IV-132: Testing Organization

The distribution of responsibility across the layers is outlined in the table below:

Table IV-35: Distribution of Responsibility Across Layers

Layer	Indicative Responsibilities
Strategic Layer	Handle program related escalations and works out resolutions Participate in meetings on weekly/monthly/need basis Publish daily/weekly/monthly reports Responsible for the overall testing related project activities and deliverables
Program Layer	Develop Platform Test Strategy and Planning Provide inputs from domain perspective during test preparation and test execution Resolve domain specific issues in Test Life Cycle Review of test case and test result Bridge the gap Business and testing team Review and maintain traceability matrix Impact analysis for Regression Coverage Prepare and Maintain Traceability matrix Defect management Metrics Tracking Co-coordinating with IV&V vendor and EES stakeholders
Operation Layer	Develop solution designs for the processes Creation of Test scenarios Develop process artifacts for the allocated processes Execute Test cases Prepare Defect Report

Figure IV-133: Organizational Structure and Management for Testing

xiii. Define how defects and other issues reported by the Department will be analyzed, tracked, resolved; required system changes implemented; and integrated with other project phases;

The IBM Rational Team Concert will be used to track software defects. These defects will be triaged by a team composed of State staff, IV&V, and Wipro/IBM members. Based on severity, these defects will be prioritized and worked to resolution. Defects that are prioritized and minor or trivial may, as mutually agreed upon by the State/IV&V/vendor team will be incorporated into a future release. Defects are maintained within the RTC application and are available for incorporation into future projects and/or project phases as desired.

xiv. Describe how the Contractor will work with the Department and EES IV&V Contractor to develop the Acceptance Test Plan and Test Cases;

As part of User Acceptance testing, MLTC Business users will perform testing of whole system and validate it against expected result from Business aspect as well as from usability front. UAT happens after completing the SIT and Performance testing. It is carried out in UAT environment or environment which resembles the production environment.

For ***SmartPro MedEE*** System, System Integration, and UAT testing, Wipro test team will perform below activities:

- Identify the test scenarios for UAT
- Prepare the acceptance test cases
- Review test cases
- Get approval from Business users regarding the coverage
- During Execution Test team will support the Business users

Joint methodology of Acceptance testing is mentioned below.

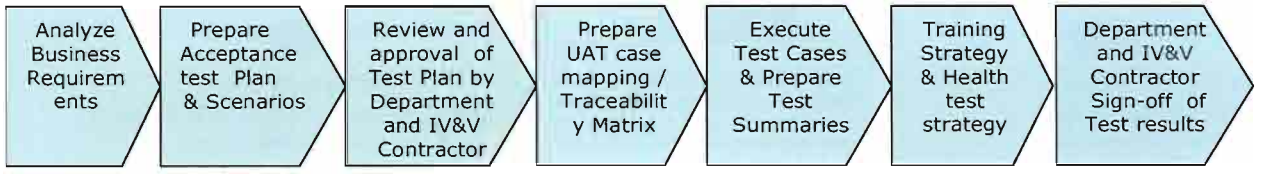


Figure IV-134: Joint Methodology of Acceptance Testing

Wipro will analyze the business requirements to prepare the Acceptance Test Plan. After the test plan is created it has to be reviewed by the Department as well as by the IV&V vendor and an approval has to be taken from both the stakeholders.

After the approval of UAT Test plan we will prepare the UAT test case traceability matrix. On completion of the same the test cases will be executed and test summaries will be prepared. The test summaries will be sent to the Department for sign off and respective sign off document will be mailed to the IV&V contractor.

xv. Describe how the Contractor's testing methodology and tools will support the State of Nebraska's requirement to move to a SOA environment

The testing methodology for SOA environment comprises of the following components:

- V Model – Testing Phases and Process View
- Bottom Up Testing Approach – Technical Testing Approach
- Automation Framework – Higher Test Execution Efficiency

- Wipro Accelerators and Best Practices – To enable Shift Left

V Model

The following is the Ideal V model aligned to support SOA Testing in an enterprise adopting or transforming their legacy platform to SOA based architecture.

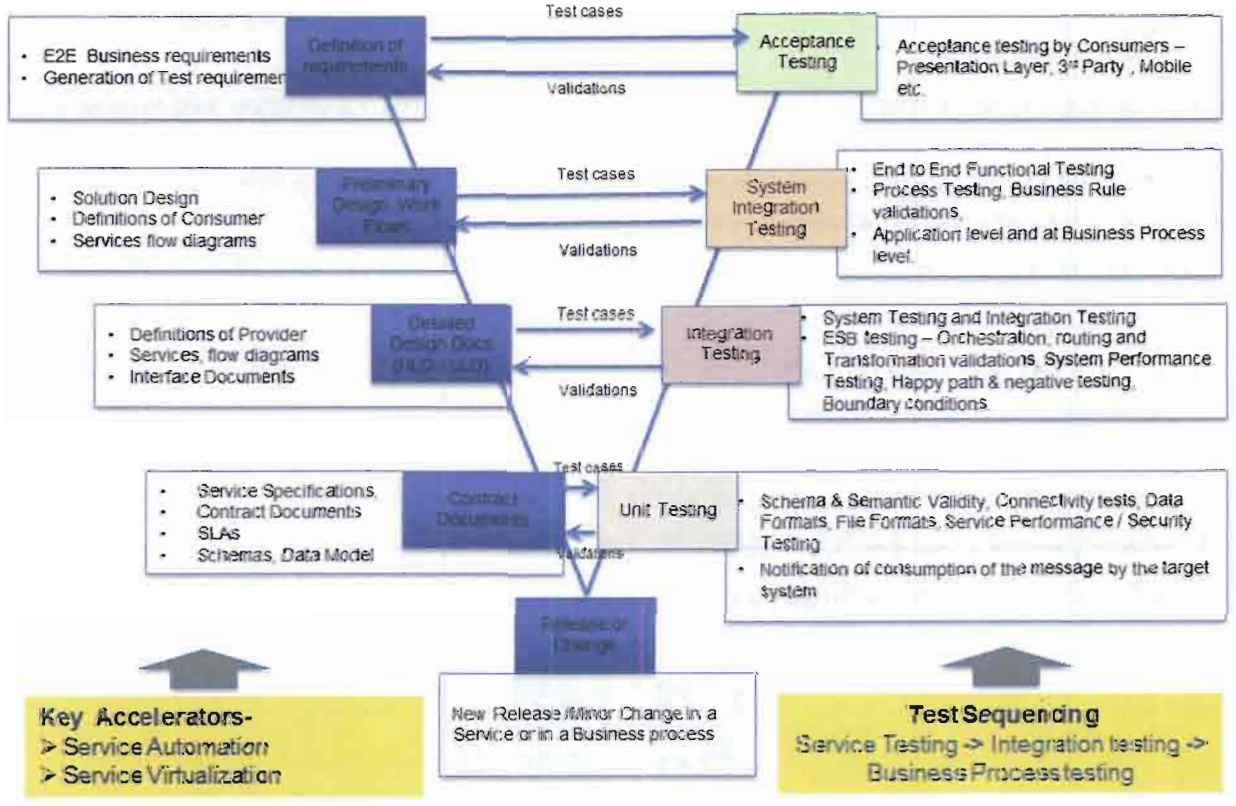


Figure IV-135: Ideal V Model

Bottom up Testing Approach

Wipro recommend Bottom up testing best in class proven approach to validate the entire SOA Adoption or Transformation by layers and ground up. The diagram above depicts the typical bottom up approach in an ideal SOA Platform.

Bottom up Approach suggests testing of individual layers effectively and exhaustively in isolation before integrating them together. This is achieved by SOA Automation tools, Service Virtualization, and efficient processes.

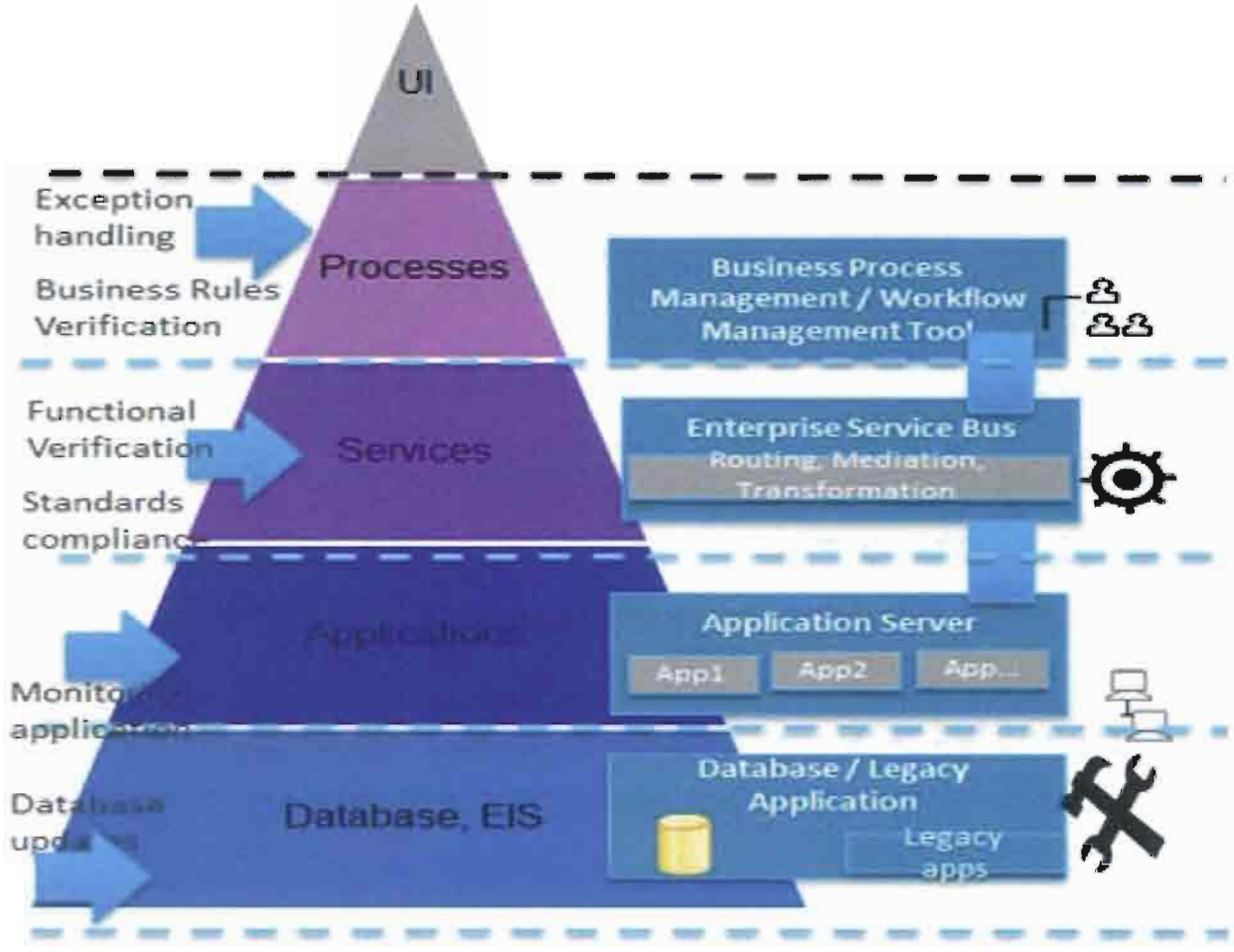


Figure IV-136: Bottom Up Approach

Automation Approach

The approach will be based on achieving 100% SOA Test Automation using Rational Integration Tester and Virtualization Server. The following is the SOA Automation Tool framework and the components involved in testing a SOA Platform.

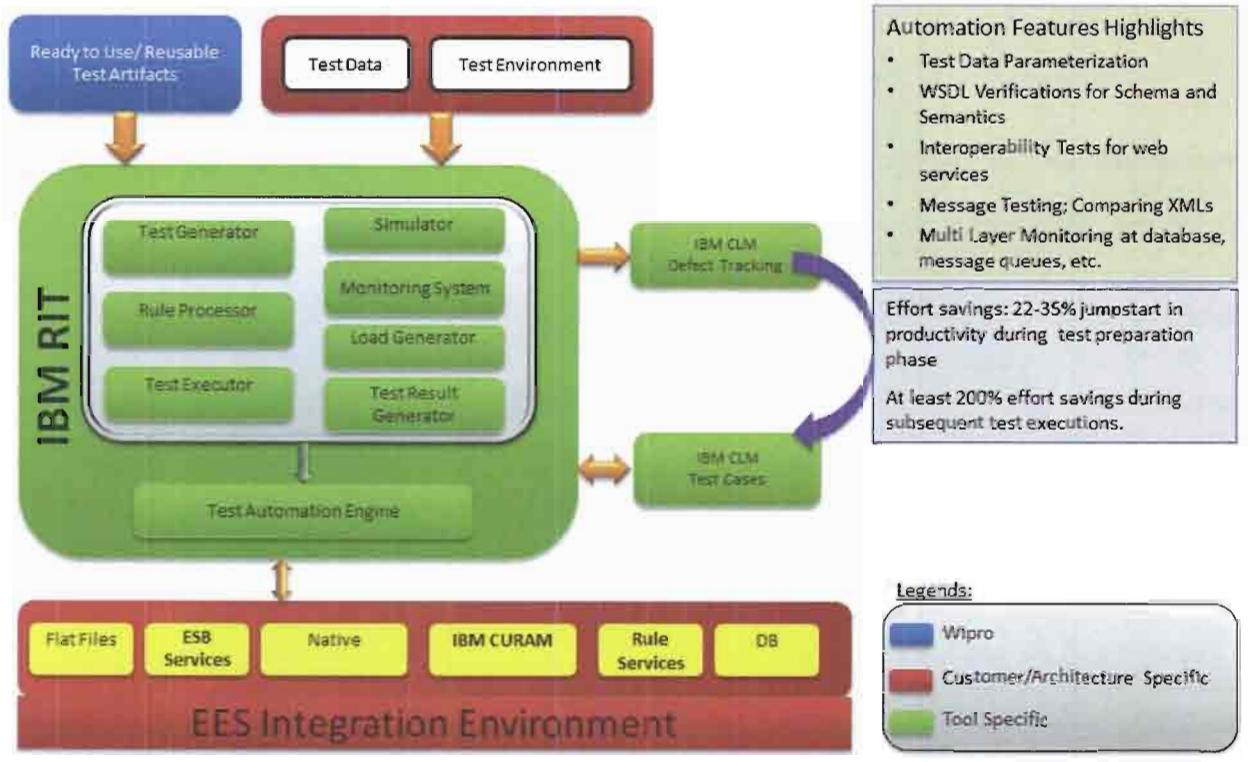


Figure IV-137: Automation Tool Framework

Tool Choice and Recommendation

For MLTC program, the Wipro will use Rational Integration Tester and Virtualization Server.

The recommendation is based on the overall technology stack and larger IBM platform presence both in Business and integration layers of the ***SmartPro MedEE*** solution. Rational Tool Product can integrate and interlock with various IBM integration platform products and technologies that are implemented as part of this product. In addition, the existing testing toolset being Rational it is appropriate to bring in the rational integration tester to seamlessly integrate in to the existing tool chain with minimum disruption.

Toolsets and Integrated Tool Chain

Any Testing Effort will be optimized and bring our best value for lower cost based on the maturity of their tools and the integration between tools. SOA Test Tool chain is about integration of different tools used during a SOA Testing Approach.

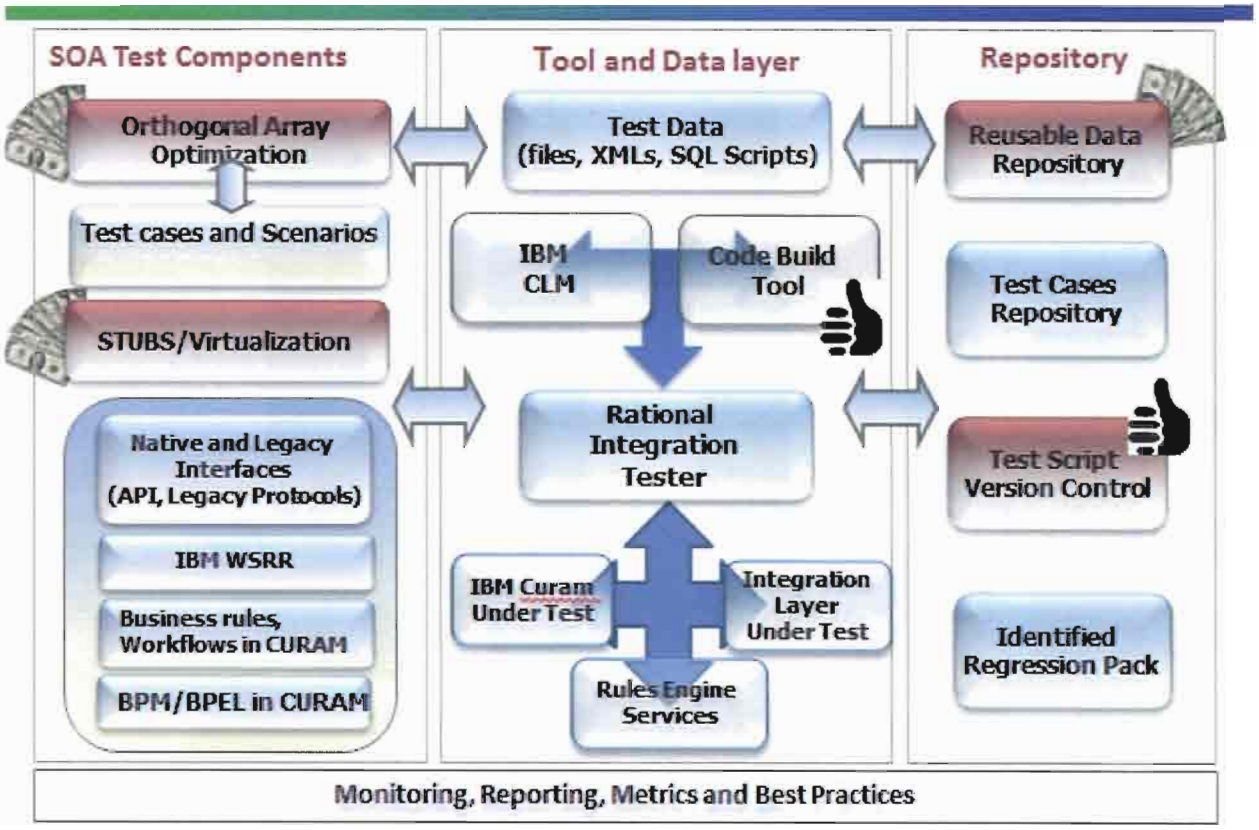


Figure IV-138: SOA Test Tool Chain

Table IV-36: SOA Test Tool Chain Description

Integration Components	Tools (Example)	Remarks
Orthogonal Array Optimization	Wipro Online Tool	This is a Wipro online tool used for web services testing to generate possible combination of data to be tested. Effective for schema up to 15 elements.
Simulation	Rational Virtualization Server	Eliminate constraints and dependencies in the platform
Reusable Data Repository	Rational Integration Tester	This would help create values to those elements as per its data types. Tools generate their own random values. This can also be further streamlined to generate business sense values.
Test Scripts version control	IBM CLM and/or SVN	Versioning of Automated scripts can be done in IBM CLM and/or CVS/SVN. This versioning is based on the release in test cases design and execution results.

xvi. Describe how services that execute on the Enterprise Service Bus (ESB) will be unit, integrated and SIT tested;

The following picture depicts the different test phases involved in validation and verification of services hosted on ESB as part of the integration layer and its test layout respectively.

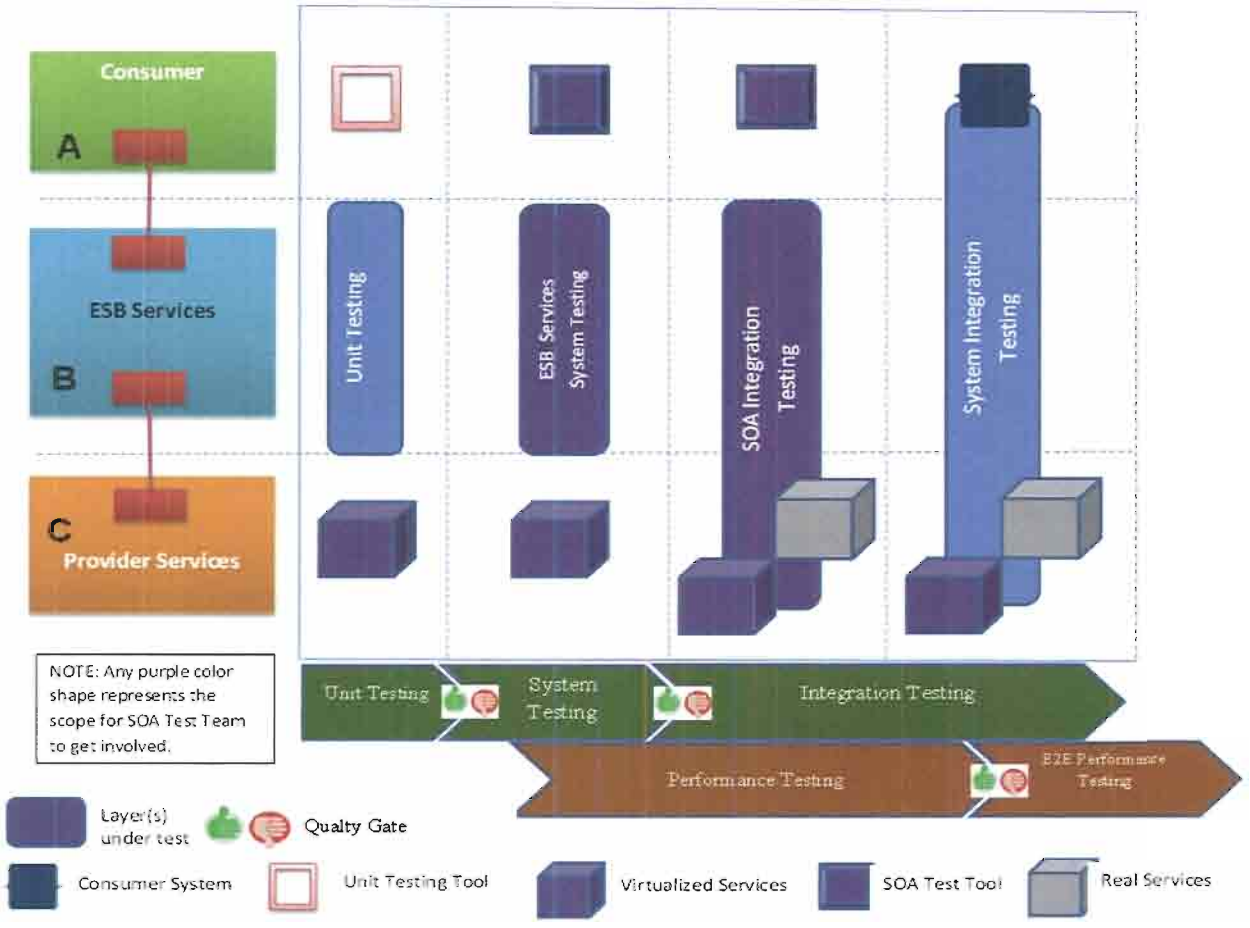


Figure IV-139: Validation and Verification of Services

The following testing will be carried out to ensure that the ESB unit will function as expected:

Unit Testing Phase

Objective

Unit testing is conducted to ensure that proper functionality and agreed coverage have been achieved during coding. Testing will be conducted by the developers and will focus on verification of their module of code developed for ESB services.

This phase will be totally owned and driven by the development teams across locations or in house depending on the arrangement of that project or program.

Approach

The approach of the unit testing is dependent on the Software Development team. SOA Test team contribution in this testing phase is to review the outcome of the unit testing as part of the quality gate focusing on the traceability of requirement against the unit test cases and results of those test execution.

SOA Test team will work with the development team to enable the following

- Virtualized Service to support their Unit Testing
- Defects logged in to a defect management tool
- Traceability built around requirement, services, operations, test cases and results
- Evidences of the test cases are archived and ready for review and audit as required

Quality Gate

Entry Criteria

- Development Complete Code Module

Exit Criteria

- Completed unit testing check lists for each code component
- Completed peer review checklists
- No open severity 1 or 2 defects
- Severity 3 and 4 defects are at nominal levels with agreed resolution plan in place
- Agreed defect resolution plan for all outstanding defects.

Deliverables

- Unit Test Approach or Unit Testing Section of the Project Testing Approach Document
- Test Case traceability to Requirements, Services and Operations
- Test Results and Evidences

ESB Services System Testing

Objectives

- To verify and validate the functional and technical requirements of the Integration layer services
- Test various configured features and properties of the middleware in specific detail
- To flush out early defects with specific configuration and changes implemented
- Creation of Simulated Services using a recognized tools
- Validation of transformation, routing, aggregation features of the Message Broker and B2B Gateway specific to individual transactions or business flow
- Validation and conformance of all regulatory transactions against a Simulated Services

Scope

The Integration Layer services will cover the following components

- IBM WSRR
- IBM Integration Bus
- IBM Sterling Direct Connect

Approach

The following is the middleware System Test topology that will be in use during the system testing.

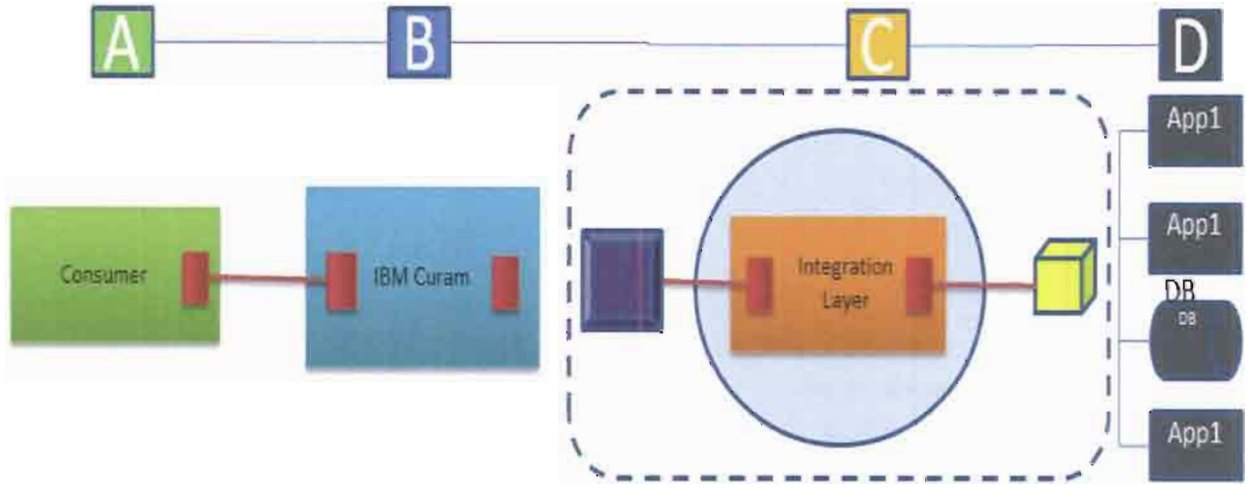


Figure IV-140: Middleware System Test Topology

System testing of an Integration Layer will involve the following in a test environment

- SOA Test Tool – Simulating Consumer
- IBM Integration Bus under Test
- Downstream Service Simulation – Virtualized Services

The same type of test environment will be used for Isolated Performance Testing. This is under the assumption that the environment has the capacity planned to host a limited performance testing.

Types of Testing

During the SOA Testing process across different programs and projects the following are possible type's validation or tests that will be performed in this phase.

- Progression Testing
- Regression Testing
- Positive and Negative Testing
- Boundary testing
- Error conditions and error messages
- Standard Compliance
- Basic Security Testing
- Isolated Performance Testing

Entry Criteria

The following are the Entry criteria to be considered before proceeding with ESB System Testing.

- Integration Layer Services Unit Tested and pass Quality Gate
- Test environment is stable.
- Test Environment has the correct code and configuration levels.

- Privacy and masked data take care.
- Middleware Applications/Services System Test Plan signed off
- Test Resources ready to execute
- No open Severity 1 or Severity 2 defects from Unit Testing
- Test Objective reviewed and coverage ascertained
- Test Execution schedule completed
- System Test cases completed
- Test Data Prepared and ready to use
- Simulated Services replacing the downstream provider services
- Test Environment available, baseline and supported

Exit Criteria

The following are the minimum criteria for exit from this test phase

- 100% coverage of the high and medium priority cases
- Overall 80% Test coverage
- 85% of code coverage No Open Sev1 and Sev2 Defects
- Agreed Sev3 and 4 resolution plan within an agreed threshold
- Sev3 Resolution Plan to close outstanding before UAT Phase
- Explanation for those test cases or scripts not executed.
- Evidence of high priority tests available for audit
- Exit Report Signed off

Deliverables

The deliverables out of this test phase will be the following

- Integration Layer Test Plan (All components of Integration Layer)
- Test Cases/Data Sets
- Updated Requirement Traceability Matrix
- Updated Regression Packs
- Defects Report
- Simulated Services Assets
- Code Coverage Report
- Test Exit Report

Integration Testing

The high-level expectation of this phase is to test the layers built to support SOA brought together for the first time. This validation will certify the Test Environments and limited integrated layers which will be used for End-to-End System Integration Testing.

Objective

Validate the first time integration of layers which has undergone change and impact

- Shakedown tests when integrating the Integrated Layer, ***SmartPro MedEE***, Rules Engine, downstream Service Layer and other surround services
- Exhaustive End to End Business Process Testing which is ***SmartPro MedEE*** and Rules Engine
- To flush out early defects during integration
- Validation of Integration scenarios below consumers with real surround and third party systems; any service or application availability constraints will be Simulated but will be kept at minimal
- Basic Orchestration for selected popular business flow
- Service Versioning and Discovery

The below is the test topology of the SOA Integration Testing which is about testing the integration of Middleware components with provider services and other surround systems.

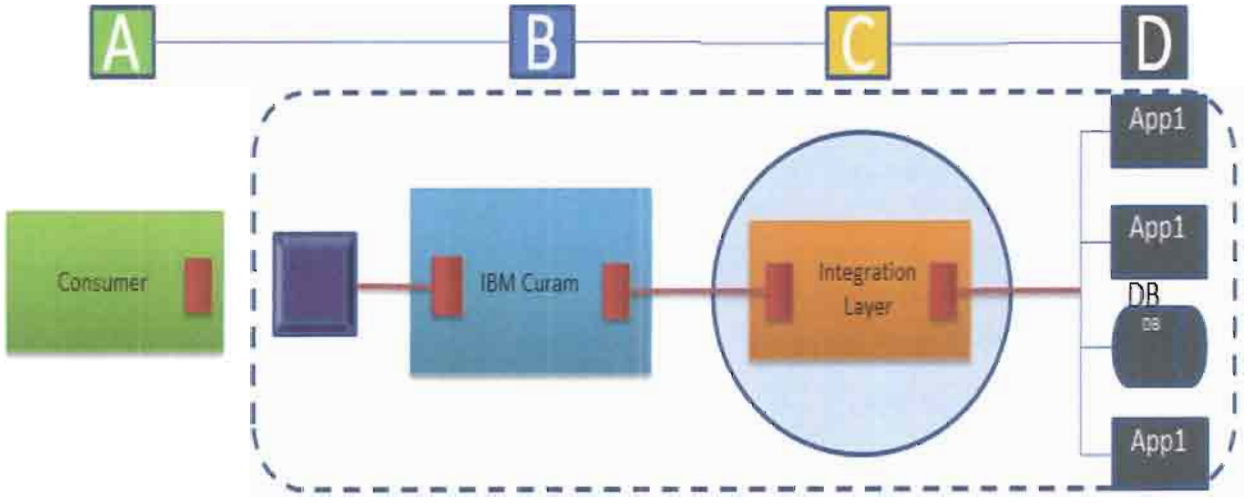


Figure IV-141: SOA Integration Testing Topology

Consumer [A]

This phase would have a SOA Test Tool Client replacing the consumer front end systems which would reuse the test suite prepared from the System Test Phase to be re-executed in the this new Test Environment integrated for the first time recreating the SOA Platform.

Curam [B]

This is the ***SmartPro MedEE*** and Rule Engine component which is under test that will be integrated for the first time post the change with the downstream services and third party applications.

Integration Layer [C]

These are services hosted by the Message Broker, IBM Sterling Direct Connect, and Transformation Extender.

Host Systems [D]

The internal and external host provider systems delivering the services required to complete the workflow.

Entry Criteria

The following are the entry criteria

- Overall approved Automated Middleware and BPM test suite
- Approved basic SOA Integration Regression tests by business and technical team
- System Testing (Middleware and Services Testing) signed off by the respective stakeholders
- Release notes available for the upcoming build with appropriate fix details
- All Severity 1 and 2 defects found in System Tests are resolved or have an agreed plan for closure
- Zero unit testing defects pending to resolve
- Test data to perform quick integration testing is identified and available
- Signed Off Unit testing of BPM Processes (in case coverage was not possible in previous System testing phases)

Exit Criteria

The following are the exit criteria

- 100% Identified SOA Integration test cases are executed and passed
- Defects logged are resolved or a future defect resolution plan is agreed upon by all stakeholders
- Test Results report and Defect Summary Report has been sent to all stakeholders
- No open Severity 1 and 2
- Resolution plan in place for those remaining Severity 3 and 4 open defects under an agreed threshold
- Sev3 Resolution Plan to close outstanding before UAT Phase
- Test Results have been signed off by all key stakeholders
- Exit Report Signed off
- Overall Coverage of the SOA Testing validated and signed off
- Pending coverage to be planned as part of parallel execution or in higher test phases

xvii. Describe how performance and stress testing of services will be accomplished;

The following are details of the Performance Testing approach for proposed solution for MLTC requirement specific to Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (***SmartPro MedEE***). Wipro proposes performance testing for the most critical and highly accessed scenarios.

Table IV-37: Performance Testing Approach

Consideration	Description
Wipro has considered the following number of scenarios	Web\Web Services Based – 30 critical scenarios from Web\Web Services protocol (http\html) of IBM Rational Performance Tester with

Consideration	Description
	various roles available i.e. Citizens, Employ ***SmartPro MedEE***, Case Workers, Analyst or Programmer Staff
Wipro performance test team will design\develop performance test scenarios in IBM RPT.	The critical scenario selection will be depended on High Volume, Complexity, and Business\Service Impact

Wipro along with Implementation team for MLTC SMEs will identify the business critical scenarios\work flows\Internet flows\ application navigation etc (for which the performance test scripts will be created). The identified and critical scenarios will be automated and scripts will be generated using the Automated Performance Test Tool IBM RPT. The RPT Tool helps in designing scenarios and simulation of users as per the test scripts and workload. Subsequent step of test execution (with sanity check) ensures the Performance Benchmark is achieved as per SLAs and other execution of another set of high load tests for identification of Performance Bottlenecks

Performance test team will follow incremental-iterative model, whereby, in different cycles, users will be increased with the corresponding data. The main outcome and objective at the end of this testing is to verify overall system behavior and end user experience under varied load, system resource utilization, compliance with defined SLA as per page complexity, performance bottleneck identification and room for performance improvements. The objective is also to establish performance baseline.

Types of Performance Testing

Based on the understanding of the user requirements and identified performance test scenarios, Wipro would define the level of performance testing required to be executed for proposed solution. Given below are various types of typical performance tests that are usually considered.

Table IV-38: Types of Performance Testing

Test Type	Performance Objective Addressed
Benchmark	Provides benchmarks of the performance of the Applications and compare with previous performance testing benchmark
Performance	Measures the end user response time under varying load conditions and reliability of the function\system being exercised under load
Load	Determine whether the system will be able to handle and exhibit consistently the required performance characteristics Evaluate whether system capacity meets the performance characteristics under normal and peak load and futuristic usage conditions
Stress	To identify the optimum configuration for a specific application\system
Endurance	To identify memory issues etc that occur during continuous usage of system over prolonged time duration

Performance Testing Methodology

Wipro shall use its proven End-to-End performance testing methodology as shown in the below figure for carrying out performance testing for MLTC. The overall approach will be implemented in 4 phases as depicted pictorially and explained below. Sub-phases, activities and deliverables in each of these phases are also given in the same diagram. Details of the phases are given in the table below.

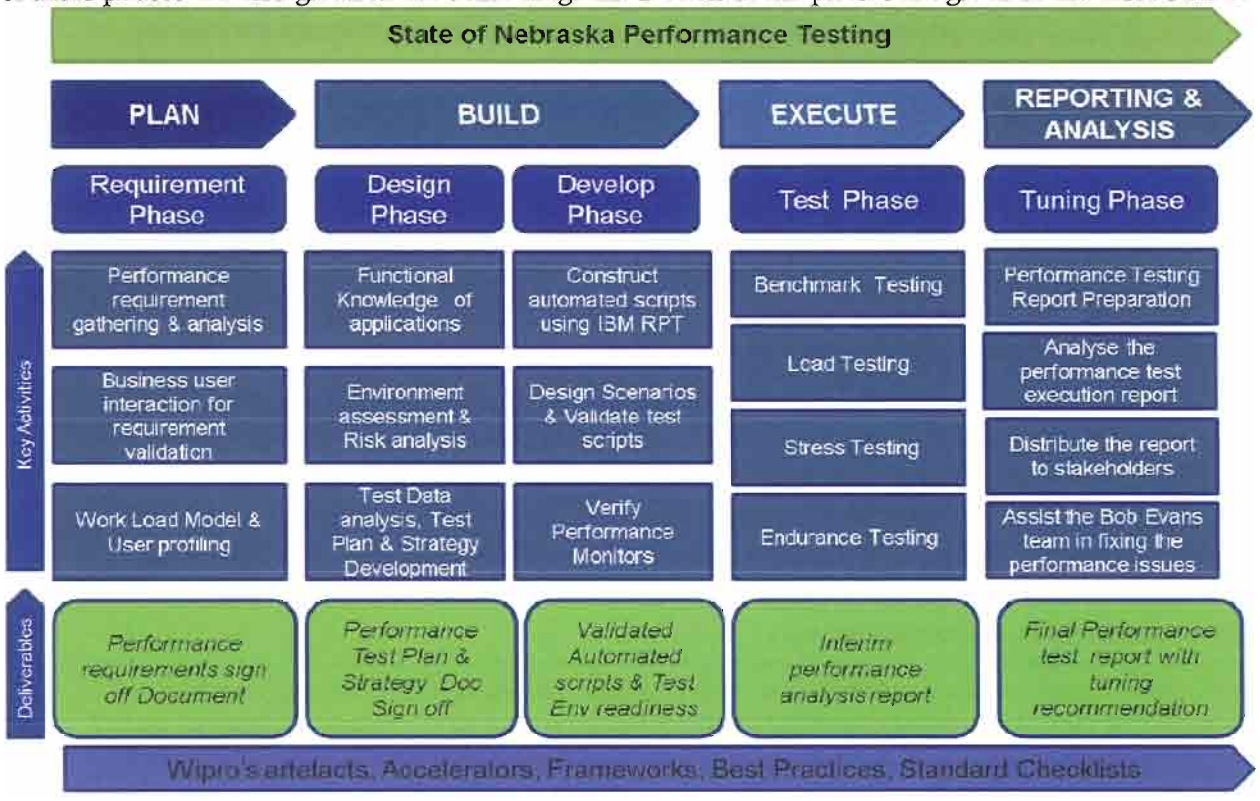


Figure IV-142: Performance Testing Methodology

Table IV-39: Performance Testing Methodology Details

Phase(s)	Activities
Requirement and Design	• Study of the business scenarios, finalization of the business scenarios and load distribution • Finalize performance test requirements and functional knowledge acquisition of EBS processes in scope • Understanding work load model and user profile • Creation of Performance Test plan and sign off from MLTC
Develop and Test	• Test Scripts will be developed based on the performance test scenarios • Script enhancement will be carried out by using parameterization with test data • Test bed that is same \ similar to production environment will be validated by Wipro performance testing team. Wipro will need Production sized database to be made available during this phase • Test data will be created and validated by Wipro against each business function requirement and dependency between business functions • Help Setting up performance monitors on MLTC servers • Dry runs to ensure the scripts are working fine with all the business functions • Execution of test scenarios for various types of tests such as load, stress, endurance

Phase(s)	Activities
	• Analysis of performance test reports
Analysis and Tuning	• Monitor and gather the performance test results for analysis • Analysis of performance test results to identify the bottlenecks and measure against Business goals • Defect reporting and Suggestions to improve the application performance • Test scripts, scenarios, results, reports and log files will be managed and archived for future use • At the end of this phase, Wipro will submit final test completion report to MLTC stakeholders' highlighting the overall performance test report with performance tuning and recommendations

xvii. Describe how message-oriented interactions will be accomplished;

Cúram EAI Connectors provide enhanced integration capabilities to enable other systems to interface with ***SmartPro MedEE*** applications. The Cúram EAI Connectors architecture provides for the technical connectivity between Business Objects and existing legacy and/or external systems. They allow application developers to work with objects representing data obtained from, or persisted on, legacy, and other application platforms in exactly the same way that they use other Cúram Business or Entity Objects. Cúram Connectors also remove the necessity of writing "low level" code in order to access legacy/external systems.

Currently, EAI Connectors are available for Web Services, JMS-compliant Message-oriented middleware (MOM) products (such as IBM WebSphere MQ), and SQL. These connectors are designed to service real-time or near real-time integration requirements.

EAI Connectors Approach

Each EAI Connector includes the following capabilities:

- Conversion of data and system requests to and from the native format of the middleware, for example, the creation of an outbound JMS-compliant message
- The technical interface to the middleware - for example, binding to a WebSphere MQ Queue Manager, calling the MQPUT interface and managing exceptions, errors and so forth
- Distributed Transaction Processing (Two-Phase Commit) between Cúram and middleware which provides an XA-compliant implementation - for example, IBM CICS
- The architecture is designed to integrate with the generated outputs from the Cúram model. This allows the designer/developer to reuse existing Cúram Business Objects as well as to model and generate Business Objects specific to integration requirements, for example, Business Objects that perform data transformations.
- These Business Objects use particular EAI Connectors to exchange information with other systems, in the same way that standard Cúram Business Objects use SQL to store and retrieve data. The following diagram illustrates connectors within the context of the overall Cúram architecture.

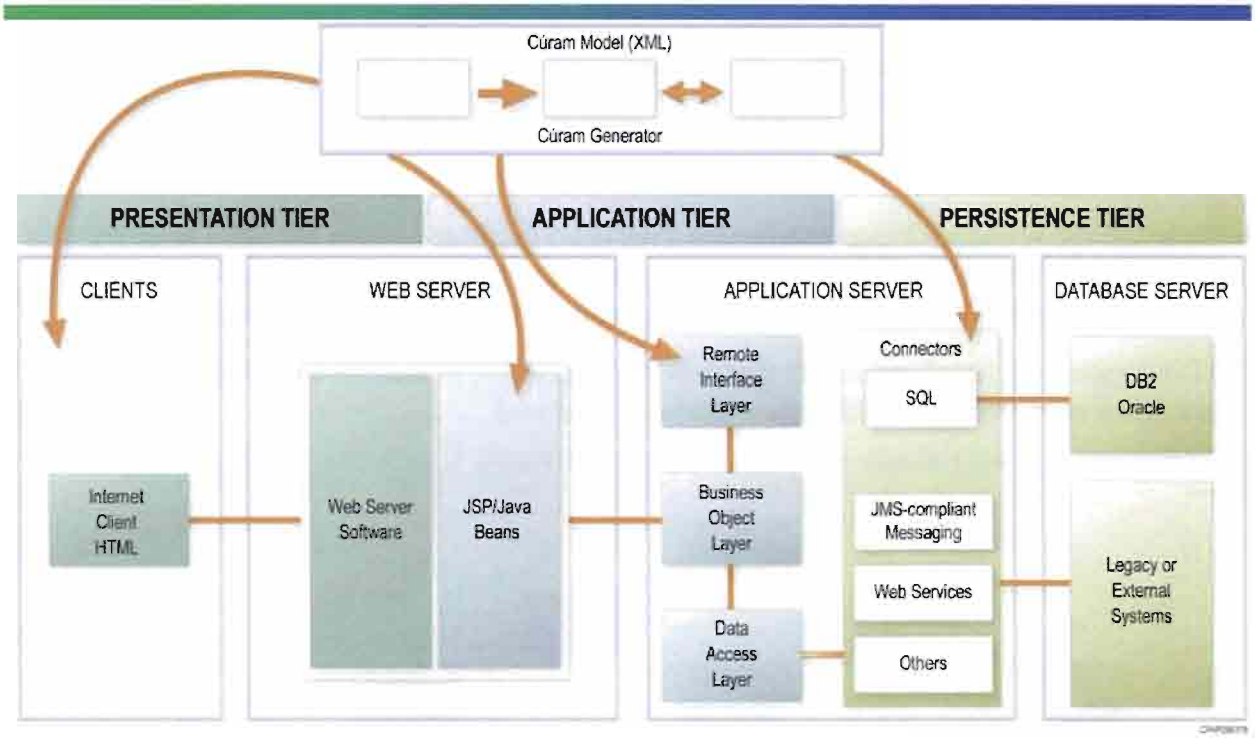


Figure IV-143: Connectors of the Overall *SmartPro MedEE* Architecture

The Cúram Web Service connector provides a generated approach for consuming a Web Service from within a Cúram application. This allows for Cúram to use Web Services to access information from legacy applications, or call Web Services to create/maintain information held outside of the Cúram domain.

The approach for implementing a connector is to include the Web Service Definition Language (WSDL) files as part of the build source for Cúram. Cúram automatically generates the BPO objects used to access the Web Service. These BPO objects can then be called from any other BPO object as per standard Cúram processing.

By using the Cúram Web Services Connector, services become part of the Cúram application and can be treated and re-used as such – the data structures and BPOs that must be used to access the Web Service are available in the application model.

JMS-compliant Message-Oriented Middleware: Cúram provides a JMS-compliant MOM Connector. Where required, the Cúram generator produces code that converts the relevant operation parameter into a JMS-compliant message, places the message on a queue, and optionally waits for another message in response which is then converted back into a Cúram structure and returned to the caller.

xviii. Describe how the testing methodology will accommodate workflow testing;

Wipro will test the workflow processes in a test environment by routing a record through each possible path. These tests will be performed before exporting the processes to production environment to ensure that each workflow process accurately reflects ESS business process. We will first replicate the production data in test environment database so that there is enough data and users

to thoroughly test each workflow process. The first and foremost thing to test workflow is to route the records through all possible paths in the process, including all possible paths through any sub processes. The test team will create test plans to help verify that we have tested all possible routes in a process.

We will also use the Workflow Process Definition Tool (PDT) provided within ***SmartPro MedEE's*** administration application to define and maintain workflow process definitions. As with all configurable ***SmartPro MedEE*** functions, the PDT is presented to users as an online web application

The PDT incorporates a visualization tool that provides a graphical image of a workflow. The screenshot below shows how a workflow as displayed by this tool.

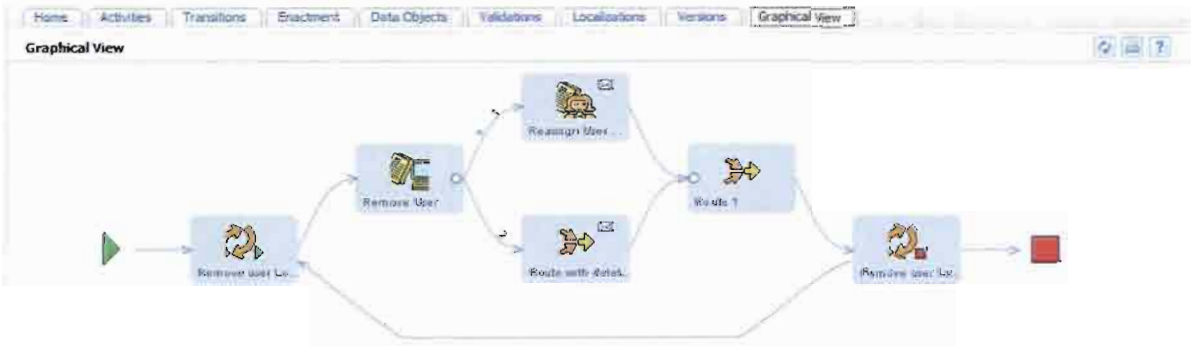


Figure IV-144: Graphical Representation of a Sample Workflow

Being able to validate workflow process definitions before they are released into production will be critical to the success of this program. The PDT will also be used to perform this type of validation. The PDT function will be used to check a process definition against a series of validations and to report any errors that arise either in the overall workflow or in specific activities or transitions. These checks will assist in producing a valid and well-formed workflow.

16. Data Conversion Task

The ***SmartPro MedEE*** solution is flexible and scalable to meet the current and future needs of the MLTC. The solution is SOA-based, layered, and easily integrates with other internal and external systems, as portrayed in the diagram below.

> ***"Data migration/conversion is more than moving data into a new application; it's about making the data work within the new application."***

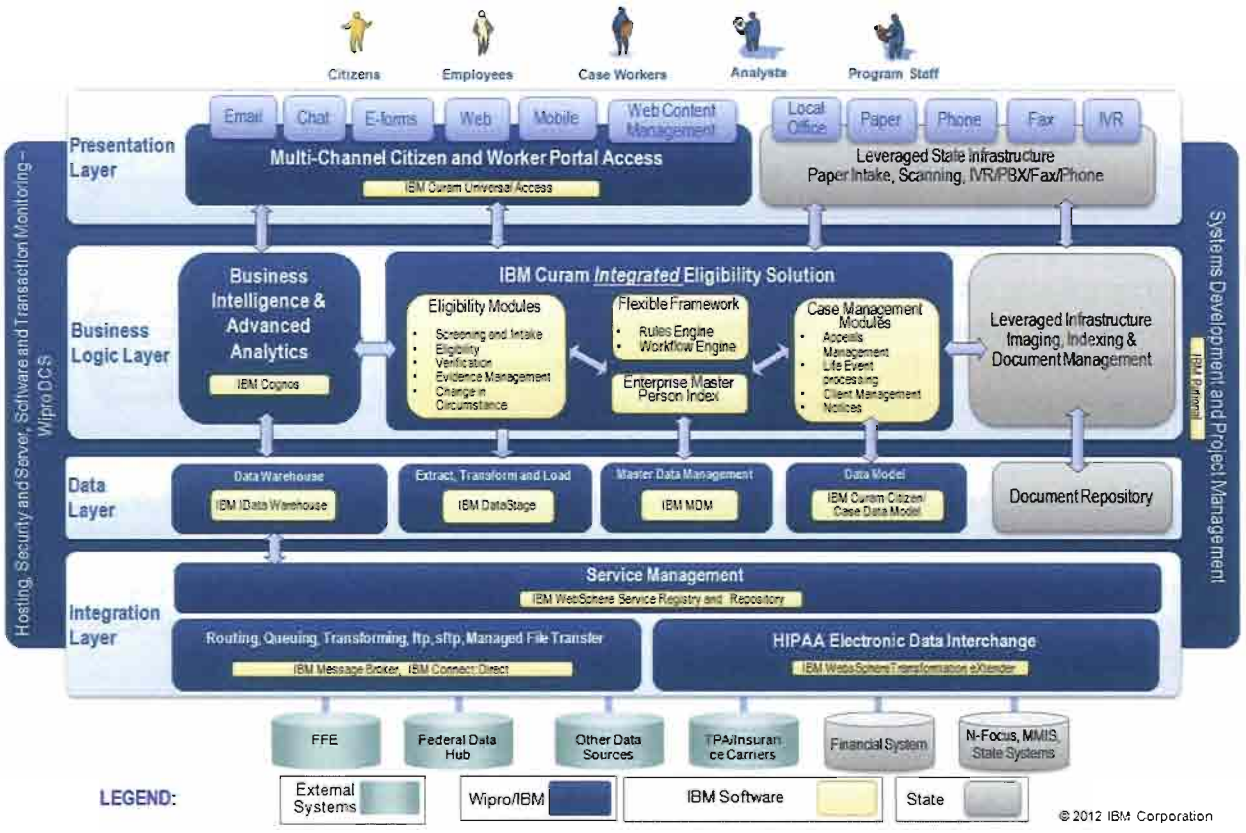


Figure IV-145: The *SmartPro MedEE* SOA-Based Solution

SmartPro MedEE is comprised of three primary application components: IBM Cúram for Eligibility and Enrollment; Cognos for Business Intelligence; and LifeRay for general Portal functionality. These primary applications execute on standard tools and middleware components such as IBM WebSphere and DB2. All components will be hosted within Wipro's Omaha, Nebraska and Tempe, Arizona data centers, executing on IBM PureApplication integrated server appliances.

As a guiding principle, ***SmartPro MedEE*** minimizes the number of system administration tools during Operations and Maintenance, to increase the effectiveness of the support team and to reduce overall costs. The use of IBM's PureApplication server appliance, specifically PureApplication's PureSystems Manager (PSM) as the core tool for technical system management is central to successfully executing this strategy. PSM provides a single unified tool environment for Application Management, Web Services Management, Systems Management, Performance Monitoring, and Workload Management.

The ***SmartPro MedEE*** solution integrates easily with other State and federal systems and allows MLTC to enjoy the benefits of the flexible and adaptable architecture inherent in our solution.

Data is an immensely valuable asset of Organization which is built over years of operation and poorly managed Data Conversion/Migration leads into issues that could set an enterprise back by several years in today's scenario. Especially in context of Healthcare, the data is of utmost criticality

being the foundation for many core applications and processes which in turn have significant impact on welfare and proper care of the people.

Based on our own experience of having handled complex data migrations, we precisely know how to make migration successful and its impact on the organization in case of a failed migration.


United States Patent
Lakshmanachar et al.

DATA MIGRATION FACTORY

For successful rollout of ***SmartPro MedEE*** transformation program, Wipro proposes to use relevant capabilities (applicable to MLTC environment) of its patented "Data Migration Factory' solution underpinned by a strong enterprise information framework, solution accelerators, flexible and execution model approach to manage Data migration requirements of MLTC. Wipro's patented Data Migration methodology precisely captures the learning over 140 data migration programs executed. Key components of our solution are:

- Data migration framework, methodology, Reference Architecture, templates and other re-usable assets streamlines the migration process and enables tool based automated migration
- Wipro's Information platform, a web based application developed for enabling Information management process with features like data governance, collection, profiling and cleansing, and mapping.
- Flexible resourcing model wherein Core team takes care of requirement analysis, solution definition and designing supported by a pool of flex team

Data Migration is the process in which data from different Source Systems (N-FOCUS, others) will be extracted based on Cúram Application Operational DB (DB2), Data Warehouse and historical data requirements. Extracted Data will be cleansed, transformed, validated, reconciled by embedding Business rules, Cúram data model, and other relevant transformation rules, and finally uploaded into Cúram database using load utilities. List of high-level activities which should be performed in the overall Migration Process would be:

- Analysis of Legacy Processes, Functionalities and data to identify the gaps between AS-IS and TO-BE state
- Profiling of Data to collect statistics from Legacy Data instances (N-FOCUS and others)
- Defining Conversion/Migration Acceptance Criteria
- Defining Migration strategy
- Mapping of Legacy system attributes to Cúram target loader templates
- Mapping of data elements from existing N-FOCUS relevant tables, proposed Cúram application to Data Warehouse.
- Defining Data Reconciliation and Error Reporting mechanism
- Defining Transformation and Business Rules for Data Conversion
- Developing Migration Solution components and perform Unit and Integration Testing
- Executing Migration Rehearsals to identify the fallouts and generate Data Reconciliation Reports
- Action plan finalization with different stakeholders for Fallout handling
- Finalizing the Cut-over Plan and assist Business users for Business Continuity Planning

- Cut-over for agreed iterations
- Business as Usual from the Cúram and Data Warehouse
- Support for Post Migration observations/issues

i. Describe the data conversion methodology and approach that will be used to convert data from N-FOCUS to the EES data structures including a description of the contents of the Data Conversion Plan. The methodology must include all technical components that comprise the proposed solution including all software (both COTS and custom-developed), hardware, and environments;

v. Describe all data conversion methods and requirements, regardless of whether an automated or manual method is recommended;

Data Migration – Reference Architecture

The key considerations and inputs for defining the data migration solution are listed below.

Table IV-40: Data Migration Key Considerations and Inputs

Data Migration	Solution Consideration
People	• **Delivery model : The ramp up and on boarding of the conversion team has been planned to** optimize the project cost with dedicated onsite presence enabling better interaction with MLTC users, N-FOCUS SMEs • **The Data conversion lead- Include details once identified**
Process	• An **effective reconciliation and error handling mechanism**, providing all the rejection details with error code; and rejected data along with our recommendation for error fixation • **Mock runs** based testing to improve data quality in iterative manner • Upfront **Data Profiling and Analysis** to un-earth the data gaps early
Technology	• **Upfront Data analysis** to identify the gaps and finalize the remediation plan at an early stage • **ETL Tool** based Automated Migration • *Wipro's* ***patented Data Migration Factory Framework*** streamlines the data migration process

Conceptual data migration reference architecture is shown in the diagram below.

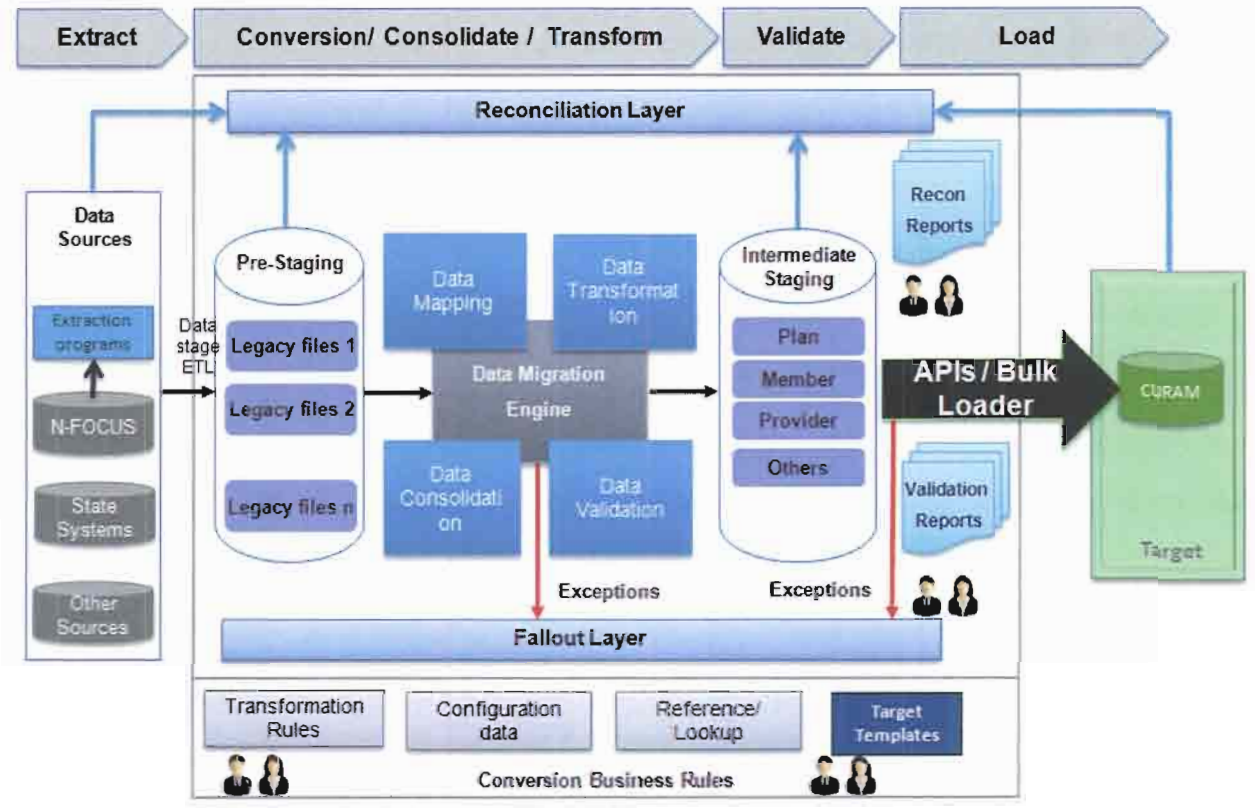


Figure IV-146: Conceptual Data Migration Reference Architecture

**Above mentioned Architecture is for reference purpose only and need to be customized to meet MLTC specific requirement.*

The Data migration Reference Architecture shown above depicts the flow involved in data conversion along with the various interface points between different layers:

- **Pre-staging**: Data from legacy system(s) are extracted and consolidated into Pre-Staging area. Consolidated data will be analyzed / profiled to generate the DQ reports. Record counts and amounts are reconciled against the legacy data sources.
  The staging area will hold heterogeneous data providing a conduit by which source system data can be extracted, transformed, and loaded to the Cúram tables.
- **Post-Staging**: Consolidated data from the Pre-staging schema is enriched and transformed using re-usable Business / Technical transformation rules and load ready files as per Cúram loaders requirement is prepared. Post staging data is validated against transformation rules and rejected records are sent to Fallout area while good records which pass all the validation criteria are flagged for target loading. Record counts and amounts will be reconciled against the Pre-Staging Schema
- **Bulk Loader**: DataStage ETL and Cúram connectors will be used to load master and transactional data into DB2 (Operational database)
- **Fallout**: Records which fails in staging area during validation and that generate errors during loading will not be loaded into Cúram system and collected in Fallout layer for further analysis and fixation.

- **Reconciliation**: All the reconciliation results will be stored in this layer for further analysis and reporting purpose. Reconciliation identifies the number of records that are successfully converted. It also tracks the records failed during the process of conversion and migration. Analysis will be performed on the failed records to determine the reasons for failure and necessary fixes will be applied to the failed records before reloading them into the target database. Reconciliation of records will be done in the following ways:
  - Volume Reconciliation
  - Visual Reconciliation
  - Business Reconciliation (Sensibility Checks)

Different type of reconciliations, which will be performed, will be finalized in agreement with MLTC SMEs.

Data Quality and Data Cleansing

Data quality improvement is not a one-time activity but needs constant monitoring, improvement, governance, and evaluation. Wipro recommends establishing a formal set of business processes as data quality services to ensure consistent quality and a uniform experience.

Data Quality strategy will focus on three aspects:

- Profiling
- Cleansing
- Auditing and Balancing

Data Profiling and Assessment

During this phase, the current systems' data will be analyzed based on the new system's business rules and anomalies will be reported to the State's business team. Anomalies in each legacy system, such as null values, structural issues, duplicate values and business rule violations, will be presented to respective legacy business champions for them to make decisions, on what the business requires regarding transformation of data before being loaded into the DSS system.

Data profiling and analysis will be done on different data sets based on the master data and transactional data. For master data, the full data set will be profiled. For transactional data, sampling techniques will be used for identifying data sets.

During data profiling and assessment, a Quality Indicator checklist will be created revolving around some of the key DQ criteria after a detailed assessment of quality requirements for State's needs. The outcome of the checklist will be modeled as DQ profiling rules and will be maintained as part of the central metadata repository. This approach enables a greater reusability and consistent application of DQ rules across various data elements which can also be leveraged as new data sources / systems come into picture.

Listed below are some of indicative DQ criteria which will be later modeled as part of the proposed DQ rule engine:

- **Metadata Integrity** - Audit completeness of data elements along with minimum, maximum, etc. Examples of some indicators include Total number of source records, Missing file indicators, Missing data etc. Document entity properties and applicable business rules
- **Relational Integrity** - Assess accuracy of data elements and interrelationship like referential integrity checks, missing links check etc. Discover relationships between elements within and across data structures / sources
  Primary Key checks detect columns or sets of columns that might be used as primary keys and foreign keys in other tables
  Determine relationship between different tables based on the primary and foreign keys
- **Structural Integrity** - Assess conformity of data elements to the expected formats
  - **Table Analysis**
    - Identifies dependencies among Columns of a table which helps to identify the Primary Key, foreign keys, and normalization
    - Analyze cross tables to determine if the columns share a common domain ,which might result in foreign key relation
  - **Column Analysis**: Analyzes the data in specific columns in terms of understanding the following aspects:
    - Minimum, Maximum, and Average length
    - Precision and Scale for Numeric Values
    - Basic Data Types, different date time formats
    - Count of Null values, Blanks, Non-Empty Values
    - Count of Distinct Values
    - Default Values, Garbage/Invalid data, data patterns
    - Valid range of values, available range of values, Arrays of values
    - Statistics, Frequencies, mismatch between metadata and actual data
- **Domain Integrity**
  - Assesses instances of data values that fall in prescribed sets of domain values and flags suspicious data values
  - Measures number of duplicate entities or set of attributes in the records
  - Identifies silos of redundant data across systems in an enterprise
  - Identifies the set of values that are extremes of the normal distribution spread

  Wipro's data team will use IBM InfoSphere ProfileStage to conduct a detailed data analysis in order to accurately identify anomalies in the legacy systems' data. The benefits derived using a profiling tool are many, as it substantially reduces the effort for data analysis and improves the analysis by providing reports and statistics on the quality of the data. During data profiling analysis the following points are considered to check the quality of data in a source system. This analysis determines the understanding and base lines the quality indicators and helps determine quality requirements in the following areas:
  - Domain Values
  - Range Values

- Cross-field verification
- Address format
- Name standardization
- Reference fields
- Formats
- Referential integrity Basic statistics, frequencies, ranges and outliers
- Duplicate identification
- Key identification
- Data rule compliance

Data Cleansing

Cleansing is the process of correcting the anomalies found in the data. The major output of the data profiling exercise is a data quality plan to address the cleansing of the data prior to the load to the new Eligibility System. It is expected that the data profiling exercise will enable identification of all data issues like missing data values, duplicate data, and inconsistent data formats.

Post determination of the data quality rules, Wipro proposes to conduct Business consultation workshops to identify resolutions for current systems' data anomalies that would otherwise fail data validations and determine the course of corrective action for each type of rule violation. Data anomalies will be presented to the State, who will decide on whether data correction or transformation rules are required, or whether the data will be migrated unmodified.

A rule violation can be handled by fixing the data issue, discarding the record and continuing processing, stopping processing, or taking no action.

There are several approaches and options available for data cleansing which is depicted in following diagram:

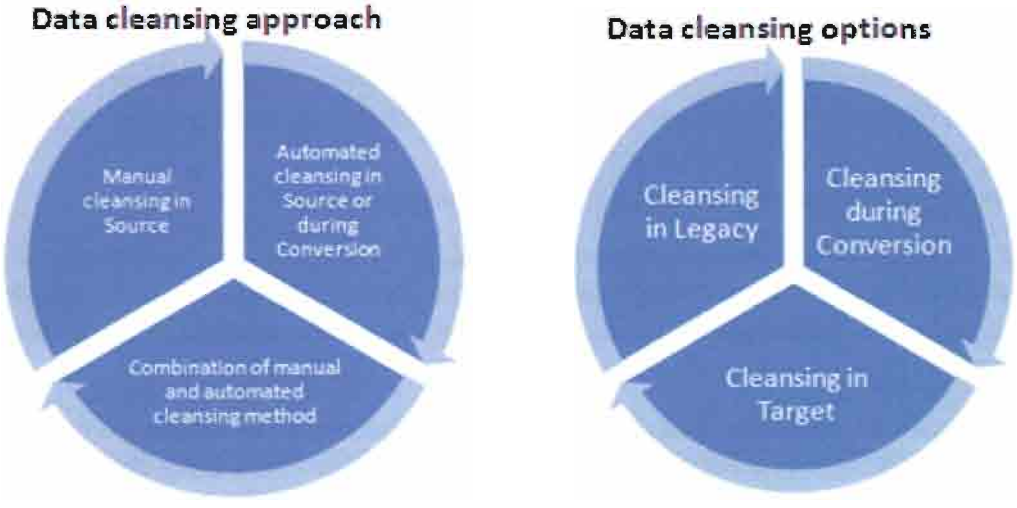


Figure IV-147: Data Cleansing Approaches and Options

Data Cleansing for MLTC will be done on staging data before loading it to the new Cúram system. Data cleansing rules will be derived based on the following key tenets:

- Data Completeness
- Data Conformity
- Accuracy
- De-duplication strategy
- Subject area specific cleansing

Wipro will leverage its extensive understanding of Federal, State, and CMS guidelines, HIT and other standards as well as data enhancement and cleansing technologies while performing the data cleansing activity. Extensive data checks will be performed to identify potential errors in reporting or missing data.

Wipro proposes to undertake data cleansing activities similar to the illustrative cases detailed below:

- Unique ID assignment to each individual for identification purposes as source systems may maintain different identifiers. This will enable a 360-degree view of an individual from each system like Medicaid, Food Stamps, and Child Support.
- Address correction for format structuring and GEO code assignment to enable data display on maps or in geographical reports.
- Application of common standard formats for client data to create consolidated and data enriched records for each provider in case of data being sourced from Physician and Other Healthcare Professionals Directory (PHPD), CMS's Provider Enrollment, Chain Ownership System (PECOS).

Automated cleansing rules will be applied on the data in the staging area. Data Quality / Assessment reports will be generated to the identified user groups.

Fixing a particular data issue could involve any of the following methods:

- Manual Cleansing – Manually correcting the records, primarily done in source systems
- Automated Cleansing – Automated scripts and tool based routines cleanse the data either in source systems or during the conversion process
- Combination of manual and automated cleansing methods

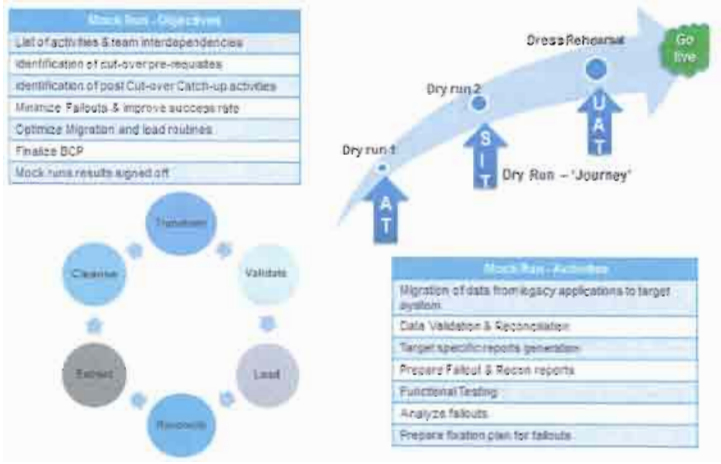
Wipro will use DataStage scripts to cleanse the data during the conversion process. Wipro will endeavor to address most of the data quality issues through simple transformation logic. However, there could be certain cases where specific manual cleansing needs to be undertaken by the State's business owners or SMEs.

Wipro recommends the use of IBM's Quality Stage Tool to write rules, and execute multiple iterations of cleansing in order to achieve a level of accuracy that allows for a clean data load. All automated cleansing will be attempted in the conversion process. Testing and reconciliation will prove the correctness and robustness of the solution.

Data Migration (Mock Runs)

Wipro proposes a mock / dry run approach for migration readiness testing. As part of our dry runs, both data and functional testing will be performed. We recommend a minimum of three migration rehearsals to gain a better understanding of data quality. The objective of migration rehearsals is to:

- Identify the list of activities and team inter-dependencies which need to be performed during cut-over .This helps in cut-over planning and seamless migration
- Identify the cut-over pre-requisites and post cut over catch-up activities
- Execute dry-runs in iterative manner to minimize fallouts and improve upon the success rate of migration results
- Optimize migration and data upload activities in order to reduce down the cut-over window
- Publish the reconciliation report to all the stakeholders and take business sign-off
- Finalize business continuity plan
- Cut-over / Go-ahead decision / sign-off from business after final rehearsal



Flow of activities during Mock run would be to:

- Move master data along with other related data from N-FOCUS and other sources to Cúram platform and identify the fallouts and their corrective action plan
- Generate reconciliation reports
- Analyze fallouts and finalize fixation plan
- Perform Functional and Data testing
- Fix the issues and prepare for next mock run

Cut Over Approach

Data Conversion/Migration which is a subset of transformation program, including Process, Application and data migration, can be achieved either using Big-Bang or Phased Approach. Both the approaches are having their own advantages and disadvantages. While Big-Bang provides single down time and low efforts but it adds Risk to the overall Migration due to the volume and complexity. On the other hand Phased migration although take longer time for End-to-End conversion but it minimizes the Risk of Migration by migrating the data in smaller chunks. Phasing approach should be decided around parameters like migration Risk, volumetric and complexity, Product and we should plan less volumetric and simple candidates during early phases.

High Level Data Flow and activities during Cut-Over based on our experience are listed below which will be firmed up during Dry-Runs:

- Blocking the transactions into Legacy application

- Initiating Business Continuity plan
- Extraction of data from N-FOCUS and other sources and handover to migration team
- Validation of extracted data to identify gaps and remediation
- Conversion, validation and loading of data in DB2
- High level reconciliation of Data
- Functional testing on Migrated Data
- Changing the inbound and outbound data flow
- Post Cut-Over catch-up activities
- GO-LIVE announcement

Key Considerations for Cutover

Based on our extensive experiences across large scale Migration, we want to share some of the Key Learning for cutover as listed below:

- 'Practice makes Data Migration perfect'. We will execute mock runs to simulate the cut-over followed by rigorous reconciliation to unearth data issues in advance and will expect MLTC to ensure data validation by business SMEs at the end of each mock run cycle.
- Only master data along with open balances should be migrated to the application. Historical data can be archived in RDBMS format for future references.
- We can explore the feasibility of loading Master data in advance and master data checks can be performed and kept ready before actual cut-over. During cut-over, we should migrate only transactional data which will reduce the outage window.
- Cut-over plan must contain sufficient detail to identify all hand-offs, estimated timings and task successors.
- Weekends should be preferred for cutover as transaction loads during weekend used to be less. Pre-requisites for cutover need to be closed by Friday evening and extraction from Legacy can be planned on Friday night.
- Understanding of what must be loaded during full outage is critical and so also is identification of the outage requirements and business continuity plan during the outage for the entire impacted Op-cos.
- During cut-over, we must try to clear all the fallouts and migrate 100% of the data by fixing the data in staging area even if the rectification is not as per expectation. This is because it is always easy to fix the data in target System if master data is available compared to loading entire data set after Migration.
- Before go-live announcement, data must be reconciled thoroughly and business critical functionalities must be tested in order to avoid post migration surprises
- Transactions during the cutover window must be uploaded into target system before go-live announcement.

Despite of all the cleansing in legacy, we expect some fallout during cutover. To handle the fallouts like missing data, default values for attributes to be agreed with the business in advance in order to move data successfully during cut-over as manual fixation during cutover will not be feasible

vi. Describe the tools and how they will be used for converting the data; and

vii. Describe any tools and how they will be used for validating the data.

Tools and Technologies:

Wipro considers listed below tools for Data migration activity:

Table IV-41: Data Migration Activity Tools

Area	Tool	Activity
Data Quality Tools	IBM QualityStage, Info Analyzer	Data Profiling and enrichment
ETL Tool	IBM DataStage	Data Mapping and Transformation
Database	DB2	Migration Staging (PL/SQL and SQL scripting)

Wipro's Extract, Transform and Load solution, IBM DataStage

Wipro proposes leveraging industry leading Data Extraction, Transformation, and Load (ETL) toolset lIBM DataStage for data conversion/migration. These tools automate conversion routines, maintain and ruse conversion routines, and automate data migration processes with the ability to start / stop / cancel / reload and repeat the data migration effort as required. Different audit trail and housekeeping tables maintained in the migration staging area enable the migration process to be flexible, recoverable, and repeatable.

IBM® InfoSphere® DataStage® and provide these unique capabilities:

The powerful ETL solution supports the collection, integration, and transformation of large volumes of data, with data structures ranging from simple to highly complex. IBM InfoSphere DataStage manages data arriving in real-time as well as data received on a periodic or scheduled basis.

The scalable platform enables Enterprises to solve large-scale business problems through high-performance processing of massive data volumes. By leveraging the parallel processing capabilities of multiprocessor hardware platforms, like the Power 750 series proposed for our solution, IBM InfoSphere DataStage Enterprise Edition can scale to satisfy the demands of growing data volumes, stringent real-time requirements, and shrinking batch windows.

Workload management capabilities enable policy-driven control of system resources and prioritization of different classes of workloads. Customers can use new workload management capabilities to optimize hardware utilization and prioritize mission-critical tasks, throttle job activities where resources exceed specified thresholds, and assess, assign and reassign the priority of jobs as new jobs are submitted into the queue.

Comprehensive source and target support for a virtually unlimited number of heterogeneous data sources and targets in a single job includes text files; complex data structures in XML; ERP systems such as SAP and PeopleSoft; almost any database (including partitioned databases); web services; and business intelligence tools like SAS.

Real-time data integration support operates in real-time. It captures messages from Message Oriented Middleware (MOM) queues using JMS or WebSphere MQ adapters to seamlessly combine data into conforming operational and historical analysis perspectives. IBM InfoSphere Information Services Director provides a service-oriented architecture (SOA) for publishing data integration logic as shared services that can be reused across the enterprise. These services are capable of simultaneously supporting high-speed, high reliability requirements of transactional processing and the high volume bulk data requirements of batch processing.

Advanced maintenance and development enables developers to maximize speed, flexibility, and effectiveness in building, deploying, updating, and managing their data integration infrastructure. Full data integration reduces the development and maintenance cycle for data integration projects by simplifying administration and maximizing development resources.

Complete connectivity between any data source and any application ensures that the most relevant, complete and accurate data is integrated and used by the most popular enterprise application software brands, including SAP, Siebel, Oracle, and PeopleSoft.

Flexibility to perform information integration directly on the mainframe. InfoSphere DataStage for Linux on System z provides:

- Leverages existing mainframe resources in order to maximize the value of your IT investments
- Scalability, security, manageability and reliability of the mainframe
- Adds mainframe information integration work load without added z/OS operational costs

In Summary

Wipro will implement a robust Data Cleansing and Conversion functionality to ensure the revised application landscape of MLTC having required data successfully migrated from all applications in scope as well as from Cúram to the DEW.

Wipro believes Data Cleansing and Migration is very critical lot that will ensure success of the overall MLTC program. Wipro has implemented several data migration solutions to its customers, using custom build option as well as solutions using ETL tools. Wipro has executed more than 140+ data migration projects and has gained rich experience by providing migration solutions across customers in Healthcare, Government, Telecom, Technology, Banking, financial, retail domains using ETL based data migration solution. Some of the key highlights of the DM practice are:

- Successful execution of 140+ Data Migration Projects across various Industry domains
- 40+ Data Quality engagements
- More than 1500 ETL Consultants working on projects for various Industry Domains

17. Operational Readiness Review Task

i. Describe the approach to the Operational Readiness Review.

For all Wipro/IBM programs, Operational Readiness is performed throughout the Project Life Cycle by producing deliverables and completing tasks. Operational Readiness Review will significantly enhance the Program success by ensuring the End-User environment is production ready. The Wipro/IBM team and MLTC management will work together to develop a readiness program in order to create the desired readiness state. Thereafter, the teams will perform the readiness assessments throughout the Project Life Cycle.

Starting from the initial stage in the CSPMM, the strategy for delivering the End State is shared with the key stakeholders. Key areas of operational change and corresponding potential impacts are identified. With an ORR, usually specific factors are addressed after an initial review of the full system is put into operation. All performance and impact measures will be addressed and documented iteratively. Using the IBM Rationale Suite of Requirements and Change Management Tools (i.e. Team Concert) as well as a dedicated portal-based repository for managing reports and document management, the full ORR lifecycle will be managed and maintained.

Following the creation of the requirements during the Solution Outline, Blueprint, and Micro Design phases of the CSPMM, the teams with the end users appointed to support the MLTC efforts will determine what should be considered end state feasibility. It is at that point when the Operational Readiness Review (ORR) plan is created. The net result is initiating the Configure and Build Stage of the CSPMM. All operational readiness guidelines will be documented concurrently during the Configure and Build stage.

During the Configure and Build as well as Deploy stage, the end state readiness is verified with the end users to ensure full compliance. This enables the Wipro/IBM team or others in the MLTC to identify and resolve project deliverables issues. Testing readiness in the new operating environment with potential adjustments will occur as needed. Once the Configuration and Build stage is initiated, the MLTC staff and clients will be trained based on features deployed to a production environment.

Once the Configuration and Build State of the ***SmartPro MedEE*** project is initiated, operational modifications will be reviewed and approved by the appropriate parties on an incremental basis (i.e. 1-2x per week). Adjustments may occur to the production environment and transfer responsibility to operating managers at any time assuming all features work and are compliant against the standards determined as part of the ORR.

ii. Describe the systems, business processes, and procedures included in the ORR to ensure the system is ready for operations.

By nature, the ORR examines the actual system characteristics and the procedures used in the system or end products operation; the goal is to ensure that all system hardware and software as well as personnel, procedures, and user documentation accurately reflect and understand the deployed state of the system.

The following are typical objectives of an ORR:

- Establish system readiness to ensure through examination. Test results, analyses, and operational demonstrations are the byproducts of the examination.

- Confirm that the system meets all the appropriate standards; the system should be able to meet baseline support requirements in all states of operation (normal, contingency, and unplanned)
- Validate that all system documentation meets the required standards and includes all the necessary system configurations to operate as planned.
- Ensure that training processes and procedures are in place to support all aspects of system maintenance, preparation, operation, and recovery.

Adopting the U.S. DHHS Centers for Medicare & Medicaid Services Enterprise Life Cycle (ELC) Operational Readiness Review standards, the Wipro/IBM team intends to deliver a structured ORR that addresses the following:

- Project Information
  - Background Need
  - Goal/Scope/Purpose
  - Stakeholders
- Actual System Architecture Evaluation
  - Address specific actual installed logical and physical design standards for an application. Explicitly identify any differences between the actual and proposed design in the design review
- Data Conversion Plan
  - Address any data conversion issues for each iterative cycle.
- Validation Results
  - Address assessment factors including test cases planned, test cases run, test cases reviewed, test cases passed, test cases failed, test cases to be run, and test cases held. The results will be broken down by severity/impact levels based on resolved and unresolved statuses.
- Operation and Maintenance Management
  - Any documented standards that are applicable for system operations should be reviewed.
- Performance Measures
  - Project specific areas, categories, and indicators that are pertinent to the system operating successfully.

Training and knowledge transfer are an iterative part of each of the phases described within this section.

iii. Describe the methodology that will be used to fulfill the Department's requirement for working with the IV&V Contractor.

Any large-scale enterprise information system deployment requires independent verification and validation. As a program, such as the one being proposed for ***SmartPro MedEE*** matures,

opportunities for improvement frequently present themselves. Programs that are prepared to capitalize on these opportunities see greater chances for on-time, on-budget success. There are a few things that MLTC leadership can implement to ensure the proposed system works as expected. The Wipro/IBM team has the capabilities to lead such a team on behalf of the MLTC and its IV&V staff. These include:

- Setup a working, regularly meeting Change Control Board (CCB)
- Require transparency between the State, it's IV&V contractor, and the Wipro/IBM team
- Infuse a governance structure that allows decisions to be made quickly (within hours versus days or weeks)
- Setup a tight deliverable management process and adhere to mutually agreed upon deadlines.

Throughout this iterative process, adjustments to the program processes, timelines, or requirements are more easily reacted to early in the program. The State and the Wipro/IBM team should understand that the farther along things are in the SDLC, the more difficult and costly changes will be. To that end, the use of an IV&V contractor is instrumental to the independent verification and validation of all system functionality before it is released for public consumption.

The Wipro/IBM team is committed to working with the State's testing team and IV&V designated staff to achieve the vision and goals set forth for the ***SmartPro MedEE***. We believe a high degree of involvement by State Staff early on in the Test Program provides two important benefits: 1) reduces risk by identifying and addressing issues at an early state in the process and 2) builds a strong foundation for final stakeholder acceptance of the solution.

Our team recognizes the commitment the State has made in having an IV&V partner involved in testing activities and will outline State Staff involvement as part of the Test Plan. Consideration will be given to prepare materials for State Staff such as an orientation, scope including entry and exit criteria, and schedules so that State Staff are utilized as effectively and productively as possible. Such a symbiotic relationship between The Wipro/IBM team, the MLTC, and the IV&V contractor will take place throughout the entire system development lifecycle.

In addition, there is also a significant amount of input required from the MLTC for performance testing in order to produce results that are realistic, meaningful, and acceptable during IV&V. Our team will work with State Staff and IV&V contractor to complete the following analysis activities:

- Identify scope, which would either consume significant resources (long running), or be performed frequently
- Estimate transaction volume for each in-scope transaction
- Estimate of user counts for specific job functions, as well as average and peak daily load

Based on our experience with performance and load testing, the Wipro/IBM team feels that it is important for the State to provide true and timely input in order to set accurate expectations of system performance so that results are valuable, and that the testing activity itself is successful. The State and the Wipro/IBM team will mutually agree upon reasonable performance measures and the range of acceptance, which will be documented clearly in the System Performance Plan and used as a benchmark for performance testing results. Execution and testing of such measures will be validated by the IV&V contractor.

v. Business Process Reengineering

The Bidder must describe its proposed Business Process Reengineering Methodology, which will be the foundation for the Business Process Reengineering Plan and how it will fulfill the Department's requirements while minimizing the disruption to the organization during the implementation of the EES.
The Business Process Reengineering Methodology must have a set of defined processes designed to assist the Department's workforce and other stakeholders in managing change.

a. Describe the approach and methodology that will be employed to assess and reengineer the current business processes;
b. Describe the approach to conducting the Business Process Reengineering Study;
c. Describe the approach that will be utilized to develop recommendations for business process reengineering as part of the EES design;
d. Describe how the proposed methodology will measure the results of a change; and
e. Describe the approach the Bidder recommends for implementation of business process changes associated with the EES in a manner that ensures coordination with training and implementation activities and that ongoing operations are not disrupted.

Successful organizational transformation requires a focused, tightly coupled methodology that incorporates redesign of key processes based on knowledge of the vendor technology capabilities with the application of a systematic approach for managing change across an organization supported by rigorous, disciplined project management.

We propose a top-down approach to taking an organization through the transition from today's current state to a new future state based on Nebraska's overall goals and objectives.

Our process-centric approach, specifically designed to align process and technology, incorporates these key principles in a structured, focused replicable approach. It takes advantage of Cúram-specific workflows and processes based on best practices across multiple clients. The methodology requires identification of key business decisions and other change management issues on the front end of a system deployment, which ensures user engagement and minimizes risks.

This approach focuses on the people side of change that an organization undergoes with the implementation of new case management solution. There is a specific focus on decision making, developing new processes around the technology solutions and providing a mechanism to clearly communicate changes. The BPR team will work closely with the Organizational Change Management Team and Training Team.

Guiding principles include:

- Clear concise understanding of the organization's key business objectives
- Ensuring that the right people are making the right decisions at the right time
- Defining and communicating the future from the top down and implementing organizational changes from the bottom up
- Fully understanding Cúram's potential and capabilities

For clarity of understanding, the change management efforts focus on organization readiness assessment, risk mitigation planning, and organizational preparation by working with the change management and training resources to align efforts around the key efforts to design new processes.

The figure below describes the BPR process that will be used to leverage the ***SmartPro MedEE*** solution to its full potential.

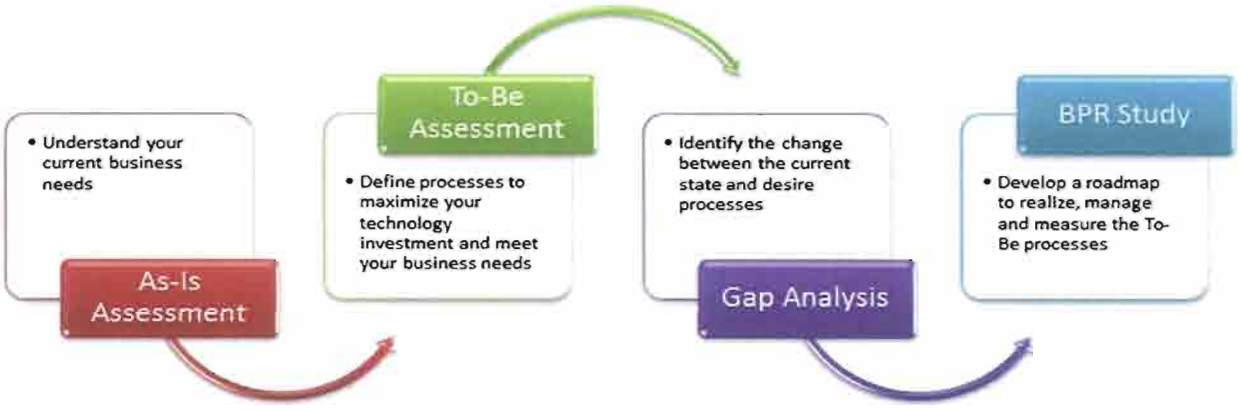


Figure IV-148: Using BPR to Maximize Nebraska's Investment in *SmartPro MedEE*

This section discusses our approach to Business Process Reengineering (BPR), including the tools we will use and how State SMEs and stakeholders will be involved. Based on our experience and knowledge gained from projects of similar size and scope, our team believes BPR activities are an important component in the development of a new application such as the Nebraska ***SmartPro MedEE***. Nebraska's existing Nebraska Family Online Client User System (N-FOCUS) Eligibility and Enrollment System is almost twenty years old. It is likely that the current business processes are also dated. Transitioning to a modern, streamlined application can create unique challenges as well as benefits. The purpose of the BPR activities is to define the "To Be" processes. In order for those processes to be successful, we also need to understand what is changing and who is being impacted.

One of the advantages to building ***SmartPro MedEE*** on an IBM Cúram foundation is the embedded business processes which are configuration within Cúram. This allows the state to examine closely the way other states and government organizations are implementing business processes using Cúram and decide if they To-Be Out of the Box business process is appropriate for Nebraska or needs to be configured differently.

The main objectives of our approach include collaborating with the State to:

- Systematically evaluate current business processes, procedures and interactions with legacy systems
- Define a future vision for the State as it relates to the implementation of ***SmartPro MedEE*** and identify business practices and processes to meet this vision.
- Identify the gap between current (As-Is) and future (To-Be) processes to understand what steps are necessary to move the organization toward the vision including technology, process, organizational, and people changes.
- Document how practices and procedures will need to change to reach the To-Be vision
- Collaborate across teams to manage the change – Organizational Change Management, System Design and Training.
- Develop a Benefits Realization Plan to measure and monitor the impact of the changes.

As-Is Assessment

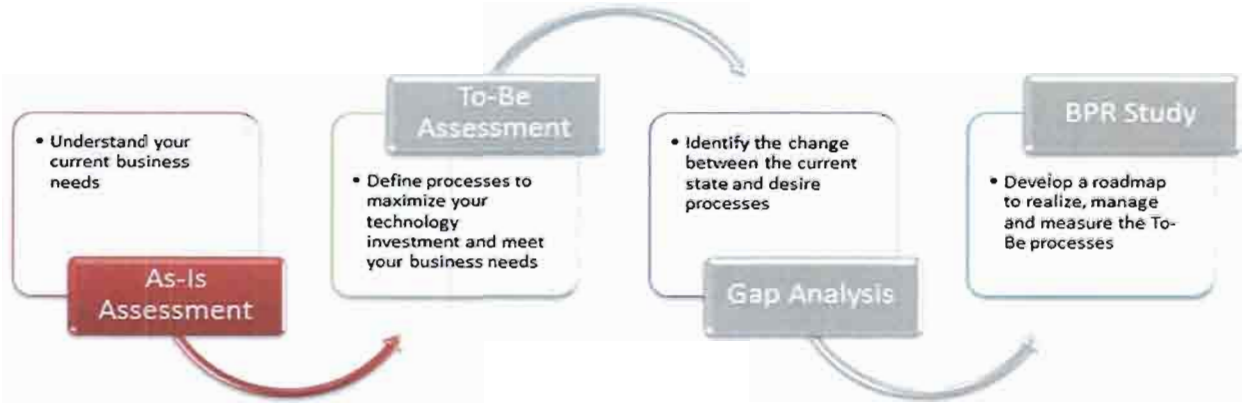


Figure IV-149: As-Is Assessment

The purpose of a high-level As-Is Assessment is to document current business processes for primary functionality and to understand how legacy systems are linked to these processes. Performing an As-Is Assessment accomplishes several objectives including:

- Providing an up-to-date overview of business processes and the relation to legacy systems
- Identifying and documenting key business issues or barriers to change such as legislative mandates, obsolete or ineffective policies, or existing reporting requirements
- Providing support for the business case for change
- Identifying strengths of current processes and opportunities for improvement through the evaluation of existing best practices

The output of the As-Is Assessment will be presented in a Microsoft™ Word document supplemented with Excel tables. The As-Is work product will permit the BPR team to sort and match As-Is data with the To-Be processes and ultimately map to the gaps that are identified. From our experience, we recommend that the team not spend time developing process maps for the As-Is process, since they provide little value to the team. Instead the team focuses on understanding and documenting the current state business needs and processes in templates that will aid the BPR team in the subsequent stages and will serve to communicate the changes to the OCM and Training teams.

Description of As-Is Activities

Review Department Documentation and Walk-throughs. The BPR team will begin by reviewing existing documentation relating to the department's business process and operations. Documents may include policy and procedures, training manuals, previous assessments, process maps or analysis that may help the team better understand the business needs and challenges. The team may also coordinate walk-thus to observe key processes within the department. This is helpful to understand how business is "really" done.

Review Performance Measures. Understanding what the State measures will help the team understand what is important to the State. It will also provide an objective way of verifying how well the processes are meeting the State's needs. Depending on what is available, this data may also help establish a baseline for the Benefit Realization Plan.

Identify Participants, Schedule Work Sessions, and Focus Groups. Our team will work with leadership to identify the subject matter and business experts who should attend the As-Is work sessions. In addition, our team will work with the State to identify potential candidates for focus group sessions, if required. After the work session and focus group attendees are identified, our team will schedule the As-Is Assessment work sessions and focus group sessions. Our team will email agendas and meeting schedules in advance of the meetings so that individuals will have as much notice and information as possible prior to the work sessions.

Conduct Interviews, Work Sessions and Focus Groups. Collection of As-Is information will occur during a series of interviews and full day work sessions for each business process within a business area. Participants should include the BPR team, department staff, and associated internal stakeholders. Our team will request access to relevant subject matter experts for interviews so that the As-Is understanding is complete and accurate. We anticipate conducting up to 10 individual interviews with department staff, 4 focus group sessions, and 6 hours of As-Is work sessions for each As-Is process. After work sessions have been conducted, additional clarification may be necessary and follow up interviews may be sought as appropriate.

Document High-Level As-Is Processes. Our team will document current eligibility related processes at a high-level using a combination of notes, and excel worksheets that capture inputs, outputs, dependencies, or other relationships among sub-processes and activities. As-Is Process, sub-process, and activity data will be maintained in an Access database with a graphic user interface to permit update and retrieval actions.

Validate As-Is Processes with Business Users. We are aware that the department staff are the ultimate experts and will therefore seek their review of the As-Is documentation before moving on the To-Be Assessment. The validation process is a critical step that should maximize the accuracy of the Gap Analysis and begin to prepare the department for change.

Output of As-Is Activities

The information gathered during As-Is work sessions and interviews will include:

- A Word document that decomposes each eligibility business process into sub-processes and activities. Each process and sub-process will be defined in terms of its inputs and outputs, current associated performance metrics and associated forms and reports
- Excel worksheets that detail the relationships between the activities, decision points, technology and user involvement

The outputs will be used to support subsequent stages and will be incorporated into the Business Reengineering Study.



Figure IV-150:To-Be Assessment

After the completion of the As-Is Assessment, the BPR team will begin the To-Be Assessment. The objectives of the To-Be Business Process Assessment are to:

- Establish a future vision that meets the department's objectives and project goals
- Validate existing requirements and determine how they fit with the vision
- Identify and align the To-Be processes and procedures with the vision
- Eliminate inefficient and redundant business processes

Our team will facilitate a series of To-Be sessions with department staff and stakeholders who participated in the As-Is work sessions and additional SMEs, as needed. Building on the work already started around defining system requirements, our team will help define a vision for the future and then validate these requirements in the context of this vision. To help facilitate this process, our team will begin with Cúram out-of-the-box process maps reflecting industry best practices. Leveraging these maps as the basis of the straw maps used in the To-Be Assessment will save the team time and resources that would otherwise be required to create this information from scratch.

Description of To-Be Activities

Prepare for To-Be Sessions. Our team will develop an initial set of high-level process maps or "straw models" based on Cúram OOTB functionality and our understanding of the State's business needs. As part of this activity, our team will also:

- Determine agency-wide functional, operational, and technical requirements that may impact the processes
- Assess potential To-Be processes against industry best practices to identify and address potential deficiencies in the processes
- Determine interface points and dependencies with other processes

The "straw model" process maps will be developed in Visio and will incorporate information from the As-Is Assessment and document reviews. Our team will provide the models to key State SMEs

for their review. We will work together with the SMEs to review, validate, and update the models, as necessary, prior to facilitating the To-Be work sessions.

Identify Participants, Schedule Work Sessions and Focus Groups. Recognizing that personnel with the most in-depth working knowledge of existing processes sometimes may not be the most ideal candidates for developing a new vision for an agency, our team will work with department leadership to identify the subject matter and business experts who should attend the To-Be work sessions and those for discrete focus group sessions. Our team will email detailed agendas and meeting schedules in advance of the meetings so that individuals will have as much advance notice as possible.

Conduct Work Sessions and Focus Groups. To-Be working sessions will include a series of up to 5 interviews and 3-5 full day work sessions for each business process within a business area. After working sessions have been conducted, additional clarification may be necessary and follow up interviews may be sought as appropriate.

Using the "straw models" developed during the preparation phase, our team will conduct To-Be sessions to define "future" processes. During the work sessions, our team will work with participants to perform the following tasks:

- Clearly define the To-Be processes and activities
- Map the processes and activities to potential roles
- Determine high-level measurement criteria for each process
- Define process inputs, outputs, handoffs, and dependencies
- Identify policy or procedural changes that may be required to implement To-Be processes
- Identify any perceived barriers to implementing the new redesigned processes

In parallel to the internal working sessions, our team will facilitate up to 3 focus group sessions, each lasting up to 4 hours. The objectives of the focus group sessions will be to verify, gather input, build consensus, and gain buy-in regarding the To-Be processes. The OCM team will be included in the preparation and delivery of the focus groups.

Document To-Be. Our team will document the To-Be Assessment rigorously using a combination of Visio process flow diagrams accompanied by business process and activity documents that define and explain inputs, outputs, dependencies, constraints, or other relationships among sub-process and activities.

Validate To-Be. Our team will review the To-Be process maps and information developed during the redesign. We will facilitate up to 2 validation sessions per functional release, each lasting 4-6 hours. Based on the outcomes of these reviews, our team will incorporate department approved changes and finalize the To-Be process maps. These finalized process maps will constitute the core of the reengineered processes. Supporting documentation will include process flow diagrams and a detailed To-Be deliverable.

To-Be Output

Each documented To-Be process will include the following:

- Conceptual Process Flow: The conceptual process flow in PowerPoint or Word will describe the process at a high-level with pictures, which reflect the major activities that will occur during each step of the process.
- Process Description: Each process contains a high-level overview of the process.
- Sub-process Details: Each sub-process contains a comprehensive description with key information about the sub-process.
- Sub-process Description: Each sub-process contains a description that provides a comprehensive description of the sub-process.
- Sub-process Goals: Each sub-process identifies the goals of the sub-process.
- Sub-process Assumptions/Constraints: Each sub-process identifies assumptions that the team made in developing the system requirements and constraints that affect the requirements. Often, assumptions and constraints result from policy decisions or procedural changes that may be needed to realize an agency's To-Be vision.
- Process and Sub-process Flows: Each process is explained through process flow diagrams using Visio that separate the process into its component parts and illustrate the relationships between these parts. We refer to these as Level 1 and Level 2. For each, we will provide:
- Data Inputs and Outputs: Inputs and outputs are identified for each of the sub-processes. In some cases, these inputs and outputs are documents or electronic alerts. In other cases they refer to specific data elements. Additionally, this section lists interfaces identified in the sub-process.
- Sub-process Dependency: Sub-processes of the process in question as well as other processes and functions, which contain functionality that is essential to the normal flow of the sub-process. These dependencies do not necessarily represent data flow from sub-process to sub-process. Instead, they represent possible triggers into or out of the sub-process.

In addition to the material listed above, our team will store workshop presentations and materials in a project artifact library for future review and use.

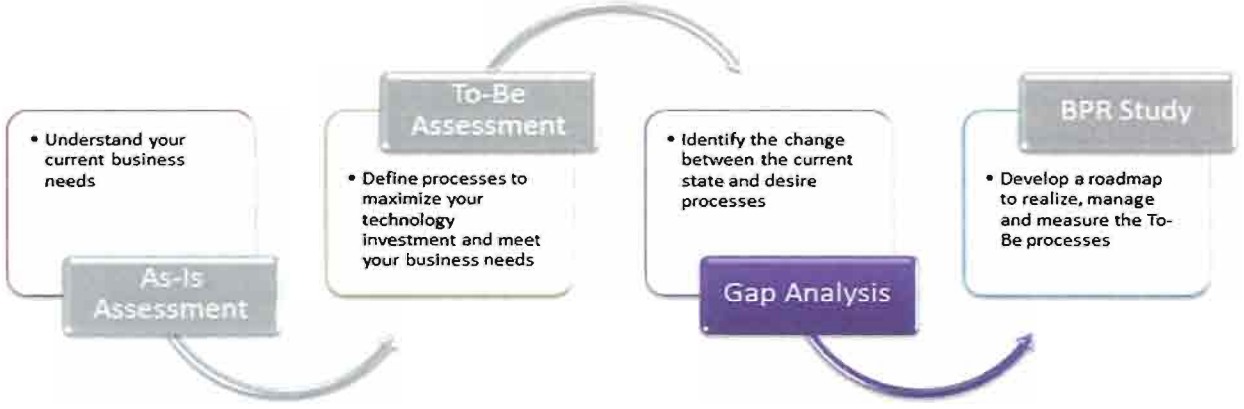


Figure IV-151: Gap Analysis

The Gap Analysis will Identify the differences between the As-Is and To-Be Assessments. Gaps will be prioritized and then used to develop recommendations for business and system process improvements for the associated functionality.

Using the information gathered during the As-Is and To-Be Business Assessments, our team will perform a Gap Analysis to identify the differences between current processes (As- Is) and the processes that will be adopted during the implementation of ***SmartPro MedEE*** (To-Be). The Gap Analysis will serve as the basis for Business Process Reengineering Study. Our approach calls for the documentation of these gaps to occur at the organizational level and focus on the differences in policies and procedures for the major stakeholder groups associated with the organization. The Gap Analysis will include the business and system processes that will need to change to support new business processes, new policies, and the implementation of new technology. The Gap Analysis is a necessary bridge between As-Is and To-Be environments, supporting the finalization of technical and functional requirements.

Members of the Application team will use the Gap Analysis to validate that the system design addresses the changes that must occur to achieve the State's To-Be vision.

Using the documentation from the As-Is and To-Be Assessments, the team will build a table detailing what activities will stop, start or continue with the transition to the new system. This document will provide a clear view of the degree of impact as it relates to each process and to each role. It will be shared with both the OCM and Training teams to help manage and sustain the change. This will feed into the Gap Analysis and be used to create the Business Process Reengineering Study and Recommendations.

Description of Gap Analysis Activities

Prepare for Gap Analysis Sessions. To prepare for the Gap Analysis sessions, our team will analyze and synthesize As-Is and To-Be documentation to a table detailing the activities by process by role that will start, stop or continue with the implementation of ***SmartPro MedEE***.

Schedule Gap Analysis Sessions. Our team will work with department leadership to identify the subject matter and business experts who should attend the Gap Analysis sessions. Our team will email detailed agendas and meeting schedules in advance of the meetings so that individuals will have as much advance notice as possible.

Conduct Benefits/Gaps Work Sessions (includes member of Change team to facilitate the Organizational Impact Assessment). Gap Analysis working sessions will include a series of up to five interviews and a full day work session for each business process within a business area. Participants should include the BPR team, department staff, and associated internal Commonwealth stakeholders. The goals of these sessions will be to reach consensus on the gaps between the As-Is environment and the To-Be vision and to work together to develop a strategy for closing the gaps.

While many of the gaps will be closed via the UC system implementation, strategies for addressing organizational, non-systems related processes, procedures and policy gaps will be identified. Given the potential organizational impacts of the recommended changes a Change team Lead will facilitate these sessions to document the organizational impact of implementing the To-Be visions.

In addition, potential benefits that are associated with the To-Be vision will be identified and assessed during these sessions. Our team will focus on identifying measurable/ quantifiable benefits. These benefits may be used by MLTC in future budget requests or to assist in prioritizing improvement opportunities and quick wins.

Document Gaps. Our team will document the Gap Analysis and potential benefits based on the information gathered during the Benefits/Gap work sessions. In addition, information gathered during these sessions will serve as inputs to the Organizational Impact Assessment deliverable.

Validate Gaps and Benefits. Our team will review the Gap Analysis and benefits results with key stakeholders. Based on the outcomes of these reviews, the Wipro/IBM team will incorporate approved changes and finalize the Gap Analysis and potential benefits.

Gap Analysis Output

The Gap Analysis output will be documented in the BPR Assessment and Recommendations deliverable that is defined at the end of this section.

Gap analysis data will be consolidated in a Gap Analysis template similar to the template that appears below. This template will provide a summary off all gap opportunities and needs. Barriers and benefits to closing the gap will also be identified in the template.

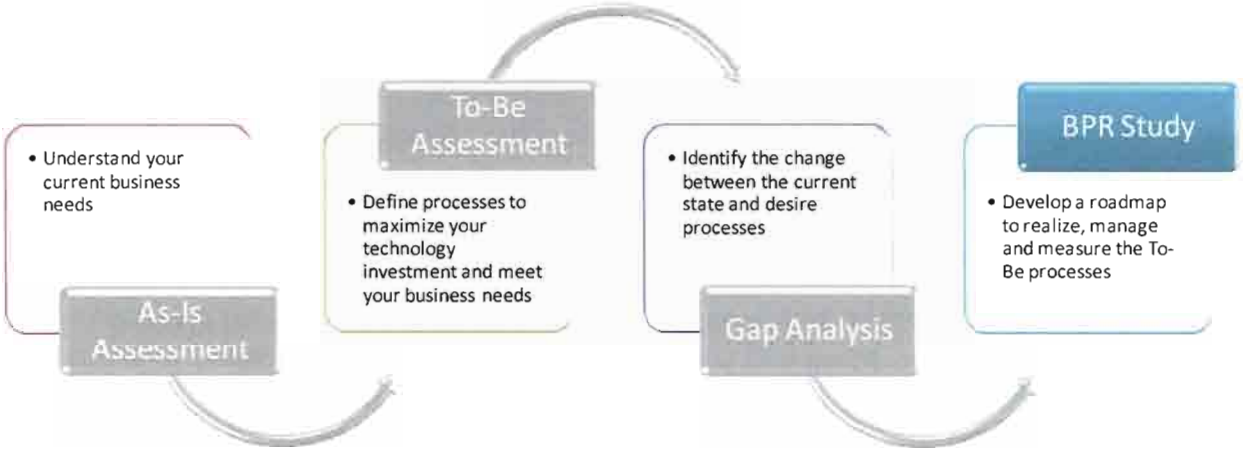


Figure IV-152: BPR Study

The final step in the BPR activities is the development of the Business Process Reengineering Study. The Business Process Reengineering Study will serve as a roadmap for the State to navigate the changes that will result from the BPR activities. This roadmap will provide workflow documentation and will address timing, resource requirements, dependencies, benefits, and constraints. Additionally, it will outline how workflow changes will impact technical staff, program staff, managers and executive staff through identifying duty assignment changes.

The objectives of the Business Process Reengineering Study are to:

- Provide an overview of the workflow documentation for the new processes identified in the Gap Analysis
- Provide a high-level roadmap for the State to understand how the workflow changes will impact current organizational structure to assist in proactively managing change
- Provide the information necessary to manage and sustain the changes
- Define a Benefits Realization Plan to monitor and measure the improvements over time

Description of the Business Process Reengineering Study Activities

Develop detailed workflow documentation. The goal of creating the detailed workflow documentation is to streamline and track the workflow activity based upon work stream and "day-in-the-life" scenarios. The BPR team will document the series of interactions that need to happen to complete the various tasks within each functional release for workers and system users.

Validate Workflows. The BPR team will take into account transitions, variables, work lists, duty assignments, roles, permissions, etc. to develop workflows that are both viable and doable. We will then validate in 2 work sessions, each lasting 6-8 hours.

Revise workflow documentation. We will revise based upon the input from the validation session.

Draft, Submit for Review and Revise Business Process Reengineering Study. Our team will draft an Organizational Recommendations deliverable, submit it for review, and update it accordingly.

Develop the Benefits Realization Plan. Starting with metrics captured in the As-Is Assessment, the team will propose target metrics based on industry benchmarks and Nebraska's business environment. The metrics will be chosen based on how accurately they correspond to the process changes, although availability of data will also be a consideration. The target metrics will include details regarding the method, source and timing for capturing each metric.

Business Process Reengineering Study Output

Particular emphasis will be placed on how to implement the new processes in a manner that will help the State sustain the change. Along with updated workflows, the Business Process Reengineering Study will identify the associated technology, people, and infrastructure recommendations associated with the workflows. These documents are particularly helpful in creating future training modules. This will provide the State with a complete picture of the new practices that will provide staff greater access to information, support decision making and institute more efficient and integrated processes.

The Business Process Reengineering Study will be shared with the OCM team to be used to develop the action plan for managing the organizational changes. It will also be used by the Training team to guide the development of the training plan and documentation. Combined, these teams will provide a complete strategy and action plan for carrying out the recommendations of the Gap Analysis.

BPR and Requirements Definition

During the last To-Be session for each business process, the Application Design team will participate in the To-Be/JAD session to begin to lay the foundation for translating the To-Be processes into detailed system requirements. In this session, the participants will be given an overview of the Joint Application Design approach and the required level of detail to support the requirements definition process.

The initial JAD sessions will begin to identify and classify requirements by type and organize them into meaningful and manageable groups. Establishing different types of requirements will also help team members perform subsequent design and BPR activities.

Our team will then classify requirements into six basic types:

1. Feature
2. Business Rule
3. Decision Table Requirement – included in RequisitePro for reference
4. Actor
5. Use Case
6. Supplementary Specification

Features, Business Rules, Decision Tables, Actors, and Use Cases will be loaded into Rational RequisitePro. Supplementary Specification will be captured in Microsoft Word, Access, and Visio for specific process changes. As the documentation of these requirements is completed, the To-Be processes and associated functional and system requirements will be validated with the State, and communicated to the OCM team. Information gathered during these sessions will provide general requirements, inputs, outputs, necessary data fields, and business rules which will be used to help identify the organizational impacts. A member of the To-Be team will participate in the first full day JAD session.

BPR and Organizational Change Management

Just as the BPR team will work closely to help refine and gather requirements, the BPR team will also be essential to the activities of the Organizational Change Management (OCM) team. The workflows developed by the BPR team will identify existing and changing processes to a level of detail that will allow sufficient understanding assist the prepare the organization for change.

BPR and Training

Implementation is comprised of cultural change management activities, training development and delivery, and site support during go-live. Because the BPR team will have unique knowledge of each of the business processes that are changing, this team will work closely with the Training team to help ensure implementation success.

The BPR team will work closely with the Training team to identify the staff and process impacts that will result from the implementation of ***SmartPro MedEE*** and identify high risk challenges that are in need of mitigation. This Start, Stop, Continue Report developed by the BPR team will allow the Training team to understand where the largest impacts of implementation will occur, thus allowing for the provision of more concentrated support in these areas.

Our BPR team's knowledge of the extent and nature of the process gaps and how they relate to each of the process within the department will be invaluable in completing training planning and activities. This support will include the identification of who needs training and what type of training will be required. Throughout the collaboration among teams, strong documentation will enable traceability from the current processes through requirements, design, and implementation.

Summary

Our team has many years of experience in successfully transforming health and human services clients through technology change and BPR. Our success has been built on leveraging industry leading tools and best practices and, most importantly, never losing our focus on collaborating with our clients so that they may continue to realize the benefits of BPR.

There is no substitute for proven BPR benefits. For example, in a previous engagement, our team and our client have achieved outstanding results from BPR related activities which culminated in creating new business units, issue workflow standards, and issue procedures. Given the importance of BPR and the potential for capitalizing on improvement opportunities, the State's role in the process is critical. Thus, our approach has been developed with the following assumptions:

- The Nebraska Department of Health and Human Services (Department), Division of Medicaid and Long Term Care (MLTC) executive leadership and management will be available for interviews and follow-up meetings to review BPR analysis and recommendations
- MLTC will contribute at least one full-time BPR team lead to the BPR team to facilitate timely decision making and knowledge transfer
- Subject matter experts will be identified during the project initiation and understand and accept the importance of attending BPR sessions which will be scheduled with as much advance notice as possible

In sum, we fully understand the breadth and importance of projects such as the Nebraska Eligibility and Enrollment Solution project. We also stand ready to serve MLTC and the State by leveraging our knowledge of health and human services, Medicaid and the specifics of the Affordable Care Act and our deep tool set and skills in BPR, the foundation for a modern streamlined solution.

vi. Organizational Change Management

The Bidder must describe its proposed Organizational Change Management Methodology, which will be the foundation for the Organizational Change Management Plan and how it will fulfill the Department's requirements while minimizing the disruption to the organization during the implementation of the EES. This Organizational Change Management Methodology must have a set of defined processes designed to assist the State of Nebraska and other stakeholders in managing change.

Wipro/IBM understands that the ***SmartPro MedEE*** project will create change for the Department and its key stakeholders. Department staff will have to learn new business processes and new technologies. External stakeholders will have new opportunities for accessing ***SmartPro MedEE*** via the portal. Wipro/IBM has a proven methodology that has been successfully applied to other system implementation projects such as Utah Medicaid Management Information System (MMIS) to help minimize disruption to the Department and help maximize the benefits from the new system.

In 2013, IBM was recognized as an IDC MarketScape Leader worldwide in organization and change consulting.

In 2008, IBM conducted a survey of over 1000 project managers across the globe to understand the role of organization change management (OCM) in achieving project success. We found that project managers who included OCM as an integral part of project execution doubled their success rate (defined as on-time, on-budget delivery of project objectives) as seen in Figure IV-153. We call these successful project managers "Change Masters."

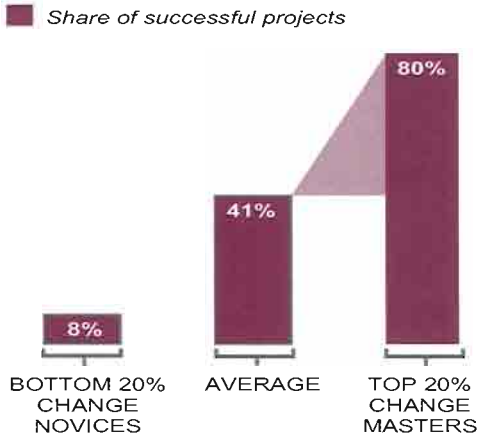


Figure IV-153: Change Masters Achieved Doubled Project Success Rates

Change Masters demonstrated four change-related focus areas to achieve higher success rates as shown in Figure IV-154. Wipro/IBM will leverage all four attributes to help the State of Nebraska ***SmartPro MedEE*** project team members become "Change Masters." In the following sections, we will share with you how our approach to OCM will help the Department become "Change Masters" and apply these change-related focus areas to accomplish the ***SmartPro MedEE*** project goals:

- **Right investment, right impact.** We appreciate that the State recognizes the importance of managing change. We offer detailed plans and recommendations to help you determine the right level of investment of State time and energy to achieve project goals.
- **Better skills, better change.** We teach State staff our approach to OCM. Our approach is built on training and on-the-job mentoring so that the State has the opportunity to layer traditional learning with practice and coaching from an experienced change practitioner.

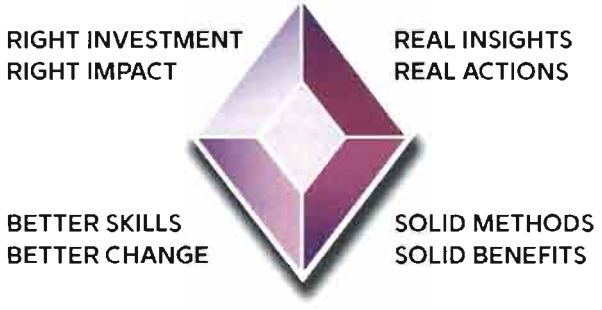


Figure IV-154: Four Attributes to Become "Change Masters"

- **Real insights, real actions.** Our plans are built on a robust understanding of the environment – the opportunities and the challenges – so that we can create the right plans and activities to achieve smooth adoption and approval of the new ***SmartPro MedEE*** and supporting business processes.
- **Solid methods, solid benefits**. Our Better Change method is maintained by a global community of practitioners who consistently incorporate new tools, templates and approaches and engage in a constant learning and sharing process to keep our skills fresh.

Better Change has been recognized as an industry leader and is the approach used within IBM to train our entire global community of project managers on OCM.

a. Describe the approach to Organizational Change Management and the methodology that will be employed to assist the Department to envision the EES and document associated business processes;

The Wipro/IBM team will use IBM's Better Change method as the cornerstone of its OCM efforts. The proven, robust, and extensive tools and techniques that comprise the Better Change method will help the Department realize the full potential of the ***SmartPro MedEE*** during each phase of the project. Better Change is structured around six enablers (the wedges of the hexagon) that drive toward meeting project goals. These activities range from the strategic to the tactical in focus. By using this method, we will help the Department:

- Gain insights and turn them into actions
- Make good use of method
- Leverage current skills to accomplish change
- Invest wisely in OCM to achieve the desired outcomes



Figure IV-155: IBM's Better Change Method

At the center of the six enablers is the value realization where Wipro/IBM will measure the success of the project.

The enablers are each defined in Table IV-42: Enabler Descriptions.

Table IV-42: Enabler Descriptions

Method Enabler	Definition
Change Leadership	Builds and sustains support among project sponsors and leaders, and provides approaches and tools for governance mechanisms to promote project success.
Transformation Strategy and Management	Works to align the organization towards program objectives, covering relevant stakeholders and contributing initiatives, and managing dependencies and conflicting interests across the organization.

Method Enabler	Definition
Organization Design	Supports the State in aligning their organization with new or changed business processes resulting from system implementation. Addresses governance mechanisms to drive new behaviors supporting business results.
Culture Transformation	Enhance organizational performance by creating a shared vision of ***SmartPro MedEE*** implementation goals, designing and deploying interventions that align both the hard-wired (measurements, structures, processes, etc) and soft-wired (mindsets, business practices, behaviors) components, and managing the transition to a new way of working, thinking and behaving.
Communications	The main mechanism, prior to system go live, that establishes awareness and sets expectations among employees to prepare them for the organizational changes. Helps manage stakeholder expectations effectively using a controlled and consistent approach. An iterative process that involves analyzing, planning and implementing actions to build stakeholder support and commitment.
Training and Knowledge Management	Provides a framework to assess and implement required skills and knowledge in a client organization. The OCM team will use this enabler in coordination with the training and knowledge transfer efforts.
Value Realization	Enables the coordination of ideas and effort across program teams to identify, quantify and prioritize benefit opportunities.

Based on our understanding of your goals, we believe the OCM effort to support the new ***SmartPro MedEE*** effort will be built from all six enablers, as well as value realization. As part of Project Start-Up, we work with you to help you understand the activities and tasks that comprise each enabler, the robust tools and templates already designed, and to customize our plan of action to meet your needs. The activities identified in the following sections are drawn from all six enablers.

The following sections describe how Wipro/IBM will leverage Better Change during each phase of the project. The OCM team will work hand in hand with State staff to design and execute OCM activities that support smooth design, enhancement and adoption of the new ***SmartPro MedEE***, and supporting business processes.

b. Describe how the methodology will [assist] in

Wipro/IBM's approach for OCM utilizing the Better Change method will span the entire project lifecycle and cover key OCM activities including change impact analyses, gap analyses, organizational change readiness assessments, and workforce transition activities.

Each phase of the project demands a different set of OCM activities to support it. During the initial project phases, we focus on building a foundation that sets the strategy for the OCM effort and details the activities we conduct in subsequent phases. Before addressing how we will approach the specific activities described in the RFP, we describe what we will do for each phase of the ***SmartPro MedEE*** project. In the write-up for Phase 1, we spend additional time laying out processes or other evidence to support the effectiveness of our approach.

Phase 1 – Project Start-Up

Phase 1 is not only focused on project start-up but also on developing dynamic, tailored OCM plans and approaches. To achieve this, we complete a series of key activities to lay a foundation for change

management across the duration of the project to support effective adoption of the new system and new business processes.

The following sections identify how the activities that come out of each Better Change method enabler link to the various OCM activities.

Change Leadership: We begin with the ***case for change***. A case for change starts with the answer to questions like:

- Why are we implementing the ***SmartPro MedEE*** system?
- Why does this implementation matter to me?
- How do we define a successful project?

By defining the critical success factors with ***SmartPro MedEE*** project leadership and change leaders during project start-up, the OCM team is able to share them across the project team and end users, building a strong case for change and developing a sense of ownership, interest, and even pride in the new system.

Once an understanding of the stakeholders is established, the OCM team designs a change champion network. This network is built from formal and informal leaders who serve as a principal communication mechanism between the project team and the staff impacted by the system implementation. We use the network to gather information, push out information and establish an understanding of the organization's readiness for change.

Transformation Strategy and Management: While the Project Management Office (PMO) is establishing overall project guidance, the OCM team:

- Supports a smooth launch by quickly building relationships with Department project leadership and team members
- Ensures the entire project team understands the case for change
- Reinforces the roles each project team member can play to help ensure successful adoption of the system.

Organization Design: At this stage, the focus is on the project team organization. We work with you to establish integrated OCM team roles and responsibilities. The integrated OCM team consists not only of our consultants, but also of State staff supporting the change management effort. By establishing the OCM roles and responsibilities during project start up, it is clear who must do what and when activities must be completed so that they are executed successfully on a timely basis.

Culture Transformation: We kick off with a Method Adoption Workshop to go through the Better Change methodology, and review tools and templates with State staff. We work with you to identify the specific activities and approach that will be most effective in the State environment and make needed adaptations. By involving State staff in shaping this step, we immediately begin the knowledge transfer.

Change Readiness Assessment: This assessment provides critical understanding of the Department's ability to successfully accept the changes brought about by the NE/EES implementation. This information gathered during this assessment will provide critical insight into the best ways to help manage the changes brought about by the ***SmartPro MedEE*** project.

Change Management Plan: This plan would act as an overall road map for the OCM efforts throughout the NE/EES project. The plan would identify the overall strategy, scope of work, high level schedule, roles and responsibilities, critical success factors, mitigation plans for organizational change management issues, business process improvement opportunities and stakeholder management activities that will be conducted throughout the project.

Communications Activities: To jump start the communication effort and create a baseline expectation with project stakeholders, we support the PMO in developing a project kickoff presentation. Following quickly behind the kickoff, the OCM team will conduct a communication needs assessment. This assessment identifies the appropriate communication channels for system stakeholders, ensuring that the OCM team and eventually the ***SmartPro MedEE*** OCM project team members are able to deliver messages that are pertinent and timely.

We also work with you to complete a Stakeholder Assessment and Analysis. The first step to this assessment is to identify both internal and external stakeholders to an appropriate level of detail and relevance. Once these groups are identified and documented, we gather information for this analysis by conducting stakeholder interviews and workshops to determine their key interests, their perception of the system change, their preferred method of communication (and key messages) and identify challenges or important expectations. The OCM team analyzes this information based on how the stakeholders are impacted by the change, what their reaction is to the change, and the degree of support that will be required by each stakeholder group, and it provides the foundation for a communication management plan.

In order to effectively manage the communication efforts, the OCM team develops a communication management plan to establish the overall communication strategy and make it actionable by driving the strategy down to the tactical level. Within the plan, the OCM team captures the overall scope of the communication efforts, the integrated project team's communication roles and responsibilities, the methods and channels for communication delivery, and a high level schedule.

Communication activities are an ongoing effort. Throughout the project lifecycle, the OCM team will develop communications together in order to maximize the knowledge transfer opportunities and to optimize the messaging for the audience. It is important that communications produced throughout the project life cycle carry messages at a strategic, tactical and personal level. Our process to communication development is illustrated in Figure IV-156: Communications Approach.

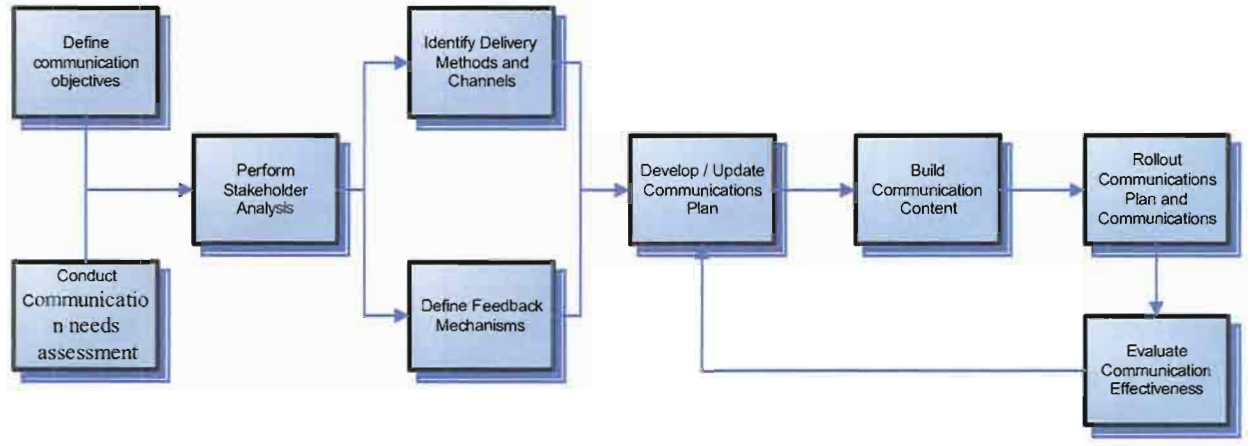


Figure IV-156: Communications Approach

Messaging starts with project sponsors and leadership providing valuable input that helps to make the case for change discussed earlier. Ongoing messaging from the top down with open communication channels that flow both ways are critical for success. By conducting and then acting on the communication needs assessment, the OCM team builds strong communication and feedback channels that branch out across the multiple stakeholder groups.

Part of building this communication network is monitoring the effectiveness of the communications and their delivery methods. As such, the OCM team conducts regular communication effectiveness surveys. The OCM team analyzes the results of these surveys and adjusts the communications and their delivery methods accordingly.

Phase 2 – Requirements Analysis

Once the foundational work has been completed in Phase 1, we move into executing the activities identified in our plans and working closely with the Business and Technical teams to understand how the State perceives change while it learns more about how the system will work.

Change Leadership: Once the Change Champion network has been established, we work regularly with them to keep our fingers on the "pulse" of the organization and provide information to staff. We also make recommendations for project and organizational leaders as to how their engagement helps secure resources, maintain focus and demonstrate commitment to the project.

Transformation Strategy and Management: Throughout the requirements gathering activities of Phase 2, we work with you to complete a change impact analysis. Change impacts are the difference between the "to-be" and "as-is" situations; this documents those changes in a structured and actionable way. The change impact analysis is helpful to understand the degree of change the organization and its stakeholders will need to undergo in order to achieve project goals. The OCM team's understanding of the change impacts comes through participation in the requirement workshops with the State's subject matter experts (SMEs) and stakeholders. The OCM team leverages the results of this assessment to further contribute to ongoing stakeholder analysis.

Organization Design: During requirements gathering we learn the organization's "essential" design element. We begin to understand the difference between how the organization and its stakeholders

conduct business now and how that will change, and can develop initial recommendations on skill sets and business practices that will be essential for project success.

Culture Transformation: Requirements gathering also offers insight into the culture of the organization and current priorities and business practices. This is an important baseline for follow-on activities in later phases to shape new business practices.

Communication: By interacting with the stakeholders and SMEs, the OCM team continues to build on its stakeholder assessment conducted in Phase 1. This may drive changes to the Communications Plan. After updates are made to both plans, the OCM team begins its ongoing communications efforts, sending out messaging to the stakeholders through the communication channels identified in Phase 1 and updated in this phase.

Phase 3 – Design

In order to keep abreast of design changes that may impact the organization and the baseline change impact analysis, the OCM team participates and may help to facilitate design sessions.

Change Leadership: The role of Change Leaders is very important during design. Every project runs the risk that one of its groups will be disappointed when it does not get the design it wants. Change Leaders keep the organization focused on priorities and help those groups understand how they can still be successful even when the design was not their first choice. The OCM team offers talking points and recommendations on communication and engagement so that Change Leaders can keep those groups supportive of project goals.

Transformation Strategy and Management: Governance becomes an essential activity during design. We closely support the PMO through the process or identifying and resolving design issues, escalating for resolution as appropriate, so that the State's final design is closely aligned to its original vision

Organization Design: During Design, we link what we learned during requirements to the system design to understand the key process changes and make recommendations for how the organization should adjust. Recommendations may cover the organizational structure, job or role definition, or governance mechanisms.

Culture Transformation: After the design sessions, the OCM team supports the functional and technical teams with the development of draft user manuals, desktop procedures, and operation guides. As processes are finalized during design, we identify the business practices necessary to support the new system. Through many system implementations, we have learned that staff can easily choose between the "right" thing to do and the "wrong" thing to do; the harder choice is between two rights. We work with you to explore how "rights" can come into conflict in certain circumstances (e.g., the balance between cost efficiency, customer service and achieving process performance goals) and design training to help staff understand the desired business practices.

Communication: The OCM team is heads down during this phase conducting ongoing communications activities, to include sending out a Communication Effectiveness Survey. This survey is sent to a sampling of the stakeholders and establishes a baseline understanding of the efficacy of communications provided to various State staff to this point of the project; by conducting ongoing effectiveness surveys, the OCM team and supporting State resources can tailor the

communications to reach peak value over the lifetime of the project. Any changes identified because of the effectiveness survey are captured in updates to the Communication Plan.

Phase 4 – Development

Change Leadership: During Development, Change Leaders generate excitement and interest in participation during testing. We support the Change Leaders by developing talking points to share key points of the now-completed design and any updates to the timeline.

Transformation Strategy and Management: The Development phase is an excellent opportunity to revisit the change impact analysis so that it accurately reflects the completed design.

Organization Design: Once design is finalized, we finalize a set of recommendations on adjustments to the organization or job and role design to reflect the new way of doing business.

Culture Transformation: Throughout development, the CM team continues to support the functional and technical team with drafting system documentation, including the finalized Operations Guide in order to understand the ongoing change impacts to the organization.

Communication: We continue to refine and adjust communications based on feedback received through the communication effectiveness survey and to manage project communications to reflect accomplishments during this phase. The updated change impact analysis informs ongoing stakeholder communications.

Phase 5 – System Testing

Change Leadership: This is an excellent time for the OCM team to work with the stakeholder groups to understand the ongoing pain points and to energize the Change Champion Network to address the pain points and reinforce the case for change.

Transformation Strategy and Management: The OCM team supports the project testing team by developing test scenarios based on business process and system use cases. The OCM team will leverage its understanding of the State business processes and stakeholders to drive the creation of relevant test scenarios. This knowledge is based on the OCM team's work through the previous phases and the help it provided to the functional and technical teams as user manuals and desktop procedures are finalized.

Organization Design: During both System Testing and User Acceptance Testing (UAT), we look for opportunities to test or pilot organizational changes and identify human resource, labor management or other issues associated with organization design.

Culture Transformation: Both Testing phases are times to engage with the user community, not just as testing participants but also to deliver training on the new business practices. It provides context for the system training to follow in later phases.

Communication: As system testing kicks off, the OCM team ramps up the ongoing communications to the stakeholder groups participating in UAT. These communications are designed to excite the UAT testers about their opportunity to see the system and work with it prior to Go-Live. The communications continue to detail the change impacts and provide this understanding to the end user population. These communications also act as a form of knowledge transfer, helping to prepare

the users for what they will see when they interact with the new system. This circles back to the OCM team's work to help finalize the manuals and desktop procedures; the OCM team leverages these procedures to help build the relevant communications.

Phase 6 – User Acceptance Testing

Change Leadership: We work with Change Leaders to position them to generate enthusiasm and interest in participating in User Acceptance Training (UAT). They have an important role in discussing the results of testing and reinforcing the importance of the user perspective by highlighting changes driven by UAT.

OCM support of the UAT process is a critical factor in setting and understanding the expectations of the stakeholders. During System Testing, the OCM team will help the business and technical teams to create UAT scenarios for UAT and begin messaging activities to involved stakeholders and State personnel. During UAT activities, the OCM team monitors stakeholder feedback and adjusts any planning for future change management work, updating the Change Management Plan if necessary to reflect these changes.

Transformation Strategy and Management: The OCM team works across the stakeholder groups to balance participation and representation on the testing teams. By managing expectations, we help each group feel that they had a meaningful role in shaping the final system.

Organization Design: We continue to work through the implications of recommended organizational changes and prepare for implementation.

Culture Transformation: We continue training the workforce on the desired business practices so that they are ready for system training.

Communication: Based on what we learn during UAT, we share results with the broader stakeholder community to help them understand not only what worked well, but the adjustments the project team is making in order to bring the system in line with State needs. We continue to adjust the Communication Plan.

Ongoing communications continue heavily through this phase, gradually losing focus on testing and focusing instead on the upcoming implementation and go-live of the system. The ultimate goal of these communications is to provide for a successful readiness assessment when it comes to stakeholder readiness.

Phase 7 – Operational Readiness Assessment

Change Leadership: We work closely with Change Leaders to position the organization for the final push to implementation. Using the results from the Operational Readiness Assessment, we leverage their leadership to move the organization forward to close any readiness gaps.

Transformation Strategy and Management: The essential activity during this phase is the Operational Readiness Assessment itself. Leveraging templates we used on other projects, we tailor an approach that starts with the results of the change impact analysis (so we understand the magnitude of change for the affected groups) and then looks at readiness for the people, processes, the technology and other identified important resources. The Assessment itself crosses the Business, Technical and OCM teams. Examples of the kinds of questions we seek to answer are:

- Do staff have the information they need?
- Were the new processes communicated and trained on? Are job aids easily available?
- Is a support network in place? Are super users deployed across the organization and easily accessible? Is the help desk protocol well-defined and communicated?
- Have any necessary computer upgrades been completed?
- Can the IT network handle anticipated changes?

Based on the outcome of the readiness assessment, the OCM team quickly identifies and executes change interventions designed to address readiness weaknesses.

Organization Design: We work with the organization to identify and address any remaining challenges to implementing organizational design recommendations.

Culture Transformation: Part of our readiness assessment is an evaluation of the organization's readiness to adopt the new business practices. We recommend and support implementation of a set of adoptability and performance metrics to understand if we are "moving the needle" following implementation.

Communication: The OCM team focuses their ongoing communication efforts during this phase on understanding how ready the stakeholders are for the system to be implemented. As such, the OCM team folds their Communications Effectiveness Survey into the overall Project's Readiness Assessment. By understanding how effective the communications have been to date – and again, tuning communication to address the challenges of getting ready for a go-live - the OCM team understands stakeholders' feelings regarding the system implementation. The analysis of the communications effectiveness assessment drives updates to the Communications Plan.

Phase 8 – Implementation

Change Leadership: When learning a new system or a new skill, we naturally get slower before we get faster and begin to see the benefits. We work with Change Leaders so that they can help the organization understand that this is a normal learning evolution and to keep staff on track practicing their new skills so that they reach desired levels of performance.

Transformation Strategy and Management: One main focus for the OCM team is the team's support of the PMO to finalize the Transition Plan. While the majority of the Transition Plan focuses on the turnover of the system, it is imperative that OCM activities and communications continue on beyond the implementation and transition phases.

Organization Design: We support implementation of organizational changes and make recommendations to address issues and challenges as they arise.

Culture Transformation: Using the performance indicators established during Phase 7, we measure if we are "moving the needle" with regard to adopting new business practices and achieving performance.

Communication: The Operational Readiness Assessment from Phase 7 drives refinement of communication during the Implementation. We support an increased level of ongoing communication throughout the implementation phase, focused on providing stakeholders with go live information and further knowledge transfer and training opportunities.

i. Assessing the impact of change upon jobs, roles, workflows and skill requirements needed to ensure successful deployment;

Within the OCM phase approach described above, the OCM team will conduct a Change Impact Analysis aimed at assessing how the changes resulting from the ***SmartPro MedEE*** implementation will impact jobs, roles, workflows, and skills. Starting in the Requirements Definition phase, the OCM team will work closely with the Business teams to understand the current processes and the changes resulting from the future ***SmartPro MedEE*** processes. This analysis will allow the State to understand the degree of change the organization will need to undergo in order to realize the benefits of the system. In order to do this assessment, the OCM team will:

- Identify the change impacts by participating in the requirements sessions and subsequent design sessions. The team will work with the Business teams and State SMEs to fully understand the nature of the change. It will be critical to involve the needed stakeholders to accurately identify the scope and extent of changes.
- Document the changes according to the type of change, including change to jobs, roles, workflows, and skills. This documentation will be shared with other aspects of the project, including training, to help in the development of needed training, knowledge transfer, and testing scenarios.
- Develop Change Impact Action Plan that identifies the specific activities that should be done to manage the changes to the staff resources. The OCM team will work with each affected organization to ensure that the needed actions take place to meet the roll-out of NE/EES functionality, processes, and workflow.

ii. Performing the Business Process Gap Analysis;

The OCM team will work closely with the BPR team to identify and manage any process gaps. As described in Section IV.b.v, the BPR team will develop stop/start/continue sheets to identify how business processes will change as a result of ***SmartPro MedEE*** implementation. The OCM team will take that information and conduct a change impact assessment to determine how the process gaps will affect the people and organization. For example, will it necessitate changes to job roles, organization structures, governance, and/or skills. The OCM team will coordinate this analysis with the Training team in cases where new skills and training are needed.

The OCM team will develop recommendations for addressing the change impacts resulting from the BPR efforts. At a minimum, the recommendations include communication with the workforce to tell them how the processes are changing and how their jobs will change as a result.

iii. Performing organizational readiness assessments; and

The OCM team will conduct an organizational change readiness assessment to understand the ability of the organization to successfully achieve the changes brought about by the NE/EES implementation. In particular the change readiness assessment is a 'health check' that identifies, evaluates, and assesses the readiness of the Department and its key stakeholders to change. It gathers information on the current state, identifying actual versus desired characteristics to the organization's capability to change, gathering information on the risks, impact areas and resistance issues. The assessment gauges the level of awareness, understanding, and commitment to the NE/EES project and helps identify actions needed to manage stakeholder expectations.

The OCM team would conduct the change readiness assessment at the beginning of the program during the Start-up Phase to establish a baseline. The change readiness recommendations will be implemented during the life of the project with an additional assessment repeated prior to go-live in order to ensure readiness.

iv. Planning and conducting workforce transition activities

A critical activity in the Organization Design enabler is transition management to ensure that the organizations, functions, and people move in a planned manner from the current structure to the new, NE/EES structure. Successful transition is achieved by defining the transition strategy, planning the activities needed to implement the agreed strategy, developing an integrated plan with milestones and interdependencies, aligning resources to support these activities (and those of business-as-usual), and managing progress while implementing risk mitigation activities where required.

The OCM team will develop the transition management plan in two phases: defining the strategy and then developing a detailed plan to include tasks, duration, due date, resources and dependencies between the tasks. The transition activities will involve both internal and external stakeholders and will rely heavily on communications about the NE/EES project and the changes taking place.

c. Describe identification of any potential organizational issues anticipated with the implementation of the EES and describe how these will be addressed through its Organizational Change Management Methodology;

Throughout the project, the OCM team will continuously look to anticipate potential organizational issues arising from the NE/EES implementation. At project start-up, the OCM team will develop the Change Readiness Assessment that will provide critical understanding of the Department's ability to successfully accept the changes brought about by the ***SmartPro MedEE*** implementation. This understanding will allow the team to anticipate issues that may occur. The Change Management Plan will then outline the overall strategy and individual actions or efforts that will be used to address and mitigate these potential organizational issues. As an integrated part of the overall Wipro/IBM team, the OCM team will continuously evaluate and mitigate any issues that arise during the lifecycle of the project.

d. Describe the plans to evaluate the changes necessary to the Department's business processes in order to benefit from the EES being proposed;

The OCM team will work closely with the BPR team during the requirements analysis and design phases of the project to ensure that the benefits from the new ***SmartPro MedEE*** system will be enabled through needed business process changes. For example, we have found on other Medicaid system implementations, that individuals are very attached to handling paper and paper-based processes. Since most, if not all, paper-based processes will need to change in order to realize the benefits from a system like ***SmartPro MedEE***, the OCM team will not only identify those needed process changes and also ensure that the individuals are ready and able to successfully do their jobs using the new system-enabled processes.

Through its Change Impact Analysis methodology described in section 4.2.6.2.1 above, the OCM team will fully assess the needed business process changes as well as understand the impact these changes will have on the people, organization, and workflows. This analysis will be used as the foundation for the Change Impact Action Plan that identifies the specific activities that should be done to manage the needed business process changes.

i. How will business processes benefit from workflow, business rules engine and/or content management be identified;

Within the JAD sessions and captured in the Business Process Reengineering Study, the integrated project team will identify new business rules and workflows that will enable maximum benefit from the new ***SmartPro MedEE*** business processes.

The OCM team's focus during the as-is assessment process is to identify potential organizational issues and outline the steps needed to ensure the workforce is able to use the new business processes. The team will also help identify the right subject matter experts and decision makers are involved in the efforts to ensure the optimum workflow and business rule decisions are made. Communications will be a key element of these efforts so the workforce is aware of the changes and how it will improve the business processes.

ii. How will recommendations be made regarding changes to these business processes; and

The future state processes developed during the to-be assessment phase of the business process reengineering efforts will be reviewed and validated with key stakeholder groups. The resulting recommendations will be included in the straw models developed in support of the to-be assessment. The OCM team will help ensure that the right stakeholders are involved in both the validation and approval processes by incorporating the results of its stakeholder analysis into the effort.

In addition, as outlined in 4.2.6.4, and in conjunction with the BPR team, a Change Impact Analysis will be validated with key subject matter experts and then be presented to project leadership to show the impacts of the business process changes on the people, organization, and workflows. Presenting these change impacts to relevant stakeholders will allow for useful dialogue between the State and the OCM team and will guide the plans for successful adoption of new business processes.

iii. How will the Contractor's organization and staff be used to implement these recommendations;

The OCM team will be used to help communicate change findings and facilitate change recommendations through an active dialogue with relevant stakeholders. The OCM team, prior to go live, will establish awareness and set expectations among employees to prepare them for the organizational changes. Wipro/IBM will ensure that stakeholders' expectations are managed effectively using a controlled and consistent approach. It is an iterative process that involves analyzing, planning and implementing actions to build stakeholder support and commitment. This approach falls under the Stakeholder Engagement and Communications Strategy enabler.

e. Describe the staffing organization and how it will provide assistance to the stakeholders with regard to the identification and definition of their functional requirements;

The identification and definition of functional requirements will be done by the Business Analysts during the as-to be assessment and the to-be assessment. This will be led by the business process reengineering efforts. The participants will follow the business process reengineering methodology

for identifying and defining functional requirements. The OCM team will participate during this process to identify key stakeholders and make sure they are included in the functional requirements identification and definition process. The Stakeholder Assessment and Analysis begun during the Project Start-up Phase will help drive the participation in this process. The OCM team will also ensure an appropriate level of communication with stakeholders about the functional requirements process.

f. Describe how the Organizational Change Management tasks integrate with Requirements Gathering, Business Process Gap Analysis and Training;

The OCM resources will be involved in the JAD sessions and the documentation developed from these sessions will be shared with the OCM team. A key result of the JAD sessions is to identify potential job changes and organizational pain points. In addition, the OCM team will integrate with the training team to identify areas where skills development and training is needed to help prepare the workforce to use the new processes and technology.

g. Describe how the proposed methodology will measure the results of a change

The OCM team will apply the value realization enabler to measure the results of change. The proposed methodology will measure the results of the ***SmartPro MedEE*** project through the amount of value provided by changes in such areas as business process, workflow, and user interface. Value realization enables the coordination of ideas and effort across the various ***SmartPro MedEE*** project teams to identify, quantify, and prioritize benefit opportunities. Value realization facilitates the development of a business case which is updated throughout the project life-cycle and which drives project decision making. Value realization assists in identifying benefit owners and engaging them in the project to develop and implement the plans necessary to realize and track value opportunities. The value realization process originates with identification of intended project values. It establishes a business case to document and quantify the benefits, costs, schedules, and assumptions required to implement the ***SmartPro MedEE*** project.

The OCM team will also be involved in value tracking, which goes past the project's implementation. The process should be focused on learning from experience and identifying new benefit opportunities to be enrolled in the value realization process. Value tracking occurs so that the client can confirm that the overall project is a success. Value tracking helps make the process of changing more concrete and target driven, which helps client organizations to make decisions and move on. It reduces the emotional influence which often stymies decision-making and value achievement.

In addition to measuring the overall result of implementing ***SmartPro MedEE***, the OCM team will employ ongoing tools and techniques to measure the results of its OCM activities. These efforts will be included throughout the project phases and will take the form of ongoing communication effectiveness surveys and change readiness validations.

vii. Training

Describe our proposed Training Strategy, which will be the foundation for the Training Plan and how it will fulfill the Department's requirements while minimizing the disruption to the organization during the implementation of the EES

The Wipro/IBM team provides a blended training solution for the State of Nebraska ***SmartPro MedEE*** users and the Department's project staff involved with the rollout. A holistic training solution will be designed such that the required knowledge of the new solution will be an essential component the State of Nebraska Department's overall organizational environment.

The program includes training for 400 employees that perform Medicaid eligibility related duties throughout the State of Nebraska identified in Section I. Training of the RFP. The curricula for ***SmartPro MedEE*** users will be role based and the role will determine how training will be delivered to the user.

To appropriately target training, the Wipro/IBM team will work with the Department to define the number of employees who require training, by local office location and job category. Solution users will receive training on all aspects of functionality, features and benefits learning how to perform tasks efficiently within the new system in order to mitigate risks associated with inability to effectively service clients due to a lack of understanding of the new system.

To minimize the impact on the end users' day-to-day activities, role-based training and a variety of delivery methods will be used with targeted users. The Wipro/IBM team will design, develop and deliver a role-based end user training curriculum with input from Department staff. Training will be delivered using a blend of delivery methods.

To support the introduction of the new ***SmartPro MedEE*** solution into the Department's overall organizational environment, items such as ongoing availability of leading-edge training materials, skill competency lists, job role descriptions, and job evaluation criteria will be used to support this objective.

Our Qualifications

The State will benefit from Wipro/IBM's leadership in designing and implementing training solutions. We are very proud of numerous industry awards and recognitions from organizations such as Brandon Hall Training Research, Chief Learning Officer (CLO) magazine, and the American Society for Training and Development. IBM was named on TrainingIndustry.com's list of Top 20 IT Training Companies for the fourth consecutive year and has held a place in Training magazine's "Training Top 10 Hall of Fame" since 2008. IDC global market intelligence firm recognized IBM as the largest technical trainer in the world.



Figure IV-157: Industry Awards and Recognition

IBM has over 75 years of experience in training and is the world's largest training provider with over 3,000 skilled learning consultants and practitioners and over 10 content development facilities around the world. Our instructional design professionals possess deep experience designing and delivering blended training for complex implementations to large, geographically dispersed audiences. In the past three years alone, we developed and delivered hundreds of ILT, WBT and Webinar courses and over 165,000 hours of training to clients within the public sector (Army, Navy, Department of Energy, Veterans Administration, Customs and Border Protection, Michigan State University).



We practice what we preach and provide extensive technical, soft skills and project management training to our employees. IBM consistently invests in employee development as consultants and experts in their fields. One way IBM does this is by creating an environment conducive to learning opportunities and career growth. The IBM e-Learning portal hosts thousands of courses which teach everything from project management to technical solutions. An average of two weeks of technical or professional training per year is built into work schedules to foster learning. Skills development programs provided by IBM include regular attendance at industry and technical conferences, and long term and short term development plans that include project-specific goals, professional mentoring, and professional certification. As a result, IBM delivers the most capable and qualified personnel to our customer engagements and that same quality will be brought to the State's project.

Training Strategy

a. Describe the proposed Training Strategy based on its understanding project goals, the Contractor's proposed solution, and the Contractor's own experience with comparable EES projects. The Bidder must propose a Training Strategy that is the basis for the Training Plan deliverable. The Training

Strategy must demonstrate that the Contractor has a clear and comprehensive understanding of the State of Nebraska's training requirements, the training-related tasks that are needed to support this project, and the Contractor and Department roles in those tasks.

Wipro/IBM will develop a training strategy for the ***SmartPro MedEE*** deployment by applying IBM's proven and award-winning methods and tools to design and deliver a comprehensive blended solution and end user learning experience that maximizes student retention and reduces time to competency.

IBM's training methodology is based on the well-established ADDIE (Analysis, Design, Development, Implement and Evaluate) ISD (Instructional Systems Design) approach. Figure IV-158 shows the ISD phases and representative tasks that are performed in each phase. The tasks listed under each of the phases are representative and not all-inclusive.

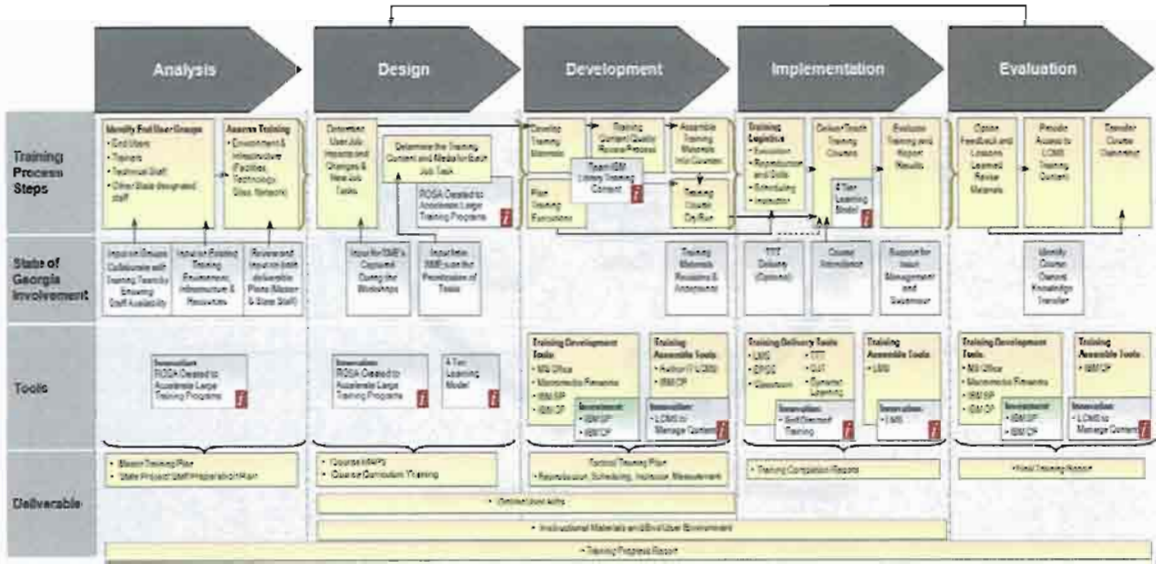


Figure IV-158: IBM's Training Methodology

IBM's Rollout Strategy Analysis (ROSA) for cognitive and procedural task analysis and IBM's Four-Tier Learning Model for media and instructional delivery selection are also proven methods that enhance the precision of the ISD process to help us achieve optimal results for the State of Nebraska's EES implementation and are discussed in further detail in Section 4.2.7.2 – Proposed Training Methods.

We apply our training design process expertise along with thorough knowledge of courseware, industry standards, and adult learning principles to create programs to meet the widest range of learning such as visual, aural, verbal, physical, social, and intrapersonal. Our role-based curriculum approach will provide the State of Nebraska EES users with the training they need, when they need it, and in a manner that is least disruptive to their ongoing job responsibilities.

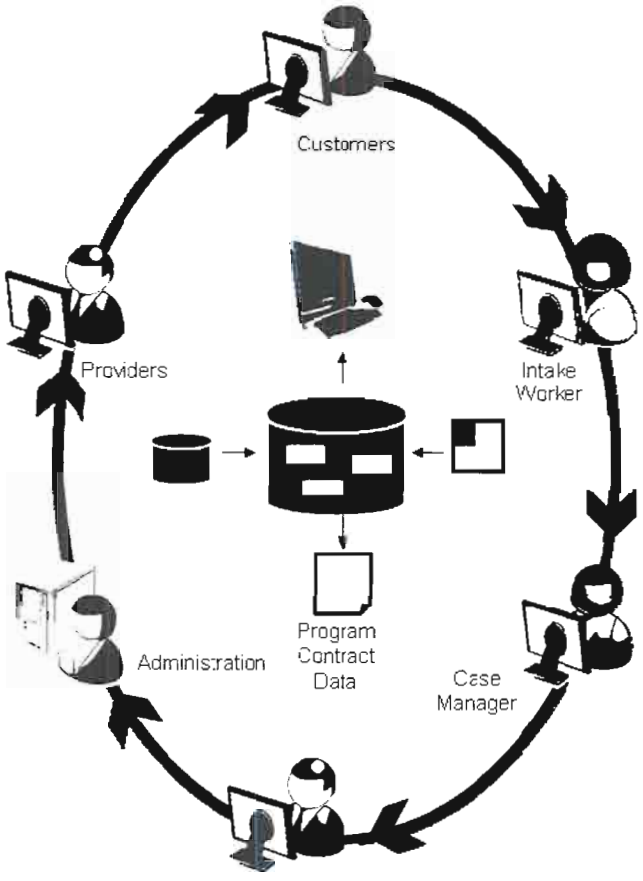


Figure IV-159: IBM's Training Methodology

Our experience in supporting numerous system implementations has resulted in several key observations about how best to prepare end users. We will incorporate the following into our training design as appropriate.

- Focus conceptual learning on business process and the desired outcomes – While learning to execute a task is important, adult learners need to know why it is important to do things in a new way and to understand their role in the overall business process.
- Provide on-the-job guidance for executing tasks – In class, end users will learn how to access and use the documentation they will have available back on the job. In addition to hands-on practice in class using a training database and exercises to gain confidence with EES, they also become familiar with the tools they will have later to guide them.
- Teach "a day in the life" – Adults want training to focus on their specific job roles and tasks, and they want exercises and practice using data that is representative of what they will use back on the job. This is the best way for them to transition what they learn in the classroom to what they do on the job. For this reason, our training design will concentrate on what end users will be expected to do in their specific jobs and the types of scenarios they will typically face.

The IBM team has successfully applied these insights on many successful case management information system implementations, including Colorado's child welfare information management

system, Colorado's Benefits Management System (CBMS), Ohio's child welfare system, Tennessee's eligibility determination system, Tennessee's child welfare system, and California's Case Management, Information and Payroll System II (CMIPS II).

Proposed Training Methods

b. Describe the proposed methods to be used to develop and deliver training to end users;

IBM will utilize its cutting edge ROSA and Four Tier Learning Model methodologies to develop and deliver innovative training to solution users

IBM's ROSA is our method and process for instructional systems design used to enhance our ability to identify and map recommended training and support strategies, design learning that is targeted, useable, and blended, select the most appropriate learning strategies and delivery formats, prioritize training and performance support needs, and provide the right learning content for each job role using the best delivery approach. IBM's ROSA has been successfully used at the Federal Emergency Management Agency (FEMA), U.S. Navy, U.S. Air Force, and Centers for Medicare and Medicaid Services (CMS). Recognizing that there may be multiple courses and training interventions required, the Training Design Document explains who, what, when, how, and why of each course and intervention. *(IBM's ROSA is discussed in more detail in section 4 Training Plan.)*

IBM's award-winning blended Four-Tier Learning Model has had proven effectiveness in the design and development of learning solutions. Each Department employee receives elements of each of the four tiers to create a comprehensive learning experience that maximizes student retention and reduces time to competency. The blended IBM Four-Tier Learning Model replaces or supplements traditional learning strategies and learning theory with real, applied "blended solutions" that match the type and level of learning experience required with the most appropriate training strategies and supports and establishes Industry Standard and Best Practices. In this regard, IBM may be considered and is viewed as a leader in blended solution design and development. Because the IBM Four-Tier Learning Model incorporates a large choice of learning interventions, Instructional Designers are able to analyze the organization requirements to determine the most effective solution using any number of these interventions to best meet the business, learner, and performance objectives. IBM's Four-Tier Learning Model is depicted in Figure IV-160.

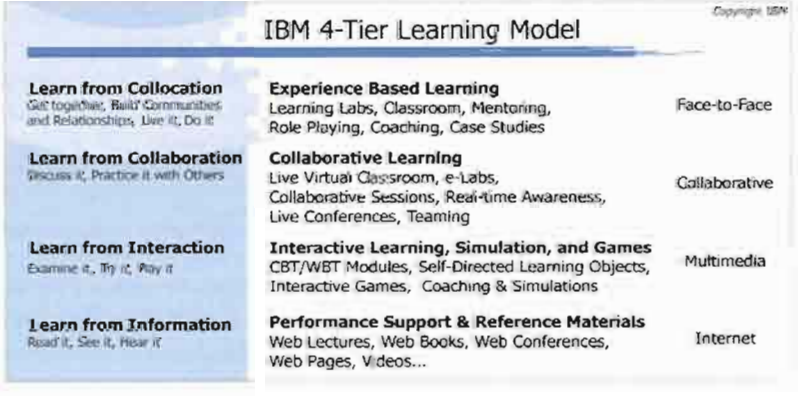


Figure IV-160: IBM's Four-Tier Learning Model

IBM's enhancements to the ISD model yield a more robust training development approach for State of Nebraska's EES, the benefits of which are listed in Table IV-43.

Table IV-43: Benefit to the DCH's IES Program

ISD Method Phase(s)	Key Features	Benefits to the DCH's IES Program
Analysis	Analyze Learning Needs/Audience and Environment	Perform learning needs analysis by systematically determining goals, identifying discrepancies between actual and desired conditions, and establishing priorities for action. (IBM's ROSA and ISD Model)
Design	Advise on Learning Solutions	Provide advice and guidance on the various learning system solutions and options appropriate for closing critical skill gaps. Apply knowledge of current learning software, systems, trends, system standards, and independent learning systems vendors and products. (IBM's ROSA and ISD Model)
Design	Develop Learning Objectives and Course Structure	Create clear, testable objectives that serve as the primary guide in determining what you include in the content, whether the solution produces knowledge or performance, how the effectiveness of the solution is measured, and the media selected to deliver the solution. (IBM's ROSA and ISD Model)
Design	Apply Adult Learning Principles and Theories	Apply adult learning principles to create the learning experience. Perform according to key elements of effective adult learning including respecting the learner's: need to know why they should learn a subject or skill; need to share in directing their learning; need to bring their own experiences to the learning. (IBM's Four-Tier Learning Model and ISD Model)
Development	Apply Learning Facilitation Techniques	Apply learning facilitation techniques for a specified curriculum area in which the facilitator has specialized subject matter knowledge and/or practical experience. (IBM's Four-Tier Learning Model and ISD Model)
Development	Apply Principles of e-Learning and ILT Development	Follow these principles for developing e-learning and instructor led training, as appropriate to each: (1) Apply technical writing and creative writing principles to write the events of instruction that are included in the design of the course. (2) Apply creative writing strategies to write components that motivate students. (3) Write components and sequences using and adhering to the navigation design standards of the instruction. (4) Apply creative writing and test their knowledge whenever they want a progress check. (IBM's Four-Tier Learning Model and ISD Model)
Development	Apply Principles of e-Learning Design	Apply creative and theoretical concepts to design the primary components of e-learning. Apply principles in the design of learner interfaces that minimizes memory burden, minimizes errors, minimizes effort, and promotes features without interfering with learning the target skills. Design content structure and sequencing by defining what happens, how it happens, and when it happens. Design navigation that provides critical services, such as the ability to preview and personally assess what can be learned; determine how much has been accomplished and how much remains to be

ISD Method Phase(s)	Key Features	Benefits to the DCH's IES Program
		learned. Design interactivity that causes learners to think and tests their knowledge whenever they might like a progress check. (IBM's Four-Tier Learning Model and ISD Model)
Implementation	Analyze Learning Delivery Operational Plans	Collect the learning delivery data; analyze tracking reports; provide client with regular updates focusing on exceptions; and provide recommendations. (ISD Model)
Evaluation	Analyze Learning and Expertise Measurements	Work with appropriate executives to develop and analyze learning and expertise measurements procedures by determining what learning and expertise information is necessary to support business goal attainment. Periodically review measurements to ensure current relevance. Adjust measurements as necessary. (ISD Model)
Evaluation	Apply Learning Effectiveness Measurement (LEM)	The IBM Learning Effectiveness Measurement (LEM) methodology is a way of tying learning to business needs. Understand the LEM business strategy as it relates to engagements involving delivery of education. Understand and advise on the measurements associated with training and learning effectiveness. (IBM LEM)

Training Strategy Achieves Outcomes

c. Describe how the proposed Training Strategy will achieve the expected training outcomes detailed in this RFP;

The Wipro/IBM team understands that learning is not one-time event. Learning is something that happens over time, on the job, during the course of normal work duties. Our training approach and suite of integrated training products are designed to address this reality. We design our training in modules that will allow users to build an understanding of the ***SmartPro MedEE*** solution over time. We deliver these modules in a variety of training products designed to facilitate the transition to the EES before, during, and after classroom training to encourage staff to become independent learners on the job.

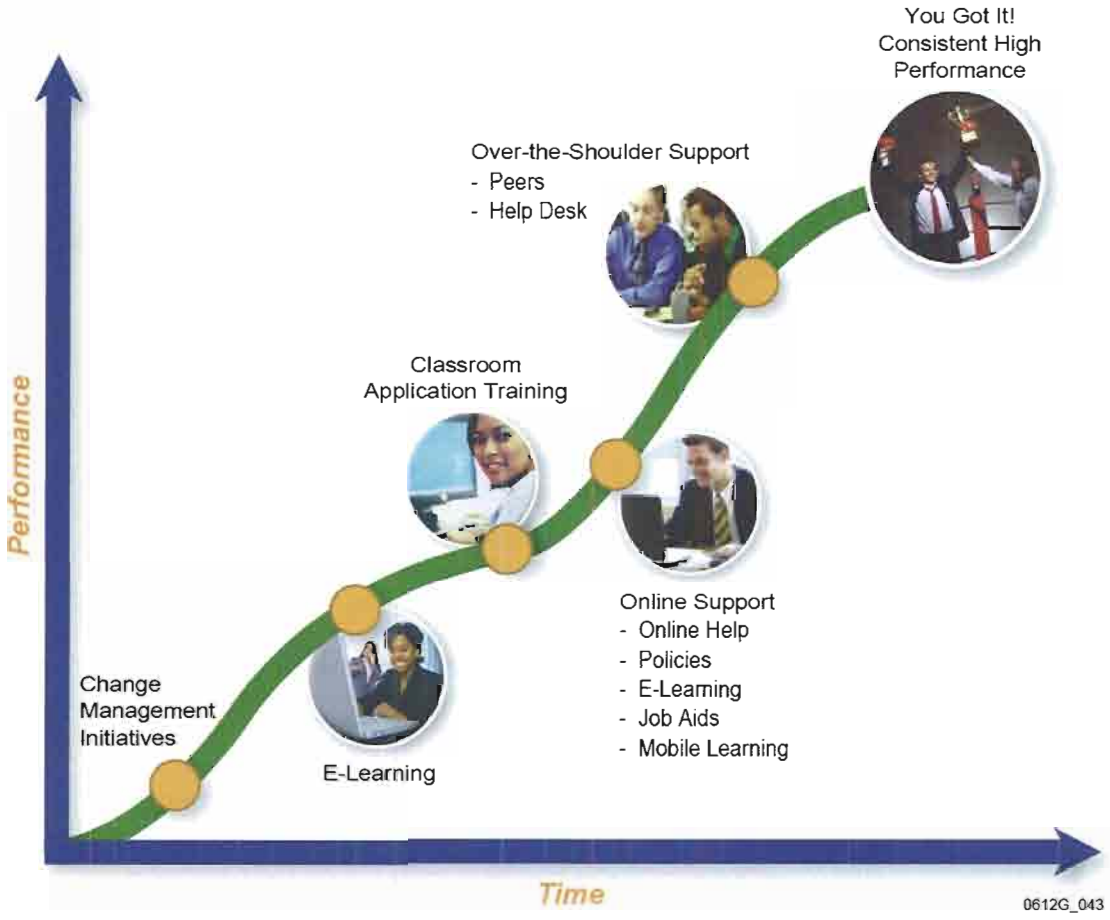


Figure IV-161: Learning is Not a One-Time Event

Figure IV-161 illustrates a staff's typical learning curve and the kinds of training they receive as they become familiar with and effective using ***SmartPro MedEE***. We have learned over many implementations that providing just-in-time training prior to implementation is critical but that inundating workers with too much information at the outset is counterproductive. Our approach supports learning experiences, within the context of day-to-day work activities where performance support has the most impact. Our philosophy also recognizes that adults are practical learners and busy people. Our training is based on practical, relevant performance objectives. We will guide the Department through a process to determine measurable performance objectives. These objectives will accurately reflect the skills workers need to master in order to be successful in the roles they fill in their counties. Our goal is to provide just enough skill-based instruction and user assistance, just in time.

Training Plan

d. Describe how the Training Plan allows for a variety of pre-existing staff skills and minimizes the amount of time staff are away from the job;

The Contractor shall develop a Training Plan deliverable that addresses how the training needs of the EES users will be met, including but not limited to:

1. Different user groups;
2. Each user group's training needs;
3. The types of training proposed for each group;
4. The proposed delivery mechanisms;
5. The proposed training topics;
6. The proposed duration; and
7. Any prerequisites that need to be satisfied for users to be able to participate in training.

The Training Plan should provide training based on Department staff training needs including:

1. Instructor Led (ILT);
2. Web-based Training (WBT);
3. Computer–based Training (CBT); and
4. On-line Help, On-screen tips and Training Aids.

Plan Overview

During the Analysis Phase of the ADDIE method (described in Section 1 – Training Strategy) , the Wipro/IBM team develops the Master Training Plan (MTP). This plan serves as the blueprint for the overall ***SmartPro MedEE*** deployment training program. The MTP is developed in conjunction with the assigned Department Project Staff to help ensure that all EES requirements are fully and adequately addressed. The MTP answers at a high level the key training questions of who needs to be trained, when they need to be trained, where they will be trained, how they are trained, and why the training is required. In the subsequent Design phase of the ADDIE method, the answers to these questions and other elements of the MTP are further elaborated.

Conduct a training needs analysis. The first step is to know the intended end users of the solution. We use descriptions of job roles provided to us by the Department, to perform a training needs analysis for the diverse training audience/groups within the Department's offices. A needs analysis describes end users' skills, training requirements, and training content for job groups. In collaboration with the Department we analyze each job group and determine instructional needs for each role. This effort allows us to articulate course objectives that are job-duty specific and relevant to the end user.

Build the plan. The MTP is used primarily by the Department and the Wipro/IBM training lead to coordinate their user training activities. It also is a useful reference for all training developers and project stakeholders over the life the project. The MTP describes the approach to training the end users of the ***SmartPro MedEE*** solution. It describes the details of the training design, development, and delivery efforts in preparation for the implementation of the EES in accordance with the project schedule.

IBM's ROSA process is a key component for ensuring that the most appropriate training strategies and training support are provided in a format appropriate for each job role. During the ROSA process we identify each job role and the related processes and tasks performed by people in their day-to-day jobs.

IBM's ROSA informs the learning needs analysis by systematically determining goals, identifying discrepancies between actual and desired conditions, and establishing priorities for action. The needs analysis enables the MTP to accurately reflect users' learning needs and the roadmap for meeting those needs.

Using the ROSA tool, Wipro/IBM provides advice and guidance on the various learning system solutions and options appropriate for closing critical skill gaps. Knowledge of current learning software, systems, trends, system standards, and independent learning systems vendors and products is applied to inform the MTP and provide the most appropriate solution.

With ROSA, Wipro/IBM creates clear, testable objectives that serve as the primary guide in determining what to include in the content, whether the solution produces knowledge or performance, how the effectiveness of the solution is measured, and the media selected to deliver the solution. Figure IV-162 illustrates the inputs, major activities, and outputs of IBM's ROSA.

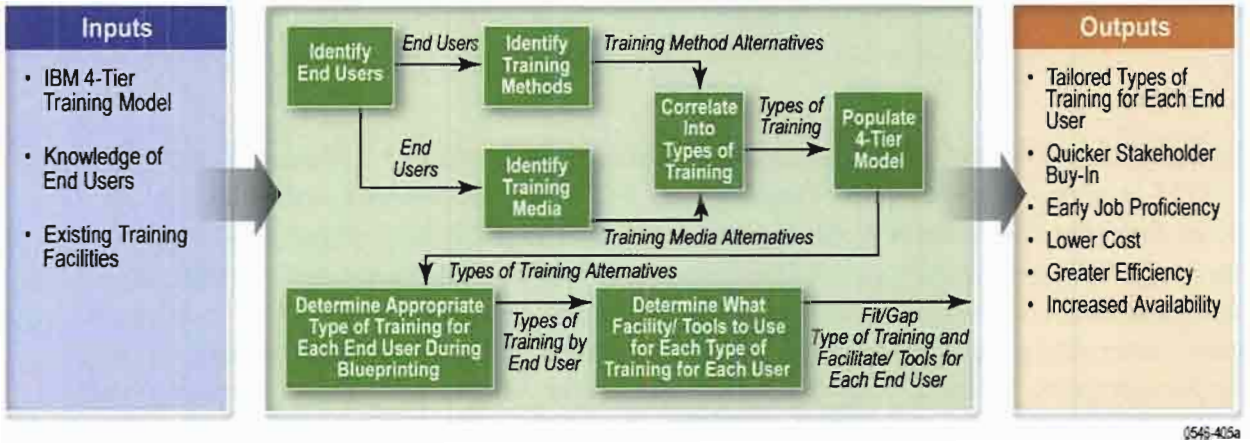


Figure IV-162: IBM's ROSA Approach Aligns Right Training to Right End User Group

To gather input for the ROSA tool, we lead collaborative workshops with the Department's project representatives to define and articulate the details of training curriculum design, development, delivery, and evaluation. The final plan will include the following sections:

- Plan overview
- Training methodology
- Roles and responsibilities
- Training work plan
- Target audiences/job role groups
- Multi-modal training delivery approach
- Curriculum and instructional materials
- Sandbox / training environment strategy
- Descriptions of planned training effectiveness evaluations and metrics
- Training schedule and logistics
- Personnel required to attend team training
- Communication strategy / plan
- Issue resolution process

Training Materials

The training materials will be maintained to reflect the latest version of the ***SmartPro MedEE*** and the changes resulting from evaluations and use during testing and implementation, subject to a training

materials release plan agreed upon by both the State of Nebraska and Wipro/IBM. On-line Help and Screen tips will be the help and screen tips that come with the IBM Cúram off -the-shelf application. The Wipro/IBM training plan does not include customizing these materials.

The Wipro/IBM team will design and deliver the following training materials:

Table IV-44: Training Materials

Instructional Material	Target Audiences	Benefits to the EES Program
Instructor Guides	Department Instructors/Trainers	Detail the steps, best practices and tips for delivering the Instructor-Led training Used by Department instructors to deliver on-going (sustainment) training
System User's Manual	Department Staff/End Users	Documents system procedures, screens, reports, forms and letters Non-technical orientation Emphasizes how EES features and functions support person-centered service delivery and program collaboration Explains how the system is used to support and implement Department policies
Online Job Aids	Department Staff/End Users; Clients	Online storage for easy retrieval and maintenance Quick access to commonly performed procedures Quick access to commonly referenced information Documents client procedures Can be printed
User tips	Department Staff/End Users (Recent Trainees)	Short messages with reminders about short-cuts, features, and other relevant information to promote end-user adoption and use of the EES
Client Quick Reference Guides	Department Staff/End Users	Quick easy access to commonly used EES functional areas

Training Delivery

The Wipro/IBM team will coordinate the delivery of training to support the ***SmartPro MedEE*** Implementation approach and schedule. End users will complete role-based curricula comprised of a mix of training methods designed to optimize learning and minimize disruption to the end users ability to meet their day-to-day job duties. The methods of instruction include:

Table IV-45: Training Delivery Methods

Method	Description	Recommended Uses
Web-Based Training (WBT)	Self-paced training, posted by State of Nebraska staff to the State of	Prerequisite training

Method	Description	Recommended Uses
	Nebraska's Learning Management System or a State of Nebraska web site and completed online	Foundation training Delivery to large, geographically dispersed audiences Just-in-time training Refresher training
Instructor-Led Training (ILT)	Training delivered by an instructor in person	Advanced or complex training Hands-on training in a live system In person discussion and collaboration with the instructor and other students
Online training materials	Job aids, user manuals and other documentation posted online by Department staff to a State of Nebraska web site	Just-in-time reference material Easy retrieval by end users and clients

Face-to-Face training will be the primary method of instructor-led training. This method is best for delivering advanced training concepts and where discussion and practice in the system are critical. Wipro/IBM will conduct a maximum of (7) classes, which consists of (8) hours sessions of instruction per class with a combined total of (64) hours with a maximum of 15 students per class, using training equipment provided by Wipro/IBM and facilities provided by the State of Nebraska. Wipro/IBM will be delivering the training from a central location. State of Nebraska employees will travel to that location to attend training if necessary.

Computer-Based Training Overview Modules

Wipro/IBM will develop Computer-Based Training (CBT) modules to provide a self-paced instruction that will serve as the single source of training for some roles and be combined with Instructor Led training for other roles.

The CBT overview modules will be Shareable Content Object Reference Model (SCORM) 1.2 compliant, so that that content can be launched and tracked from the State of Nebraska's LINKS Learning Management System (LMS) and be utilized as Web Based Training instruction. The CBT modules will be designed such that it will require students to achieve a mastery score on the student assessments of 95% or higher before being given credit for completing the course. If the student does not pass, the courseware will allow them to retake the assessment as many times as needed.

Web-based CBT. A Web-based CBT is a key component of our training solution. It can be available from Department workstations that have access to the LINK LMS taken whenever time allows, as often as desired, and reviewed as needed. The CBT course can be used to train existing staff during the rollout of a release and is always available thereafter for training new hires or existing staff who have new responsibilities. It can be provided to end users for whom classroom training is not necessary or practical.

The Wipro/IBM team provides up to eighteen total seat hours of Web-based CBT. The modules and lessons included are determined during the Analysis and Design phases of ADDIE and described in the training curriculum.

Our CBT provides the following features:

- *Task demonstrations*, enabling a learner to observe a task before practicing it
- *Software task simulations*, including step-by-step simulations that guide a new user through a procedure, and task simulations that require the user to perform the sequence of steps with minimal guidance
- *Knowledge checks*, which keep the users engaged in learning and assess their retention of key points
- *Pre-tests and post-tests* that keep the users engaged in learning and assess their retention of key points

By leveraging our instructional design expertise and employing leading simulation technology, we will produce a learning tool that will closely resemble the EES operational environment. This environmental fidelity will enhance the efficacy of the end-user learning experience.

The Training Menu Example figure contains an image of an IBM-developed Computer-Based Training course menu for the State of Ohio, which shows the modular, task-based design of the lessons.

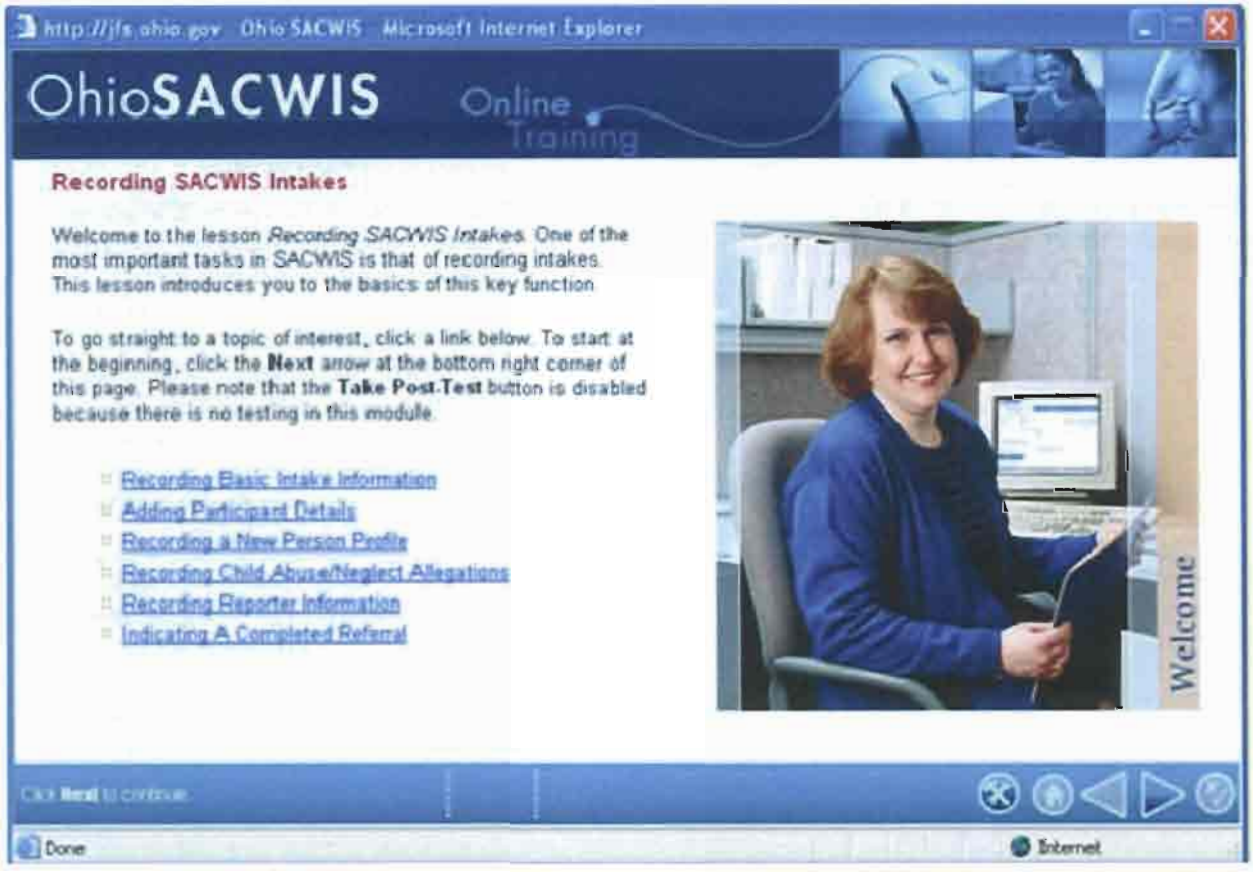


Figure IV-163: Training Menu Example

The Interactive Simulation Example in Figure IV-163 contains an image of an IBM-developed Computer-Based Training simulation for the State of Ohio. Simulations enable users to practice key system functions in a "safe" environment and receive performance feedback as they achieve learning objectives.

The Training environment is used during classroom-based training exercises and as a Sandbox for end users to practice their skills, test their knowledge, and gain confidence using the system under conditions as close as possible to being on the job, without the fear of the consequences of making mistakes on a live system.

Instructional Materials Development and Delivery

Wipro/IBM will furnish training materials, including training plans, agendas, slide presentations, training manuals, Computer-Based Training modules, , and quick reference guides to the State of Nebraska for review, feedback, and comments prior to commencing training. Wipro/IBM will provide master electronic copies to the Department project team, with copy and distribution rights, for all final materials.

Training Staffing Model

f. Describe the Training Staffing model and the skill sets of the training development and delivery teams;

The core of Wipro/IBM's staffing approach – attract, retain, motivate and develop – enables us to deliver trained, motivated people for the State of Nebraska Department training tasks. The success of the ***SmartPro MedEE*** Training program is directly related to the ability to deploy, and retain a highly skilled workforce.

Wipro/IBM and its teammates employ a continuous comprehensive integrated resources management model for provisioning, retaining the workforce to support the State of Nebraska as shown in Figure IV-164.



Figure IV-164: Team Wipro/IBM's Integrated Continuous Resource Management Model

Though this integrated model, we are able to manage the talent lifecycle to:

- Create an agile workforce
- Fit the right skills and qualification to the job
- Foster innovation
- Strengthen employee competencies and depth of expertise
- Forecast and identify talent and skills
- Quickly deploy personnel

Maintaining 95% Competency Rate

g. Describe how the Contractor will assess their training materials and training delivery staff to achieve and maintain a 95% competency rate for each course delivered by training delivery site;

Our primary goal is to deliver effective training. A goal of the Wipro/IBM team is to provide training effectiveness. During the Analysis and Design phases of ADDIE, we develop performance objectives relevant to the skills workers need to be successful using the ***SmartPro MedEE***. We implement training evaluation measurement tools to evaluate the effectiveness of training both instructor-led and CBT.

While we work collaboratively with the State of Nebraska project members to define performance objectives for classroom training, we incorporate activities that allow instructors to check the progress and proficiency of the students during class and to offer additional instruction or clarifications where needed. For the Web-based CBT, we use the performance objectives to create pre-tests and post-tests, or knowledge checks, as part of the lessons. The Web-based CBT modules will be designed such that it will require students to achieve a mastery score on the student assessments of 95% or higher before being given credit for completing the course. If the student does not pass, the courseware will allow them to retake the assessment as many times as needed.

Additionally, the Wipro/IBM team develops the following training evaluation tools, which are implemented as online surveys on a platform provided by the Department:

- An evaluation that measures the worker's perceptions of the effectiveness of training, to be completed by the worker at the end of classroom training
- A form that indicates whether the worker successfully completed the self-paced exercises assigned during Day 2 of training
- An evaluation of the trainer's perceptions of training, to be completed at the end of each class
- An evaluation that examines how well workers retained the material and how well they can perform key tasks (as identified in the agreed upon learning objectives)

These evaluations and reports allow us to identify trends and opportunities for improving the training program.

h. Describe how the Contractor will collect and report information on training activities on a throughout the system implementation training effort, including progress to schedule (classes scheduled v. classes actually held, total planned to be trained v. number actually trained); number and category of staff trained; and material covered; and

During the Evaluation phase of the ADDIE ISD method, the Wipro/IBM team will implement online training evaluations, conducted via an online survey tool and platform provided by the Department, and report on the activities identified in the Training Evaluation Test Plan. The Wipro/IBM team will follow proven methodologies for managing, delivering, tracking, and reporting metrics for training development and delivery activities and outcomes, including utilizing Dr. Donald Kirkpatrick's Four-Levels of Learning Evaluation: Reaction, Learning, Behavior, and Results.

After training is completed the Wipro/IBM team will submit a Final Training Report which will contain:

- Evidence that planned training sessions were held, or an explanation why they were not, attendance statistics, and other summary information
- An analysis of the difference between the pre and post training knowledge level and of trained staff using the system to satisfy daily responsibilities
- Evaluation of the readiness of trained staff to make best use of the new system
- Evaluation of impact on job performance and organizational training impact
- Recommendation and plan for closing significant knowledge gaps

In addition to the report, the Wipro/IBM team performs the following activities in conjunction with assigned State of Nebraska project staff:

- Identify and document training issues; collaborate on and track resolutions
- Plan, schedule and conduct meetings with the State to collaborate on recommended changes to instructional materials, improvements to the training approach, and curriculum
- Collaborate with the Department in the update and maintenance of curriculum and materials through the warranty period

Sample Training Course Map and Syllabus

i. Provide a sample course map, training syllabus and courseware that demonstrates the quality of the current Bidder's training materials in the proposal.

The Wipro/IBM team has provided a sample Training Course Map and Syllabus that can be found in Exhibits and Samples 3.

viii. Knowledge Transfer

a. Describe the Knowledge Transfer Strategy based on its understanding of State of Nebraska's project goals, the Contractor's proposed solution, and the Contractor's own experience with comparable EES projects;

Our team understands that the Department values the ability to be self-sufficient if required. Our Knowledge Transfer Plan is based on the foundational concept that the Wipro/IBM team is partnered with the Department's team to provide the consumers of Nebraska's Medicaid and Long Term Care services with a 21st century customer experience. With this in mind, we understand that our best avenue to success is to ensure that Department staff has as much knowledge as possible of our ***SmartPro MedEE*** solution. This knowledge makes us all better, as we are able to see the inside of the box to optimize our decision-making, which results in improved outcomes.

Wipro has established an enterprise wide Knowledge Management practice that provides an environment of continuous learning and productivity improvements to its employees. Knowledge Management (KM) is now a business process creating intellectual capital for Wipro.

Wipro as an organization is completely driven by strong people and quality processes such as People Capability Maturity Model, Six Sigma and CMMI. The Wipro KM Initiative has a strong leverage on our quality initiatives with involvement and commitment at the top management level.

The KM organization uses repeatable methodologies to continuously improve our knowledge-transfer skills. The diagram below provides an overview of our Knowledge Transfer methodology:

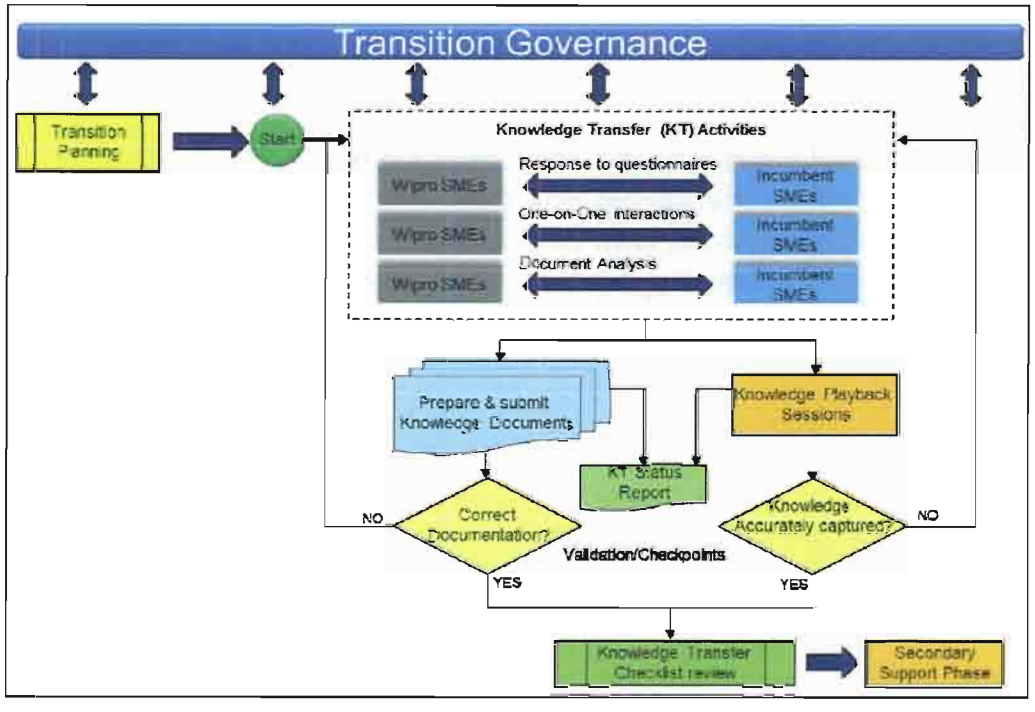


Figure IV-165: Overview of Approach to Knowledge Acquisition

The knowledge acquisition process is facilitated using the following methods:

- One-on-One interactions with SMEs through classroom sessions
- Computer-based training
- Lunch-and-learns
- Offsite classroom training
- Onsite classroom training
- Day-to-day conversations as MLTC and Wipro/IBM staff interacting daily and in close proximity to each other in a co-located environment
- Further, IBM has over ten years of experience in working with IBM Cúram customers on knowledge transfer. This knowledge transfer approach has enabled us to successfully start up new systems integrators with their first IBM Cúram implementations. At one point, each of of our SI partners, was a new integration partner. We have also worked closely with the various customers to help them achieve self-sufficiency in implementing and enhancing IBM Cúram. Our methodology relies on classroom training for Business Analysts and Technical Architects and Developers and on project mentoring and consistent knowledge transfer. Our team will integrate key Nebraska staff into the project team, having them work alongside the project team in all phases of the implementation. An excellent example of the self-sufficiency and knowledge transfer approach of IBM Cúram is North Carolina where the state provides over 60% of the staffing on the project. Further, the North Carolina NCFast project director serves as the overall project director, coordinating the activities of the engaged SI, state staff and IBM Cúram.

b. Describe the methods to be used to develop and deliver knowledge transfer to State of Nebraska users;

As listed above, methods to be used to deliver knowledge transfer to the State include:

One-on-One interactions with SMEs through classroom sessions

Classroom training is taught by Wipro/IBM account staff that are intimately familiar with the ***SmartPro MedEE*** solution ***and*** have a working knowledge of the Department environment. This combination of subject matter and environmental knowledge allows our staff to tailor training to MLTC user groups.

Computer-based training

Computer-based training is created by account staff and supported by the Knowledge Management community. This training is customized to fit the needs of the Department and may include working demonstrations with voice over narration to describe the on-screen activities. This type of training may be especially helpful for individuals that have limited time to dedicate to classroom training. At the State's direction, this computer-based training can be create in or uploaded to the State's Learning Management System (LMS).

Lunch-and-Learns

Lunch-and-Learn training sessions are informal group meets that occur monthly or as mutually agreed upon with the Department and Wipro/IBM staff. These valuable sessions allow the "student" and the trainer to interact and dialog in a way that fosters open communication, give-and-take dialog and discussions that may be very wide or focused and or technical, depending on audience.

Offsite classroom training

Offsite classroom training involves Department staff attending sessions at an IBM or other facility and perhaps with other Cúram users from other parts of the country. These sessions are extremely valuable in that they allow the Department to interact with others, getting ideas about how to use the ***SmartPro MedEE*** solution and or even better policy to improve program operations and outcomes.

Onsite classroom training

Similar to offsite classroom training, onsite classroom training allows the Department staff to set aside focused and dedicated time to learn about a particular aspect of the ***SmartPro MedEE*** solution. These training sessions may include rules, workflow, business process and technical training topics.

Day-to-day conversations

The Wipro/IBM team intends to take full advantage of our co-located facilities to interact casually with the Department to affect knowledge transfer. The Department will find that our communication style is friendly, open and collaborative.

c. Describe how the proposed Knowledge Transfer Strategy will achieve the expected knowledge outcomes detailed in this RFP;

The key to our knowledge transfer process is our collaborative approach with the client. The knowledge transfer strategy achieves expected outcomes by providing thought leadership with a sound and practical approach by tailoring the previously mentioned methods to the to the needs of each individual on the State's team. The Wipro/IBM team is ready and waiting to help the Department to become fully capable of assuming ownership of the ***SmartPro MedEE*** application, if and when the State chooses to do so.

To assess knowledge transfer effectiveness, the Wipro/IBM team will define subject areas, proficiency rating scores for each subject area and proficiency testing methods. Subject areas closely correlate with business process areas, as well as technical architecture and information architecture areas. This categorization of knowledge areas allows us to take a very deliberate and methodological approach to knowledge transfer. This approach ensures that we are providing knowledge transfer from the enterprise perspective, and factoring in all systems and processes required to achieve expected outcomes.

d. Describe how the Knowledge Transfer Plan allows for a variety of staff skills and minimizes the amount of time staff are away from the job;

The Wipro/IBM Knowledge Transfer Plan allows for tailoring of the knowledge transition process to the individual. The Wipro/IBM team works with the Department to access the environment and customize our plan to meet your needs. As previously mentioned, some of the different types knowledge transition activities that can be used to reduce staff time away from their jobs includes informal lunch-and-learn training sessions and computer-based training activities that allow staff to accumulate knowledge when it is convenient.

e. Describe the approach to knowledge transfer that will be put into place to not only ensure but to measure and report the knowledge transferred;

For measuring the knowledge retention and ensuring that it is in line with the account's need, the Wipro/IBM team has created a KM Measurement Framework comprising five key indices:

- **Engagement Index** – measures unique users of knowledge assets
- **KM Users Index** – measures overall users of knowledge assets
- **Usage Index** – measures level of usage of knowledge assets
- **KM Contribution Index** – measures overall rate of addition to Wipro/IBM's knowledge capital
- **Collaboration Index** – measures level of collaboration across the organization, including through social media

A KM Dashboard based on the above five indices is published monthly to the top management and account teams. The indices and their trends are shown for the entire organization as well as for each business unit in this dashboard. In addition, KM effectiveness is measured as a standard part of metrics at individual project level where productivity improvements and reuse percentages are measured. The table below provides more information regarding a Wipro client that enjoyed success with our Knowledge Transfer/Management framework.

Case Study 1: Wipro KM helps to Collaborate, Share, Easy on-boarding and retains robust Knowledge retention

Client	A leading Global bank with a global service delivery model
Business Situation	Account team wanted a provision to share knowledge and ideas across teams spread over different locations in order to enhance performance and higher customer satisfaction. There was a need for a central level platform for storing and managing all the account related information like account org chart, know your management, account induction / learning which could be accessed by all. A learning framework for new joiners was required to complete compulsory learning on the projects within a stipulated time.
How KM Helped	**SHINE** The KM team gathered specific requirements from the account team and proposed the ODC KM portal and **SHINE** *(Seek, Hands on, Interact, Network and Enrich)* framework to address their collaboration and learning requirements. Customer mandated learning's were conducted through the SHINE framework. A new joiner took mandated courses through the framework and a mentee was assisted by a mentor (SME), as assigned by the Project Manager All these initiatives enabled a quick on-boarding **KEDB** KEDB (Known Error Database) portals for several projects were launched in SharePoint platform for faster resolution of issues.
Business Impact	**SHINE Framework:** • Helped the account to ensure faster on boarding to the projects. • Increased the resource availability on time as planned.

	• As the framework is completely workflow based, mentors / SMEs bandwidth was made available for other productive activities. • Ensured proper report availability for the client and top management teams **ODC Portal:** • Single point access to all account related information • Secure mechanism for storing account information • Project specific knowledge captured effectively • Project level measurement made easy through online Project RAG status **KEDB:** • Significant defect reduction • Secure mechanism for storing account information

f. Describe in detail an overview of how the Bidder proposes to approach knowledge transfer for EES;

The Wipro/IBM team proposes to approach the transfer of knowledge for the ***SmartPro MedEE*** by first calibrating our expectations with those of the Department. This calibration activity is then documented and becomes an artifact that is managed within the project's configuration tool As knowledge transfer requirements change, the Knowledge Transfer Plan is updated to reflect the new requirements.

As part of our Business Process Management methodology, we capture the As-Is and To-Be processes, as well as any knowledge transfer requirements associated with these processes. We also capture metadata about these processes including the suggesting knowledge transfer activities and timeframes. These knowledge transfer requirements are managed as part of the overall requirements management planning and processes.

g. Describe the knowledge-base and how it will be maintained to serves as a single "point of truth" for business rules; and

The Department will use the ***SmartPro MedEE*** solution as the central repository for business rules. The ***SmartPro MedEE*** application contains the business rules associated with eligibility determination, as well as other related business process. The presentation of these rules is very graphical in nature, allowing Department staff to easily understand the form and function of the rule and how to build and maintain rules on their own, if required. This approach to providing access to the business rules simplifies the process of obtaining access to the needed information.

h. Describe the methods which will be used to provide system documentation to the State of Nebraska and the methods which will be utilized to maintain the documentation.

System documentation is available in many forms, including documentation available on the IBM Cúram web site, as well as documentation that is specific to the Nebraska ***SmartPro MedEE*** implementation, created by Wipro/IBM staff and then uploaded to the Hyland document management system.

Our SDLC is utilized to ensure that all items under configuration management (including system documentation) is accurately considered as changes are made to the system throughout the life of the

project. As business process, technical and information architecture requirements change, these changes require updates to specific artifacts, including systems documentation. The required updates are managed under configuration through the development life cycle, and are implemented into a "production" environment at the appropriate time during the project, to facilitate and ensure that users have the information readily at hand to do the work.

ix. Reporting

The Bidder must describe in detail its proposed Reporting tool and how it will be used for the creation of operational and ad-hoc reports.

a. Describes the mechanisms and methodologies that shall be built into the EES to allow the State of Nebraska to extract relevant information and build reports according to their specifications.
b. Describe the Reporting Tool being proposed for all operational and ad-hoc reporting;
c. Describe the tool's scalability, ease of use, and features;
d. Describe in detail the conversion strategy that will be used to convert historical Eligibility and Enrollment System reports into either a canned report or a newly developed report; and
e. Describe the report tool training and knowledge transfer planned for State of Nebraska staff.

The Wipro/IBM team uses the Cognos and InfoSphere suite of tools to provide easy-to-use reporting capabilities to the State. The Cognos tool set includes Cognos Query Studio, Cognos Event Studio, Cognos Analysis Studio and Cognos Metrics Manager, The InfoSphere solution set includes DataStage which is used to Extract, Transform and Load all of the data required for reporting and analysis. These tools work together seamlessly and are accompanied by excellent support from the Wipro/IBM account team. The following section describe our reporting capabilities, including extracting data from the EES, transforming and loading the data into the ***SmartPro MedEE*** data warehouse and to creating user friendly reports with the web-based reporting tool.

Data Marts

The IBM/Wipro team creates data marts which hold data required for reporting and analysis. IBM InfoSphere DataStage® extracts, transforms and loads the data contained in the ***SmartPro MedEE*** application to the data warehouse. The Wipro/IBM team models the data mart so that the most complex transformations, summary tables etc. are created at the data mart level itself. These data marts are scalable and allow data from other sources to be integrated to meet additional reporting requirements.

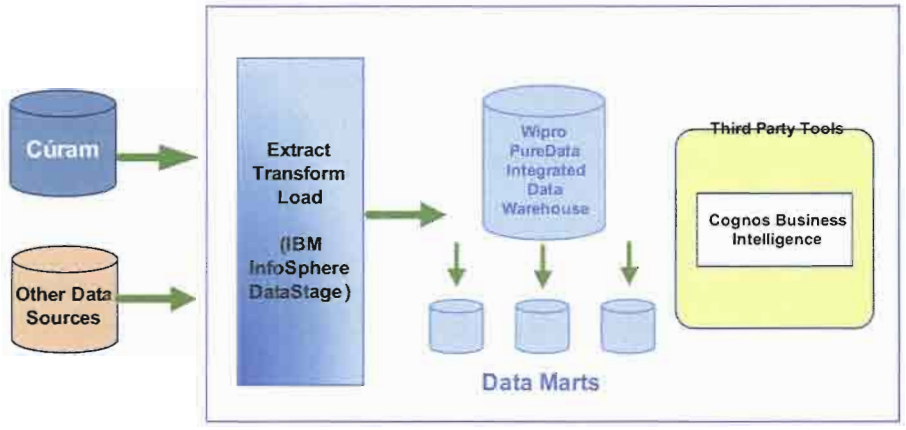


Figure IV-166: Reporting Architecture (High Level)

The ***SmartPro MedEE*** Business Intelligence (B)I environment, which is implemented on its own set of dedicated Virtual Machines, is supported by physical resources dedicated to BI engine Cúram. Master Data Management and other capabilities are supported on separate Virtual Machines and so will not be affected by the performance of the BI environment. Additionally, ***SmartPro MedEE*** will include a unified single BI gateway supporting artifacts like metadata and data lineage to give a better understanding of the underlying BI ecosystem. It will enable integrating other BI tools to get a single tool agnostic view of State's BI platform. Based on our understanding of the current N-FOCUS system, we know that there are a couple of data warehouses/BI systems that have already been built with other technology. If required, the existing BI artifacts can be integrated into the proposed portal environment to create a centralized BI repository.

The proposed environment will also fulfill the other key BI requirements like delivering reports in various formats for e.g., PDF, Excel, etc. The BI environment also supports versioning of reports, which is a standard Cognos (proposed BI platform) feature. Cognos also includes the functionality to provide automated report delivery mechanism. The data warehouse architecture is portrayed in the

figure below.

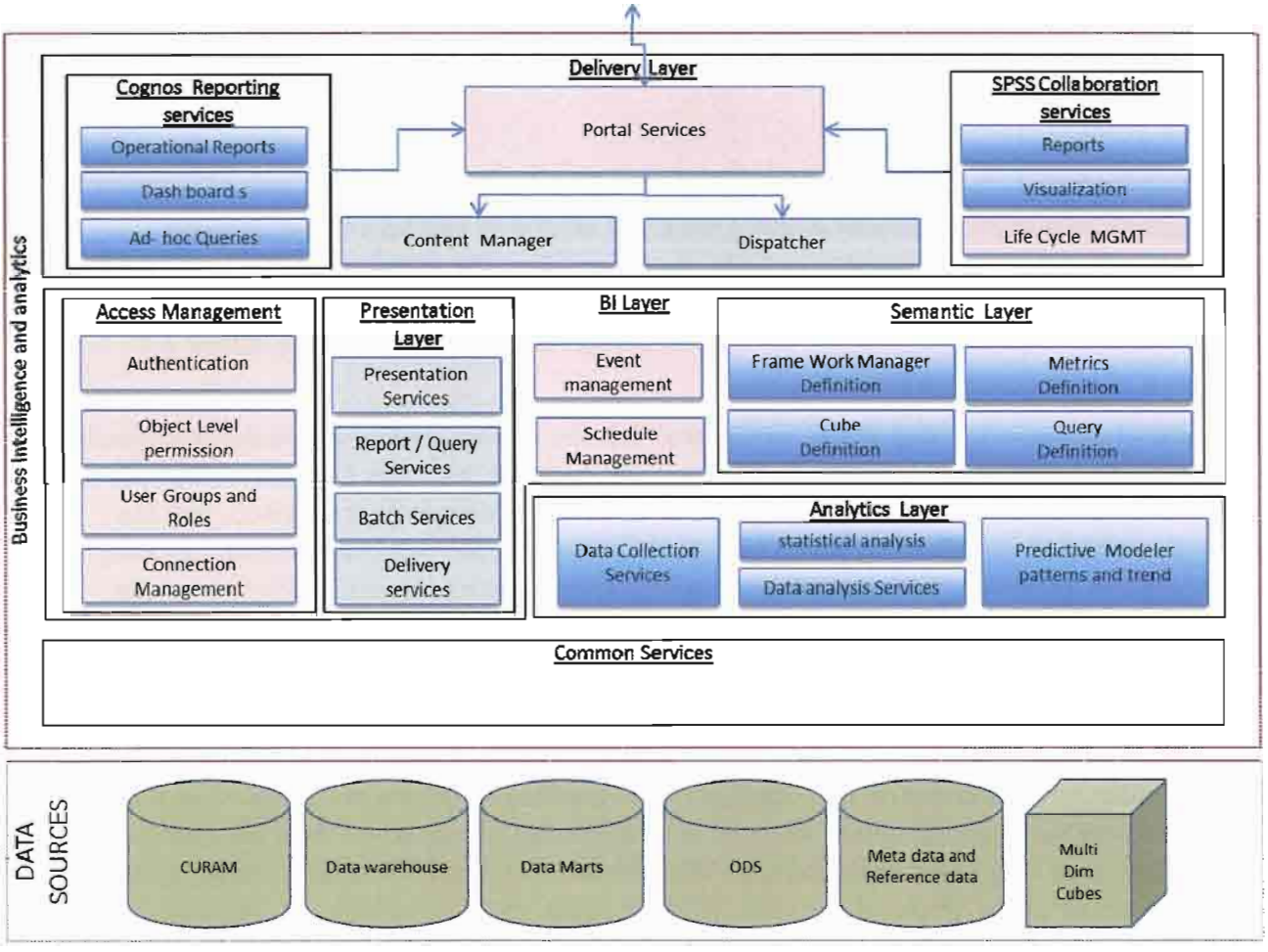


Figure IV-167: Information Delivery Architecture (Detailed)

A multi layered Semantic layer will be built using Framework Manager to abstract the technology complexity and bring more meaningful business terms for the measured KPIs. This Semantic layer brings a greater ease of use and understanding for the end-user community. The same semantic model will be reused and published in the portal for the power users and ad-hoc reporting needs.

The framework model will be designed with data source as the data mart. Multiple Framework manager models /packages will be built to support the business areas:

- Program Reporting
- Member Reporting
- Utilization Reporting
- Program Integrity Reporting
- Management reports

It is highly recommended to train the user community on the new BI tool (Cognos) from the initial stages of the project to manage the learning curve. Also the Wipro/IBM team will showcase wireframes and incorporate early feedback from State ***SmartPro MedEE*** BI users for them to get

familiar with the user interface (UI), as well as incorporate their feedback in the design and the re-development of reports. This will also provide a greater advantage in terms of quick realization of investment as well as easy and smooth adoption of the new environment.

Report delivery

The reporting/analytical product for producing reports will be the Cognos Reporting environment.

The Cognos Reporting environment allows a variety of users with various experience levels to produce reports, which can be used to make business decisions. The initial scope of the reporting practice will be using two components (Query and Report). Future stages will start incorporating the use of the other components (Analysis, Event, and Metric) as requirements dictate. Below is a description of each component.

Cognos Connection is the Web portal for Cognos . It is the starting point to access the functionality of Cognos . The portal is used to publish, find, manage, organize, and view business intelligence content, such as reports, scorecards, and agents. If you have the necessary permissions, you can access the various studios from the portal and use the portal for content administration, including scheduling and distributing reports, and creating jobs. Users view reports in Cognos Viewer, the report viewer. System administrators also use the portal to administer servers, optimize performance, and set access permissions. Within the Department user community, Cognos Connection is used by administrators and self service reporting users. Otherwise Cognos reports will be viewed through intranet.

Query Studio is the reporting tool for creating simple queries and reports in Cognos. Casual or novice users can use Query Studio to create ad hoc reports that answer simple business questions. Query Studio is an easy-to-use reporting tool. With minimal steps, users can author basic reports, change the report layout, filter and sort data, add formatting, and create charts. When you use Query Studio, you interact directly with visible data. This studio will be used by the Department's business/operational staff and any external users.

Cognos Query Studio enables users to build custom ad hoc reports to share with other Cognos users. Also, IBM® Cognos® Real-time Monitoring is an operational business intelligence solution designed to provide easy access to consistent data so you can react quickly to revenue and cost-saving opportunities. Cognos Real-time Monitoring features self-service, interactive dashboards with operational key performance indicator (KPI) measures for frontline business users, executives, managers and analysts. Cognos Real-time Monitoring features include:

- Self-service query, reporting and analysis from virtually any data source.
- Business-defined alerts about sudden issues that need attention.
- Patented memory-based data store for continuous data integration.
- Real-time data navigation that can help you investigate the root cause of an issue
- Drag-and-drop dashboard environment that enables you to add real-time, formatted information to your historical business intelligence.

Report Studio is the professional reporting tool for Cognos. It is used to author more complex reports. Report Studio offers greater flexibility in calculating and formatting results. Report authors can open Query Studio reports to create more advanced reports. Report Studio is a report authoring

tool that professional report authors and developers use to create sophisticated and managed reports. Use Report Studio for reports that are intended for a wide audience, exist long enough to require maintenance for changing requirements and data, and require detailed control over the appearance. Report Studio provides powerful functionality, such as bursting, prompts, and advanced charting, and provides many ways to customize reports. When you use Report Studio, data is not visible. You must run the report to view current data. Within State EES, the IT staff and some advanced Operations staff will use this studio.

Analysis Studio is the analysis tool for Cognos. Use it to explore, analyze, and compare Dimensional (cubes) data. Analysis Studio helps you answer business questions by finding meaningful information in large data sources. Managers and business analysts use Analysis Studio to explore and manipulate data so that they can analyze their business. Users can quickly analyze critical corporate data from any angle to understand why business events occur, and then make effective decisions. With analysis, it is possible to see trends and highlight exceptions that may not be evident with other types of reporting. Analysis Studio users can explore large volumes of dimensional data. When you use Analysis Studio, you interact directly with visible data.

Metric Studio provides a customized score carding environment to monitor and analyze business metrics required to support the Department's mission. Cognos Metrics Studio allows users to translate organization's strategy into relevant, measurable goals that align each employee's actions and accountability with a strategic plan. The score card environment of Metric Studio allows the Department to quickly identify performance within each business function. Metric Studio allows the Department to track performance against agreed-upon targets and indicates the current status so that decision makers at every level of the organization can react and plan. With Metric Studio, MLTC staff are self-sufficient and can readily and objectively measure how the organization is progressing against strategy. Staff can set priorities for actions and understand how decisions affect the performance of the Department operations.

Event Studio is the event management tool for Cognos. Use it to notify decision-makers in your organization of events as they happen, so that they can make timely and effective decisions. Event Studio ensures that critical information is detected quickly and delivered to key stakeholders in your business. You can create and manage processes that monitor data and perform tasks when the data meets predefined thresholds. By using Event Studio, decision-makers in your organization can be notified of business events as they happen so that they can make timely and effective decisions. Use Event Studio to create agents that monitor status changes, priority customers, or any other condition that is important to your business. When an agent detects an event, tasks are performed, such as ending an email, adding information to the portal, and running reports.

Required Security is built in the reporting layer so that only those users authorized to view the reports are given the access. Separate level of security will be implemented per the various categories of reports based on user's admin details, hierarchical level of the users etc.

Security is built in the reporting layer so that authorized users can only view reports they are authorized to access. Separate levels of security will be implemented per the various categories of reports based on user's admin details, the hierarchical level of the users etc. Please refer to our security considerations section for more details on security architecture. Both data level and report level security will be enabled.

Security includes both authentication and authorization, as described in figure below.

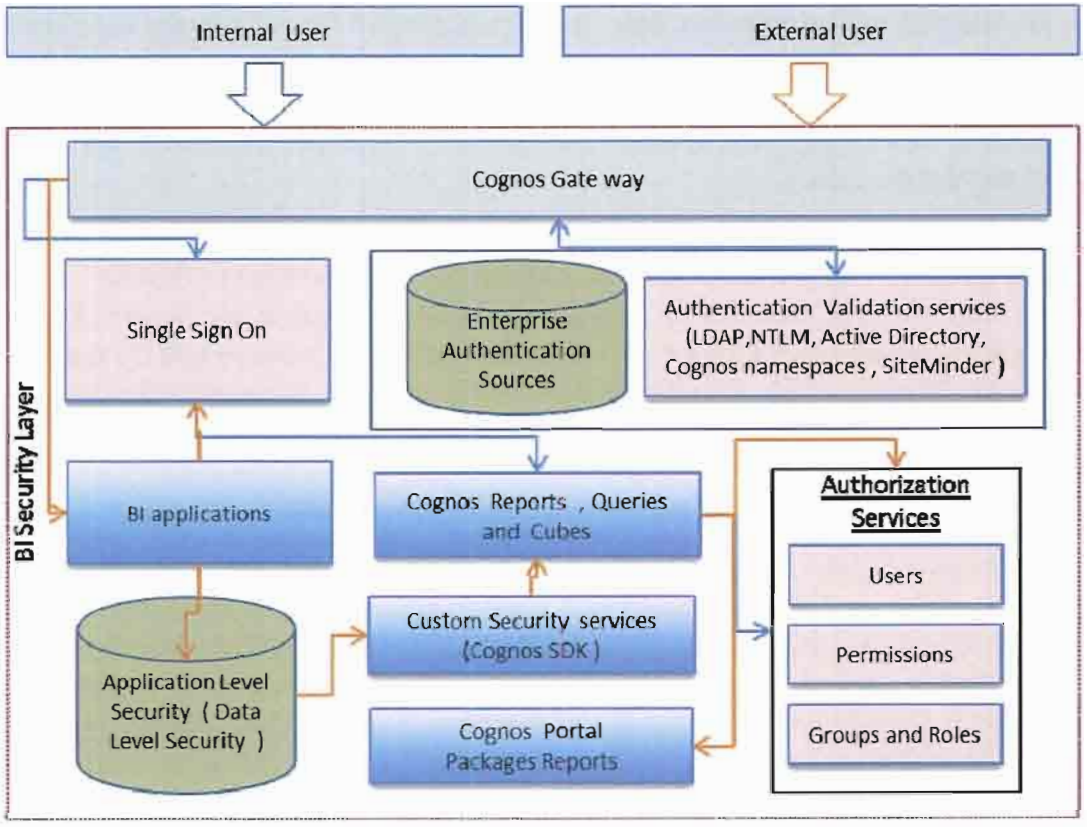


Figure IV-168: Cognos Security Architecture

Authentication is the process of securely validating a user's identity, and is generally associated with "logging on."

Internal users will be authenticated utilizing the State's LDAP system. This will ensure ISF compliance and enable SSO. The Portal Gateway protects the Cognos Portal URLs.

The Wipro/IBM team stores external user's authentication within each individual reporting application's custom security using data base / row level restrictions. To be able to authenticate external users a "view" of the stored external users user id will be available for Cognos to authenticate against. The "view" will require System Development Kit (SDK) development. The SDK provides the necessary Cognos and authentication source code to map internal groups and roles to the portal package, report studio and report run security.

The authentication login page will be available through each application to ensure ISF compliance based on each custom application's processes. Once authenticated, the user will be directed to a new Cognos Reporting environment portal URL created specifically for SDK routing which will require the SDK to send through the security namespace that will be used based on the application it is being routed from.

Authorization is the act of determining what capabilities and access an Authenticated User will be granted. Authorization will be role based. There are many levels of authorization.

User Type

This distinguishes the Cognos Reporting environment license user type:

- Consumer/ report user – can view, filter, schedule, notify, and drill pre-authored reports
- Author – consumer role plus can use Query Studio
- Analysis – consumer role plus can use Analysis Studio
- Manger – consumer role plus can use Metric Studio
- Remote Recipient – view reports from MMIS custom websites
- Object

This will state what specific objects the person through their role can view. This is accomplished within Cognos Reporting environment's security setup. For example, this would include reports that would be managed through public folder security and data elements that would be managed through the metadata/package security.

Content

Content security is down to the data 'value' level and will be managed within Cognos Reporting environment's security. For example, if a Provider can only see data related to their Provider ID, this would be accomplished through filters at the metadata, group, role, or user level, depending on the detailed requirements.

Vital Trust Data

Corporate Information Security Framework mandates certain levels of security based on the type of data content. For example, higher levels of security are applied to Vital Trust data versus General data. Each application has processes around the display and storage of their Vital Trust data based on the ISF compliance rules. Since these security rules are controlled within each application (based on the data), a security script will be written within the Cognos Reporting environment to recognize these rules i.e. who can see full text, masked text, or no text.

Data Visualization

The Wipro/IBM team proposes to use IBM® Cognos® Visualizer as it integrates easily with the Cognos BI and provides high impact visuals that deliver a quick knowledge transfer. The visualization engine leverages data from the data marts and DW. The different ways in which the data can be displayed for the State's users include the following.

- Geographical data (e.g. Utilization by Region) – Map
- Data over time , ratio data, comparison of linear data – Chart
- Trends, Outliers (e.g. Exception cases in Fraud etc) – Combination of line and bar graphs, control limits, etc.
- Snapshot data, single values (i.e. KPIs) – Gauge
- Multidimensional data - OLAP
- Other graph types for data presentation, including:
  - Pie chart
  - Side-by-side bar charts
  - Single and multiple line charts

- Tree graphs
- Probability plots
- Trend lines
- 3 dimensional graphs
- Parallel coordinates
- Control limits

Other common-use graphical presentation methods allowing drill down capabilities wherever required and possible.

The Wipro/IBM team will analyze the chart types; including swatch, value, parallel coordinate, box and whisker, gauge, histogram, thermometer, control limits, trend charts (and more) will fit in for data visualization in various dashboards and reports to quickly analyze various KPIs as well as allow the users to analyze the root causes of performance from different perspectives. Some other factors which will be considered include

- Correctly identifying KPIs suitable to be depicted in each dashboard and end users requirements from the dashboards.
- Multi-metric display: EES users are able to simultaneously see many metrics in an easy to understand visual formats and aggregate displays combining KPIs as well as allowing trends and connections to be easily spotted
- Interactive Exploration with drill down, rotation, zoom etc capabilities to focus on specific data points/patterns.
- Integration with Cognos BI platform

Visual Aesthetics and layout and Clarity : Logical and Fluent order and proper placements of controls, and various drill down options.

Management reports will be enabled by leveraging the pre-populated KPI's provided through the data model. The business requirements are grouped under business oriented subject areas .These will serve as the main entry point to enable reporting for business users.

The proposed BI environment will have appropriate operational, tactical and strategic KPIs to enable the below reporting requirements.

- Program Reporting, including a branch report
- Member Reporting, including County, Region and worker
- Utilization Reporting
- Program Integrity Reporting
- Business Intelligence Reporting

The State's requirements will be grouped under the subject areas. The KPIs will leverage the structured data dictionary that defines the business terms and phrases used in healthcare industry and the inter-relationships among those terms and phrases. A semantic layer enables some of the following key benefits.

- Represents the data requirements of a health plan
- Standardizes enterprise business terminology

- Is a business entry point to the data models
- Clarifies misunderstandings among lines of business and improves business-to-IT communications
- Is expressed in plain business language
- Is organized by subject areas
- Can be used as inputs and outputs of process and activity definitions.

Business terms and KPIs will be leveraged to be modeled into subject areas to enable business friendly ad-hoc reporting of data elements loaded from the Cúram database <RPT001, RPT029>

Subject areas help to group key health plan indicators and answer relevant business queries. They can also be leveraged for usage in dashboards, reporting applications and ad-hoc reporting. The subject areas provide an entry point from business to the physical implementation. Management reporting require reporting leveraging both subject area specific KPIs and also cross-subject area KPIs.

The Wipro/IBM team proposes to conduct workshops to identify KPIs across relevant business processes and finalize a comprehensive KPI list which will be leveraged across all management reporting. This is also expected to unearth/resolve discrepancies in terms of KPI nomenclature and interpretation across different business groups.

Supervisor Workspace provides supervisors and managers with dashboards to manage the cases (including households which are Integrated Cases) within their span of control that includes cases with issues. Cases for review will appear in their task list.

SmartPro MedEE, through Cúram Case Audit, supports configurable QC sampling, that enables the Department to sample by region or other grouping construct, perform random sampling, perform stratification sampling, and to sample by a wide variety of other criteria. Cúram Case Audit ultimately enables a user to configure an SQL statement, through a configurable field, which can select a list of cases using any filtering clause possible in SQL. Sample size, month or year of sample, can be used as filters through the above mechanism.

The ***SmartPro MedEE*** provides a mechanism to create the universe from which the system pulls samples. The universe will be the complete list of eligibility cases in the system. The sampling logic described above will return a sample list of case IDs.

The ***SmartPro MedEE*** solution, through Cúram Case Audit, supports a user role known as an "Audit Coordinator". An authorized audit coordinator can manually add cases to or remove cases from the sample. Comments can be provided to explain why changes are being made to the sample.

A history of case audits completed is maintained in the EES. Modification will be required to support the result categorizations listed here.

The Federal and State reporting is enabled through the data sharing architecture which will generate feeds in the required standard/formats. Federal and State reporting includes the ability to generate data and reports needed to apply for and demonstrate appropriate use of federal grant funding sources and will document the appropriate benefit programs, projects or other categories impacted by system or human actions to support claims for federal matching funds. The EES will also be able to differentiate funding source based on MLTC-specified criteria. The Cognos reporting also

includes HUB application status reporting, including pending reports based on citizenship. All information subject to the privacy act will be safeguarded and data will be encrypted before submission.

A metadata driven reusable extract routines will be built as a part of the State/federal reporting. All the reporting criteria for each external agency will be stored in this metadata repository. This approach will enable State to easily adhere to the State and Federal data requirement changes. The ETL extraction routines will use this metadata to build appropriate data sets and the same will be stored in a designated location in various formats including but not limited xls, csvs, etc.

The final list of reports required will be finalized during the initial planning and scoping phase. In addition, some reports are produced from within the Cúram application itself. One of these reports includes the Mass change processing report, which is performed via Cúram batch jobs that produce control and error reports as part of their standard processing.

c. Describe the tool's scalability, ease of use, and features;

User Interface

The User interface includes a simple, intuitive interface that is customizable. The User interface system has an open, extensible architecture that allows integrating almost any electronic resource via a portlet / web services. Basic Functionality that the user interface layer will cater to includes

- Processing of user-entered information
- Interaction with authentication and affiliation services
- Validation of input
- Submitting requests
- Retrieving and formatting results
- Directing UI process flow and display of pages or portlet components based on conditions such as data, clicks on hyperlinks, errors, user's privileges, etc.
- Establishment of UI sessions and storage and retrieval of session data

The environment is enabled with various delivery capabilities like query results exporting to various formats e.g. excel / pdf / HTML/ XML Report delivery can be enabled through email, printer or saving it to a predefined folder with data and time identified. Reports are generated on frequencies as per business requirements and the Wipro/IBM team will provide user manual explaining non-It users how they can schedule new reports or re-schedule existing reports. The solution is built to scale to futuristic BI delivery needs like mobile based dashboards, office integration.

The ***SmartPro MedEE*** document management interface associates all documents and reports received with the appropriate case or case participant (person) so that they can accessed directly from the case file and be shared across programs and agencies with anyone with appropriate authority to view the case.

To generate an inventory of current and available reports, Cognos includes standard auditing features as well as an IBM Cognos SDK application that provides additional auditing, including Role Auditing, folders, reports, queries, etc.

Current Sampling methodology will be studied and Wipro/IBM's BI and Domain experts will provide recommendations on best sampling

d. Describe in detail the conversion strategy that will be used to convert historical Eligibility and Enrollment System reports into either a canned report or a newly developed report; and

The Wipro/IBM team will make sure that the existing reports, metadata and documentation is studied properly, a thorough assessment and gap analysis (with expected reporting BI functionality) is done and then the reports are designed and developed using Cognos .

The Wipro/IBM team proposes its report conversion approach that addresses the difficulties faced by both the functional as well as technical users. The major steps that will be involved in The Wipro/IBM team's approach to the existing reports conversion/migration are as follows

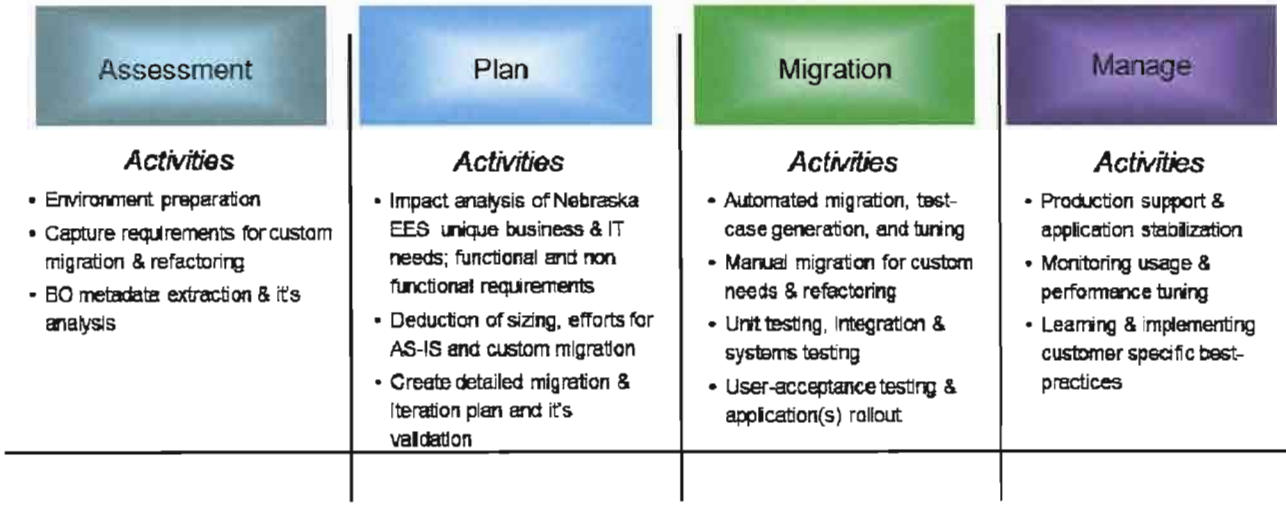


Figure IV-169: Salient Points of Report Migration Solution Phase and Components

Report Migration Approach

The Wipro/IBM team's development and implementation teams will go through two cycles of design, coding, unit testing, system testing, user acceptance testing and code deployment.

The advantages of an incremental delivery methodology are:

Frequent deliveries allowing users to work on the new reports as soon as they are developed

Business is able to see quickly the kind of end reports they will get and get used to the same and also provide feedback early in the project lifecycle.

Report Migration Testing Approach

As part of the testing that will be conducted within each increment, the Wipro/IBM team proposes to validate the following:

Technical Testing: This will primarily be a technology driven testing within which the testing team will validate the data that is displayed on the reports against the data that is available in the source tables. The testing team will validate record counts, data types, validity of aggregations, etc.

Functional Testing: This will be a business/functionality driven testing within which the testing team will validate the integrity of the data that has been loaded in by executing key functional pieces within the target environment.

Cutover Strategy

Cutover refers to the process of switching over from the current set of reports to the new reports developed in Cognos. Cutover from one tool-set to another often is prone to risks especially in such a scenario where the tool is already serving a purpose in production.

The different cutover strategies include:

- *Parallel Run:* This is an option in which both systems are maintained side by side
- *Cold Cutover:* In this option, the existing tools are pulled out and the new tools are plugged in
- *Pilot Runs:* A small section of the user group is exposed to the new tool and based on feedback received and the stability of the system, it is rolled out to the larger audience.
- *Report Migration* Approach (that is which reports will be covered in which iteration) and The cutover strategy to be implemented will be finalized during the Project Planning Phase.

e. Describe the report tool training and knowledge transfer planned for State of Nebraska staff.

The Wipro/IBM team will develop a robust training solution that will be aligned with the learning needs of the various target groups. Custom training programs will be created to meet State BI users specific training requirement.

The key aspects considered for finalizing the BI training solution will be as follows:

- *Training planned before and during User acceptance Testing* – Training will be provided weeks before and during the User Acceptance Testing so that business users spend optimal time from their day-to-day activities and whatever training they receive can leverage and test during the UAT period
- *Training road maps for users* – There will be role based training road maps designed for the business users, Power users and Data Administrators.
- *Instructor Led Training (ILT) approach* –Training will be delivered to the users in classrooms/space provided in State's Office to equip them with the required knowledge and skills to use the new system.
- *Training materials* - The training materials to be used by the instructors to deliver the training will be designed and developed by Wipro/IBM team.
- *Self-Paced Learning approach* – In addition to classroom training, *Self Paced Training content* will be designed to provide an overview and reinforce key takeaways from the classroom in a self-paced mode.
- *Recap and Quiz* – Quizzes might be designed for each class room session and web based training to check the understanding of the users.
- *Training aides* – Work Instructions, Job Aids and Quick Reference guides will be created for various target groups to support the users during training

x. Documentation

a. Describe how standards to be applied for the development of documentation will be identified.

The Contractor shall establish and utilize documentation update procedures, including Meeting Status Reports to ensure that the EES documentation remains current at all times. The Contractor is responsible for the design, drafting and maintenance of all Department approved EES documentation deliverables. The Contractor is required to upload and maintain project, system, and operations documentation in the State of Nebraska Document Repository. The Contractor must provide a complete copy of all system documentation prior to going live. At a minimum, the Contractor must provide the following documentation deliverables:

a. Data Dictionary;
b. COTS Manufacturers' Documentation;
c. COTS User Manuals;
d. Technical Operations Manual;
e. System Administration Manuals;
f. System Standards; and
g. Standard Operating Procedures.

The Bidder must provide a narrative overview of how the proposed solution will meet the Documentation requirements. Please provide specific details of the proposed approach to meeting the State of Nebraska's requirements. Also, include a sample of documentation in your proposal.

Describe how standards to be applied for the development of documentation will be identified.

The documented knowledge base will undergo continuous updates, changes, distribution and relevance checks throughout the lifecycle of the engagement. This requires documented procedures to be established to define necessary controls applicable throughout lifecycle of a document. There are six key control areas that will be established as per ISO-9001 standard:

Control Area	Description
Document Approval	Documents must be approved by authorized personnel for adequacy prior to issue. This will involve review of technical content of the document. It will also involve review of the document for compliance with applicable standards and templates agreed. As a rule, document approval will involve at least two stage reviews by Subject Matter Expert and a compliance review to ensure required standards are met.
Review and Update of Document –	Documents will be reviewed and updated as necessary and will be re approved as per controls defined above. The review will ensure currency and applicability of the updates to the document incrementally and the document as a whole.
Change and Status of Document	Any changes to the document will be identified and a traceability of the change will be maintained. This control will also reflect type of change to the document. This requires that the current revision status in terms of published date and version number to be identifiable.
Relevance and Availability at Point of Use	This control mandates that relevant versions of the document are available at their point of use. The versions distributed and the access control of users of document will be factored into the system. Controls for external users of document (e.g. sub contractors, other functions) will also be controlled appropriately in

	the system.
External Documents	Documents of external origin that are relevant to the quality system, and so content and Standards will also be subject to the same controls as internally generated documents. This includes distribution controls.
Obsolete Documents	This control requires that organization must prevent unintended use of obsolete versions of documents. Such obsolete versions of documents will not be retained in the Document Management System unless specifically required by the business needs. Controls will be established to identify obsolete versions of documents if they are retained for any reason.

Describe how document specification templates will be used to establish agreed-upon outlines for each document type;

Wipro/IBM will produce Deliverable Expectation Documents (DED) for each deliverable. These DEDs describe the format and content of each deliverable and will be provided to the Department for approval. Each DED will contain:

Cover letter;

- Table of Contents with a brief description of the content of each section;
- Anticipated number of pages; and
- Identification of appendices/exhibits

The Department will review each DED and provide feedback that will be incorporated into the final deliverable. The DED will contain a feedback section for review comments. MLTC will provide comments within a mutually agreed timeframe and as described in the attached Work Plan.

Describe how documentation to be produced by the process will be identified

Documentation produced by the process will be identified using a Master Document Control Number (MDCN). The MDCN will be linked and cross-referenced to requirements contained within the Rational Team Concert (RTC) requirements repository.

Describe how design, content and publication of documentation will be consistent and standardized

Documentation will be controlled by Wipro/IBM staff responsible for document quality control. These individuals are responsible for identifying errors in the document. Initially, the document is reviewed by team peers and leadership to ensure content is in the right template is relevant, clear and communicates the appropriate message to the intended audience. The document is then reviewed by an editor to ensure that the document conforms to appropriate style guide and that the document contents are syntactically and grammatically correct.

Document publishing consistency is enabled with the use of RTC. RTC provides for automated workflow and approval processes to automate documentation reviews. Using this automation, the Wipro/IBM team promotes consistency in the document publishing processing.

Describe how documentation will be kept current and that errors are found and corrected

Once documentation is created, it is kept current through a document configuration management process facilitated by RTC. During the Operations and Maintenance phase of the project, these

documents are associated with requirements, and are managed in the configuration of artifacts required to be created, updated or deleted as a result of the functional and non-functional changes that are included within the scope of a given project. Additionally, if errors are found with the documentation unrelated to a project, MLTC ***SmartPro MedEE*** Help Desk will be contacted to log the problem using the ticketing system. The Wipro/IBM team then updates the documentation using the ticketing system workflow.

Describe how documentation will be stored in the State of Nebraska's Document Repository and available to authorized staff

Interfaces are built to connect the RTC with the State of Nebraska's Document Repository, allowing authorized staff access. Integration of the State's Onbase DMS with RTC expediting using Content Management Interoperability Standards (CMIS) standards. The CMIS standards include predefined messaging protocols that simplify the creation of these interfaces.

The Wipro/IBM team works with the Department to define roles and authorization levels appropriate for each team member.

Provide samples of current EES document in the proposal.

The ***SmartPro MedEE*** solution contains multiple product documents that describe the solution, in total. For example, documentation for IBM Cúram is made available via a web site, which is updated regularly to include any and all product changes. Documentation includes content to support the full design and development lifecycle as well as ongoing operations and maintenance. Available documentation includes installation guides, configuration guides organized by functional components, security guides, business guides to assist business analysts with out-of-the-box functionality, and much more.

Due to the length of the documents, and for the sake of readability, these documents are referenced in Exhibits and Samples 4.

xi. Implementation

- Describe in detail your recommendation for a single or multi-phase EES implementation. The description must include the reasoning behind the recommendation, and the benefits of the Bidder's recommendation over the other implementation phase option.

The Wipro/IBM team proposes a single phased implementation for the ***SmartPro MedEE*** solution. We realize multi-phase implementations are very common and can mitigate some risks that are unavoidable in a single phased implementation. Typically, multi-phased implementations are based on one of three approaches; delineation by functionality, geography or user groups. After reviewing the pros and cons of each implementation approach, we concluded that a multi-phased implementation would increase the risk without yielding additional value to the Department.

Risk discussed included cost management, data quality, the need for unnecessary interfaces and user controls, unstable parallel system management, and decreased staff satisfaction due to parallel process and increased errors. The end goal is to reduce the overall cost of ownership, manage risk

and ensure satisfaction. Therefore, the single phase implementation approach of ***SmartPro MedEE*** is our recommendation to the Department.

Functionality – Most eligibility and entitlement platforms on the commercially available market are multi-application, multi-vendor. To integrate the application requirements to be one cohesive solution requires concurrent development for a portal, rules engine, business process management function, enterprise content management, and analytics platform. The ***SmartPro MedEE*** lends itself to a single phased implementation because our proposed application has most of these features built into a single platform. For those features that are not native to the ***SmartPro MedEE***, adapters and integration points using SOA compliant enterprise applications compliment the solution. The cost risk of custom development is significantly minimized.

Another implication is that it does not make sense to separate the functionality. ***SmartPro MedEE*** does not require implementation of functionality in pieces, it is deployed as a single product. Any attempt to delineate phases by functionality would be artificial and not yield a benefit for the Department. This approach also requires the ability to separate out discrete functional components in the existing legacy system, N-FOCUS. It is unclear whether this is even an option given that N-FOCUS is a twenty year old solution and supports multiple programs in addition to Medicaid. The risk this would pose to all the programs involved is too great to entertain delineation by functionality as a viable option.

The other important consideration is that ***SmartPro MedEE*** is limited to Medicaid. For clients looking for a solution that crosses multiple program areas, we would recommend a multi-phased approach. Some of the decision points to consider for a single or multi-phased implementation are include geography and population profile, expected duration of the project, and user types.

Geography – Some clients phase their implementations based on geography. This is particularly relevant for clients with very large populations, a large number of regional offices requiring training, a diverse mix of automation needs, or when the geographies present additional uniqueness's such as rural and urban communities. The rural implementations may introduce additional challenges. Based on those challenges, services may be delivered differently.

Nebraska's population is not large enough to require a phased roll out. Although the Department does support rural and urban communities, there was nothing included in the RFP to indicate that there are disparate communities in the State of Nebraska requiring special consideration.

Project Duration - Many implementations are complex, involving multiple business areas and programs. These projects frequently span two or more years for the implementation phase. In these situations, it may be politically necessary to show a quick win or phased implementation effort. For example, North Carolina NC Fast quickly stood up a citizen self service portal to show an immediate return on their investment. Since Our Team is proposing a one year implementation timeline, we do not believe a quick win or phased approach is appropriate.

User Types – the last potential delineation is user types. Since ***SmartPro MedEE*** is a portal based solution, it lends itself to easily supporting multiple user types such as: case managers, community based organizations, employers, citizens/residents, service providers and healthcare providers. In some instances, it is recommended to roll out the solution to internal agency user groups and citizens in the first phase. Afterwards, the second phase would focus on employers or service

providers. None of these apply to the Department. The user types are limited both in total number and in type.

The Wipro/IBM team appreciates the need to control risk and we have proposed a solution and an approach to minimize the risk while maximizing the value of the functionality and architecture of ***SmartPro MedEE***. In the instance of the Department's implementation of an Eligibility and Enrollment solution, adopting a multi-phased approach will increase cost, increase time and increase risk through the introduction of unnecessary complexity. For this reason, our team recommends and has provided a project plan to support a single phased approach.

Provide a description of a previous implementation or a current implementation project underway where the Bidder's implementation recommendation can be supported.

An example is included with response to the following RFP requirement regarding a recommendation for a Pilot. For the State of Nebraska, we are not recommending a Pilot, due to the size and complexity factors discussed below.

Provide a recommendation whether to include a Pilot EES. The Pilot recommendation should describe the value gained, duration, and parameters for a pilot.

The Wipro/IBM team's implementation approach does not include a pilot phase. The cost of implementing a pilot, while helpful to identify requirement gaps, will only increase the operational overhead. Additionally, the time to get the production environment to market will increase significantly because all efforts will be spent on a Non-production environment. The Wipro/IBM team's understanding of the EES system requirements mimics that of implementation completed in many other states by us or business partners we work with. Our goal is be considerate of the State's finances and rigorous delivery schedule. However, since ***SmartPro MedEE*** leverages IBM Cúram, the users and project team will be able to see the application and how it will look in Nebraska from Day one of the project. We are not starting with a blank whiteboard but with the leading COTS application specifically designed to meet the needs of Health and Human Services organizations.

Table IV-47: Risk Analysis of a Single-Phased Implementation Approach

Risk	Single Implementation	Regional
Scale risks		
Cannot train all users in an optimal window, close to their personal implementation date	- Need to train all users in a single time window. Need a very focused training plan as provided by our proposed approach	Can split training by wave. However, for each region, the problem remains the same, in terms of having all their users have to take time away in their window.
Cannot do manual correction of data being migrated in a short cut-over window.	- Need to migrate all data in a short window (typically one weekend). Need a very focused data migration plan as provided by our proposed approach	Can do any manual correction of data integrity or mismatch issues in waves, as each region's data is migrated.
Cutover may fail, and reversion to old system may be required. All data	- More people use the new system so more data per day to be re-entered.	Only data from one region needs to be rolled back. However, roll back after first wave probably

Risk	Single Implementation	Regional
Scale risks		
captured in new system must be re-entered into old system.		not feasible.
Unique risks		
Rules may be implemented differently in old and new systems.	+ No issue, only one system.	Clients in different regions treated differently, or need to ensure all rules are implemented identically.
Phased roll-out may take longer than planned.	+ No issue, only one roll-out.	Need to freeze all changes during rollout period or implement changes in both systems.
Need to be able to search for clients across both operational systems to ensure a 'new' client is not on the other system.	+ Only one system – no synchronization needed.	Need workaround to ensure clients found regardless of which system manages their case. Two-way data synchronization would be challenging.
Clients could move to a different region, using a different system.	+ Not possible.	Need workaround to ensure smooth transfer.
Interfaced systems need to 'see' a single system.	+ There is only one system.	Additional temporary software needed to split and merge interface data.

Below are key facts associated with a successful implementation in which the single-phased implementation was used. As described in the table below, this client user base included 500 internal and 65,000 external users , with characteristics similar to those of the Nebraska EES, in terms of the aging N-FOCUS system significant historical data to convert.

Table IV-48: A Cúram Single-Implementation Example – Key Facts

Attribute	Implementation Data
Client Project	Project Harry, South Australia Workcover
Users	Project Harry involved 500 internal and 65,000 external worker's compensation users.
Transactions	1 million workers compensation claims (Cúram integrated cases)
Fraud Cases	90,000 fraud cases, disputes and reviews (Cúram issue cases)
Medical Certificates	2.7 million medical certificates
Historical Transactions	36 million historical financial transactions with a total value exceeding AUD 20 billion
Key Challenges	Tightly coupled, aging legacy system Volume (640 million records across 3 systems) and quality of data Why the selected approach was used Phased rollout by function or geography would require changes to a

	'fragile' legacy system One time data migration minimized risk of data integrity issues
Success Factors	Disciplined project management including tight scope management by both IBM and the client – well managed change control Significant focus on staff training and familiarization prior to go-live

When considering options for implementing complex applications, a single implementation approach is often viewed as a less desirable choice. Training logistics, size of the data cut-over, enterprise-wise impact of any 'glitches' are all good reasons for preferring other approaches. In the case of Nebraska; however, the nature of the current system prevents a functional based rollout, and provides significant risk to manage the modifications required to support a regional rollout, and the size of the user community effectively makes even a region based rollout a large implementation. Given these facts, the Wipro/IBM team is recommending a single implementation approach for the State of Nebraska.

We have demonstrated with Cúram projects in other geographies that a single implementation can be very successful. From our experience with Project Harry as well as experience with very large single implementations in the financial and insurance sectors we have identified the following factors that will contribute to a successful rollout:

Table IV-49: Success Factors Contributing to a Successful Rollout

Key Success Area	Attributes of a Success Implementation
Project Management	Implement rigorous project management oversight of the organizational change and cutover processes. Start well ahead of the planned cutover with a very detailed cutover plan (the plan should have detail down to hours and sometimes minutes in the final days). The implementation strategy and design should be an activity that is initiated at the start of the project, and be one of the factors that is considered when evaluating application design and scope change decisions.
Data Conversion	The data conversion strategy needs to be developed early in the project, including selection of the method and tools required to adequately cleanse and test the data and data conversion process. Ample time needs to be given to testing the final data cutover plan well in advance of the actual implementation date.
Implementation Planning	Project Harry implemented a full dress-rehearsal two weeks prior to the actual cutover date. In this dress rehearsal, the new application was implemented over a weekend, including full data conversion. All users then signed onto the system and processed applications in a 'production' environment for two days. At the end of the two day rehearsal, the new system was backed out and the legacy system restored. While the two days of work needed to be re-done in the legacy system, the benefits of this approach were significant. It proved that the system could be cut-over in the time required. It allowed all users to test run the new system in a 'live' environment identifying potential gaps in training or business processes, or system defects. It also provided insight into potential performance issues. Items that were discovered were then remedied prior to the actual cutover date.

Evaluate the Use of a Pilot	Implement a true pilot with a limited number of users, and provide enough time between pilot evaluation and system go-live to respond and remediate any issues that are identified.
Other Key Factors	Appropriate pre-approved budget and resource allocation to ensure success. Establish a 'war-room'; a control center for the implementation process

Summary

Given the difficulty of modifying the current system, due to its complexity and tightly cohesive nature, the risks inherent in having two systems live at the same time outweigh the additional risks of a single transition. These risks can be mitigated by a detailed plan with planning and testing starting very early in the project plan.

xii. Post Implementation Support

The EES Contractor must provide EES hosting, Disaster Recovery services and a dedicated Service Desk and Application Support Help Desk. The Service Desk will provide the single point of contact for systems related issues. The Application Support Help Desk, to be staffed during business hours (to be determined by the State of Nebraska), will provide support for issues related to the systems business functionality which need to be escalated for investigation and resolution. Both the Service Desk and Application Support Help Desk must be integrated into the internal support structures within the State of Nebraska. The Service Desk, the Application Support Help Desk, and associated staff must be physically located in the continental United States.

Once the solution is implemented in the production environment, Wipro/IBM will provide warranty support/Post Implementation Support for all services for a period of 180 days. Warranty support will cover fixing any of the application defects for requirements against which any of the solution components are developed. Nebraska will ensure that maximum features/functionality of the system will be used in the warranty phase to ensure the stability of the solution implemented. During the warranty phase, Wipro/IBM will fix the defects which occur due to implementation of any requirement in scope. For product defects, the Wipro/IBM team will work with the appropriate vendor to correct the defect as part of the product warranty program.

Wipro will provide ***SmartPro MedEE*** hosting, Disaster Recovery services and a dedicated Service Desk and Application Support Help Desk as part of the maintenance and support. The Service Desk will provide the single point of contact for systems related issues. The Application Support Help Desk, to be staffed during business hours (to be determined by the State of Nebraska), will provide support for issues related to the systems business functionality which need to be escalated for investigation and resolution. Both the Service Desk and Application Support Help Desk are integrated into the internal support structures within the State of Nebraska. The Service Desk, the Application Support Help Desk, and associated staff will be physically located in Omaha, Nebraska.

1. System Hosting

1. The EES Contractor will be responsible for hosting all systems during the DDI Period and must provide approach and costs for Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) for all environments. The EES must be hosted in a Tier IV data center with the provision of disaster recovery

during the DDI Period. The Contractor shall provide, or utilize as applicable, the following hosted services by environment type. The Bidder is to propose, specify, implement and support as many environments or instances within each environment type as necessary to fully support the design, construction, delivery, operation and ongoing maintenance of the system as per this RFP. These environments are deliverables and are therefore required to be approved by the Department.

Sandbox: The sandbox environment is intended primarily for learning and experimentation of system features rather than for testing alterations to existing functionality. It isolates configuration changes and outright experimentation from the other environments within the systems landscape. Sandboxing protects "live" servers and their data, tested source code distributions, and other collections of code, data and/or content from changes that could be damaging. The Sandbox should replicate the minimal functionality needed to accurately test the functionality or configuration being exercised. This will be hosted by the Contractor in its facilities in the continental United States.

Configuration/Development: This environment will consist of the servers necessary to implement all the servers including Database, Application, Portal and other technical layers of the system stack. The environment will be used to support the daily software build cycle and to execute unit test to verify the continuous integration of the code base throughout the development cycle. This will be hosted by the Contractor in its facilities in the continental United States.

Testing: At scheduled intervals, specific builds of the code base will be placed into a "testing environment." This environment will be overseen by the testing team who will use it to verify functionality that has been implemented. This will be hosted by the Contractor in its facilities in the continental United States.

Quality Assurance: This environment will be used to assess compliance to requirements, risk of release, and performance capacity. This environment may be a scaled replication of the production environment to minimize errors caused by incompatibility. This will be hosted by the Contractor in its facilities in the continental United States.

Production: This environment should scale to accommodate the proposed and future capacity of the system and will be built for flexibility, scalability and redundancy. This will be hosted with the Contractor, or potentially collocated with other mission critical MLTC applications with another provider. This will be hosted by the Contractor in its facilities in the continental United States.

Training: This separate and stable environment, must mirror production or as specified by the State of Nebraska, for use to train staff and other system users. The environment must have a minimum daily refresh capability to allow Trainers to delete practice and assessment data. This will be hosted by the Contractor in its facilities in the continental United States.

Disaster Recovery: All required environments to support the ongoing operation of the production system in the event of a disaster or outage condition at the selected computing center(s).

Each environment should be on a logically and/or physically separate sub-network to safeguard access to configuration, data, and code. The EES Contractor will maintain tight control over the configuration of all code through the use of a source control tool. This tool will provide the Development team with the ability to check out code for editing in developer workstation sandboxes and to maintain a common code repository. At the end of the implementation of the EES, the State of Nebraska will have access to all environments.

The EES Contractor will provide a System Maintenance, Support and System Transition Plan for transitioning the production environment to the State of Nebraska's Data Center if desired by the State.

All Environments are implemented as Workloads of one or more Virtual Machines, executing on one of two identical IBM PureApplication Server Appliances dedicated to the ***SmartPro MedEE***. During normal (non-disaster) operations, some Environments are assigned to the Primary Server and Data Center, others to the Secondary Server and Data Center. Either of the two servers is capable of hosting all Environments simultaneously by itself, though with reduced capacity for the non-Production Environments.

Both Data Centers are located within the continental United States: the primary in Omaha Nebraska, the secondary in Tempe Arizona. The figure below portrays the hosting environment – two PureApp appliances – one each for primary and disaster recovery (DR). Each of these PureApp appliances is virtualized to easily accommodate the environments required to support the ***SmartPro MedEE*** solution.

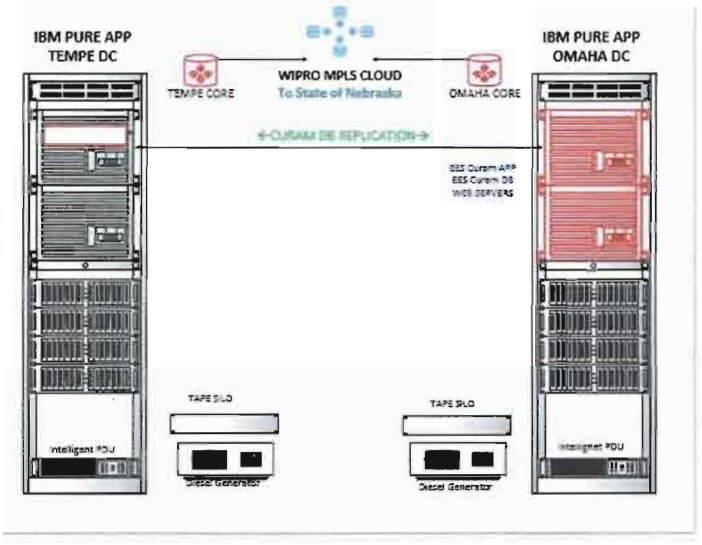


Figure IV-170: *SmartPro MedEE* PureApp Appliance

All Environments are independent collections of one or more coordinated Virtual Machines, and are logically isolated from each other. VLAN separation is used to isolate the Production and Disaster Recovery Environments from the Development Environments. All public-facing environments (e.g. Production and Disaster Recovery) are also layered in Firewalled tiers, with the Web Servers executing in a formal DMZ while Application and Database Tiers operate in a protected Zone.

IBM Rational Team Composer will be used to implement a centralized repository for change and configuration management, including source code control. The RTC tool implements string Configuration Management, and supports checkout, check-in, locking, and other common configuration and version management metaphors. With RTC, the entire configuration, including hardware, software, scripts, programs, rules and workflow are under configuration management.

The Wipro/IBM team will develop a Transition Plan for Transitioning the Production Environment to the State, should it so desire.

2. Equipment Summary

The proposed infrastructure and systems will be housed in a purpose-built and dedicated physical environment. It is imperative that the proposed infrastructure and systems provide the highest level of control and responsiveness in meeting the State of Nebraska's business needs. The Primary Data Center (PDC) shall be configured at the Tier IV – Fault Tolerant Site Infrastructure Level (as defined by the Uptime Institute).

The PDC will provide processing power, control data traffic, and will house and manage all participant and program data. The PDC will at a minimum house:

a) Web Server(s);
b) Application Server(s);
c) Integration Server(s);
d) Portal Server(s);
e) Database Server(s);
f) Analytics Server(s);
g) Report Server(s); and
h) Storage Area Network (SAN).

Wipro will install one (1) PureApp appliance in Omaha and one (1) PureApp appliance at our disaster recovery site. The PureApp appliance integrates all of the of the servers listed above using virtualization and includes 50gb of storage in each PureApp appliance.

The PureApp appliances are contained within Wipro Data Center Services (DCS) data centers. Wipro Data Center Services is the only end-to-end IT Infrastructure Management solution company that offers large and mid-market customers an Enterprise Delivery Model to expertly manage the burden of vital daily operations so our customers can focus on their strategic goals. DCS operates world-class global data centers and offer extensive expertise with every computing platform, including iSeries, Windows, UNIX and Linux servers, Mainframe, Cloud (iStructure), as well as networking, security and storage systems.

Wipro Data Center Services manages its customers' systems in world-class, purpose built data centers that are fully redundant, fault tolerant, highly secure, and include hardware, software and data communications equipment. Our geographically dispersed data centers total more than 430,000 square feet. Our data centers undergo SSAE16 audits, and are PCI certified. (Wipro Data Center Services manages six data centers within the continental United States and one in Meerbusch, Germany).

3. Network

The Contractor is expected to provide highly redundant connectivity to the State of Nebraska Data Center facilities located in Lincoln, NE for all communications between the systems at Contractor's facility and those at the State of Nebraska. All users will be using the existing network infrastructure and functionality of the State of Nebraska's WAN. The Contractor is expected to leverage the State of Nebraska's WAN and the Internet to provide connectivity to all State of Nebraska workers.

Wipro Data Center Services backbone, datacenters, and Core Point of Presence (POPs) located in carrier neutral facilities provide for over 100 different carriers and telecommunications providers to facilitate interconnection with customer networks. The figure below depicts the network LAN design for the data center.

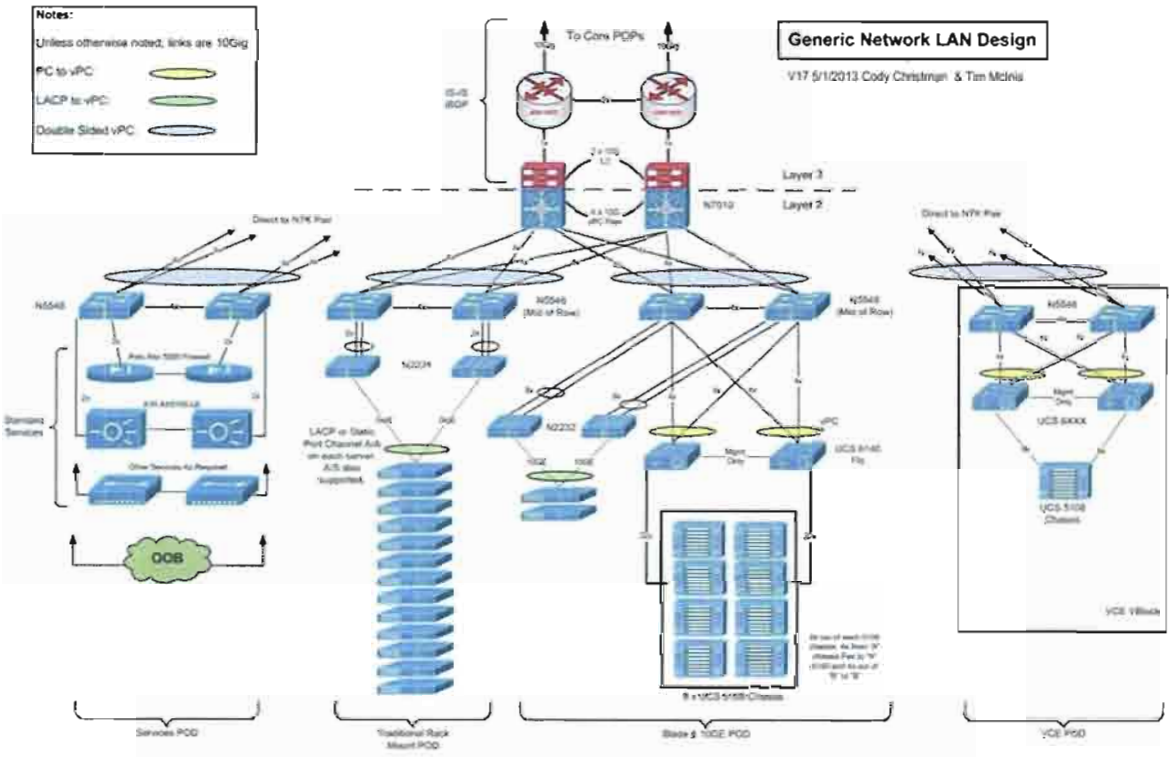


Figure IV-171: DCS Network LAN Design is Fault-Tolerant and Highly Available

A component of the ***SmartPro MedEE*** system will be engineering a 3-tier, fully redundant network between the Nebraska State office and the Omaha and Tempe data centers. In the The Wipro/IBM team solution design, we utilize existing 'network' connectivity to the Internet from both of the Wipro data centers, as well as dedicated connections to the State offices for both employees and contractors to utilize VPN (SVNP) connections to the various EES environments. We have planned for a dedicated circuit connection to the State data center, which we will connect to the Wipro MPLS cloud so that we can utilize our global network to ensure we are always able to route information, regardless of single circuit or connection issues. The solution also includes data center – data center bandwidth to accommodate database/systems replication between the Omaha Production (PROD) and Tempe DR data center environments. That bandwidth will also account for the ability to create a change of network connectivity service between environment solution end-points further alleviating the 'single point of failure' possibility.

The network solution encompasses the ability for State employees to access ***SmartPro MedEE*** from the State offices, as well as via the State VPN network, while keeping the EES system access for enrollees accessible from the Internet, in a separate scheme. McAfee and Palo Alto IDS solutions are utilized to protect from network attacks, while segmenting the network traffic to the various data centers, where the systems reside. The next layer will encompass internal LAN switches and load balancers (where required) to ensure optimal system performance and segmentation. The final layer will encompass local switching and redundant connections to each of the EES systems.

The EES Contractor will be responsible for providing a professional IT Service Desk to be physically located in the continental United States. The IT Service Desk will enable the central management of service delivery and provides the functions and oversight of Contractor's support services including:

a) Incident Management;
b) Problem Management;
c) Change Management; and
d) Service Requests.

Wipro has adopted the industry accepted framework of ITIL v3 as the service management framework to deliver IT infrastructure services. The ITIL v3 framework will be utilized for defining various processes for delivering IT services to the State of Nebraska. The ITIL v3 framework provides comprehensive guidance on the IT Service Management ("ITSM") framework which approaches service management from a service lifecycle perspective. Wipro has used this framework to deliver and manage reliable, effective and efficient IT services to various customers across industry verticals. Wipro's infrastructure services are certified to conform to ISO20000 standards and this is a testimony of the reliability and consistency of IT services provided by Wipro. This ensures that the State receives IT services that assists in meeting its business objectives. The key processes that Wipro will deploy include those listed in the table below.

Table IV-50: Wipro Key Process to Support Highly Mature Service Delivery Capabilities

Availability Management	**Change management**	**Capacity Management**
Configuration Management	**Incident Management**	**Major Incident Management**
Problem Management	**Release Management**	**Service Request Management**
Event Management	**Service Catalog Management**	**Access Management**

Incident Management

The Wipro/IBM team will define and implement the Incident Management process for the State. This will begin with the activity of assessing the current process followed by documentation of gaps (if any) and review the findings with the State. Post review, the The Wipro/IBM team process consultant will begin the definition and implementation of the process.

Key aspects that will be reviewed while analysis, definition and implementation is undertaken include:

- Clear defined owners and their accountability (RACI Matrix)
- Process standardized for use across all towers (Infrastructure and Application)
- Relationship to other service management processes
- Escalation Matrix (both Hierarchical and Functional)
- Prioritization of incidents based on their effect on business processes

Key activities of Incident Management are listed below and will fulfill the requirements of the State of Nebraska:

- Tracking of Incidents (Initiation -> Resolution -> Closure)

- Notification of status and resolution to stakeholders
- Initiate request to Problem Management for RCA
- Closure of Incident only post user / business confirmation
- Escalation of tickets functionally for quick resolution
- Major Incident Management process
- Implementation of work-around or solution in accordance to change management process

Major Incident Management

A major incident definition is an event, which has significant impact or urgency for the business and demands a response beyond the routine incident management process.

As part of the analysis that the The Wipro/IBM team consultants will perform for incident management, the Major Incident Management ("MIM") process will also be analyzed and information would be documented on what services the State classifies as major Incident (MI) scope.

The Major Incident Management process is linked as part of the incident management process. In the event an incident is flagged to a MI status, the Incident Manager or the corresponding role would be the owner of the issue until the status is solved; an acceptable workaround is implemented; or the business decision changes to state that situation of MI is no longer justified.

Problem Management

The Wipro/IBM team will define and implement the Problem Management process for the State. The process definition will ensure that the requirements of the State are met.

Key aspects that will be reviewed while analysis, definition and implementation is undertaken include:

- Clear defined owners and their accountability (RACI Matrix)
- Process standardized for use across all towers (Infrastructure and Application)
- Relationship to other service management processes
- Escalation Matrix (both Hierarchical and Functional)
- The figure below illustrates an overview of our proposed Problem Management Process

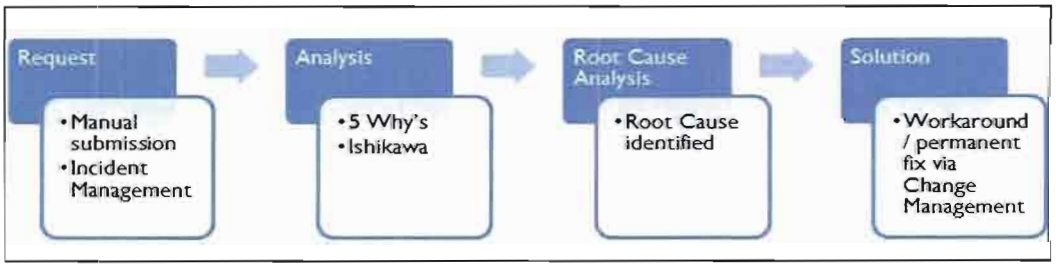


Figure IV-172: Problem Management Process Overview

Service Request Management

The Wipro/IBM team defines the process and the relationships of service request management for the State. The defined process will include:

- Coordinating mobilization of resources required to fulfill the service request
- Provide timely responses
- Management and oversee the implementation of service request
- Service request reporting

Touch points and key activities in the service request management process would be:

- Service Requests can be logged either manually by the Service Desk function or through various integration methods that has been proposed to the State.
- Service Request ("SR") classification can be performed manually by the Service Desk function or by the requestor. The classification can also be automated based on the services selected in the Service Catalogue.
- Classification will determine to which group the SR needs to be automatically assigned and the Priority that needs to be tagged to the SR.
- Updates by e-mail can be sent to users (requestors) from the tool that has been proposed to the State. Standard notifications are sent to the users on click of a button and these notifications are tracked as part of the work log.

Service support management represents a core support center that handles and manages the resolution of Incidents, Problems and Changes. This set of services manages events as they occur, and assures escalation, ownership and closure of these events. The Service Desk should follow best practices based on ITIL v3 standards.

IT Service Desk approach should structure the engagement into four distinct stages:

a) Stage 1: Service Initiation - This stage covers all initiation activities.
b) Stage 2: Service Transition - This stage describes a process of transitioning the Service Desk into a full production environment.
c) Stage 3: Service Operations - This stage is the full systems support of the Maintenance and Operations Phase, where the Contractor has assumed full operational responsibilities.
d) Stage 4: Service Re-Transition - Upon written notification, if the State of Nebraska elects to assume operational responsibility for the Service Desk, this represents the stage where the Contractor will transfer knowledge and collateral to the State or a designated Service Provider.

During the above four staged approach, the following activities shall be addressed during Service Operations:

a) PRODUCTION SUPPORT: Supporting production, addressing system interruptions focusing on identifying and fixing system faults quickly or crafting workarounds enabling later root cause analysis and problem remediation.
b) MAINTENANCE SUPPORT: Making changes to existing functionality and features that are necessary to continue proper system operation. This includes routine maintenance, root cause analysis, applying change requirements, software upgrades, business need changes, rule changes, infrastructure policy impacts, and corrective, adaptive or perfective maintenance, as appropriate.
c) ENHANCEMENT SUPPORT ANALYSIS: Analyzing the functional and non-functional requirements for adding new functionality/features to the EES on prioritized requests from the user community. This includes interpreting any rules changes and other critical business needs from a technical and logistical standpoint.
d) USER SUPPORT: Providing application-specific support coordinated through the IT Service staff as well as conducting system research and inquiries.
e) HELPDESK PLATFORM: The IT Service Desk shall utilize a dedicated implementation of industry standard service desk software suite to be hosted and used by the State of Nebraska.
f) DATABASE SUPPORT: This includes both DB support as well as refactoring the EES to enhance database efficiency in storage and query response time and coordinating with system administrators to enable ideal hardware.

Wipro service desk has been established for over 20 years, all four stages and more are incorporated into our standard service desk approach.

Support Model Description

The Wipro/IBM team has proposed a solution framework based upon the overall landscape assessment, specific objectives and success criteria of scalability, innovation, improving customer satisfaction, lowering operating costs, improving service levels, and providing higher reliability. Keeping the above design principles in mind, The Wipro/IBM team has developed a solution which meets the key objectives of the design principles.

Table IV-51: Support Model Design Principles

Design Principle	Description
Economies of Scale	Role rationalization: Consolidation of Incident and Problem Managers, Leads across Service Desks.
Process standardization	Incident and Problem Manager: End to End ticket ownership Knowledge Manager: Utilization and update of Knowledge Base. Operating Level Agreement: Defining OLA for incident resolution
Reduced Cost/Incident	Improve Automation : Self Help / Heal solution
Continuous Improvement	RCA (Fault Tree Analysis): Year on Year Increase Chat Support Count: The Wipro/IBM team will bring experience on implementing defined chat scripts and executable files for improving chat effectiveness.
Least disruption to existing services	Transition As-Is : Two six sigma projects – CTI consolidation and FLR / Incident Management measurement o Phase I - Increase in productivity from the current state Phase II - Reduction in effort due to consolidation of Service desks FLR improvement - Calls resolved by Service Desk in an optimized time
Quality and Six Sigma	Quality: team includes Quality Analyst throughout the contract term to implement Service Improvement Programs based on CIP / Lean / Six Sigma
Delivery measurement	Service Levels and KPI: Service Levels and KPI for each delivery component which will be common Level 1.5 team will provide the lever to rationalize tasks at Level two and Level 3 improving Service Desk resolution

The following are the key silos and roles considered for the Service Desk consolidation roadmap. These role designations exceed typical delivery roles, such as SDM, Leads, L2, etc.

Table IV-52: Wipro's Infrastructure and Key Role Mapping to Support Outstanding Service

Element	Key Roles for Accomplishing
Infrastructure	Wipro Infrastructure Management Group
Technology	Tools SME Automation Engineer – Scripts

Element	Key Roles for Accomplishing
People	L1.5 skills desktop trained engineers Voice Coach- soft skill training Training Manager – Synergy with apps team
Operations	Incident Manager - IM / SRM process Problem Manager – Trend analysis SQA – Six Sigma and Lean project
Process	Wipro process framework which ITIL V3 aligned as deemed best fit for the State of Nebraska

The proposed Wipro Operational Model includes the entire life-cycle, from receiving an incident (by email, phone and web) by the Service Desk to its resolution. The Wipro Service Desk will provide a holistic approach wherein the Level 1.5 team will be an integral part of the Service Desk in order to ensure on-time resolution of typical issues.

- **Contact Medium:** Phone, Email, Web, and Chat.
- **Call Routing:** Toll free numbers are provided to all countries for the end-user. Wipro Service Desk agents will log onto Wipro ACD for call distribution.
- **Ticketing**: The Service Desk will use the proposed iGCC Remedy ticketing platform to log tickets and escalate tickets to the various resolver groups. The incident and escalation process and mechanism shall be designed and modified based on joint consultation between the State of Nebraska and Wipro. The Service Desk will follow the Execution Process Document ("EPD") as will be defined during the transition.
- **Performance**: All reports will be generated related to the tickets and calls via the Remedy and Wipro ACD. While the frequency of the tickets will be monthly the Wipro operational team will monitor the performance of the team on a daily basis.
- **Knowledge Management**: Wipro will utilize the Remedy KM Module as the common repository of knowledge which will be accessed by the Service Desk agents.
- **Economies of Scale**: Incident Manager, Knowledge Manager and Voice Coach are the resources which are shared across the various towers for ensuring a high quality of service and continuous improvement.

5. Software Configuration Management

Software Configuration Management includes the identification and maintenance of System software components and the relationships and dependencies among them. These activities include:

a) Automatic capture and storage of IT Service to Application, Application-to-Component and Component-to-Component relationships; and

b) Maintenance of the history of those relationships and any transformation required to appropriately manage and document (e.g., source control, version control, profiles, security plans) configuration changes affecting the application and its processing environment.

Code Migration includes promoting new and modified code, configuration, and scripts, in support of new and existing applications through development, test, and production. These activities include:

c) Migrate code from development to test on an agreed upon basis;

d) Track migration status and notification;

e) Identify and resolve issues with the services delivery team and development teams;

f) Develop and document recommended operations and administration procedures related to code migration; and

g) Develop and document test-to-production turnover requirements and instructions for each project or release.

The Wipro/IBM team uses Rational Team Concert to manage changes to the configuration of the SmartPro MedEE solution. Rational Team Concert is used to capture relationships between applications and associated code, maintain history of the relationships, migrate code from one environment to another.

The Wipro/IBM uses RTC throughout all phases of the DDI and into the Maintenance and Operations Phase. With this end-to-end use of RTC, the development team is able to know, through the use of the tool, when there are conflicts between maintenance and development teams.

The Wipro/IBM team will develop and document recommended operations and administration procedures related to code migration. We will also develop and document test to production turnover requirements and instructions for each project and release.

6. Change and Release Mgmt

Change and Release Management activities include services required to appropriately manage and document (e.g., impact analysis, version control, library management, turnover management, build management, parallel development) changes to the application and any of the constituent components being developed. Change and Release Management also includes services required to appropriately manage and document changes to the underlying application development environment components. These include the following:

a) Library Management the classification, control, and storage of the physical components of the application;

b) Version Control the maintenance, tracking, and auditing of modifications to an application's components over time, facilitating the restoration of an application to prior development stages; and

c) Turnover Management the automated promotion of software changes across different phases of the life cycle (e.g., development, unit test, systems test, and production), including management of the approval process, production turnover, and software migration control.

The EES shall utilize a centralized solution to automate and control the software change and release management process.

a) This software change and release management process will control migration patterns (i.e., how a given set of code moves from one environment to another); and

b) This software configuration management process will control versioning, access controls, data quality, etc., for each environment.

The Wipro/IBM team considers Change Management a key component in delivering a quality system, on time, and within budget. We follow a formal, documented Change Management Process to ensure that changes to a project are managed and handled appropriately. Our change

Management Process assumes the establishment of a Change Control Board committee. This committee is constituted of project stakeholders from both the Wipro/IBM team and the customer state agency. The Change Control Board is the authority and final decision maker regarding the acceptance or denial of all changes introduced to a project.

In accordance with our Change Management Process, all changes are submitted as formal Change Requests and are reviewed internally by the Project Manager who investigates the request and determines a remedy that provides a recommended solution. The project's Change Control Board is presented with the investigation documentation and determines the feasibility of the change request and the risk to the project.

Based on the nature of the change, the cost is added to the Change Request and submitted to the State for approval. When approved, the change will be added to the work plan schedule and tracked through completion.

7. Data Retention and Archiving

The EES should be designed to support multiple layers of data backup protection using a combination of both disk based and tape based technologies to meet the EES Backup and Recovery (BU/R) requirements. The EES should leverage SAN replication and mirroring technologies to provide online, disk based system data protection. The EES should utilize SAN-based; block level data replication to protect both critical Database and Application components. Mission critical system components will also be mirrored synchronously to provide fast access to critical functions in the event of failure. In the event of catastrophic system failure at the primary site, clients can be redirected to the secondary site via DNS to utilize redundant systems present at the secondary site. Clients will then be able to retrieve application from replicated sources that will be up to date based on the last completed replication cycle.

Additionally, database replication should also be utilized to synchronize data between both primary and secondary databases. Finally, another layer of protection should be designed to provide traditional, versioned system data backup to tape storage. The implementation team shall create new backup job policies specific to the EES. All EES database and application backup policies will utilize recommended schedules, and all policies will include at least one weekly full backup plus daily incremental backups to ensure data integrity and prevent data loss. Data on all tapes will also be encrypted to ensure security in the event tapes are taken to an offsite storage facility.

The backup solution shall utilize on-line backup methodologies where possible that would enable quick backup and restore. Tape and off-site backups should be used to comply with long-term retention and meet the Nebraska Secretary of State Records Retention standards.

Documentation of all B/UR related processes and procedures will be generated during the course of the project, will be validated during system test, and will be presented t at project close. Additionally, processes and procedures that mandate routine testing and restoration of system backup data will also be developed. In this manner, the effectiveness and health of the proposed System B/UR solution will be continually validated.

Data backup, retention and Disaster Recovery are integral to any enterprise level solution. The Wipro/IBM team employs an extremely rigid and verifiable process of daily, weekly and monthly data/environment backups. State of the art LTO5/6 tape libraries are used to backup many hundreds of Terabytes in our data centers. For the EES system, the solution utilizes both data replication between data centers and local tape backups of specific systems, each night. Retention of daily tapes will be held onsite at the local data center for the first 7 calendar days after use. They are then taken to an offsite retention facility and stored for the remainder of the duration that is required to adhere to Federal, State, local or customer requested data retention policies/guidelines. The

offsite tapes can be recalled 24/7/365, in the event the required data to be restored cannot be obtained on tapes stored at the data center.

The ***SmartPro MedEE*** production database, restore point logs as well the AIX OS server environment settings will be replicated and/or synchronized and verified many times a day via the hardware appliances utilized in our solution. Additionally, the local tape silos will accommodate complete system backups of each of the systems in each of the respective data centers.

Since all of the required storage for this solution will be included in the compute appliance, there will be no external connectivity to SAN frames (although available) or other devices, allowing extremely fast and efficient local disk access. Furthermore, the intelligence build in to the IBM PURE APP systems allows each of the server compute instances to be self aware and repositories of the various Production Web, App, DB, etc. systems will synchronize to the appliance in the DR center, providing the ability to gain sub 60 minute disaster recovery in the alternate data center site.

The entire network routing between data centers is accomplished via IP layer-three network communication, which by default requires DNS routing. During the build of the EES system all servers, interfaces and system routable components will be coded with DNS names, and not specific IP addresses, that can easily be understood via the multiple DNS servers that reside in our network. This will obviously be verified during systems implementation, and verified during the first annual disaster recovery drill, post 'go-live'. As part of the DR test and the developed enterprise support run book, adjustments will be constantly made to the processes and policies to ensure full adherence and specific outcomes in the support and management of the EES solution.

8. System Performance Monitoring and Reporting

SYSTEM PERFORMANCE MONITORING AND REPORTING

a) PERFORMANCE MONITORING: Operational performance monitoring begins with the tracking of each and every service request via a ticket tracking tool capable of capturing and providing detailed information regarding the Contractor's efforts associated with resolving each specific request. The Contractor must ensure that all data collected is accessible by appropriate stakeholders to ensure an "open book" approach to problem management and performance monitoring.

b) PERFORMANCE REPORTING: The Contractor's Service Delivery Manager is responsible for presenting the Monthly Performance Status deliverable against the SLR expectations. The monthly report will include monthly progress for each support area as well as a rolling trend chart. Any deviations from expected performance will be reviewed and discussed with agreements toward corrective action plans defined jointly with the appropriate State of Nebraska management. Continued failure to meet or exceed committed targets should result in escalation of issues.

c) MONITORING TOOLS: The Contractor should propose one or more monitoring tool(s) to proactively monitor the performance of key infrastructure components of the EES. These tools should provide a flexible, well-rounded solution for monitoring server and network health. These should also monitor basic services and database connectivity, and perform advanced monitoring of Web-based applications through customizable monitoring scripts. These tools should have extensively customizable dashboards to provide availability and response time on devices, URLs, WAN links and services; besides providing health and performance statics of the servers, network devices, services and applications. These tools should utilize a combination of ICMP, SNMP, and WMI protocols that enables them to monitor almost

any networked device. Automatic alerting and reporting in multiple formats including email, SMS text messages, and application pop-up windows should also be available.

Event Recognition and management will be provided to restore normal service operations as quickly as possible to minimize the impact on business operations, thus ensuring the best possible levels of service quality and availability are maintained.

Problem management will be provided to minimize the adverse impact of incidents and problems on business caused by errors within the IT infrastructure and to prevent recurrence of incidents related to these errors.

Physical and logical problems use the same problem management procedure within Wipro, as defined in the diagram below.

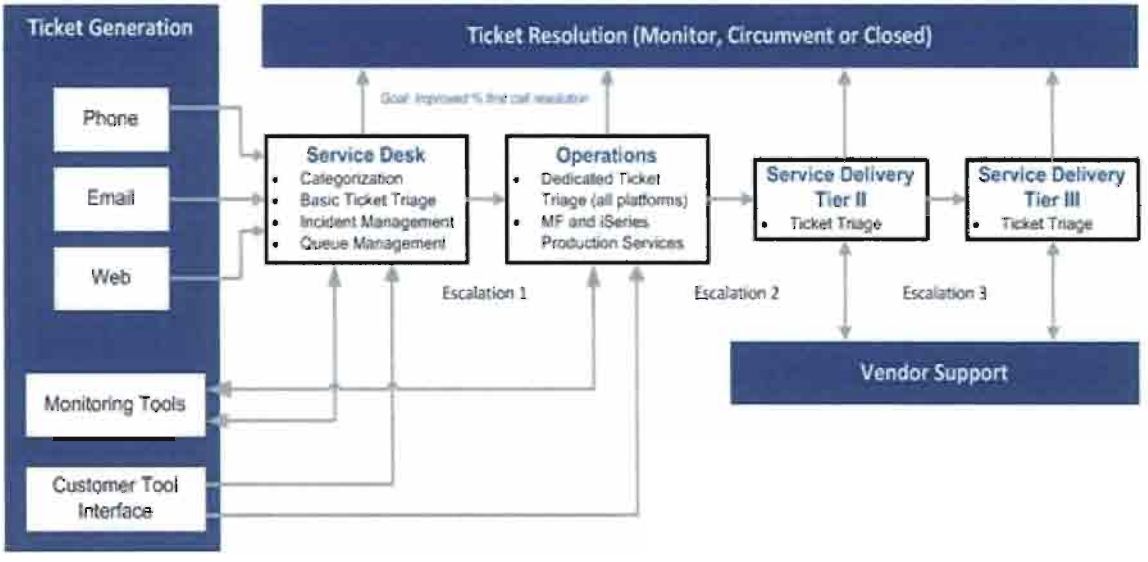


Figure IV-173: Wipro's Mature Ticket Escalation Process

Any chronic or recurring problem initializes Wipro's service improvement process to correct a deficiency in our service not achieving expected service levels. When a deficiency appears requiring actions beyond our problem management process, a team of Wipro employees with appropriate skills is convened to develop a service improvement plan. Once the plan is developed, it is presented to the State and internal Wipro management for approval. The plan is implemented along with appropriate measures.

Results from the plan implementation are compared to service levels – this process is repeated until service levels are met.

Wipro is associated with industry groups and standards such as the Quality Assurance Institute (QAI) and the Information Technology Infrastructure Library (ITIL) ensuring our practices are in-line with industry standard "best practices". These associations also assist us when implementing new procedures and practices as needed.

Wipro focuses on continuous service improvement (CSI) to correctly track the appropriate key performance indicators along with resolving issues effectively. Our internal service delivery process ensuring operations activities are optimized is Wipro's Continuous Service Improvement Vision.

Detailed post incident reports (PIR) are published for severity 1 problems to document root cause and correction actions taken to resolve the problems. The information gathered during a particular corrective process is used to assist the staff in resolution of future similar issues.

The Wipro/IBM team informs the State via primary, secondary and/or tertiary contacts previously established by the State in the contact system. Specific callout procedures are established per State requirements. Contacts are made when severity 1 or 2 network faults or performance issues arise.

Continuous service improvement commitments are not intended to be agreements or contracts in the legal sense, but are intended to provide a formal process by which service problems are addressed and resolved. These commitment agreements are formalized between the Wipro/IBM team and a specific State representative.

After the Wipro/IBM team technical organizations have the opportunity to thoroughly investigate a problem, a meeting with appropriate State of Nebraska personnel to discuss and develop solutions is established.

Event Recognition

As part of Wipro security policy all servers will have Anti-Virus software installed to protect from infections such as virus, worms etc; and will be updated with latest signatures from the Anti-Virus server on daily basis. All servers and network device will be updated with the latest security patches and will be monitored for availability of any security patches using the patch management infrastructure. Role based access will be provisioned for access to the management console with audit trails. All servers and security devices will be monitored real time for security events and alerts will be generated on detection of any security violations.

For the purpose to collect audit logs from in scope log sources the Wipro/IBM team will deploy a local instance of Security Information and Event Management tool at the Omaha Data Center. This appliance will collect, store, correlate audit logs from the production servers, firewalls, intrusion detection systems and other security devices deployed in IT environment and generate alerts on security events. The Wipro/IBM team will also provide "Event Explorer" software module for enhanced data mining, investigation support and reporting capabilities.

Reporting and Communication

- The Wipro/IBM team will provide a portal to enable comprehensive reporting framework that includes incident details , daily monitoring reports, weekly monitoring reports monthly monitoring reports
- Enterprise dashboards will be provided to view all the alerts spread across infrastructure
- Role based access for relevant Reports, views and Alerts will be provided to the Security administrator, Security manager, CISO etc.
- Device level reports can be generated from the portal
- Secure access to download report (in CSV, pdf or html formats) will be provided.

Wipro SOC operations provide reports on daily/weekly/monthly/quarterly/annual basis. Other reports could be created based on incidents/events or as part of vulnerability alert/advisories.

Following is a table of typical reports generated for a customer:

Table IV-53: Security and Operational Reports – SOC

Reporting List	Daily	Weekly	Monthly	Ad hoc
Security Event Reports				
Event Count Reports (based on Attacker, Severity, Target Port, Asset Priority, Device)		✓		
Events Based on Asset Group Report		✓		
Event Summary Report	✓			
Event Trend Chart Report		✓	✓	
Top 10 Security Reports (Attacks, Attackers, Targets, Events)		✓	✓	
Compliance Report (authorized change)			✓	
Vulnerability Reports				
Exposed Vulnerability Report			✓	
Asset Group Vulnerabilities Report			✓	
Critical System Vulnerabilities Report			✓	
Case Reports				
All Case Reports		✓		
Case Chart Report		✓	✓	
Operational Impact Chart Report		✓		✓
Cases Today Report	✓			
Custom Reports				
Delta Chart Attacks by Business Unit Report				✓
Alerts and Advisories Report (prioritized vulnerability)		✓	✓	
Service Level Agreement and Measurement Report			✓	

These reports are available to the State of Nebraska through the Wipro SOC Portal, as shown below and moreover, these reports shall be generated and exported in three different formats: PDF, CSV and HTML.

The portal will be accessible to the State of Nebraska on a 24x7 basis with adequate role based access control.

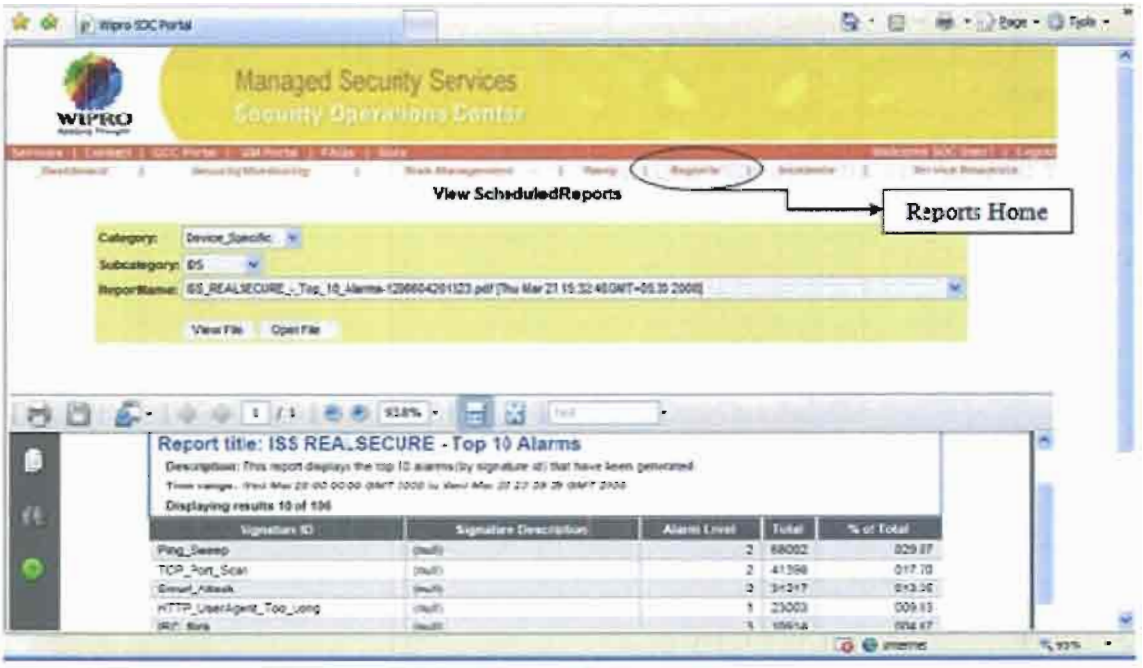


Figure IV-174: Graphical Operations Reports Available Through Wipro's SOC Portal

Reports will be created by security operators and reviewed by security analysts or other senior SOC staff; this will provide accuracy and a review mechanism of all reported data.

Table IV-54: Performance Standards

Performance Standard	Standard SLA
Server Availability	99.0%
Data Center LAN Availability	99.50%
Data Center SAN Availability	99.0%
WAN Availability	99.50%
Internet Availability	99.90%
Critical Data Restoration Request (initiate a restore of data from tape)	Commence restore w/in 4 hrs of receipt of request - No more than 2 requests per month >4 hrs
Off-Site Tape Storage Verification (SLG) (insure all data backed up onto tape, designated to be rotated offsite and has been properly stored offsite)	100% of tapes are sent off-site w/in 24 hours
Network Packet Delivery	99.00%
WAN Service Network Latency	<180 ms per connection
Customer Service Order Completion (SLG) - Customer Service Orders (CSOs) completed in a timely fashion.	Low Volume <50; <=5 CSO's exceed the completion date required or 90% on-time
Change Implementation Success (SLG) (successfully implement changes within	Low Volume <50; <= 5 Changes complete with a failed status per month or 90% success

Performance Standard	Standard SLA
the Customer's environment)	
Disaster Recovery (SLG) (restore critical systems at an alternate facility in the event of a declared disaster at an Wipro Center)	Restored systems are operational w/in 48 hrs
Service Desk – Speed of Answer	Customized based on Customer Business Needs
Service Desk – Abandon Rate	Customized based on Customer Business Needs
Service Desk – Provision (User Administration)	Customized based on Customer Business Needs
Service Desk – Incident Response	Customized based on Customer Business Needs

PREVENTION: Wipro data centers area based on fault tolerant engineering to provide non-stop operations. In addition to these design preventive measures, data center sites are located away from industrial areas, airports, railways, and interstate highways. Most site locations have no documented earthquake or tornado activity.

CONTINUANCE OF SERVICE: Wipro will assist the State of Nebraska in the event of a disaster at a Wipro data center. Specific recovery services provided by Wipro include (but are not limited to):

- Shipment of tapes to the State of Nebraska's disaster recovery location in Tempe Arizona
- Management and coordination of recovery operations
- Provision of appropriate technical resources during the recovery process

An example of Wipro's service management model, including Service Level Agreement, service reporting and meeting charter is as follows:

Performance Tuning

Tuning system performance involves the monitoring of, measurement of, and adjustments to the various components of the system to improve its overall performance and availability. The goal of performance tuning is to increase the throughput and efficiency of the processor, memory, and input/output (I/O) subsystems in order to accommodate the activity and workload requested of the system.

Monitoring

Wipro monitors system performance of processors and peripheral devices using a variety of products to track response times over a range of intervals, and to examine response time summaries of individual logical units of work of any period thought to have a performance problem. To take full advantage of this capability, the State of Nebraska must configure an agent in the application to enable Wipro's monitoring systems to perform response time gathering and collection of data.

Measurements

Wipro collects statistics of historical system data – measured over regular intervals – in order to establish a baseline of system performance. The baseline statistics are used to measure the differences in system performance after tuning implementation.

Gradual or significant changes in key performance indicators are recorded and an explanation regarding the cause of each change is documents. The purpose of threshold alerts is to notify Wipro personnel prior to a shortage of resources in a client's system.

System Adjustments

Predefined corrective tasks automatically initiate to relieve the resource shortage when a threshold alert occurs.

- Typical monitoring and subsequent adjustments Wipro performs for servers include:
- Processor, memory, I/O subsystems and storage adjustment
- Alert and threshold setting revision
- System priority amendment
- Processor, memory, I/O subsystems, and storage performance measurement analysis

9. Compliance with Federal HIPAA, HI-TECH and State of Nebraska Confidentiality Law

The EES Contractor acknowledges its duty to become familiar with and comply, to the extent applicable, with all requirements of the Federal Health Insurance Portability and Accountability Act (HIPAA), 42 U.S.C. § 1320d et seq. and implementing regulations including 45 CFR Parts 160 and 164. The Contractor also agrees to comply with all State of Nebraska Privacy Policies.

The Contractor shall maintain the privacy and security of all individually identifiable health information acquired by or provided to it as a part of the performance of this contract. The Contractor shall follow federal and State of Nebraska law relating to privacy and security of individually identifiable health information as applicable, including the Health Insurance Portability and Accountability Act (HIPAA) and its federal regulations.

Protected Health Information as defined in the HIPAA regulations at 45 CFR 160.103 and 164.501 means information transmitted that is individually identifiable; that is created or received by a healthcare provider, health plan, public health authority, employer, life insurer, school or university, or healthcare clearinghouse; and that is related to the past, present, or future physical or mental health or condition of an individual, to the provision of healthcare to an individual, or to the past, present, or future payment for the provision of healthcare to an individual. The definition excludes certain education records as well as employment records held by a covered entity in its role as employer.

Based on the determination that the functions to be performed in accordance with this RFP constitute Business Associate functions as defined in HIPAA, the EES Contractor shall execute a Business Associate Agreement as required by HIPAA regulations at 45 CFR §164.501.

The IBM/Wipro team acknowledges our duty to become familiar with and comply, to the extent application with all requirements of the Federal Health Insurance Portability and Accountability Act. We also agree to comply with all State of Nebraska Privacy Policies.

The IBM/Wipro team will maintain the privacy and security of all individually identifiable health information and will follow federal and State of Nebraska's law related to the privacy and security of individually identifiable health information.

The Wipro/IBM team agrees to execute a Business Associate Agreement, as required by HIPAA.

Wipro will ensure alignment with, and incorporation of, industry standards: the HIPAA privacy, security and transaction standards; accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities,

and compliance with Federal civil rights laws; standards adopted by the Secretary under section 1104 of the Affordable Care Act; and standards and protocols adopted by the Secretary under section 1561 of the Affordable Care Act.

Wipro acknowledges and will comply with all State of Nebraska Privacy Policies.

Wipro acknowledges and will comply with State of Nebraska law relating to Privacy and Security of individually identifiable health information as applicable, including the Health Insurance Portability and Accountability Act (HIPAA) and its federal regulations.

Wipro will maintain the privacy and security of all individually identifiable health information acquired by or provided to it as a part of the performance of this contract.

10. Data System Access

The Contractor agrees that all information accessed in the State of Nebraska computer systems is the sole property of the State of Nebraska; Contractor employees are granted access to this under the terms and conditions of this Contract. All information collected and compiled by the Contractor under the terms and conditions defined in this Contract is the sole property of the State of Nebraska and subject to all privacy and security safeguards defined by the State of Nebraska.

The Contractor agrees that under the terms and conditions of the contract resulting from this RFP, that the State of Nebraska computer system access will only be granted to employees or subcontractors approved by the Department.

The Contractor agrees that under the terms of this contract they are responsible for ensuring all State of Nebraska approved subcontractors understand and agree to abide by the same terms and conditions defined in this contract.

The Contractor agrees that unique access logon accounts into the State of Nebraska's data systems will be assigned to an individual and that logon account may only be used by the individual to which it is originally assigned.

The Contractor agrees to access the State of Nebraska data systems only through State supplied CITRIX access and encryption technology.

The Contractor agrees to meet compliance requirements for all applicable State of Nebraska and federal physical, administrative, and electronic safeguard standards (as per safeguard publications listed below) and abide by State of Nebraska Information Technology Policies that govern the appropriate use of disclosure of privacy of and security of information provided by the State under the terms and conditions defined in this Contract.

Wipro's Data Systems approach for physical access into the Data Center in terms of organizational procedures is as follows:

Physical:

- Limit access to the building by a single card-key controlled entrance adjacent to the security station. Visitors must register at the security station and be escorted during their entire stay inside the building.
- No breaches of Wipro's physical security practices have ever occurred.
- Computerized, multi-level card-key access system provides internal screening and access control for all personnel

- Security officers are on duty 24 hours a day, 7 days a week, monitoring activity both inside and outside the building from display screens in the security station
- Multiple fixed and pan-tilt-zoom cameras on the exterior of the facility provide 360 degree coverage of the immediate and adjacent areas

A camera monitors all access through the main entrance to the facility. Cameras monitor access to, and all hallways within, the computer operations areas of the facility. A complex of pan-tilt-zoom cameras monitor all movements and activities inside the telecommunications and computer room areas.

Furthermore physical and logical separation is guaranteed whenever Wipro supports employees or subcontractors accessing the Data Center. Visitors/vendors must register at the security station and be escorted during their entire stay inside the building. Customer and vendor access is also restricted to "need to access" basis.

Use of PVLAN separation and firewalls prevent access between customers via any leveraged infrastructure. If required, Wipro can provide dedicated monitoring and management infrastructure vs. the standard leveraged platforms.

11. Safeguard Publications

a. Health Information Portability Accountability Act of 1996 (HIPPA—privacy rule 45 CFR Part 160 and subparts A and B of Part 164)

b. HIPPA – Security Rules 45 CFR Part 160 and subpart A and C Part 164

c. Internal Revenue Service (IRS) Publication 1075

d. Social Security Administration (SSA) – Computer Match Agreement

e. DHHS Information Technology Policies

The Contractor agrees that the State of Nebraska or federal agencies with jurisdiction (i.e., OCR, IRS, SSA, DHHS, or State of Nebraska Auditor's Office) may conduct unannounced compliance inspections related to the physical administrative and electronic safeguards defined in the publications listed above.

The Contractor understands that it will be held responsible for all criminal and civil penalties for actions of the subcontractor as defined in the publications listed above.

The Contractor agrees to immediately notify the State of Nebraska's HIPPA privacy/security office of any suspected loss of, threat of, inappropriate disclosure of, unauthorized access of, or destruction of and/or corruption of Departmental information obtained from Departmental computer systems and agree to comply with incident reporting criteria as defined in their BAA and the publication listed above.

The Contractor agrees to immediately notify the State of Nebraska of any lost or stolen computer hardware that may have been used to access, process, or store State of Nebraska information or State computer systems.

Contractor agrees to comply with State of Nebraska Breach Notification Law Revised Statute 87-802 any time there is a suspected loss of personal information as defined in the revised statute.

The Contractor agrees that no State of Nebraska information will be stored on a personal device and all State of Nebraska information stored, processed, or otherwise transmitted will be performed on State of Nebraska resources accessed through CITRIX or through the State of Nebraska secure e-mail system.

Wipro acknowledges that the State of Nebraska (or its Auditor's Office) may conduct unannounced compliance inspections related to the physical administrative and electronic safeguards as defined. All notifications will expeditiously be made, if/upon any suspected loss, threat or unauthorized access or destruction of State Departmental information. At no time will any State information be stored on a personal device and/or will information be transferred therein.

12. Warranty

The Bidder must provide a narrative overview of how the proposed solution will meet the EES requirements. The following response requirements pertaining to the Non-functional Requirements for the EES and must be responded by the Bidder.

Provide specific details of the proposed approach to meeting the State of Nebraska's requirements in each area. Also, include one or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

i. Describe the proposed approach to system warranty, including the type of warranty being offered. In addition, provide a summary of the Bidder's proposed strategy for supporting that warranty. Please address the following areas (at a minimum):

   a. Four-Year Software Warranty;
   b. Staff Resources and Supporting Equipment; and
   c. Meeting Service Level Requirements (SLRs)

Wipro commits to supporting an Eligibility and Enrollment System Stabilization period and to ensuring the system meets requirements after rollout.

Upon deployment and acceptance of the original EES Project scope, Wipro is committed to provide a 180 calendar day warranty for all "corrective" maintenance, modifications and support to stabilize system performance within agreed upon Service Level Requirements and the original scope of the software development effort.

Wipro will assume responsibility for the root cause analysis activities to demonstrate whether a defect is related to the original functional scope. There will be necessary governance procedures in place to identify if a work item is classified as change or enhancement to the system or defect. Any item identified as defects would be covered under warranty at no additional cost to the State.

Wipro will provide required fixes within the reasonable timeframe (depending on severity as defined in the table below) and will produce at no additional cost to the State of Nebraska.

Table IV-55: Production Defect Severity

Production Defect Severity	Response Time
Severity 1 - The EES no longer functions at all, or a System component is unavailable to more than 20% of active production users.	4 Hours

Severity 2 - Any defect that affects less than 20% of the EES functionality or less than 20% of active production users.	8 Hours
Severity 3 - The EES is able to function with a temporary workaround.	72 Hours

The Wipro/IBM team will provide the equipment necessary to support its staff for the duration of the Warranty period.

The system support process will be mutually agreed upon before start of the engagement.

Maintenance Program

Upon expiration of the 180-calendar day warranty, the Wipro/IBM team will provide a fee-based maintenance program for the duration of the contract, including renewal periods. The annual maintenance program will have all necessary details to ensure adequate technical support, updates and fixes necessary to operate the solution in manner prescribed.

Meeting Service Level Requirements (SLRs)

The Wipro/IBM team will provide Maintenance methodology, approach and processes based on the Federal Exchange Life Cycle SDLC template entitled ***Service Level Agreement / Memorandum of Understanding***. This document will be mutually agreed and signed-off before completion of 180-calendar day warranty phase. Once approved, the SLA/MOU will be placed under Change Management, and published through the project's document management system.

The Service Level Agreement / Memorandum of Understanding will address the following topics and will include the above mentioned Production Defect Severity and Response Times.

Introduction

- Scope
- Background
- Audience
- Assumptions
- Roles and Responsibilities
- Contacts

Service Details

- Requirements
- Service Level Expectations
- Escalation Actions
- Service Provider / Service Recipient
- Service Hours for Problem Resolution
- Performance Guarantee
- Agreement Change Process

i. Describe the approach for providing ongoing maintenance and support services, including a flexible and scalable approach to providing the various types of personnel, including:

a. Architect;
b. Business Analyst/Functional Lead;
c. Communication/Network Specialist;
d. Database Administrator;
e. Help Desk Specialist;
f. Hardware Specialist;
g. Operations Lead/Manager;
h. Project Manager;
i. Programmer;
j. Security Systems Engineer; and
k. Systems Administrator.

Wipro offers tailored options such as flexible delivery (flexible staffing with a core team to manage demand fluctuations); shared / co-existence delivery teams between client and Wipro/IBM teams (logical allocation of roles and responsibilities); component-based engagements (such as L3/L4 only, or module-based, or business unit-based).

Although responsibility for resolution is handed over to another support group/level, the service desk retains ownership of the incident, and manages it until it is resolved to the customer's satisfaction.

The above explained methodology for ticket resolution shall be followed in the proposed delivery model for this engagement with Nebraska.

A service center for Support (Flex) is laid out along multiple layers like Development Factory, with each layer performing a set of services that tie in with the overall objectives.

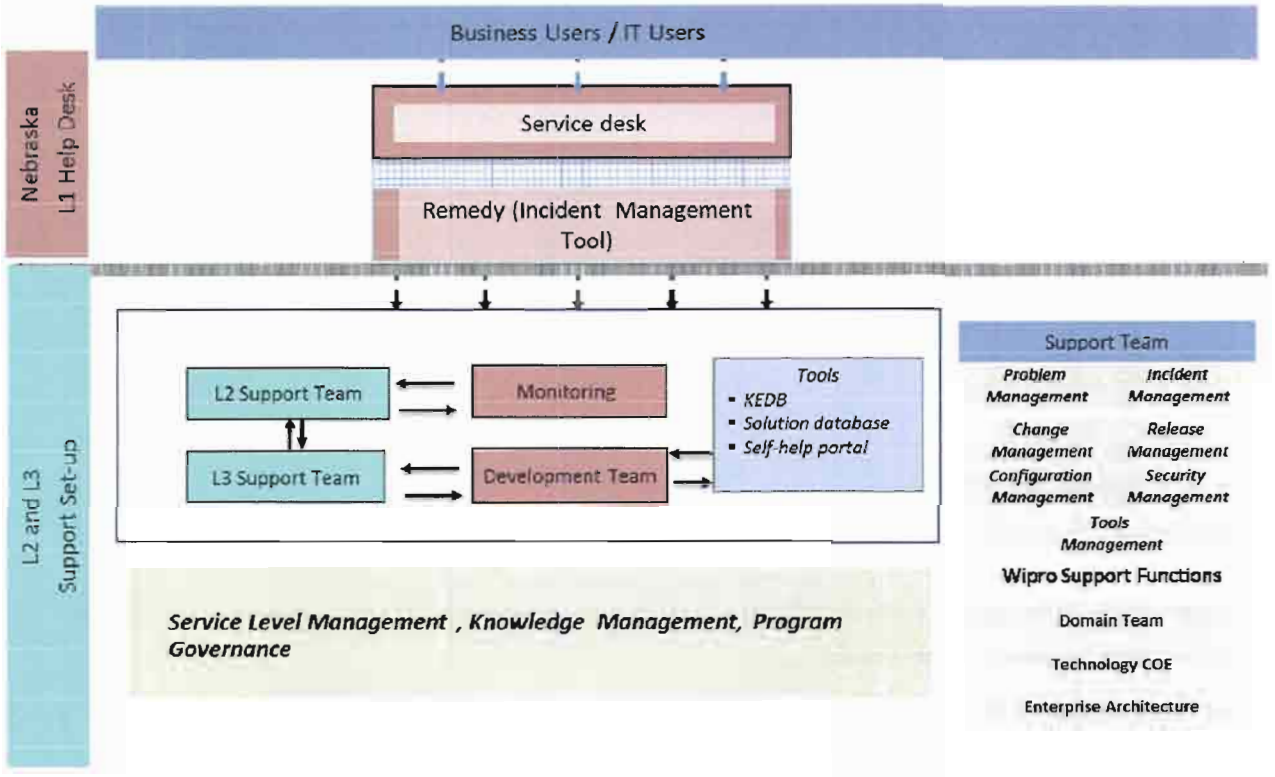


Figure IV-175: Support Engagement Divided into Core and Flex Teams

As can be seen from the above illustration, the Wipro/IBM team shall divide the support engagement into Core and Flex teams. The core team shall be responsible for solving critical and high priority tickets, preventive maintenance, quality assurance, and process improvement initiatives. The core teams for Nebraska shall be aligned into process areas and shall have its own dedicated core team since there are many region specific customizations into the applications. The core team shall consist of process experts, application specialists from EDW, Reporting and BI.

The Flex team on the other hand, is a shared competency team based offshore which shall be shared across the landscape. This team shall have process and application experts and shall be involved in the providing support for common business process areas which are common across geographies. The Flex team shall be divided into 4 teams:

1. **Service Desk**: First point of contact of business users responsible for and resolving simple How-To and other trivial application queries/request after due enablement. Service Desk is typically the initiator of the Incidence Management process.
2. **Centralized Services Team**: is typically the Demand Queue Manager and responsible for convergence of ITSM processes, custodians of Knowledge Bank, encourage knowledge sharing and Service Management. They ensure that all the entities have a consistent experience and their requests are adequately addressed. This team has process Specialists comprise of ITIL trained experts who have end-to-end knowledge of FT processes and shall implement various processes like Change Management, Release Management, and Incident Management etc.

3. **The Incident and Problem Handling Team**: is aligned to technology and skills to provide Incidence/Problem resolutions for the tickets raised by Service Desk. They shall be responsible for solving low priority tickets and activities like regression testing, problem management etc. This team provides adequate support coverage as desired by various entities.

4. **Application Monitoring and Preventive Maintenance** shall be responsible for all batch jobs and monitoring activities as and when needed/defined for various entities.

The Wipro/IBM team intends to implement an ITIL v3 based process for application maintenance and support complaint process for the below two ITIL service support components:

- Incident Management
- Problem Management

Wipro follows a robust ticket resolution methodology based on the ITIL standards which clearly outline the ticket resolution process from ticket initiation to closure. The illustration below outlines this process in detail:

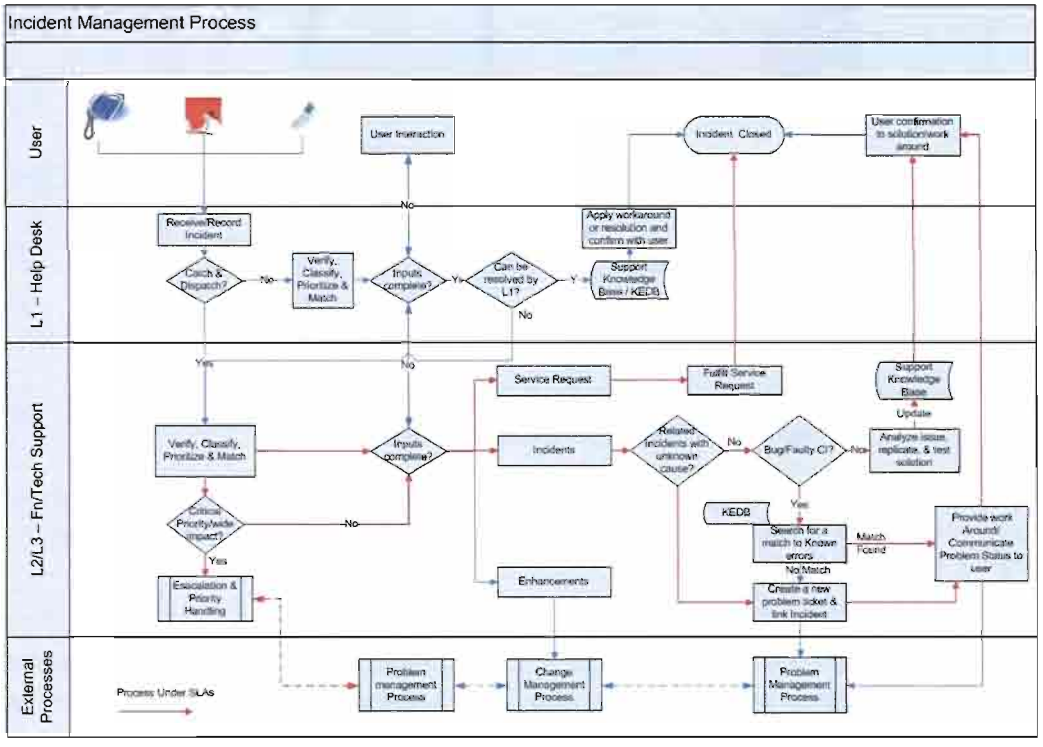


Figure IV-176: Ticket Resolution Methodology

Ticket Initiation - Helpdesk/Users/Super users at FT raise the tickets. Each ticket is logged into the Ticket Tracking system of individual countries Help Desk (except for Spain where it is done by Wipro) which is then interfaced to Wipro's Ticket Tracking Tool HPSM. The User or the Level 1 help desk classifies the tickets into severity levels. These tickets are further analyzed by Level 2 and Level 3, who prioritizes them for implementation.

Ticket Resolution - The ticket resolution process starts at the Level 1 help desk, and moves on to Level 2 and 3 as required. As tickets are analyzed, Wipro updates the status information into the ticket tracking system. Workaround solution may be offered to the users, depending on the type, nature, and priority of a ticket. In such cases, permanent resolution is deferred to a later stage, and is taken up after detailed analysis followed by a formal change management review process.

The system can be configured to automatically trigger an escalation process, when resolution timelines are not adhered to by the respective help desks.

Ticket Closure - All tickets are closed once validated by the User and also simultaneously in customer's ticket tracking tool.



Figure IV-177: EIS Production Support Dashboard

ii. Describe the approach to system operations support, including the levels of support offered and the process for requesting support. In addition, provide a summary of the strategy for maintaining and repairing the system. Please address the following areas (at a minimum):

a) Base Software Maintenance Period

The Base M&O period includes the "adaptive" maintenance/modification of the EES performed after completion of deployment to keep the EES usable in a changed or changing environment, and "perfective" maintenance which is modification of the EES after completion of deployment to improve performance or maintainability. During this period, Wipro shall be in charge of Software Maintenance, and hosting and operating the EES platforms and underlying technologies, and providing Disaster Recovery services.

The Base Maintenance and Operations (Base M&O) period shall be four (4) years from the projected date of January 1, 2016.

b) Incident and maintenance request reporting

Visual Monitoring System (VMS) is a real time alert and incident monitoring tool. It's a single interface showing all the incoming alerts at one shot providing online visibility to L2/L3 team on the flow of alerts. Monthly reports on the flow of alerts help us in identifying the root cause and thereby propose permanent fix to customers.

Features of VMS:

- Real time monitoring and reporting of alerts and incidents categorized on business criticality and priority across multiple shifts
- Provides queues for monitoring alerts in a categorized manner with business criticality/priority
- Provides information on incident trend across Shift hours
- Provides a number of MIS reports and Analytics for
  - Alert trend across months
  - Alert funnel to showcase distribution
  - Incident trend

Benefits of using VMS:

- Acts as a window/portal to understand what is happening in the respective support engagements
- Team leads and managers can use this to understand where we stand on open alerts and incidents at any given point in time
- Helps in avoidance of missing important alerts. Widely used mechanism of email notifications is typically prone to human errors/or missing important alerts
- Provides feature like instant messenger which is platform independent
- Offers lots of benefits like 360 degree view of alerts and tickets (without having to login into different tools), Alert prioritization and categorization, SLA discipline enforcement, job views, trade processing flow, analytics, MIS enquiries.
- Integration with KEDB helps faster turnaround time for tickets.

c) Optional Extension Software Maintenance Period.

At the expiration of the Base M&O period, the State of Nebraska may elect to enter optional renewal M&O Period(s). The scope of services covered under the optional renewal M&O Period(s) will be the same as the Base M&O period.

Wipro agrees to propose two (2) two-year renewal M&O periods. The State of Nebraska shall be able to exercise its option to sign-up for the same services to those offered in the warranty and Base M&O period.

Scalability and flexibility

The Wipro/IBM team understands that Capacity Management ensures that the capacity and performance of the IT services and systems match the evolving agreed demands of the business in the most effective and timely manner. The main objective of the our capacity management team is to understand and define the procedure for preparing the capacity plan by monitoring and analyzing

the capacity of resources and to ensure the Support team, at all times, sufficient capacity to meet the current and future agreed demands of the State's needs.

The Wipro/IBM team works with State of Nebraska team and helps balanced Capacity Management process and planning, being involved at all stages of the service life cycle from planning to operations and to improvement.

- Balancing costs against resources needed
- Balancing Supply against Demand

The capacity management process is described in the diagram below.

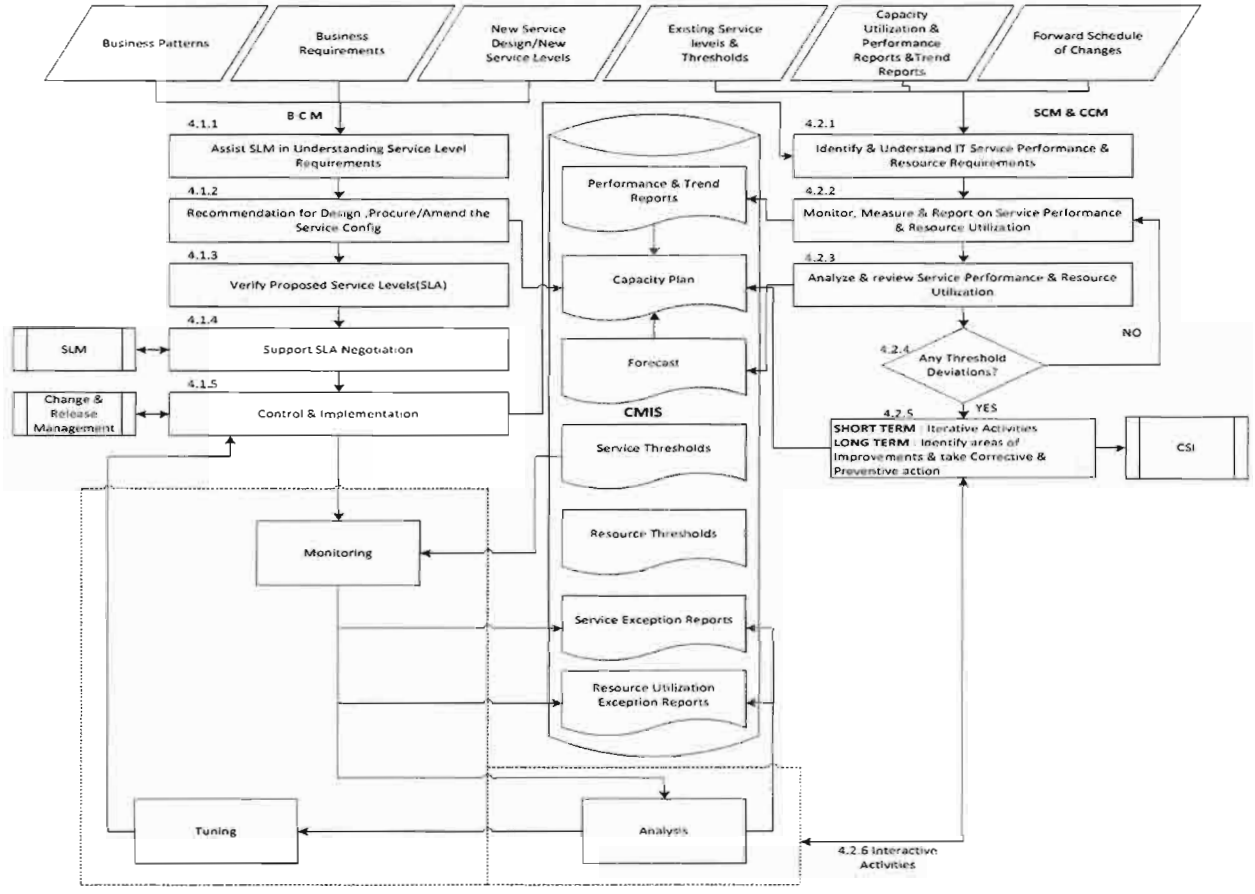


Figure IV-178: Capacity Management Process

Defect resolution and Solution Acceptance

iii. Describe the proposed approach to Defect Resolution and Solution Acceptance that shall incorporate methodologies and practices which will assist the State of Nebraska to successfully manage the enterprise's M&O lifecycle phase and shall address at least the following areas:

a. Support Model;
b. Triage Procedures;
c. Tools;
d. Roles and Responsibilities of support personnel;
e. Release Management;

f. Upgrades;
g. Maintenance;
h. On-going Operations;
i. Customer Support;
j. Specific support procedures for production;
k. Deliverables;
l. Capacity Management;
m. Technology Refresh;
n. Solution Security;
o. Backup and Recovery;
p. Disaster Recovery; and
q. Defect/Issue Management.

Defect Resolution is the practice of identifying, tracking and resolving the errors or defects found in all stages of the Software Development Lifecycle (SDLC). Defect Management is the process of detecting, analyzing, taking corrective action and resolving defects. Therefore defect management is a critical factor in the testing life cycle as the effective management of defects in any given Software Development Lifecycle is a key to its successful delivery

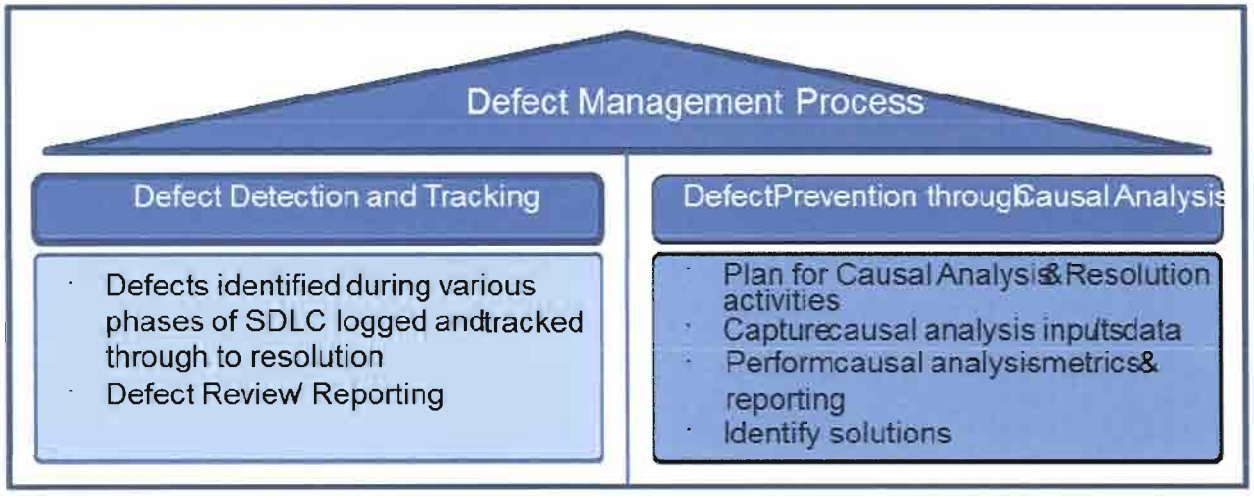


Figure IV-179: Defect Management Process

Following defect detection, defects are tracked through a set of work activities and processes through to successful resolution.

Defect Prevention through Causal Analysis

Defect causal analysis is undertaken to identify the causes of defects and to take action to prevent defects from occurring at any time in the future.

Defect prevention activities are initiated when a project is started and continue until the end of the project.

Defect Prevention helps in:

Identifying the most commonly occurring defects,

Identifying process changes and other corrective actions to ensure that the most common defects are eliminated within each phase, and

Continuous review and improvement of processes which will ensure more effective defect detection and defect prevention techniques within the testing lifecycle starting from the requirements analysis phase through to the completion of the test execution and test sign-off phases.

Solution Acceptance

Defect fixes will be developed and tested by the Development team and delivered to the designated test environment for re-test within the agreed timeframe. Any subsequent defects found while retesting a defect fix must be logged as new defects.

The release processes and timeframes for the code fixes to be delivered to the test environment will be discussed and agreed between all relevant parties in the Defect Triage Review Meetings.

Defect fixes will be tested as is appropriate to the nature of the defect. Regression testing will be undertaken as required to verify that the defect fix has not caused regression of any code. This testing will be undertaken by the Test Analyst as part of the retest.

Where the defect is confirmed as an error or omission in the baselined requirements and/or design this will constitute an enhancement and require a Change Request to be raised by the Program.

Where an enhancement is required the defect will be assigned to the Business team responsible for initiating the program's Change Management Process.

Support Model

The following diagram provides a high level overview of the key activities and resource groups required to support the Defect Management Lifecycle within the project.

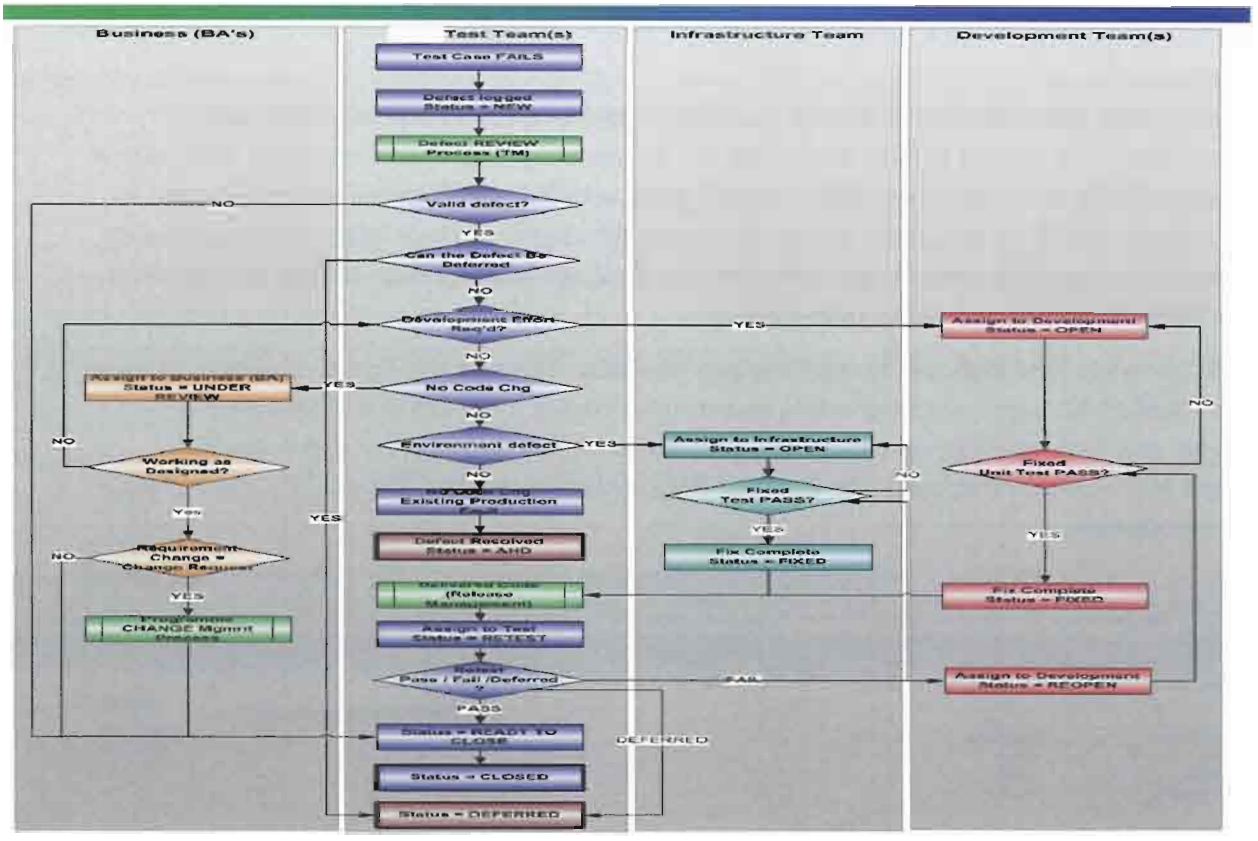


Figure IV-180: Defect Management Lifecycle

Triage Procedures

The Defect Triage Process entails the assessment of the defects to ensure that they are channeled appropriately through the defect lifecycle. This entails the quality review of the defects by assessing the accuracy and completeness of the defect detail in terms of description, severity, priority, impact assessment, etc. with feedback to the defect originator if corrections or clarifications are required.

Factors that influence this process are:

- Defect Severity,
- Defect Priority,
- Frequency of usage of a failed feature or function,
- Defect resolution estimates,
- The complexity of the resolution,
- Schedule – e.g. Go-Live or deployment deadlines,
- Dependency on another defect,
- Availability of a resource with specialised knowledge, and
- Work already taking place on similar or related defects.
- The Test Manager/Team Lead will be responsible for confirming the defect is assigned to the appropriate team for resolution.
- Where a code fix is required the defect will be assigned to the Development team responsible for resolution.

Tools

Rational Quality Manager enables quality assurance teams to track all aspects of the quality assurance effort. The central artifact in the tool is a dynamic test plan that contains all information pertaining to the quality assurance effort, such as goals, schedules, milestones and exit criteria as well as links to associated test cases, requirements and development work items. Rational Quality Manager further includes modules for manual test authoring and execution, test lab management, test execution, reporting and defect management.

It is built upon the IBM Rational Jazz technology platform. Through the Jazz technology platform, Rational Quality Manager can share requirements information with Rational Requirements Composer, and share work items and defects with Rational Team Concert. It can be further integrated with various other tools like Rational Performance tester and Rational Functional tester for test automation.

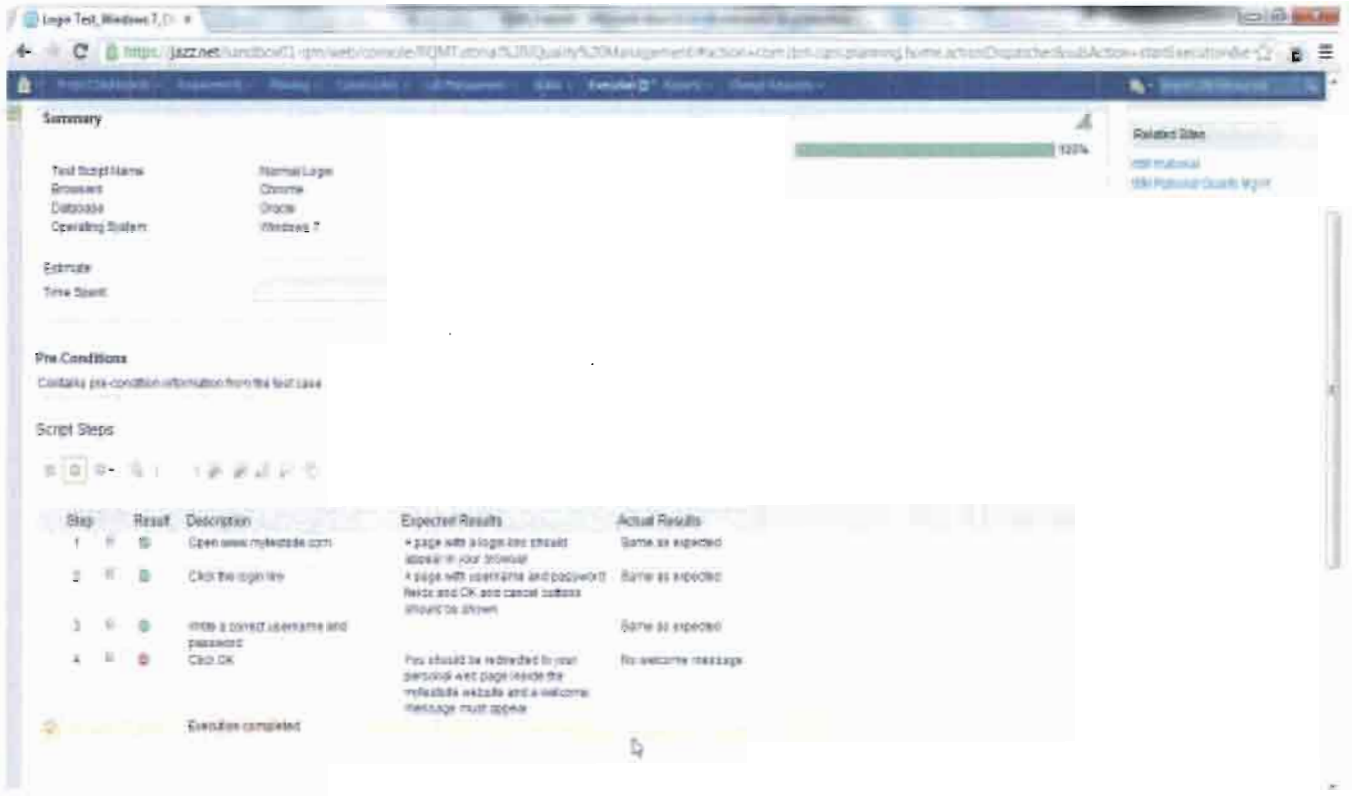


Figure IV-181: Jazz Technology Platform

Roles and Responsibilities of support personnel

An overview of the roles and responsibilities of the resource groups identified in the Defect Management Lifecycle diagram is detailed below:

Testing Services Team - Test Analysts will be the principal source of defect detection during the test lifecycle. The Test Analysts will log each defect, detailing their initial assessment. The Test team will

also provide input into the Change Request assessment process as required i.e. impact assessments, time/effort estimates, regression implications etc.

Defects Review Team - The Defect Review team will be a group who possess the expertise and knowledge to review and confirm the defects raised across all solution work streams/components. This will involve a comprehensive knowledge of the system requirements and underlying design.

Development Team - The Development team will have a number of responsibilities in the defect lifecycle. Predominantly this will involve the responsibility for analysis, design, build and unit test of defect 'fixes'.

Business Team- Business Analysts are primarily either Subject Matter Experts (SME's), from the operational business areas, or Business Analysts who have worked with the SME's in defining requirements.

Infrastructure Team - The test team will log an environmental defect in Quality Center (QC) and assign to the Technical Project Manager. It is TPM's responsibility to update QC when the defect has been fixed and reassign back to the Test Manager/Team Lead

Release Management

The RM activities are to manage deliverables effectively across Development, Controlled Test and Live Environments. The following gives summary of key activities, most of which are process driven for its effectiveness.

Release Policy and planning - The Release policy covers Release numbering and naming scheme, Release frequency and definition of type of releases. Description of the RM control process like progress assessments, review meetings, escalations, impact analysis. Defining roles and responsibilities of RM and its interface responsibilities and staffing. Interface with Configuration Management Database (CMDB) and acceptance criteria guidelines.

- Release design and build - This is collection of many Release involved activities which forms key to Release Management governance. This includes (but not limited to)
- Design and automated error free release builds,
- Documenting tested RIGs (Release Installation Guides),
- Configuring Release units and associated s/w licenses,
- Quality control procedures for release items,
- Build and test back-out procedures etc

Release Acceptance - Release build is accepted for System and Integration testing and then for acceptance testing, operations reading testing and finally to production Go Live. At each stage of acceptance, relevant entry and exit criteria are set and verified. Though the basic elements (like Functional and non-functional requirement test reports, Release pack with sanitized builds) are part of standard checklist, the outstanding error levels with which the release will be considered will depend upon the scale and purpose of the release.

Release Rollout and sign off process - Release implementation and roll out strategy depends on the nature and purpose of the release. Data migration and sample Go Live can be verified if applicable to reduce roll out risks.

Communication and Training - Training on release content and its usage becomes critical for business users and acceptance testing. Users can be kept in loop in the roll out phase activities and the release plan and release mechanism process. This streamlines release acceptance and also users are made known about outstanding defects and capabilities of release.

Release Pre and Post Audit - The release review checklist provides pre audit of release, which along with elements of acceptance entry criteria, should have Audit on Release content Vs requirements. This gives list of items which have not been released as part of release.

Deliverables

Defect reporting provides the program with a means of both tracking the progress of defects through the lifecycle as well as providing a means to predetermine 'Defect Repair' schedules and release/delivery dates.

The following describes the level of defect reporting to be available to the program:

- Open Defects by Severity / Priority (not closed)
- All Defects by Severity /Priority
- Defects by status
- Open /Closed Defects 'This Week'
- Defects targeted for next release/delivery
- Open / All Defects by Severity / Test Type
- Open / All Defects by Severity / Defect Cause
- Ad-hoc defect queries and reports as required.
- Defect Aging

Capacity Management

The Wipro/IBM team understands that Capacity Management ensures that the capacity and performance of the IT services and systems match the evolving agreed demands of the business in the most effective and timely manner. The main objective of the our capacity management team is to understand and define the procedure for preparing the capacity plan by monitoring and analyzing the capacity of resources and to ensure the Support team, at all times, sufficient capacity to meet the current and future agreed demands of the State of Nebraska's needs.

The Wipro/IBM team works with State of Nebraska ITO team and helps balanced Capacity Management process and planning, being involved at all stages of the service life cycle from planning to operations and to improvement.

- Balancing costs against resources needed
- Balancing Supply against Demand

The capacity planning process includes

- Gather the resource and application component performance thresh holds
- Maintain an appropriate and up-to-date Capacity Plan, which reflects the current and future needs of the business

- Analyze and provide advice and guidance to all other areas of the business and IT on all capacity and performance related issues
- Assess the impact of changes on the Capacity Plan
- Ensure tuning activities to make optimum and efficient use of existing resources
- Proactive Capacity and performance measures

Technology Refresh

Various factors can contribute to the need for technology refresh; changes in these factors need to be monitored and reviewed on a regular basis to ensure an effective IT asset base. The Wipro Architect assigned to CLIENT, in conjunction with the Tower Leads and the Procurement team will work extensively with CLIENT on the status of technology in the CLIENT environment. As part of our normal Governance Process we will discuss Refresh Policies and Technical Currency.

Key Factors leading to Technology Refresh

- *New technologies*– new technologies that that can reduce costs or differentiate State of Nebraska offerings to its clients. New technologies are constantly reviewed by Wipro's various centers of Excellence, these centers will work extensively with our Architect, who will bring new technology focus to State of Nebraska
- *Compliance and Regulatory requirements* - New laws and regulations require businesses to meet certain IT mandates. Areas that generally dictated by these laws are availability and security related e.g. application and data availability and protection, data retention, change in security policies etc.
- *Capacity Enhancements* – growth in business may demand corresponding change in the infrastructure that cannot be supported by the existing technology or assets.
- *Technology / Asset Obsolescence* – Technology refresh may be caused due to software or other technology drivers, e.g. a Windows Vista requires a SW and HW upgrade, whereas there may be situations where the asset itself is near or past its reasonable functional life. This is indicated by increase in failure rates or End of Service Life announcements by vendors.

Solution Security

When solution security defects are found, they are committed to the defect management database within the IBM Rational Team Concert software tool. As previously described, these defects are categorize by severity and addressed by support personnel. Security defects severity is determined based on HIPAA guidelines and exposure to breaches of health or personal information. If security breaches are determined to have caused health or personal information to be exposed, then a separate defect resolution process is used to incorporate the Office of Civil Rights, CMS, the State and vendor community as well as those individuals whose identify was compromised.

Backup and Recovery

On a scheduled basis, the Wipro/IBM team conducts disaster recovery drills. These drills may uncover defects that might compromise our ability to recover successfully from an actual disaster. With this in mind, the Backup and Recovery defects are categorized accordingly,, with defects that have a higher probably of occurring and a greater impact being prioritized to the top of the defect priority list. As with other defects, defects related to disaster recovery are added to Rational Team

Concert's defect tracking database, and the defect resolution process executed with automated support from the IBM Rational Team Concert defect tracking capabilities.

Disaster Recovery

The Wipro/IBM team proposes to follow a risk-based 360^0 check and balance methodology to address the Disaster Recovery requirements of State of Nebraska. The scope of disaster recovery requirements as understood by the Wipro/IBM team from the Request of proposal (RFP) and response to questions provided is as follows:

- *DR Planning* – Develop and maintain the data center recovery plans for protected data centers.
- *DR Architecture* – Provide Data Center Disaster recovery strategies and solutions based upon business requirements.
- *DR Coordination* – Provide framework for coordinating efforts across infrastructure teams. Ensure a methodical and synchronized execution of technical recovery procedures following disaster declaration.
- *DR Testing* – Schedule annual DR recovery exercises for each location. Create detailed timelines, schedule checkpoint calls, and manage all aspects of preparation and coordination of events. Document a list of pre-exercise objectives. Publish a post-event summary report, which includes an evaluation of the success level of each objective.
- *DR Operations* – Maintain and update the DR server inventory list in configuration management database (CMDB). Review all change records for impact to recovery solution. Ensure changes are reflected within the DR outsource contract. Keep emergency contact lists maintained for each site. Provide information and data to support business, audits and external client requests, provide data as requested for SOX, SAS70 and CAP audits.

Site level recovery options

Wipro has site level BCP/DR plan in place in order to overcome any contingency situations. Wipro proposes a Warm DR as a site level recovery option for State of Nebraska. Wipro will enable both the sites with required technology infrastructure, seats allocation and WAN bandwidth allocation. In case of a disaster, Priority-1 and critical tasks will be handled by the team in the other city. However we are happy to, discuss other options and can select the appropriate strategies based on your recovery requirements defined through Recovery Time Objective (RTO), Recovery Point Objective (RPO) and business requirements.

Benefits

- Migration to proactive mode of support through cross skilling, optimization and automation
- Server, Storage and Database availability improvement through predictive support
- Improved Service Levels year on year over and above the committed service levels
- Incident cycle time reduction by deploying scriptorium and Healix for Self-Help & Self Heal

Full backups are taken each night on all files and disaster recovery (DR) backups are taken every three days on all files. Wipro contracts with multiple vendors to provide off-site vaulting and storage of media and materials. The secure, off-site storage facilities of Vital Records, Iron Mountain, and

Recall are all used by Wipro. Off-site vaulting and storage is used to provide safe storage for any critical tapes used for DR and any tapes that contain data that would need to be stored over a long period of time. The rotation schedule for disaster recovery tapes dictates that three versions of each DR backup are available in the off-site storage at any time.

Our applications support real time replication to another data center. Our network features a completely redundant architecture with diverse fiber paths. Wipro data centers are connected to high-speed fiber rings that support a full range of wide area networking protocols, including Frame Relay, ATM, T1/3 and OCx. Our network features a completely redundant architecture with diverse fiber paths.

Even if there is a disruption in the physical network, we can provide seamless access to our customers' applications.

Since all of our applications are delivered as an ASP, disaster recovery plans do not affect data at the customer site. Our system and network are constantly monitored by our operations staff in order to maintain optimal performance and response time for our customers. As part of our ASP offering, Wipro provides a Production Support team to monitor our applications 24 hours a day. This team is responsible for all application maintenance of the system, including applying new software releases, scheduling all batches processing, and maintaining and testing and maintaining our disaster recovery plan. Disaster recovery tests are performed yearly.

Defect/Issue Management

The Wipro/IBM team understands that management of issues/problems is critical to a successful transition. Wipro has a robust escalation process to address issues that may potentially have adverse impact on transition activities. Wipro will establish an escalation matrix along with State of Nebraska to address any issues/problems that may impact transition during the transition planning phase. Apart from setting up a Wipro Transition Management Office (TMO) for effective transition management, Wipro will also leverage the governance forums to address any issues.

While at an operational level, Wipro Service Tower Delivery Managers will be the focal points to promptly address any operational issues, Wipro's Transition Manager will be responsible for managing escalations during transition. Issues that have critical impact on transition activities will be immediately notified to key governance stakeholders (State of Illinois ,Wipro and IBM) for quick resolution of the issue .

Issue Management

Table IV-56: Wipro's approach to Issue Management

Approach	Description
Empower teams	Get Wipro Tower lead involved in issue If the issue is not resolved in timely fashion escalate and reach out to the competency team at offshore for assistance Engage State of Nebraska SPOC for assistance The transition team will have a dedicated Critical Incident Manager to assist Wipro/IBM team with issues Wipro Transition Management Office will provide guidance and leadership to the teams

	for any issues and can provide another level of escalation internally or with State of Nebraska
Backlog of tickets and patch management	During the analysis and training phase our teams will review the current service management queues for open issues. We will also work to identify and understand the current levels of patch management and create a gap plan for systems which need updates based upon level of criticality from third party suppliers. Transition management team will work with State of Nebraska on how this backlog should be approached and an agreed to plan will be documented.
Cutover problems	Wipro will attempt to resolve all issues. At times during the cutover there may be support required from State of Nebraska or State of Nebraska provider in order to meet SLA's. During the secondary and primary phase Wipro will understand and document who is the 2nd and 3rd levels of support Wipro can engage if required.

iv. Describe the approach to Solution Administration that shall incorporate methodologies and practices which will assist the State of Nebraska to successfully administrate the EES and shall address at least the following areas:

a. Archive/Purge of Log files;
b. Version control capabilities;
c. Logging and reporting for accessing errors and exceptions and unauthorized access;
d. Public key/private key encryption Secure Socket Layer (SSL) certificates;
e. Single sign-on capability and integration with Nebraska's Active Directory authentication and authorization;
f. Admin tools and maintenance routines;
g. Firewalls and DMZ for external access and remote access; and
h. Administration of User Accounts, User Roles, User Groups etc.

DCS operates world-class global data centers and offer extensive expertise with every computing platform, including iSeries, Windows, UNIX and Linux servers, Mainframe, Cloud (iStructure), as well as networking, security and storage systems.

Wipro Data Center Services manages its customers' systems in world-class, purpose built data centers that are fully redundant, fault tolerant, highly secure, and include hardware, software and data communications equipment. Our geographically dispersed data centers total more than 430,000 square feet. Our data centers listed below undergo SSAE16 audits, and are PCI certified. (Wipro Data Center Services manages six data centers within the continental United States and one in Meerbusch, Germany).

Single Sign-on

The SmartPro MedEE solution uses JBOSS SSO to facilitate federated single sign-on. This solution allows users to enter their ID and password just one, and then be credentialed to various applications. In conjunction with the state's identity management solution, the SmartPro MedEE single sign-on approach provides for streamlined user-friendly access to applications within the SmartPro MedEE enterprise.

Secure Access

Wipro manages the existing VPN appliances for IPSec VPN and SSL VPN clients. Wipro's Security Analysts will manage and monitor the VPN clients and access control. The critical activities include ongoing activity of management and monitoring of remote access by users, remote access

servers/devices to provide ease of access for remote and distant users, address Remote Access authentication / authorization problems, Receive and solve Remote Access client application-related and Remote Access device related Service Requests, etc.

Firewalls and DMZ for External Access And Remote Access

Without going into specific model and network configurations, Wipro has deployed and manages state of the art security and network segmentation for all types of enterprise environments/applications.

As part of the Security architecture design, Wipro creates 4 separate Data Security Zones. Each zone will be discrete and contain only applications with similar security restrictions.

Internet Access: This segment segregates the internet connection from rest of the State of Nebraska network.

External DMZ: This segment hosts the external facing servers such as Web servers, SMTP Gateways, VPN's and other publicly available web servers.

Internal DMZ: This segment hosts the internal servers of the State of Nebraska including Anti-Virus, etc.

Internal Network: This network segment provides network connectivity to the State of Nebraska users to access corporate applications. It includes users in remote offices, local server segments as well as corporate users.

Strong Authentication

Two-factor authentication is used to ensure maximum security to The State of Nebraska. On a regular basis, vulnerability and penetration testing will be performed on The State of Nebraska infrastructure to identify loopholes, if any. The following steps are followed to ensure multi-layer security:

Policy Based Access

All EES environments will be connected to The State of Nebraska through a custom network interconnects that will be established during the building of the EES infrastructures in the data centers. The firewall ensures policy-based access into the client network. It allows Wipro Nebraska employees to filter data based on application and IP addresses (source / destination).

Logging of Activity

Standard core router/Layer3 switch logs are always being generated via standard rules/policies. Issues deemed to fall outside of those rules/policy will send alerts to the monitoring servers and tools. Subsequent tickets and notifications will be sent to the support teams for research and resolution.

Intrusion Detection

Use of IDS sensors ensures that the security setup is not susceptible to a sustained attack by an outside presence or coordinated effort.

Separate VLANs: These would be created for segregating within the IT Infrastructure team from the servers that are deployed on-site. Appropriate access restrictions would be applied to ensure that only authorized Wipro/State users are allowed accessed. No 'citizen' connections will be connected via VPN, but rather will come across the Internet connections to the Cúram application.

Public key/private key encryption Secure Socket Layer (SSL) certificates;

Industry standard 256-bit encryption will be installed on all external facing VPN/non-internal interfaces and 128-bit certifications will be used on internal site and data structures. All connections will be secured via Cisco's "Secure VPN" application.

Admin Tools and Maintenance Routines

The Wipro data center uses the full complement of CA Unicenter management and monitoring tools. Wipro's strategic partnership with CA allows full utilization and supports the full suite of components. For network specific monitoring:

CA Nimsoft Monitor is built on a unified architecture that enables Wipro to monitor servers, networks, applications, databases, storage, private and public clouds as well as end user response time. This unified architecture allows for extremely efficient monitoring capabilities and is deployed across the Wipro data center environment.

Firewalls and DMZ for External Access and Remote Access

Without going into specific model and network configurations, Wipro has deployed and manages state of the art security and network segmentation for all types of enterprise environments/applications.

v. Describe the approach to Solution Management that shall incorporate methodologies and practices which will assist the State of Nebraska to successfully manage the EES and shall address at least the following areas:

a. Generate Administrative Alerts;
b. Updates to Distributed components;
c. SLR Monitoring;
d. Remote support;
e. Event Management and Monitoring using ITIL v3 or equivalent best practices; and
f. Application Performance Monitoring.

Generate Administrative Alerts

Wipro will use the full complement of CA Unicenter management and monitoring tools. Wipro's strategic partnership with CA allows full utilization and supports the full suite of components. Since Wipro also utilizes the CA Service Desk module across our enterprise, threshold monitoring, alerts and automated ticketing is seamless and fully integrated.

CA Nimsoft Monitor is built on a unified architecture that enables Wipro to monitor servers, networks, applications, databases, storage, private and public clouds as well as end user response time. This unified architecture allows for extremely efficient monitoring capabilities and is deployed across the Wipro data center environment.

Updates to Distributed Components

All updates to any component of the customer enterprise will be managed, communicated and agreed to by both Wipro Service Delivery systems and the State of Nebraska. Standardized current or current -1 revision practices are followed and documented.

SLR Monitoring

As referenced above, the CA Unicenter suite will supply the monitoring of all systems, based upon the unique configurations, required by the State or any other groups of the EES support organization requires.

Remote Support

Wipro achieves our optimized support model is accomplished via our distributed professional workforce. To ensure optimal physical security and extreme adherence to our physical security processes, Wipro utilizes its global associate base to provide industry leading systems support. In most cases support, even if the support organization is local to the data center, is done remotely, to allow for a fully optimized workforce.

Application Performance Monitoring

SmartPro MedEE uses IBM's PureSystems Manager (PSM), coupled with ITCAM for Applications, to monitor attributes ranging from low level technical information such as CPU utilization, through subsystem and application health, and up to application response time metrics. Using SNMP, these tools forward salient information upstream to the Enterprise Data Center monitoring tool.

14. Hosting and Disaster Recovery Services

The State of Nebraska has requirements for the Contractor to host the environments associated with the development phases of the EES project (DDI period), provide support services to long term development environments, provide application support services for production environment(s), as well as provide disaster recovery site and technical services.

Design Considerations

The Wipro/IBM team has taken the following into consideration when designing our solution:

- High availability leading to Tier 3 Data Centers/ Disaster Recovery in the U.S. and U.K. / Europe.
- Flexibility in scaling up/down depending on business requirements
- On demand based self-provisioning of servers, storage commodities to the State of Nebraska application team.
- Disaster Recovery based on application criticality and respective RTO/ RPO.

Based on the above parameters, the Wipro/IBM team has proposed the following environments to create a Data Center/ Disaster Recovery facilities.

- Create an environment in the Omaha Data Center for the Production Environment based on IBM's PureApplication Server
- An identical PureApplication Server hardware environment is duplicated in the Tempe Data Center

- Upon disaster, a Wipro administrator would log into Tempe and shut down the Production DRR Shadow Environment. The Production Environment would then be instantiated from the repository stored at the Tempe Data Center, Network addressing adjusted, and Production operations resumed, operating off of the shadow copy of the production database.
- Managed services will be provided for the PURE system as part of the hosting agreement.

Data Center/ Disaster Recovery Network and Security Architecture

The Wipro/IBM team will have uniform Data Center and Disaster Recovery Network and Security architecture for the Pure System Data Center and Disaster Recovery sites for the State of Nebraska. The layered architecture segregating the State of Nebraska DMZ and any other compliance related servers/storage such as PCI systems, including Cisco LAN devices is illustrated in Figure IV-182 below.

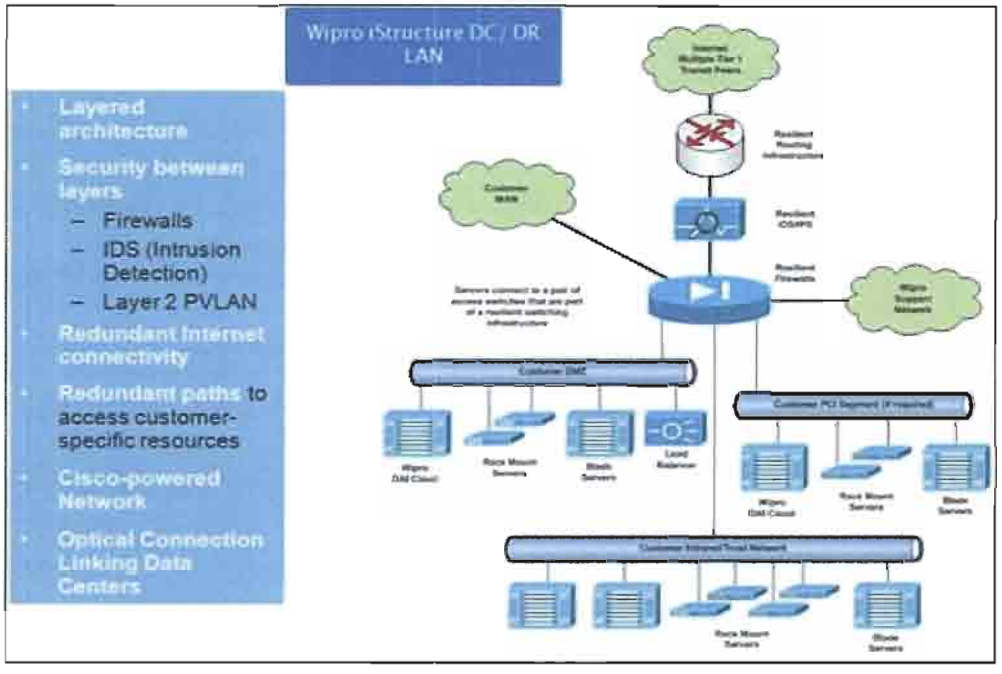


Figure IV-182: DR Architecture

As part of the Security architecture design, Wipro will create 4 separate Data Security Zones. Each zone will be discrete and contain only applications with similar security restrictions.

1. **Internet Access**: This segment segregates the internet connection from rest of the State of Nebraska's network.
2. **External DMZ**: This segment hosts the external facing servers such as Web servers, SMTP Gateways, VPNs and other publicly available web servers.
3. **Internal DMZ**: This segment hosts the internal servers of the State of Nebraska's including Anti-Virus, etc.

4. **Internal Network**: This network segment provides network connectivity to the State of Nebraska users to access corporate applications. It includes users in remote offices, local server segments as well as corporate users.

15. Development Environments

The Bidder must propose, provide and operate all required environments to support its proposal for the specification, design, development and implementation of the system including, but not limited to the following environments:

a. Sandbox;
b. Configuration/Development;
c. Test;
d. Quality Assurance;
e. Production
f. Training; and
g. Disaster Recovery

These environments should be sized in accordance with planned use and be inclusive of all hardware, storage, networking, backup/restore, database, file system, monitors and other items as required to comprehensively support the development effort.

Background

The Wipro/IBM team has mapped the State's Development Environments into the set of Environments described in Table IV-57 below. Please note our answer to the Disaster Recovery Environment is included in our response to Section "Disaster Recovery Environments found below. However, this section does discuss our approach for the management of Disaster Recovery for the Development Environments detailed in this section.

We are proposing implementation of all ***SmartPro MedEE*** Environments, Development, Production, and DRR, on two identical IBM PureApplication 1700-64E Servers. These servers include all computing resources and storage required to operate ***SmartPro MedEE***: only the Network Fabric, Data Center Enterprise Monitoring and Management tools, and Tape Backup are outside of these two boxes. The two servers are dedicated to the State's EES; the Network Fabric, Data Center Management, and Tape Backup are shared services within the Data Center.

Each server consists of 2 compute nodes with an aggregate of 64 Power7+ processor cores, a total of 1 TB of RAM, and approximate 50 TB of integrated disk storage, combining a mix of Solid State and classical Magnetic Disk storage. These servers are highly resilient, with no single point of failure, redundant power, network interfaces, busses, and RAID storage.

The two servers are designated Primary and Secondary, reflecting their respective roles relative to the main Production Environment. The Primary Server sits in Wipro's Primary Data Center located in Omaha Nebraska, and services the normally operating Production Environment, and several of the Non-Production Environments at the same time. The Environments are isolated from each other using Virtual Machine (VM) technology, where an Environment consists of one or more dedicated VM configurations and related data stores, configured to meet performance, security, and availability goals unique to each Environment.

The Secondary Server is located in Wipro's Secondary Data Center in Tempe Arizona. In normal operation, the Secondary Server receives near real-time database updates to a specialized small Recovery (Production) Environment, which keeps a shadow copy of the production database in near currency with the real production database housed back the at the Primary Site. This consumes a small amount of the overall Secondary Server resources. The rest of the Secondary Server resources are dedicated to most of the Development Environments. While maintaining full performance capacity for the Production Workload without compromise, each server is capable of running all Environments simultaneously if needed, though with reduced capacity allocated to the non-Production Environments. The one exception is that both Production and QA (Large), the full sized load, stress, and performance test environment that mirrors Production, cannot co-exist on the same single server with introducing at least a possibility of performance interference between the two.

This balanced Workload makes all hardware useful at all times, with nothing specifically dedicated to Disaster Recovery. The use of VM technology allows the physical resources to be moved around as required to meet performance targets – an operation that is mostly automated, dynamic, and real-time in the PureApplication Server Environment.

Development Environments

We have mapped the State's requirements to the following set of Development Environments. Table IV-57 documents the list of Environments, and describes their general purpose.

Table IV-57: Development Environments

Environment	Description/Purpose	Default Server
Development	Supports multiple instances of configuration and development. Near full functionality is available, though often not used. Limited performance capacity, limited and sanitized data. Provides controlled updates into System Test.	Secondary
System Test	System Test brings together one or more application components for formalized testing by QA. Near full functionality is available, though often not used. Limited performance capacity, limited and sanitized data. Receives controlled updates from Development, provides controlled updates to Integration Test.	Primary
Integration Test	Integration Test brings together most/all application components, including "outside" interfaces for formalized testing by QA. Full functionality is available, and often used. Limited performance capacity, limited and sanitized data. Receives controlled updates from System Test, provides controlled updates to QA (Small and Large.)	Primary
QA (Small)	Aka User Acceptance (UAT). QA (Small) is used for most final acceptance testing, when full load / stress testing is not indicated. Full functionality, limited performance capacity, database can be full or limited as required. Receives controlled updates from Integration Test, provides controlled updates to Staging and Production. Only one of QA (Small) and QA (Large) are running at one time.	Secondary

Environment	Description/Purpose	Default Server
QA (Large)	Aka User Acceptance (UAT – Load/Stress). QA (Large) is used for final acceptance testing, when full load / stress testing is indicated. Full functionality, full performance capacity, full database. Receives controlled updates from Integration Test, provides controlled updates to Staging and Production. Only one of QA (Large) and QA (Small) are running at one time.	Secondary
Sandbox	Sandbox is a specialized environment dedicated to State personnel for controlled experimentation and testing of limited changes to an existing or proposed environment – especially non-code-based changes such as rules, configuration, and Business Intelligence. Near full functionality (lacks outside interfaces), limited performance capacity, database limited or full as required. Can be rapidly refreshed to a known state. Normal refreshed state is Production functionality. Controlled updates mirror Production.	Secondary
Training	Training is a specialized environment dedicated to training staff, especially in the context of formalized instructor-led training. Near full functionality (lacks outside interfaces), limited performance capacity, limited and sanitized database. Functionality and data can be rapidly refreshed to a known state. Normal refreshed state is Production functionality, but can be imaged from QA (Small or Large) to train to a forthcoming release. Controlled updates mirror Production or QA (Small or Large.)	Secondary
PMO	A specialized environment used to host tools used by the Program Management Office and the SDLC. For example, Requirements Management and Test Management. No connection with Production functionality, limited performance capacity, limited and specialized database.	Secondary
Staging	A small "code" environment used to stage updates into Production, after signoff and approval for implementation by the State. Staging receives its code from QA, either large or small depending upon the change, and drives the configuration into Production.	Primary

Each of these Development Environments is configured as a PureApplication Server Workload, comprising one or more Virtual Machines. The allocation of VMs is designed to reflect the performance, security, and high-availability requirements specific to each task. Generally, these environments are relatively small, with compressed tiering e.g. Web Server and Application Server placed in the same tier and VM, and do not use clustering or load balancing, either for performance or high availability. At the other extreme, the QA (Large) environment is a complete duplication of Production, with a replication of the complete tiering, clustering, and performance characteristics of Production.

Contingency/DRR for Development

Several assumptions are built into our design covering contingencies for the Development Environments:

- While RTO for Development Environments is not as aggressive as for Production, it should be possible to recover any / all Development Environments to their alternate sites, if needed. While reinstituting Production is the first focus in Disaster Recovery, once

instantiated, development activities may still be required or desired while in contingency mode.

- Loss of the Secondary Center, which hosts many of the Development Environments, is a much of a DRR scenario as loss of the Primary Center. It must be possible to restore most of the Development activities into the Primary Site.
- It is acceptable to compromise the performance of non-Production Environments when running under a Disaster Recovery scenario, but Production performance cannot be compromised.
- Non-Production recovery does not require the low RPO/RTO targets of Production – it is acceptable to synch to "yesterday's" database.

To support these assumptions, we propose using PureApplication's VM shipping capability to copy an Environment and its configuration from one server to the other. Once past Development, the other Environments are under Change/Configuration Management, which will automatically include synchronizing the Environment to its backup location.

As a fully virtualized implementation, including the compute, memory, network, and storage resources, physical resources are assigned commensurate with each Environment's requirements. PureApplication Server allows resource assignments to be changed "on the fly", and is configured to automatically tune an Environment within defined limits, based on resource utilization and performance targets. Beyond PureApplication Server's configured self-tuning, staff can intervene to make resource allocation changes nearly instantly in response to unforeseen contingencies, resulting in a highly flexible and cost-effective hosting environment.

16. Production Environment

The State of Nebraska may choose to use the services of the Contractor for the EES and EES Platform Production hosting. In advance of use, and in consideration of the State of Nebraska procurement, installation and commissioning cycles, the Bidder will specify all required environments to support their proposal for the ongoing specification, design, development of the project associated with subsequent cycles including, but not limited to the following environments:

a. Full Production Operation;
b. Production Replica for Fault Resiliency/Onsite Disaster Recovery Purposes and debugging/issue resolution purposes;
c. Offsite Disaster Recovery Replication; and
d. Other environments deemed necessary by the Contractor to support production operations.

These environments should be sized in accordance with planned use and be inclusive of all hardware, storage, networking, backup/restore, database, file system, monitors and other items as required to comprehensively support the ongoing development operation of the EES as well as to support the debugging or resolution of issues within the production environment.

Production Environments

We have mapped the State's requirements to the following set of Production Environments. Table IV-58 documents these Environments, and describes their general purpose.

Table IV-58: Production Environments

Environment	Description / Purpose	Default Server
Production	The primary Production environment, running in normal, non-DRR mode out of the Primary Data Center. Full functionality, full performance capacity, full live data. Sends database updates to Production DRR Shadow in near real-time. Always runs alongside Production DRR Shadow, never with Disaster Recovery. Content derived from QA (Small or Large) and/or Staging.	Primary
Production DRR Shadow	A limited, database-only environment running in the Secondary Data Center that receives all database updates from Production in near real-time. Is running only during normal, non-DRR mode. No functionality, limited performance capacity, full live data. Always runs alongside Production, never with Disaster recovery. Content derived from QA (Small or Large) and/or Staging	Secondary
Data Conversion	Data Conversion is a highly specialized production environment optimized to running large data conversion jobs, in preparation for major implementations or upgrades. Limited functionality, limited performance capacity, full live database. Code base promoted from QA (Small or Large.)	Primary

As with the Development and Disaster Recovery Environments, these Environments are comprised of unified collections of Virtual Machines, defined to meet performance, security, and availability requirements. Each Environment's VMs are then resourced with appropriate physical resources, such as compute cores, memory, and storage. However, there is no specific identifiable hardware that is dedicated solely to any of these environments. Each Environment is capable of executing as a virtualized workload on either one of the two ***SmartPro MedEE*** IBM PureApplication Servers.

The Production DRR Shadow environment serves a unique function, different in kind from all the other Environments. When running in normal, Non-Disaster Recovery mode, the Production Environment running in the Primary Center ships its database log files to the Production DRR Shadow environment running in the Secondary Center. The Shadow Environment applies these log updates in near real-time to its copy of the production database, which provides a nearly synchronized database resident in the Secondary Center at all times. If it becomes necessary to invoke Disaster Recovery due to a loss of the Primary Center, the Shadow Environment is shut down, and the dormant Disaster Recovery environment is instantiated, pointing at the shadow database. Network addressing is updated, and the Disaster Recovery environment is now functional. As there is only one operational site when operating in Disaster Recovery mode, there is no Shadow environment instantiated until operations returns to the normal, two site mode.

17. Disaster Recovery Environments

The State of Nebraska may choose to use the services of the Contractor for the EES and the EES Platform Disaster Recovery site hosting. The Bidder must specify all required environments to support their proposal for the ongoing operation of the production system in the event of a disaster or outage condition at the selected computing center(s) associated with the following environments:

a. Full Production Operation;

b. Systems Development inclusive of then current code bases and associated data associated with the development effort; and
c. Other environments deemed necessary by the Bidder to support production operations in the event of an outage or disaster.

These environments should be sized in accordance with planned use and be inclusive of all hardware, storage, networking, backup/restore, database, file system, monitors and other items as required to support limited development effort during the disaster or outage condition as well as to not adversely impact or jeopardize phases that are being developed.

Bidders must detail the proposed approach to system hosting and disaster recovery support services, including the type and levels of services offered and the process for requesting changes to the services. In addition, provide a summary of the Bidder's strategy for ensuring stable and uninterrupted operations. Specifically, describe any industry best practices employed (e.g. ITIL) or certifications achieved (e.g. ISO 20000) that would provide assurances that the Bidder shall be able to provide a consistent and high quality level of services.

The term for providing these environments shall commence upon execution of an agreement between the State of Nebraska and Contractor, and shall conclude upon the end of the term for this contract or upon notification from the State of Nebraska of the desire to host the system(s) elsewhere. During the term of this contract the off-site hardware used by the Contractor to provide the hosting service is and will remain the property of the contractor. The State of Nebraska will pay the Contractor an agreed upon fee for the use of the hosted environments.

Upon notification by the State of Nebraska of the availability or receipt of the hardware to support these environments in the State of Nebraska data center or an alternate data center, the Contractor shall install, configure and commission for ongoing use these environments within the State of Nebraska data center or alternate data center, if required.

Upon completion of this migration and direction from the State of Nebraska, the old non-production environment should be decommissioned by the Contractor, any Contractor hardware usage charges arising from the use of this equipment shall no longer be the responsibility of, nor billed to the State of Nebraska, and all State data or other artifacts resident on this hardware shall be destroyed or otherwise deleted.

Business Continuity Plan

The Wipro/IBM team has designed a business interruption contingency plan to ensure the survival of the business in the worst possible scenario. The plan has three principal components:

PREVENTION: Wipro Data Centers are based on fault tolerant engineering to provide non-stop operations. In addition to these design preventive measures, Data Center sites are located away from industrial areas, airports, railways, and interstate highways. Most site locations have no documented earthquake or tornado activity.

CONTINUANCE OF SERVICE: Wipro will assist the State of Nebraska in the event of a disaster at a Wipro Data Center. Specific recovery services provided by Wipro include (but are not limited to):

1. Upon disaster, a Wipro administrator would log into Tempe and shut down the Production DRR Shadow Environment. The Production Environment would then be instantiated from the repository stored at the Tempe Data Center, Network addressing adjusted, and Production operations resumed, operating off of the shadow copy of the production database.
2. Management and coordination of recovery operations
3. Provision of appropriate technical resources during the recovery process

RESTORATION OF COMPANY OPERATIONS: A warm-site agreement would serve as Wipro's base of operations until restoration of all services has been completed at a new/different facility. The warm-site will include all environmental equipment necessary to support computer operations, including power distribution centers, HVAC units, chillers, water detectors, fire detection/suppression systems, card key access systems, UPS, and diesel generators.

Wipro will maintain on-line, dedicated redundant equipment at a geographically dispersed Data Center in Tempe Arizona.

1. Production Data will be replicated to the Disaster Recovery site.
2. Wipro will develop and maintain a plan and processes for switching processing to and from primary equipment to redundant equipment in support of meeting the RTO and RPO.
3. Planned testing will be executed once per contract year to exercise the disaster recovery plan.
4. Wipro will schedule the test during a specified test window. Observations, conclusions and recommendations resulting from the test will be documented and discussed with the State of Nebraska management.
5. Fall back testing can be included in the scope as an option as identified in the Work Order.
6. Costs associated with disaster declaration are the responsibility of Wipro unless the declaration is unilaterally declared by the State of Nebraska
7. Wipro will be given 120 days after the Migration Date to prepare for the first disaster recovery test.
8. Wipro reserves the right to move the disaster recovery center to a different location.

xiii. Turnover

The Bidder must describe its proposed methodology for turning the system and full operations over to the State of Nebraska or a successor contractor. The methodology should describe the Contractor's approach and plan for turnover.

Our approach, methodology and process for turnover and transition of the ***SmartPro MedEE*** is built on our accumulated knowledge, lessons learned, and experience-honed practices transitioning systems and operations for many clients. Our methodology is an organized and disciplined approach using Microsoft Project as the tool to maintain the schedule, activities, task and milestones aligned with the necessary resources for a successful transition. The transition will use the work plan as a living tool to meet the established benchmarks and to monitor the completion of every key task. We will align our project schedule and milestones to the project management life cycle phases as follows:

- **Phase I:** Transition Initiation
- **Phase II:** Transition Planning
- **Phase III:** Transition Installation, Configuration, Migration and Unit Testing
- **Phase IV:** Transition Integration Testing
- **Phase V:** Transition Training

- **Phase VI:** Transition Parallel Testing
- **Phase VII:** Transition Operational Readiness
- **Phase VIII:** Transition Go-Live
- **Phase IX:** Transition Close

When implemented, this approach will eliminate or mitigate transition issues and support pro-active management of potential issues.

Turnover Approach

a. Describe the approach to system and operations turnover based on the Contractor's proposed solution and the Contractor's own experience with comparable MLTC projects;

To give the State the clearest view of our proposed approach, this discussion addresses our approach through separate activity streams, rather than a linear process. We begin with the Turnover Plan itself.

Turnover Plan Life Cycle

A Draft Turnover Plan will be part of the contract deliverables submitted to the State for review and approval as part of the initial set of ***SmartPro MedEE*** documentation. The primary purpose of this deliverable is to obtain State approval of the plan structure and intended content. During the contract period, the State may request additional updates to the Draft Takeover Plan, at appropriate junctures, for example, if the EES expands beyond the Medicaid population.

Even with the State's approval, this plan will remain a "draft" until the State selects a contractor to operate and maintain the EES. Each plan revision makes the content more robust and closer to a formal plan that can be put into operation.

A major revision to the Turnover Plan will be required when the State sends a written notice of their intent to take over the EES or procure a new EES contractor. In the latter case, potential bidders will need current turnover information such as:

- Proposed approach to Turnover
- Turnover work plan, including detailed tasks and subtasks
- Turnover schedule
- Procedures to maintain up-to-date documentation during Turnover

The Wipro/IBM team will have 30 days (from receipt of the State's request) to respond to this request.

At approximately the same time, the State plans to send a separate yet related written request for additional information to support of the State's development of the new RFP. This request also has a 30-day turnaround. The request is expected to include contract performance reports; inventories of hardware/software, technical frameworks and/or schematics, including EES interfaces; and other requested EES contract or operational/ maintenance information.

The Turnover Manager is engaged at this point. One of the Turnover Manager's responsibilities is to oversee completion and submission of responses to all State requests involving Turnover.

After the State selects a contractor to operate and maintain the EES, the State will request one of the following:

- A revised Turnover Plan from the Wipro/IBM team based on the actual turnover scenario
- A Transition Plan from the company or agency accepting what we turn over. Additional plan revisions may be required throughout turnover.

Task/Activity Negotiations

State approval of the formal Turnover Plan signals readiness for a series of meetings between the Turnover Manager and team, the incoming contractor's team. These meetings will be included on the Turnover Schedule. The State may participate in all, some or none of these meetings. The purpose of these meetings is to settle on basic aspects such as:

- Review and (if necessary) revise tasks and activities to be performed
- Clarify time to completion for tasks and activities
- Establish precedents and predecessor/successor relationships
- Confirm training needs (level of training, staff to be trained, schedules, and other practical and logistical consideration)

The Wipro/IBM team will seek the State's approval if any of these discussions in any of these meetings result in recommended changes to the Turnover Plan or Turnover Schedule.

Aligning our Turnover Plan and with the incoming or state transition plan is a key element of the Wipro/IBM team's commitment to work with the Department and any successor contractor to establish and maintain an effective and executable plan, and to reconcile turnover planning to the greatest possible extent.

Data Transition

A primary source of data resides in the data warehouse files. Our proposal is priced so the data warehouse server will be turned over to the State.

Under this approach, we will turn over our back-up server and cease sending transaction updates until the back-up server environment is established in a new location or in the state data center. We will restore the configuration of the primary server in the secondary server and start sending real-time log updates to it.

At this point, our Primary is still Production, and the State's new secondary server represents the DRR fallback. To complete turnover we will

- Institute DRR failover, making the State's Secondary Server the operational box
- Move our old Primary to their Primary center, and bring it back online using the recovery scenario for returning operations to normal.

Archived files will be conveyed according to the contract terms.

Real-time Function

The synchronization model for the Production Environment uses DB2's native log shipping facility. The Primary Production DB2 is in communication with a shadow copy running in the Secondary center. This shadow receives updates at the DB level, in near real-time, and applies them to its copy of the database.

Post-Turnover Support

Post turnover and for a defined period, our support close out process is mutually agreed. At the option of the Department, we will position to continue support and operations of ***SmartPro MedEE*** should the successor contractor fail to satisfactorily implement or perform as required.

Turnover Training

b. Describe the approach for training State of Nebraska staff, State contractor staff or the successor contractor;

Turnover training is planned as a key element in the approved transition plan. The approach includes defining all training activities, curriculum, methods, processes and schedules in a detailed turnover plan. Training activities include identifying staff (state and/or contractor) to be trained, developing training content plans, defining the schedule, location, and duration of sessions. These plans will cover all necessary topics, operating and desk level procedures along with updated and current desk level and documentation supporting ***SmartPro MedEE*** operations, trouble shooting, call management, network monitoring and security.

Managing Transition while Maintaining Production

c. Describe how the Contractor will manage the transition while maintaining production schedules;

1. Provide for an orderly, complete, and controlled transition to the State of Nebraska or successor contractor(s);
2. Avoid disruptions of processing and services provided to members, providers, and operational users of the MLTC during the turnover period;
3. Maintain MLTC responsibility through the effective date of the transfer of responsibility and through the completion of the reconciliation of final day processing conducted by the Contractor, including data and report output; and
4. Provide technical and operational services and information as needed to facilitate an informed, coordinated, and complete transfer of activity.

For the State, one critical aspect of Turnover is a non-disruptive transition of ***SmartPro MedEE*** functionality from the Wipro/IBM team to the State or a subsequent State contractor for hosting and operation. Our chief mitigation tactic is to closely integrate Turnover and Operations wherever possible, so Turnover actions become almost organic.

A carefully planned production cut-over process and schedule will be defined and negotiated with the State or contractor to assure production schedules are maintained throughout the transition. Close coordination during the transition will be maintained through status check point sessions to

review the schedule, verify each party has executed the defined action steps agreed to. The simplest way to implement this approach is to acclimatize staff to the turnover approach and plan well in advance of the kick-off of activities and task. Critical task will be defined, along with administrative task supporting the transition steps.

We plan to adopt the same standards and procedures applied to the ***SmartPro MedEE*** project operation for:

- Communications Management
- Issue Management
- Risk Management
- Progress Tracking and Schedule Re-forecasting
- Status Reporting

State staff will not be spending un-productive time in determining how to access Turnover Status Reporting, where to find out whether a potential Turnover risk is already on the Turnover team's radar, or who to call about Turnover hosting activities. Turnover activities, reports, task and status will be uniquely identifiable and appropriately grouped for fast identification.

During turnover execution, the Turnover Plan may continue to be refined to reflect an improved mutual understanding between the Wipro/IBM team, the Department, and any contractor successor. Updating and re-planning to accommodate events as they develop during turnover is crucial. The Takeover Manager will be responsible for plan currency and state approval request. Changes to the approved plan will still follow the Change Management methodology processes and procedures proposed by the Wipro/IBM team and approved by the State.

Turnover Staff

d. Describe the staff responsible for transition; and

A dedicated Turnover Manager will be responsible for all activities associated with the turnover of ***SmartPro MedEE*** to the State of Nebraska or successor contractor(s). Support will be required from

- Datacenter Staff, including network, operations, infrastructure and application staff for guidance on transitioning applications and data to the new environment.
- Training Staff to prepare State and any contractor staff to take over and operate the ***SmartPro MedEE*** solution successfully.
- Administrative Staff to support operating environment license transfer procedures, if appropriate and included in the transition plan.
- Contract/Financial Staff to process the contract to completion and ascertain that all financial obligations are settled.

Statement of Commitment

e. Include a statement that the Contractor is committed to working with the State of Nebraska and successor contractor(s) in planning and performing the Turnover activities.

The State has the Wipro/IBM team's commitment to follow the proactive and progressive approach we believe is required, both in letter and spirit, to achieve a controlled, well organized and executed, transition of both functional and non-functional aspects of the ***SmartPro MedEE***. Each party involved with the transition equally contributes to the effort's success. Out team will work from a professional and proactive posture through all phases of the Turnover plan.

During Turnover planning and execution, we will actively work with the State and its successor contractor, as appropriate, to achieve mutually acceptable work schedules, identify and manage risk and execution of effective training for the transition. The same will hold true for setting times for training and/or knowledge transfer activities. Preserving the integrity of the ongoing Maintenance and Operations functions until contract end is just as important as turning on the new ***SmartPro MedEE*** with no bumps in the road.

The State should receive more from the outgoing contractor than the minimum effort that satisfies contractual requirements. Fulfilling turnover and transition obligations completely and accurately, with no breaks in accurate service and timely support are owed as well to the end users. As the nation watched the federal healthcare online eligibility and enrollment operation opened for business only to face such spectacular failure, the chagrin of the general public, the press, and the politicians was palpable. We value all our clients and know that our reputation is built on client trust in our service.

xiv. Service Level Requirements

The Wipro/IBM team has a robust Service Level Management (SLM) approach for managing service levels to ensure services are delivered on time and with quality. Service Level Agreements (SLAs) will be managed through the SLM process, with specific targets for applications in scope. We propose the following key principles for service level management:

- Establish the SLA baseline
- Implement SLA
- Manage the On Going Change
- Periodic Reviews

Establish SLA Baseline

This step comprises of planning and setting up SLM processes for in scope. During the planning phase, the Wipro/IBM team will analyse and establish the current performance for the various service level parameters which will form the baseline. The Wipro/IBM team will work with State of Nebraska to understand the customer expectations to derive the SLAs. The business critical factors of the engagement will be assessed by the Wipro/IBM team in coordination with the State of Nebraska and appropriate criticality / service levels will be defined for each SLA. Typical recommended critical / service levels are:

Table IV-59: Criticality or Severity Leveis

Criticality or Severity levels	Definitions of criticality / service level

Critical/Severity 1	The EES no longer functions at all, or a System component is unavailable to more than 20% of active production users.
High/Severity 2	Any defect that affects less than 20% of the EES functionality or less than 20% of active production users.
Medium/Severity 3	The EES is able to function with a temporary workaround.

All the services rendered to the client as part of the contract will be categorised into a service catalogue and appropriate Key Performance Indicators(KPI) will be defined. The SLA Report Templates and associated frequency of reporting will be defined based on discussions with the customer.

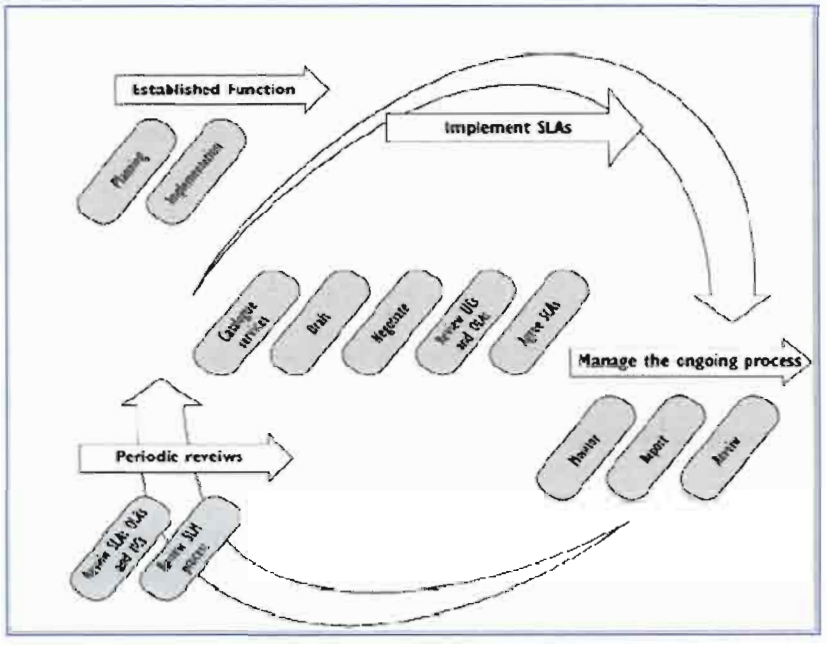


Figure IV-183: SLM Methodology

Implement SLAs: This step comprises of measuring and reporting on SLAs as well as creating, formulating and setting up SLAs where the baselines do not exist. The Wipro/IBM team will define the measurement criteria for the SLA parameters, measure and track the SLA for three months which will form the baseline for subsequent adherence. The necessary threshold levels for RAG status (Red, Amber, and Green) will be defined for the SLAs wherever possible. This will help in the reporting process to quantify the number of SLAs through RAG status driving possible improvement actions.

Manage the On-going Change: This step provides methodology to monitor report and review SLAs. The Wipro/IBM team will review the key SLA metrics as proposed by State of Nebraska and additional metrics like Trend analysis, Top repeatable call cases, Knowledge base contributions and Helpdesk integration metrics.

Periodic Review: This step involves periodic review of SLA process as well as SLAs vis-à-vis any changes in the service delivery. The Wipro/IBM team will conduct periodic review of the SLA process and the SLAs with a view to improve the customer satisfaction by continuously improving

the quality and speed of delivery. If there are any changes identified during the periodic review for the SLA or KPI, the Wipro/IBM team will raise an amendment request to formalise the change.

The Wipro/IBM team proposes to bring quantitative service measure to delivery through Service Level Agreements. We will discuss and mutually agree set of KPI's that would ensure the best outcome from the Wipro/IBM team engagement during the implementation engagement. To meet State of Nebraska's objectives, Wipro will use the following design principles to enhance the effectiveness and drive efficiencies and help transform the future.

- Effective performance measurement through defined norms /benchmarks and governance framework
- Holistic view of metrics and governance control

The Wipro/IBM team must receive prompt (within 5 business days) responses to its questions from State of Nebraska in order to provide the Services within timeframes and costs. All delays will be subject to impact analysis and possible change control.

SLAs will be agreed between both the parties during due diligence / initial meetings. The SLA will be applicable post baseline period. During baseline period, the Wipro/IBM team will gather the data related to the proposed SLAs.

The below table refers to the list of possible SLAs that can be used to as a reference and manage the engagement effectively. The Wipro/IBM team will work with the customer to customize and further refine the SLAs as per the needs of the engagement.

Table IV-60: Possible SLAs

Category	SLA	Definition
PMO	Key resource availability	Positions that are designated as Key Staff shall not remain vacant for more than thirty (X) calendar days.
PMO	On time delivery	Unless otherwise specified, milestones and deliverables for each phase must be completed by the Contractor in final form on the dates specified in the Contractor's work plan
PMO	Corrective Action plan	Define a corrective action plan within X days from the time a performance deficiency is identified
PMO	Publish meeting minutes	Deliver meeting minutes for the status meetings within X business days following the meeting.
PMO	Deficiency resolution time	if the work product is not acceptable due to deficiencies, The Contractor must resolve all deficiencies or present a written plan for resolving the deficiencies and submit it to the State within X business days after receipt of the State notification.
Security	PHI security breach communication	Notify the State agency by no later than X calendar days after the Contractor becomes aware of the disclosure of the Protected Health Information.
Security	Security plan review	The Fiscal Agent shall certify, on an annual basis, perform a review and update of the Security Program for

		continued compliance
Security	Disaster Recovery	The business site must be fully operational within the threshold hours as indicated in the disaster recovery plan from the time the primary business becoming unsafe or inoperable.
Security	HIPAA Compliance adherence	The Contractor must ensure it meets all federal regulations regarding standards for privacy, security, and individually identifiable health information as identified in the Health Insurance Portability and Accountability Act (HIPAA) of 1996.
Systems	Response time – Severity 1	The elapsed time between the end of an inquiry or demand on the system and the beginning of a response will not be more than 4 hours
Systems	Response time – Severity 2	The elapsed time between the end of an inquiry or demand on the system and the beginning of a response will not be more than 8 hours
Systems	Response time – Severity 3	The elapsed time between the end of an inquiry or demand on the system and the beginning of a response will not be more than 72 hours

xv. Deliverable Approval Process

The Wipro/IBM team acknowledges and will adhere to the Deliverable approval process as stated within the RFP.

xvi. Value Add Options

The Bidder may also submit Value Added Options that have not been requested in this RFP, but are based on a Bidder's market knowledge and experience. The Value Added Options will not be evaluated to determine the EES Contractor; however the State of Nebraska may determine to contract for an option after the Contractor selection has been made. Bidders must include a cost for each Value Added Option in their Cost proposal.

a. Describe each Value Added Option. The description should include:

I. How the Value Added Option could enhance the EES;
II. How the State of Nebraska could benefit from the Value Added Option;
III. How the Medicaid eligibility effort could benefit from the Value Added Option; and
IV. Where and when the recommended Value Added Option(s) has been implemented.

b. Describe the EES' current mobility (e.g. smartphone, tablet, etc.) capabilities and/or plans for mobility in upcoming version(s).

The Wipro/IBM team proposes the Díona Government Enterprise Mobility (GEM) Solution as a value ad option for the Nebraska MLTC. Díona applies "mobile-first" principles to provide anytime/anywhere access to social services information and eligibility by providing a new system of engagement (SOE) that integrates with existing systems of records (SOR). As a health and human services specific mobile solution, Díona GEM employs an innovative, vertical specific, mobile user experience (UX) paradigm that enhances usability and meets citizen and agency employee

expectations of modern engagement with government. Díona GEM is designed to leverage mobile technology elements such as wireless access, GPS navigation, on-device camera, and scanners, bringing productivity gains for agency staff and enabling more self-service options for citizens and service providers.

Díona GEM utilizes open and industry technology standards to communicate with existing backend systems. These web-based connectors (using SOAP requests and responses over HTTPS) allow for communication to and from the backend system of record to Díona GEM Solution data store and application. This process allows for communication with existing health and human service back-end systems and focuses efforts on the configuration rather than the development of the mobile application.

Díona GEM provides domain specific mobile solutions to global social security, social services and health and human service agencies, utilizing subject matter experts in both the health and human services field as well as the user experience arena. Through the continued development of their innovative and configurable mobile solution (Díona GEM) for the global social services market, their solution can provide a mobile application suite that will leverage mobile environment specific use cases for Medicaid field workers.

Remote Access requires an end-user device, a transport network, and hardware and software within the enterprise to allow the establishment and use of applications and data by remote users. Mobile and Remote Access services will be used most often to support "nomadic" users – those who travel from location to location, and to support "telecommuters" – users who access enterprise resources from their home.

The recommendation is to provide a new System of Engagement that will allow Nebraskans to apply for and manage their Medicaid account. This feature would provide a means by which citizens can manage their account details online by using the first health and human services focused mobile application.

Studies have shown that if leveraging and utilization of mobile tools by government organizations were to double (from approximately 35% to 70%), the additional value to governments in efficiency outputs could increase by nearly $50 billion annually. Coupled with that is research that has found that smart phone consumption is increasing by up to 10% every year, and with an increasing number of users leveraging those phones as their primary source of internet access. According to Steven VanRoekel, the Chief Information Officer (CIO) of the United States, *"for too long, the government has employed 20th century tools to solve 21st century problems. We fell behind in making the smart investments in technology that yield productivity gains in the private sector every day."* As more and more government agencies move towards 21st century tools for 21st century problems, the need for a framework that understands the unique needs and business processes associated with the health and human services market is becoming greater, and the Díona Government Enterprise Mobility (GEM) Solution is the first framework in human services that leverages a new system of engagement – mobile.

The proposed "value add" solution is to introduce a mobile application geared to the citizenry of Nebraska. A citizen centric solution will allow for the simplified capture of relevant application data for Medicaid, provide the ability to conduct a "pre-screening" of potential eligibility, as well as provide on-going account management activities.

The "pre-screening" process could be a simplified process by which a user/citizen will be able to quickly determine their potential eligibility for Medicaid via a connected system of engagement (e.g. smart TV, kiosk, tablet, etc.). Based on a minimal set of information (e.g. citizenship and financial status), the citizen would be able to quickly ascertain whether or not it makes sense to continue with the process. If appropriate, the Díona GEM application could capture more detailed information, pass that information along to the new eligibility determination engine. This information will be assessed in real time and return the eligibility status to the citizen immediately upon submission of their application.

The citizen's online account would also provide the client access to requests for further evidence (e.g. requests for annual resubmittal of evidence) by notifying the client of verification requests, allowing the client to snap and send photos as part of the verification process and status on request for information by the organization. The online account would provide continued long-term interface options between the citizen and the agency to help manage future programs, notifications in changes of policy or eligibility, etc.

- Introducing a self-service component would increase patient management efficiencies by:
- automating the data entry process of application details,
- automating the eligibility determination process,
- increasing worker availability to work on more difficult "high-touch" cases while reducing the amount of time spent on "no" or "low-touch" cases and
- increasing client satisfaction by streamlining existing manual processes to reduce time for response.

With the introduction of the **Díona GEM's** Online Account management feature, there is the potential to reduce lapse in eligibility by automating the requests for verifications and providing real-time access to status details directly to the clients regarding submissions and eligibility.

Díona Technologies is a global technology company with particular expertise with the Cúram application and insight into leveraging Cúram though integration of additional enterprise solution components adapted for a particular client through configuration.

We are excited to offer this particular component and look forward to an opportunity to calculate a return on investment (ROI) for MLTC. Please see the cost proposal for assumptions and costs estimates.

C. TECHNICAL CONSIDERATIONS

Technical Considerations – a Business Owner's Perspective

IBM Cúram is positioned in the U.S. Public Social Service space as a leader in the commercial off the shelf (COTS) market space because of its integrated approach to managing all social service programs using a single platform approach. Other alternatives typically take a multi-application, multi-module approach to handling fundamental case management capabilities. Most assets need to be built around a core framework. For IBM Cúram, the framework, including the presentation layer is fully built. The majority of the work required is configuring rules to meet the State's needs as well as building out project specific reports and custom interfaces to third party systems. The time required to automate business processes is reduced significantly because of the IBM Cúram pre-built functionality.

Cúram: is unique in that the framework is tailored to your business Out-of-the-Box (OOTB). The preconfiguration also saves a significant amount of time.

Why Cúram COTS product is right for Nebraska

In the United States, Commercial Off-The-Shelf (COTS) is a Federal Acquisition Regulation (FAR) term for goods available in the commercial marketplace that can be bought and used by one of more government entities without requiring significant in-house developments or one-off government-funded developments. COTS products, such as Cúram, typically require configuration which are tailored for specific uses. Customers who use the Cúram platform for social service consumption use our product because it is often mandated that a single application be used across many government and business programs, as such products may offer significant savings in procurement, development, and maintenance. Only Cúram offers cross-agency, configurable options to support multiple agencies, multiple-program types using a single application platform.

The Cúram platform was built and designed to accommodate social service and healthcare organizations exclusively. Additionally, our product management team consists of domain subject matter expertise in the area of social services. None of the competing vendor's technical architectures are prebuilt with domain-specific content that is targeted to a streamlined business segment with over 300+ years of collective hands-on domain expertise overseeing its application in the market place.

Data Model Design

Only the IBM Cúram platform offers an end-to-end data model integrating all the case management, rules, workflow, and administrative functions *in a single platform.*

Cúram: Cúram modules are built on top of a single data model. This single data model approach allows for integrated case management across social service programs, within the same application . And while there is a single data model, it allows for incremental modernization while maintaining the integrity and independence of a single department like Nebraska's Medicaid and Long Term Care department. The architecture and decision to have a single data model within Cúram was a

critical design feature. Without it, each one of the solution area such as eligibility, Medicaid, child welfare, cash assistance and food stamps would require a separate data model requiring heavily configured data architecture assets to support cross-application activity. To establish an integrated case would require several data integration tools to simply surface data at the presentation layer. Building out a reliable case takes time and understanding of the rules and workflows, which are not associated with the data model. The lack of integration would cause problems in ensuring data is normalized across modules for a public services organization.

SOA and Web-Services Enablement

IBM Cúram, using its SOA and Web-Services based approach, is the industry leader who can easily go to market with a single platform and achieve the objectives of a social services agency with a very concise, well-architecture COTS product in a matter of weeks to months.

Only Cúram offers an open architecture and fully supports a framework for Web-Services enablement as part of its core application. Any application that requires integration into Cúram can leverage the open-standard SOA architecture. Cúram also offers a collection of adapters to integrate with industry leading ECM systems, ERP systems, CRM systems, and reporting solutions. If an adapter is not available, the Cúram architecture, built on J2EE, allows for the creation of customized user interfaces to integrate data from third-party applications without requiring separate application servers or services. The user experience is uniform, yet modular in nature.

Rules Engine

Only Cúram integrates the entire rules engine into the same platform it houses its case management solution. The cost of implementing the Cúram solution is significantly lower as a result of such a tightly coupled design.

Cúram: At the heart of any social service agency are rules and regulations that the citizens and agency adhere to for provisioning of services. Cúram's rules engine is fully integrated into the core Cúram Social Program Management Platform. An agency does not need to build out a separate infrastructure, maintain multiple application servers, and code each rule into a separate rules automation engine when using Cúram. The Web-based Cúram Express Rules engine capabilities can be configured using a Web browser.

Temporal Evidence Management

Cúram is the only COTS product on the market that supports the collection of evidence against a rule set, workflow, and integrated document management system in a single application.

Cúram: Cúram offers an evidence based approach to case management using its various enterprise modules based on public sector need. The evidence; however, is still managed and maintained as part of the single data model approach mentioned earlier. Every case can have a series of required evidence objects be submitted as part of a case. Rules and workflows govern temporal evidence collection. Cúram also allows for high volume ingestion of evidence to be stored in a third-party enterprise content management system without impacting the user experience through the use of our CMIS adapter. Additionally, the tightly coupled nature of a Cúram case and the presentation of relevant data as part of a single application interface should ensure a social services organization that a case is presented accurately and is verifiable.

Managing Calculations and Verifying Benefits

As a citizen's life evolves, so do the supporting pieces of evidence associated with their case. When a case requires a re-verification or a retroactive calculation of benefits, Cúram completes these activities without having to create a new case, manually manage the values associated with the evidence, and the need to create multiple response actions; Cúram can produce the response in real-time for both the public service organization and the citizen requiring the services.

There is a fully integrated audit trail as well as the ability to understand how calculations are derived based on the rules and regulations stored in Cúram. The calculations and all data associated with the case can be presented as part of the unified Cúram portal experience.

Our competitors do not have a single point solution to accomplish calculation, verification, and presentation of data in a cohesive uniform manner.

Technical Considerations – a Technical Architect's Perspective

The entire ***SmartPro MedEE*** solution is comprised of two identical PureApplication 1700-64e servers: one located in our Primary Omaha Nebraska Data Center, the other in our Secondary Data Center in Tempe Arizona.

These two severs are each an entirely self-contained "Cloud-in-a-Box" environment, comprising processing, memory, solid-state storage, and magnetic disk storage. External to these two servers, our Data Centers are providing the network fabric, such as routers and firewalls, and the Data Center Enterprise Management system, which monitors and manages the overall Data Center operations.

Unlike previous discrete server architectures, PureApplication Server implements a single box appliance-solution, combing hardware, storage, and middleware into a single integrated and certified whole. Featuring High-Availability design, with complete redundancy and no single points of failure, PureApplication Server provides ***SmartPro MedEE*** with an ideal hosting environment for the State. Some of the key features upon which ***SmartPro MedEE*** builds are:

High Availability, Out-Of-The-Box: PureApplication Server implements a fully redundant design OOTB: CPUs, Computing Nodes, Memory, Raid Storage, Busses, Power, Cooling, Network links – all are redundant, designed from the ground up as a "never-fail" design

High Reliability: The entire HW, OS, database, and Web/Application Server complement is an integrated, certified whole. It is designed and operated as a unified environment, pre-tested by IBM. Patches and changes are made at the Server level, not to individual components, and are tested and certified at the appliance level.

Easily Expanded: Without adding new racks or shutting down running application, the 64 Processor Core boxes of ***SmartPro MedEE*** can be expanded to 608 Cores, in units of 32 Cores. Additional disc storage can be added by expanding into standard Data Center SAN storage.

Quick to Deploy: PureApplication Servers are designed to be functional within 4 hours of uncrating the hardware. At that point, instantiating complex multi-tier and clustered system environments can be done in as little as 10-15 minutes, ready for application teams to load their software.

Lowered Risk: As much of the complex environmental middleware engineering is eliminated by the PureApplication Server's preconfigured Pattern logic, technical engineering is significantly reduced, leaving more schedule time for value-added application work, rather than designing and implementing system "plumbing." OS/Database/Application Server/Web Server integration, including that for complex clustered, load-balanced, auto-failover designs, is pre-configured and certified OOTB.

Flexibility: Provisioning Virtual Machines (VMs) with physical resources is a simple on-demand real-time capability, without service interruption. Is a Production Application Server over-burdened? We will provision it immediately with additional resources. Without interruption. Capacity is easily moved to where it is needed, when it is needed. Within business rules we configure as part of deploying ***SmartPro MedEE***, PureApplication Server will self-tune its physical provisioning to optimize Production performance.

Tier III and Tier IV Data Centers

Our Omaha Data Center is certified at all Tier III criteria established by the Uptime Institute and meets Tier IV standards in important areas; Fault Tolerance, Representative Site Failures and Compartmentalization. Other standards are the same in both Tiers. Please see the Table IV-61: Data Center Tier Requirements below

The backup and replication strategy we propose, utilizes a solution that hosts and provides all maintenance and management tools, in our Tempe Arizona Data center, also rated at Tier III. The IBM PureApp appliance environment, accompanied with the redundant network and security standards existent in Omaha will provide full component redundancy and backup. Our strategy offers Nebraska a proven, secure, high availability and cost effective hosting environment, with the primary solution site in the state. Our Omaha Data Center is certified at all Tier III criteria established by the Uptime Institute and meets Tier IV standards in important areas; Fault Tolerance, Representative Site Failures and Compartmentalization. Other standards are the same in both Tiers. Please see the Data Center Tier Requirements table below. There we demonstrate this key representative attributes of Tier IV data centers, accompanied with our enhancements over a standard Tier III data center. Wipro continues to strive to provide world-class data center capabilities, while being prudent with cost effectiveness and standards that rival those certified Tier IV data centers, at a much more customer focused price point.

Table IV-61: Data Center Tier Requirements

Uptime Institute Standard	Tier III	Tier IV
Active Capacity Components to Support the IT Load	N+1 Each component has a backup.	2N+1 Each component has 2 backups.
Distribution Paths	1 Active; 1 Passive	2 Simultaneously Active

Uptime Institute Standard	Tier III	Tier IV
Concurrently Maintainable	Yes	Yes
Fault Tolerance **	No	Yes
Compartmentalization (multiple infra delivery paths) **	No	Yes
Continuous Cooling	Load Density Dependent	Class A
Engine-Generator System Run Time Limitation	Unlimited on consecutive hours of operation by "N" demand	Unlimited on consecutive hours of operation by "N" demand
Representative Planned Maintenance Shut Downs	None Required	None Required
Representative Site Failures **	1 Failure Every 2.5 Years	1 Failure Every 5 Years
Annual Site-Caused, End-User Downtime (based on field data)	1.6 hours	0.8 hours
** Denotes Tier III+ annotations in which Wipro DCs have matched Tier IV levels. (non-certified)		

Virtual Machines and System Environments

SmartPro MedEE is implemented as an entirely virtualized set of PureApplication Server Workloads, with each Workload corresponding to a named ***SmartPro MedEE*** Environment, such as "Production", "Sandbox", or "System Test".

Each Workload is comprised of a set of one or more Virtual Machines (VMs) that comprise the Environment. The design of each Environment's complement of VMs is driven by three primary considerations:

Security: Does the Environment require formal layers separated by network firewalls, such as the separation between the Web Server and Application Sever tiers for an Environment facing the public Internet? If so, then distinct VMs will instantiate the tier, and utilize virtualized Network Interfaces to route traffic between the layers through a network firewall.

Reliability/High Availability: Does the Environment require High Availability, indicating a need for clustering? If so, then 2 or more VM's will be defined for that layer, which PureApplication Server automatically instantiates as a load-balanced cluster with auto-failover.

Performance: If performance requirements indicate load balancing, 2 or more VMs will be defined, which PureApplication Server automatically manages as a load-balanced cluster.

Isolation: If SLR and performance requirements indicate, then elements of an environment will be isolated from each other to minimize the possibility of performance degradation due to interference. For example, in the Production Environment, the Cúram application is hosted in one set of VMs, while the Business Intelligence component executes in another set – minimizing interference between BI/ad-hoc reporting and online transactional operations.

PureApplication Server greatly eases the complexity of engineering, instantiating, and managing rich VM-based systems. Using pre-defined Patterns, PureApplication Server automatically creates

preconfigured workloads that integrate VM definition with key middleware components: most importantly, the DB2 database and WebSphere Application and Web Server elements. This integration work is completed in moments, based on answers to a few simple questions. For example, in a Web Application deployment pattern, if the designer requests deploying 3 VMs for the Application Tier, the PureApplication Server will automatically configure the middleware for load-balanced, clustered, automatic failover operation.

VMs are in turn provisioned with physical resources: most importantly, CPU processing capacity ("Cores") and Memory. PureApplication Server provides an exceptionally flexible environment to manage provisioning. Most importantly to ***SmartPro MedEE*** and the State, PureApplication Server continuously monitors resource utilization and performance of running Workloads. Based on configured business rules configured into the Workload, PureApplication will tune physical provisioning to meet defined resource and performance goals. Examples are the automatic addition of CPU cores is a particular VM is running above target utilization. If PureApplication Server is unable to meet its targets within the constraints imposed by the business rules, then it escalates an alert to our Data Center Enterprise Management system, signaling a possible need for human intervention.

Middleware software is often licensed based on the capacity of the hosting environment. For example, in ***SmartPro MedEE***, our key middleware components of IBM DB2 and WebSphere are both normally licensed this way. When operating on this model, it is a common practice to minimize the purchased licensed capacity for these types of software components, to keep costs minimal. In practical terms, this limits the flexibility to respond to unforeseen circumstances, such as an immediate need for unplanned capacity. Adding capacity often entailed adding license rights permitting software to make use of that additional capacity.

PureApplication Server greatly relieves this constraint by including "All-you-can-eat" license entitlements for the several most important middleware components associated with capacity and performance: DB2 and WebSphere. PureApplication Server includes unlimited capacity licensing for these key middleware components, matching the CPU core allotment of the server. There is no need to consider license cost for these two items when planning the physical resourcing of the environment, within the physical limitations of the server itself – if a capacity bottleneck indicates that a database tier should be granted 4 additional CPU cores, and those physical cores can be made available, then the expansion is made by simply allocating the additional computing capacity to the virtual machine. There is no need to consider licensing additional capacity for DB2, or for WebSphere.

Overall, the Cloud-In-A-Box architecture of the IBM PureApplication Server and its virtualized environments grants us enormous flexibility in accommodating both planned and unplanned growth, with minimal financial impact and little risk.

Disaster Recovery

Wipro/IBM proposes two distinct but coordinated approaches to technical Disaster Recovery, matching two very different fundamental requirements.

For the Production Environment ***SmartPro MedEE*** maintains full performance and capacity while operating in fail-over mode. At the same time, ***SmartPro MedEE*** minimizes both the RTO and RPO, keeping the RTO less than 2 hours, and the RPO less than 5 minutes.

For the other non-Production Environments, ***SmartPro MedEE*** will accept lesser capacity and performance while operating in fail-over, and will provide a less stringent RTO (24 hours) and RPO (previous day's data).

At a high-level, Disaster Recovery for ***SmartPro MedEE*** consists of three components:

Ensuring that the required "code" is available at a contingency center. This includes all system, middleware, and tool-ware, all application code, and all configuration information. In practice, all Environments will use the same mechanism for keeping their code and configurations available in both Data Centers, and synchronized.

Restoring or otherwise obtaining access to each Environment's Data. This is where Production is treated differently from Non-Production: Production maintains a near real-time shadow of its database at the remote center, while Non-Production Environments rely upon restoring data from a copy or backup: hence a less aggressive RPO than for Production.

Swinging Networking across from the Primary to the Secondary Data Center. This operation transitions the circuit between Wipro's Primary Data Center and the State's Data Center over to our Secondary Center, and adjusts DNS to properly route traffic.

SmartPro MedEE does not dedicate any particular single piece of hardware or network gear to any particular Environment: there is no identifiable "backup" system. As a fully virtualized implementation, Environments are executed in the most appropriate location using assigned physical resources: however, those locations and resources can be shuffled as needed. All hardware is always available to all Environments within a single center, and is provisioned dynamically as required to meet resource utilization and performance goals. This model reduces overall costs of operation, as all hardware is always available to accomplish useful work, nothing sits idle and dedicated solely to a contingency that has small probability of occurrence.

In ***SmartPro MedEE***, a single Environment executes entirely in one Data Center at a time, its natural home location. For example, Production's home location is our Primary Data Center; QA's home location is the Secondary Data Center. An Environment can be relocated from one center to other when necessary, either to balance loads or to respond to a contingency – but it only executes in one center at a time.

SmartPro MedEE maintains a high-capacity trunk line between our Omaha Primary Data Center and the State of Nebraska's Data Center. This circuit carries high volume traffic between the State and all ***SmartPro MedEE*** Environments: Production in our Primary Center, and Non-Production at both of our locations. Wipro routes traffic to and from our Secondary center over our own internal network connections. External traffic (public Internet) is routed directly to its target center, Primary and Secondary co-equally. In Disaster fail-over, this trunk line is swung over to point to our Secondary Data Center in Tempe, which would assume hosting of all Environments.

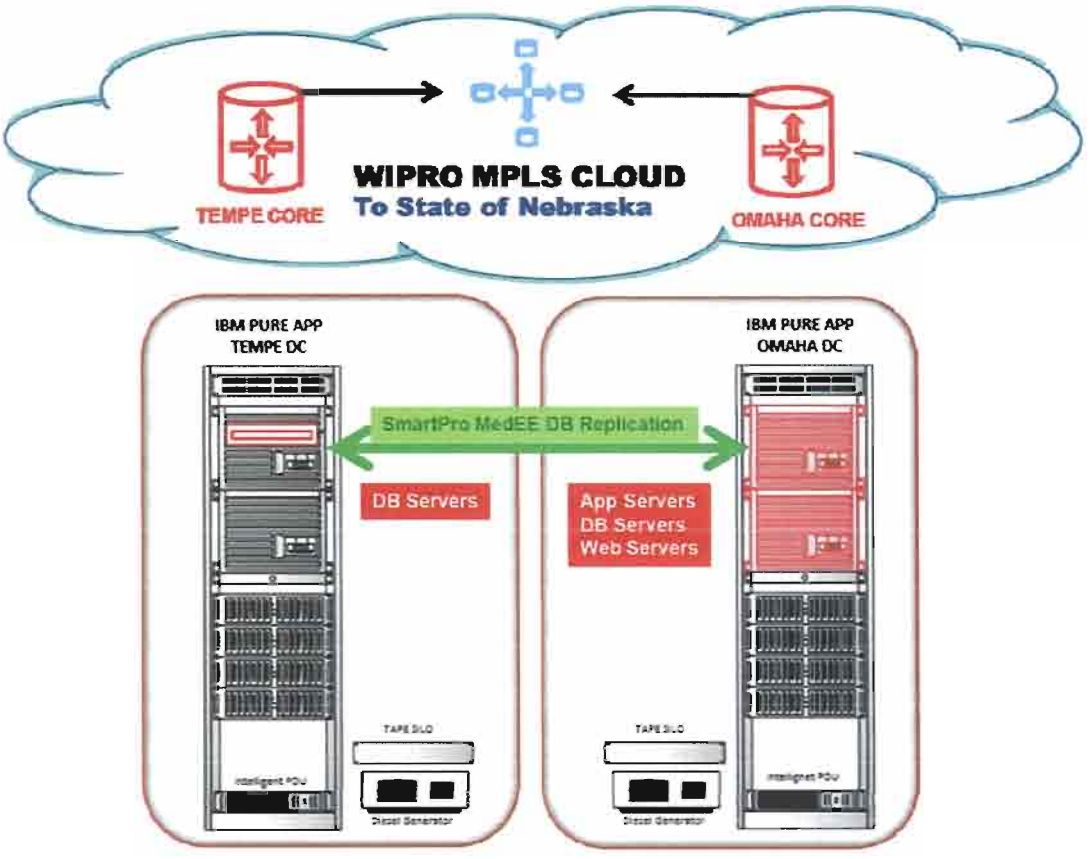


Figure IV-184: Disaster Recovery Design

During normal operations, all database updates to the Production Environment are shadowed to a copy of the database located in the Secondary Site, using DB2 log shipping capabilities. These updates are applied in near real-time to the shadow copy of the database, so that it is always ready to assume operation should the Primary Center be lost. The RPO is driven by the depth of the outbound queue of database updates that have not yet been shipped across and placed in the Secondary Site's receiving queue.

Should the Primary fail, the Secondary's copy of the Production Environment in instantiated by initializing its VM Workload, pointing it at the shadow database copy. The trunk line to the State is brought over to the Secondary Center, and DNS addressing updated to reflect the changed topology. Production is now ready to resume operation. As there is now only a single data center, log shipping is disabled in the Production Environment when it is running in contingency mode.

Non-Production Environments hosted in the Secondary Center remain online and available, with reduced physical resources assigned to their virtual environments. Other Environments that are normally hosted in our Primary Center, such as Integration Testing, System Testing, and Data Conversion, are brought back online in the Secondary Center by initiating their backup Workloads (virtual machines), which are synchronized with the primary copies by Change/Configuration Management. Their underlying data is generally present as of the previous day's backup – already available on local storage for smaller sets of data, available from tape backup for larger data sets.

If ***SmartPro MedEE*** were to lose the Secondary Center during normal operation, the same recovery approach is used to bring its Environments back online. The Primary Center's synchronized copy of each Environment's Workload is instantiated, executing against the most recent local copy of that Environment's data: either an on-disk backup taken the previous day for smaller datasets, or the equivalent tape backup for larger data sets.

Data Obfuscation

One of the challenges facing large healthcare systems is protecting data privacy. PHI data cannot be exposed to anyone except a select authorized few in the performance of their duties. In the Production Environment, there are multiple layers of controls in place to protect access to the sensitive data carried in the production database, ranging from encrypting data in the database itself up to Role-Based Access Controls enforced by the application. However, by themselves these controls are insufficient to support the needs of the non-Production Environments, such as Development, Testing, QA/UAT, Sandbox, and Training.

SmartPro MedEE uses IBM's InfoSphere Optim Data Privacy as its primary data obfuscation tool, bringing to the State a basic tool that is easy to use, fast, and efficient.

Some Environments, such as Training, are best served by small compact databases. Others, such as QA for Load, Stress, and Performance Testing demand complete, complex, and realistically sized databases to fulfill their missions. However, all require data that has been cleansed of sensitive information, while simultaneously retaining referential integrity and completeness. Normal system controls no longer suffice, as individuals without authority to access sensitive information must step into and play the roles of those who do have that authorization. The only answer is that the underlying information must be scrubbed clean of sensitive content, while remaining consistent with the shape and feel of the real data.

When the systems and their databases are small and simple, ad-hoc data sanitizing / obfuscation may sometimes suffice. But the demands of larger systems such as ***SmartPro MedEE*** cannot realistically be met by ad-hoc techniques: a systematic, thorough, efficient, and highly repeatable process must be in place. Here are a few of the main considerations:

Efficiency: the process must be efficient for data managers, for users of the process, and in terms of machine resources. Obfuscation is not a one-time event: at a minimum, any system change significantly altering the data model requires new or updated sanitized databases. The process of obtaining them cannot become a bottleneck constraining forward progress.

Integrity: changes to data must honor the referential integrity of the database, both explicit and implicit. For example, a sensitive data element to be sanitized might explicitly play a role as part of the primary, secondary, or foreign keys of the database, relationally linking one record to another: any obfuscation process must recognize this and ensure that all related elements are changed in concert so as to not "break" the database. Tools can generally pick up on these relationships, as they are explicitly defined in the database schema.

More subtle are implicit linkages not captured by the schema, but nevertheless critical to the integrity of the database. Denormalization may have introduced intentional redundancy, where the same sensitive element appears in multiple places that must remain synchronized.

Syntactic Consistency: fields often have syntax, a structure that must be honored, and that is known throughout the system. For example, a field's structure might be crucial for display, editing, and validation. So obfuscation cannot destroy a field's structure.

Human Factor: data is not arbitrary, devoid of meaning to the humans that consume it. For example, a "Name" is not a randomized string, it has the look and feel of being a person's name: Merely substituting a purely random string of letters for a value that is expected to carry meaning is not acceptable, as human consumers of that information become jarred by the dissonance of finding a random string of "garbage" where they expect to find a meaningful value. Obfuscation must produce realistic fictional values.

Strict Data Classification: effective obfuscation starts at the design level. All data must be classified as to its privacy requirements as part of data modeling, with that classification being a permanent part of the database data model.

To deliver on the requirements of obfuscation, the Wipro/IBM team will combine a mix of skilled staff, processes, and supporting tools.

Data Obfuscation is a full time Wipro Practice. The ***SmartPro MedEE*** team will draw upon specialists from this practice during the implementation phase, to setup the initial processes and tools, and to mentor the ongoing ***SmartPro MedEE*** staff so they can become self-sufficient in maintaining synchronized, obfuscated data in the future.

The ***SmartPro MedEE*** data modelers, using ER/Studio to manage the data model, are responsible for permanently capturing and maintaining in the model the security classification of all data.

The Data Obfuscation Practice specialist will setup the initial obfuscation process, relying heavily upon the IBM InfoSphere Optim Data Privacy tool (Optim) to assist with the heavy lifting of designing the obfuscation extract. This specialist will also mentor the database technical staff in the maintenance and ongoing operation of Optim and Obfuscation, so the team becomes self-reliant for the life of the project.

Master Data Management

SmartPro MedEE consolidates and interacts with data from many diverse sources, each having their own rules and conventions for identifying individual entities, such as citizens. From this diverse pool of data, it is imperative that ***SmartPro MedEE*** be able to recognize and identify the single individual appearing under many guises, and to assemble and maintain an accurate view of that person, including how they are identified and referenced by the systems and programs outside ***SmartPro MedEE***. Creating a single unified view of a person's program eligibility and participation is the essence of Master Data Management and the Master Person Index (MPI) within ***SmartPro MedEE***.

SmartPro MedEE builds its MPI capability on top of IBM InfoSphere MDM.

The MPI includes data and sources from N-FOCUS, the State's MMIS, and other systems that interface with ***SmartPro MedEE***. Using matching attributes, an algorithm assigns a unique client identifier to each unique client, regardless of the number of times a client occurs across sources/programs. The MPI also stores the existing unique client identifier(s) currently used within legacy systems for cross-reference. This provides the ability to reuse the client identifier once a client is known to ***SmartPro MedEE***.

The MPI will be configured to automatically merge and link duplicate client data based on rules set forth by the State. The MPI will use its algorithm and thresholds to decide whether to automatically link records, not link records, or create a task. Furthermore, the MPI will be configured to automatically delink clients based on updates to individual source records. The merge, link, and delink can also be done manually to overwrite the system if needed, using InfoSphere Inspector, or even integration messages. When changes are made to data, such as merges, links, delinks, or updates to demographic data, the MPI can automatically send an event notification, allowing pertinent programs to be notified of changes to client data, keeping the programs and MPI in sync.

The MPI software matches and searches on demographic data, including social security number and unique client identifiers. Furthermore, the MPI is capable of providing exact and partial match and Soundex to search and match clients within the MPI. The MPI also takes into account rules set forth by the State for both search and match. This is configurable out-of-the-box for InfoSphere MDM and is recognized as a core requirement for the MPI.

To properly manage data within the MPI, there are several ways the system can verify and alter certain demographic data for clients. To improve address accuracy, addresses are verified against postal records. This is included as part of the MPI functionality and can be performed in batch or real-time in accordance with program rules. Furthermore, assuming access to a managed list or service is accessible from the MPI, lists can be checked to verify whether a certain identifier is accurate within that federal system (i.e. social security number). Once again, this can be done in real-time or batch basis, depending on the final design decisions.

To help Nebraska minimize the disruption to workers during the transition to the new system, ***SmartPro MedEE*** provides the capability to display the same client differently, based on how a program wants to see it. These views can be created based on most-current attributes (displays the latest attribute regardless of source/program) or source-priority (shows a record based on a trusted source, regardless of when it was updated). The MPI can also be configured to have multiple views to see the same client. For instance, a client may be a part of three different programs. One program might want to see the user a certain way, highlighting their own program's attributes as opposed to another programs for its client view. However, another system might see the attributes based on when they were last updated, to give a most current view of a client. This approach gives the flexibility to view the same client in many different ways in order to meet multiple programs' requirements.

Master Data Management (MDM) as not a mere implementation of technology and tool set but a combination of multiple dimensions across business, technology and process that culminates into a successful MDM strategy and implementation. Wipro/IBM's approach to MDM is top down, starting with Data Governance Strategy, then proceeding to the physical implementation using tools and technologies.

Figure IV-185 below illustrates the building blocks of our MDM implementation:

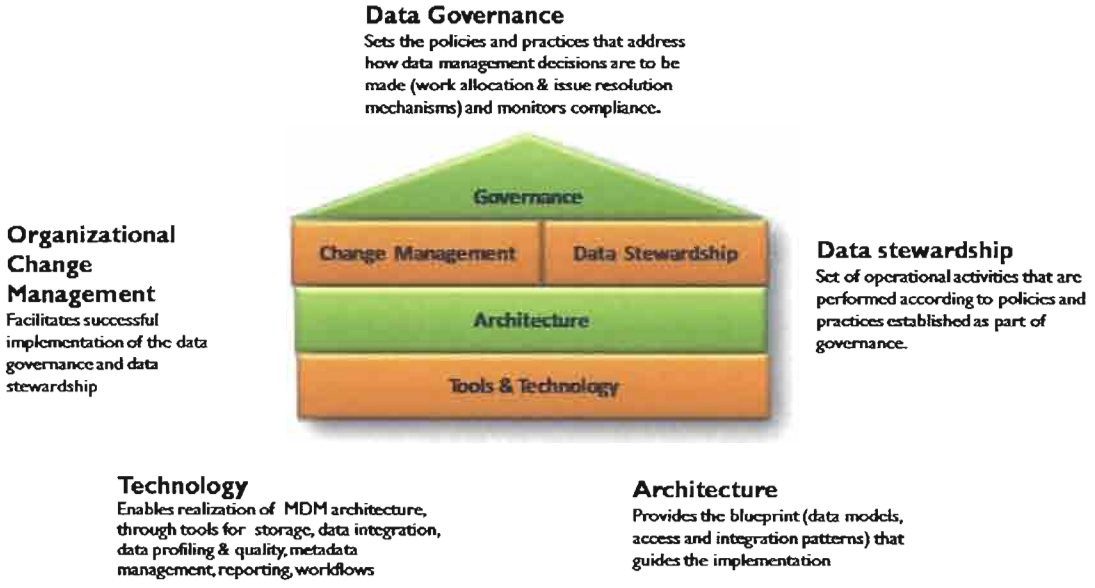


Figure IV-185: MDM Building Blocks

The Wipro/IBM framework for data governance encompasses the enterprise context with its constituent business processes and capabilities, which dictates the data governance strategy. The strategy has a clear charter, principles, practices, policies, and standards. They will be evolved as a management program jointly with all business and IT stakeholders during the initial phases of the project.

Page Left Intentionally Blank

D. DRAFT PROJECT WORK PLAN

Wipro/IBM provides a draft project work plan that includes detailed project tasks, deliverables, resources, milestones, and schedule to meet all CMS Enterprise Life Cycle (ELC) gated reviews and a successful ***SmartPro MedEE*** implementation. In addition, the detailed draft project work plan includes predecessors to identify task dependencies and assure the project timeline is within reason and accommodates the RFP timeline. Based on Wipro/IMB's past experiences, we are confident that the proposed work plan, broken down in a Work Breakdown Structures (WBS) format, will provide the detailed project tasks, deliverables, resources, milestones, and schedule to meet all the State of Nebraska's RFP Eligibility and Enrollment System requirements.

Page Left Intentionally Blank

ID	WI	Task Name	Dur	Start	Finish	Work	Resource Name
1		**1 RFP 4544Z1 - Nebraska Eligibility and Enrollment Solution**	**477 days**	**Mon 3/17/14**	**Thu 1/21/16**	**119,140.67 hrs**	
2	**1.1**	**Project Governance**	**258 days**	**Mon 3/17/14**	**Fri 3/20/15**	**32,844.7 hrs**	PM[0%],ImplMgr[0%],Trainer[0%],User Support Mgr[0%],PMO1[0%],PMO2[0%],Privacy Mgr[0%],QAMgr[0%],Test Mgr[0%],Rsrce
3	1.1.1	Manage and Report Status	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
4	1.1.2	Conduct Weekly Status Meetings & Minutes	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
5	1.1.3	Conduct Monthly Risk Management and Issue Resolution Meetings	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
6	1.1.4	Maintain Project Schedule	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
7	1.1.5	Maintain Risks, Issues, Action and Decisions Log	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
8	1.1.6	Monitor Resources	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
9	1.1.7	Manage Stakeholder Communication	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
10	1.1.8	Manage Change Control	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
11	1.1.9	Manage Issues	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
12	1.1.10	Manage Risks	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
13	1.1.11	Manage Costs	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
14	1.1.12	Manage Communication	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
15	1.1.13	Support Stage Gate Reviews	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
16	1.1.14	Monitor Contractor Performance	258 days	Mon 3/17/14	Fri 3/20/15	2,346.05 hrs	Recurring Resources[114%]
17							
18	**1.2**	**PROJECT MILESTONES**	**476.85 days**	**Mon 3/17/14**	**Thu 1/21/16**	**0 hrs**	
19	1.2.1	Project Kick-off	0 days	Mon 3/17/14	Mon 3/17/14	0 hrs	
20	1.2.2	Project Startup Review (PSR)	0 days	Tue 5/27/14	Tue 5/27/14	0 hrs	
21	1.2.3	Architecture Review (AR)	0 days	Thu 6/12/14	Thu 6/12/14	0 hrs	
22	1.2.4	Project Baseline Review (PBR)	0 days	Thu 7/24/14	Thu 7/24/14	0 hrs	
23	1.2.5	Preliinary Design Review (PDR)	0 days	Fri 9/19/14	Fri 9/19/14	0 hrs	
24	1.2.6	Detailed Design Review (DDR)	0 days	Wed 11/19/14	Wed 11/19/14	0 hrs	
25	1.2.7	Final Detailed Design Review (FDDR)	0 days	Mon 12/22/14	Mon 12/22/14	0 hrs	
26	1.2.8	Pre-Operational Readiness Review (PORR)	0 days	Mon 1/19/15	Mon 1/19/15	0 hrs	
27	1.2.9	Operational Readiness Review (ORR)	0 days	Thu 3/12/15	Thu 3/12/15	0 hrs	
28	1.2.10	GO-LIVE Implementation	0 days	Fri 3/13/15	Fri 3/13/15	0 hrs	
29	1.2.11	Start of Warranty Period	0 days	Thu 1/21/16	Thu 1/21/16	0 hrs	
30							
31	**1.3**	**Project Initiation, Concept, and Planning**	**91.82 days**	**Mon 3/17/14**	**Thu 7/24/14**	**2,044.8 hrs**	
32	**1.3.1**	**Initiation Phase**	**50.98 days**	**Mon 3/17/14**	**Tue 5/27/14**	**388.8 hrs**	
33	1.3.1.1	Conduct Project Kick-off Meeting	0.15 days	Mon 3/17/14	Mon 3/17/14	4.8 hrs	PM,BA Lead,LeadArch,MLTC PM[0%],IV&V[0%],Tech Lead,MLTC Project Sponsor[0%],MLTC SME[0%],IS&T PM[0%],IS&T Tech Lead[0%],MLTC Stakeholders[0%]
34	**1.3.1.2**	**Project Initiation Phase Deliverables**	**50.83 days**	**Mon 3/17/14**	**Tue 5/27/14**	**384 hrs**	
35	**1.3.1.2.1**	**Create Project Startup Review (PSR) Deliverables**	**50.83 days**	**Mon 3/17/14**	**Tue 5/27/14**	**384 hrs**	
36	**3.1.2.1.1**	**PSR Deliveraable Expectation Document Deliverables Management**	**14.83 days**	**Mon 3/17/14**	**Fri 4/4/14**	**76 hrs**	
37	**1.2.1.1.1**	**Develop and Submit Deliverable Expectation Documents (DED's) for PSR Deliverables**	**5.83 days**	**Mon 3/17/14**	**Mon 3/24/14**	**60 hrs**	
38	.2.1.1.1.1	Develop Acquisition Strategy Plan DED	1 day	Mon 3/17/14	Tue 3/18/14	8 hrs	PM
39	.2.1.1.1.2	Develop Risk Management and Issue Resolution Plan DED	0.5 days	Tue 3/18/14	Tue 3/18/14	8 hrs	PM,LeadArch
40	.2.1.1.1.3	Develop Scope Management and RTM Plan DED	0.33 days	Tue 3/18/14	Tue 3/18/14	4 hrs	PM[50%],BA Lead

ID	WBS	Task Name	Duration	Start	Finish	Work	Resource Names
41	2.1.1.1.4	Develop Project Management Plan DED	1 day	Tue 3/18/14	Wed 3/19/14	8 hrs	PM
42	2.1.1.1.5	Develop Project Schedule DED	1 day	Wed 3/19/14	Thu 3/20/14	8 hrs	PM
43	2.1.1.1.6	Develop Concept of Operations Document DED	1 day	Thu 3/20/14	Fri 3/21/14	8 hrs	PM
44	2.1.1.1.7	Develop Communications Management Plan DED	1 day	Fri 3/21/14	Mon 3/24/14	8 hrs	PM
45	2.1.1.1.8	Develop Configuration and Performance Management Plan DED	1 day	Tue 3/18/14	Wed 3/19/14	8 hrs	LeadArch
46	1.2.1.1.2	Deliver DEDs to MLTC for Review	0 days	Mon 3/24/14	Mon 3/24/14	0 hrs	PM
47	1.2.1.1.3	MLTC Review of DEDs	5 days	Mon 3/24/14	Mon 3/31/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
48	1.2.1.1.4	Correct and Resubmit DEDs	2 days	Mon 3/31/14	Wed 4/2/14	16 hrs	PM
49	1.2.1.1.5	MLTC Review and Approval of DEDs	2 days	Wed 4/2/14	Fri 4/4/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
50	1.2.1.1.6	MLTC Approval of PSR DEDs	0 days	Fri 4/4/14	Fri 4/4/14	0 hrs	MLTC PM
51	**3.1.2.1.2**	**PSR Deliverabes**	**19.5 days**	**Fri 4/4/14**	**Fri 5/2/14**	**264 hrs**	
52	1.2.1.2.1	Develop Acquisition Strategy Plan	1 day	Fri 4/4/14	Mon 4/7/14	16 hrs	PM,PM2
53	1.2.1.2.2	Develop Risk Management and Issue Resolution Plans	2 days	Mon 4/7/14	Wed 4/9/14	32 hrs	PM,LeadArch
54	1.2.1.2.3	Develop Scope Management Plan	2 days	Wed 4/9/14	Fri 4/11/14	32 hrs	PM,BIA
55	1.2.1.2.4	Develop Project Management Plan (Preliminary)	2 days	Fri 4/11/14	Tue 4/15/14	32 hrs	PM,LeadArch
56	1.2.1.2.5	Develop Project Schedule (Preliminary)	2.5 days	Tue 4/15/14	Fri 4/18/14	40 hrs	PM,PM2
57	1.2.1.2.6	Develop Concept of Operations Document	2 days	Fri 4/18/14	Tue 4/22/14	16 hrs	PM
58	1.2.1.2.7	Develop Communications Management Plan	2 days	Tue 4/22/14	Thu 4/24/14	16 hrs	PM
59	1.2.1.2.8	Develop Configuration and Performance Management Plan	2 days	Thu 4/24/14	Mon 4/28/14	16 hrs	LeadArch
60	1.2.1.2.9	Perform Internal Quality Review of Deliverables	2 days	Mon 4/28/14	Wed 4/30/14	32 hrs	PM,QA
61	2.1.2.10	Correct Internal Quality Review Findings	2 days	Wed 4/30/14	Fri 5/2/14	32 hrs	PM,LeadArch
62	**3.1.2.1.3**	**MLTC Review of Project Startup Review (PSR) Deliverables**	**11.5 days**	**Fri 5/2/14**	**Mon 5/19/14**	**44 hrs**	
63	1.2.1.3.1	Deliver PSR Deliverables to MLTC for Review	1 day	Fri 5/2/14	Mon 5/5/14	8 hrs	PM
64	1.2.1.3.2	Conduct Review of all PSR Documents with MLTC	0.5 days	Mon 5/5/14	Mon 5/5/14	4 hrs	PM[50%],LeadArch[50%],MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
65	1.2.1.3.3	MLTC Provides Written Feedback	3 days	Mon 5/5/14	Thu 5/8/14	0 hrs	MLTC PM[0%],IV&V[0%]
66	1.2.1.3.4	Update Phase Deliverables	2 days	Thu 5/8/14	Mon 5/12/14	32 hrs	PM,LeadArch
67	1.2.1.3.5	MLTC Approves and Submits PSR Documents to CMS\CCIIO for Scheduled Review and Approval	0 days	Mon 5/19/14	Mon 5/19/14	0 hrs	MLTC PM
68	3.1.2.1.4	MILESTONE: Project Startup Review - APPROVED	5 days	Mon 5/19/14	Tue 5/27/14	0 hrs	CMS
69							
70	**1.3.2**	**Concept Phase**	**62.67 days**	**Mon 3/17/14**	**Thu 6/12/14**	**1,248 hrs**	
71	1.3.2.1	Conduct Architecture Planning Sessions	5 days	Mon 3/17/14	Mon 3/24/14	120 hrs	LeadArch,Tech Arch-Int,Tech Arch
72	**1.3.2.2**	**Concept Phase Deliverables**	**52.67 days**	**Mon 3/31/14**	**Thu 6/12/14**	**1,128 hrs**	
73	**1.3.2.2.1**	**Create Architect Review (AR) Deliverables**	**52.67 days**	**Mon 3/31/14**	**Thu 6/12/14**	**1,128 hrs**	
74	**3.2.2.1.1**	**AR DED Deliverables Management**	**24 days**	**Mon 3/31/14**	**Fri 5/2/14**	**96 hrs**	
75	**2.2.1.1.1**	**Develop and Submit DED for AR Deliverables**	**24 days**	**Mon 3/31/14**	**Fri 5/2/14**	**96 hrs**	
76	2.1.1.1.1	Develop Migration Plan DED	2 days	Mon 4/14/14	Wed 4/16/14	32 hrs	PM,LeadArch
77	2.1.1.1.2	Develop Architecture Diagrams and Design Documents DED	2 days	Wed 4/16/14	Fri 4/18/14	32 hrs	PM,LeadArch
78	2.1.1.1.3	Develop Business Process Models and Gap Analysis DED	2 days	Mon 3/31/14	Wed 4/2/14	16 hrs	SrBA1
79	2.1.1.1.4	Deliver DEDs to MLTC for Review	0 days	Fri 4/18/14	Fri 4/18/14	0 hrs	PM
80	2.1.1.1.5	MLTC Review of DEDs	5 days	Fri 4/18/14	Fri 4/25/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%],IS&T PM[0%],IS&T Tech Lead[0%]
81	2.1.1.1.6	Correct and Resubmit DEDs	2 days	Fri 4/25/14	Tue 4/29/14	16 hrs	PM

ID	WI	Task Name	Dur.	Start	Finish	Work	Resource Name.
82	.2.1.1.1.7	MLTC Review and Approval of DEDs	3 days	Tue 4/29/14	Fri 5/2/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%],IS&T PM[0%],IS&T Tech Lead[0%]
83	.2.1.1.1.8	MLTC Approval of AR DEDs	0 days	Fri 5/2/14	Fri 5/2/14	0 hrs	MLTC PM
84	**3.2.2.1.2**	**AR Deliverables**	**15 days**	**Fri 5/2/14**	**Fri 5/23/14**	**944 hrs**	
85	.2.2.1.2.1	Develop Migration Plan	4 days	Fri 5/2/14	Thu 5/8/14	128 hrs	SrDev2,Tech Arch,Tech Arch-Int,SrDev1
86	.2.2.1.2.2	Develop Architecture Diagrams and Design Documents	7 days	Thu 5/8/14	Mon 5/19/14	224 hrs	Tech Arch,SrDev2,Tech Arch-Int,SrDev1
87	**2.2.1.2.3**	**Business Process Models and Gap Analysis (Final)**	**15 days**	**Fri 5/2/14**	**Fri 5/23/14**	**480 hrs**	
88	.2.1.2.3.1	Conduct As-Is Assessment	3 days	Fri 5/2/14	Wed 5/7/14	96 hrs	SrBA1,SrBA2,Tech Arch,SrDev1
89	.2.1.2.3.2	Conduct To-Be Assessment	3 days	Wed 5/7/14	Mon 5/12/14	96 hrs	SrBA1,SrBA2,SrDev1,Tech Arch
90	.2.1.2.3.3	Create Gap Analysis	4 days	Mon 5/12/14	Fri 5/16/14	128 hrs	SrBA1,SrBA2,SrDev1,Tech Arch
91	.2.1.2.3.4	Develop Business Process Models and Gap Analysis	5 days	Fri 5/16/14	Fri 5/23/14	160 hrs	SrBA1,SrBA2,BA1,BA2
92	.2.2.1.2.4	Perform Internal Quality Review of AR Deliverables	2 days	Thu 5/8/14	Mon 5/12/14	48 hrs	LeadArch,SrDev3,QA
93	.2.2.1.2.5	Correct Internal Quality Review Findings	2 days	Mon 5/12/14	Wed 5/14/14	64 hrs	Tech Arch,SrDev2,Tech Arch-Int,SrDev1
94	**3.2.2.1.3**	**MLTC Review of Architecture Review (AR) Deliverables**	**20.67 days**	**Wed 5/14/14**	**Thu 6/12/14**	**88 hrs**	
95	.2.2.1.3.1	Deliver all AR Deliverables to MLTC for Review	0 days	Wed 5/14/14	Wed 5/14/14	0 hrs	PM
96	.2.2.1.3.2	Conduct Review of all AR Documents with MLTC	0.67 days	Mon 5/19/14	Mon 5/19/14	8 hrs	LeadArch[50%],SrDev3[50%],PM[50%],MLTC PM[0%],MLTC Stakeholders[0%],IS&T PM[0%],IS&T
97	.2.2.1.3.3	MLTC Provides Written Feedback	5 days	Mon 5/19/14	Tue 5/27/14	0 hrs	MLTC PM[0%],IV&V[0%],IS&T PM[0%]
98	.2.2.1.3.4	Update Phase Deliverables	2 days	Tue 5/27/14	Thu 5/29/14	80 hrs	SrDev2,Tech Arch,Tech Arch-Int,SrDev1,BA1
99	.2.2.1.3.5	MLTC Approves and Submits AR Documents to CMS\CCIIO for Scheduled Review	0 days	Thu 6/5/14	Thu 6/5/14	0 hrs	MLTC PM
100	.2.2.1.3.6	MILESTONE: Architecture Review - APPROVED	5 days	Thu 6/5/14	Thu 6/12/14	0 hrs	CMS
101							
102	**1.3.3**	**Planning Phase**	**34 days**	**Thu 6/5/14**	**Thu 7/24/14**	**408 hrs**	
103	**1.3.3.1**	**Project Planning Phase Deliverables**	**34 days**	**Thu 6/5/14**	**Thu 7/24/14**	**408 hrs**	
104	**1.3.3.1.1**	**Create Project Baseline Review (PBR) Deliverables**	**34 days**	**Thu 6/5/14**	**Thu 7/24/14**	**408 hrs**	
105	**3.3.1.1.1**	**PBR DED Deliverables Management**	**15 days**	**Thu 6/5/14**	**Thu 6/26/14**	**64 hrs**	
106	**3.1.1.1.1**	**Develop and Submit DED's for PBR Deliverables**	**5 days**	**Thu 6/5/14**	**Thu 6/12/14**	**48 hrs**	
107	.1.1.1.1.1	Develop Quality Management Plan DED	1 day	Thu 6/5/14	Fri 6/6/14	16 hrs	PM,QA
108	.1.1.1.1.2	Develop Change Management Plan DED	1 day	Fri 6/6/14	Mon 6/9/14	8 hrs	PM
109	.1.1.1.1.3	Develop Project Process Agreement DED	1 day	Mon 6/9/14	Tue 6/10/14	8 hrs	PM
110	.1.1.1.1.4	Develop Release Plan DED	1 day	Tue 6/10/14	Wed 6/11/14	8 hrs	RelMgr
111	.1.1.1.1.5	Develop Privacy Impact Assessment DED	1 day	Wed 6/11/14	Thu 6/12/14	8 hrs	PM
112	.3.1.1.1.2	Deliver DEDs to MLTC for Review	0 days	Thu 6/12/14	Thu 6/12/14	0 hrs	PM
113	.3.1.1.1.3	MLTC Review of DEDs	5 days	Thu 6/12/14	Thu 6/19/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
114	.3.1.1.1.4	Correct and Resubmit DEDs	2 days	Thu 6/19/14	Mon 6/23/14	16 hrs	PM
115	.3.1.1.1.5	MLTC Review and Approval of DEDs	3 days	Mon 6/23/14	Thu 6/26/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
116	.3.1.1.1.6	MLTC Approval of PBR DEDs	0 days	Thu 6/26/14	Thu 6/26/14	0 hrs	MLTC PM
117	**3.3.1.1.2**	**PBR Deliverabes**	**9 days**	**Thu 6/26/14**	**Thu 7/10/14**	**216 hrs**	
118	.3.1.1.2.1	Refine Project Management Plan (F)	1 day	Thu 6/26/14	Fri 6/27/14	16 hrs	PM,PM2
119	.3.1.1.2.2	Refine Project Schedule (F)	1 day	Fri 6/27/14	Mon 6/30/14	16 hrs	PM,PM2
120	.3.1.1.2.3	Develop Quality Management Plan	1 day	Mon 6/30/14	Tue 7/1/14	16 hrs	PM,QA
121	.3.1.1.2.4	Develop Change Management Plan	2 days	Tue 7/1/14	Thu 7/3/14	16 hrs	PM
122	.3.1.1.2.5	Develop Project Process Agreement	2 days	Thu 6/26/14	Mon 6/30/14	16 hrs	LeadArch
123	.3.1.1.2.6	Develop Release Plan	3 days	Thu 6/26/14	Tue 7/1/14	24 hrs	RelMgr
124	.3.1.1.2.7	Develop Privacy Impact Assessment	2 days	Mon 6/30/14	Wed 7/2/14	16 hrs	LeadArch
125	.3.1.1.2.8	Perform Internal Quality Review of Deliverables	3 days	Wed 7/2/14	Tue 7/8/14	48 hrs	PM,QA
126	.3.1.1.2.9	Correct Internal Quality Review Findings	2 days	Tue 7/8/14	Thu 7/10/14	48 hrs	PM,LeadArch,RelMgr

ID	WBS	Task Name	Duration	Start	Finish	Work	Resource Names
127	**3.3.1.1.3**	**Project Baseline Review (PBR)**	**10 days**	**Thu 7/10/14**	**Thu 7/24/14**	**128 hrs**	
128	3.1.1.3.1	Deliver all PBR Deliverables to MLTC for Review	0 days	Thu 7/10/14	Thu 7/10/14	0 hrs	PM
129	3.1.1.3.2	Conduct Review of all PBR Documents with MLTC	0.67 days	Thu 7/10/14	Fri 7/11/14	8 hrs	LeadArch[50%],SrDev3[50%],PM[50%],MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
130	3.1.1.3.3	MLTC Provides Written Feedback	0 days	Fri 7/11/14	Fri 7/11/14	0 hrs	MLTC PM[0%],IV&V[0%]
131	3.1.1.3.4	Update Phase Deliverables	3 days	Fri 7/11/14	Wed 7/16/14	120 hrs	SrDev2,Tech Arch,Tech Arch-Int,SrDev1,BA1
132	3.1.1.3.5	MLTC Approves and Submits PBR Documents to CMS\CCIIO for Scheduled Review	0 days	Thu 7/17/14	Thu 7/17/14	0 hrs	MLTC PM
133	3.1.1.3.6	MILESTONE: Project Baseline Review - APPROVED	5 days	Thu 7/17/14	Thu 7/24/14	0 hrs	CMS
134							
135	**1.4**	**Infrastructure Build, Maintenance, and Support**	**185 days**	**Mon 3/17/14**	**Fri 12/5/14**	**5,900 hrs**	
136	**1.4.1**	**Infrastructure Build, Maintenance, and Support - Dev and Test Environments**	**155 days**	**Mon 3/17/14**	**Wed 10/22/14**	**4,580 hrs**	
137	**1.4.1.1**	**Planning and Management**	**10 days**	**Mon 3/17/14**	**Fri 3/28/14**	**80 hrs**	
138	1.4.1.1.1	Conduct Meetings to Finalize Development Infrastructure	10 days	Mon 3/17/14	Fri 3/28/14	80 hrs	InfrArch[25%],Tech Arch[25%],PM[50%],MLTC PM[0%],MLTC Stakeholders[0%],IS&T PM[0%],IS&T
139	**1.4.1.2**	**Hardware/Software Installation and Configuration (Curam and Connecture)**	**70 days**	**Mon 3/17/14**	**Mon 6/23/14**	**1,020 hrs**	
140	1.4.1.2.1	Curam Softwar/License Purchased and Received	20 days	Mon 3/17/14	Fri 4/11/14	0 hrs	
141	1.4.1.2.2	VMs Purchased, Delivered, Installed	5 days	Mon 4/14/14	Fri 4/18/14	80 hrs	InfrArch,Tech Arch
142	1.4.1.2.3	Server Commissioning	5 days	Mon 4/21/14	Fri 4/25/14	100 hrs	InfrArch[83%],Tech Arch[83%],IntfDev1,Tech Arch-Int
143	1.4.1.2.4	WAS ND Installation	5 days	Mon 4/28/14	Fri 5/2/14	100 hrs	InfrArch[83%],Tech Arch[83%],IntfDev1[63%],Tech Arch-Int[63%]
144	1.4.1.2.5	DB Install	5 days	Mon 5/5/14	Fri 5/9/14	100 hrs	DBA1[63%],DBA2[63%],DBA3[63%],DBA4[63%]
145	1.4.1.2.6	Configuration Management tool installation and setup	5 days	Mon 5/12/14	Fri 5/16/14	120 hrs	InfrArch,Config Mgr,SysAdmin
146	1.4.1.2.7	Curam 6.04 Installations and Configuration	5 days	Mon 5/19/14	Fri 5/23/14	120 hrs	InfrArch,Config Mgr,SysAdmin
147	1.4.1.2.8	Curam setup in Configuration Management tool	5 days	Tue 5/27/14	Mon 6/2/14	120 hrs	InfrArch,Config Mgr,SysAdmin
148	1.4.1.2.9	Code Quality, JUnit Reporting tool etc. setup	5 days	Tue 6/3/14	Mon 6/9/14	120 hrs	InfrArch,Config Mgr,SysAdmin
149	1.4.1.2.10	Incremental Build setup	5 days	Tue 6/10/14	Mon 6/16/14	80 hrs	SysAdmin,RelMgr
150	1.4.1.2.11	Nightly Build setup	5 days	Tue 6/17/14	Mon 6/23/14	80 hrs	RelMgr,SysAdmin
151	**1.4.1.3**	**Setup, Maintenance, Support - Dev and Test Environments (Other SW Tools)**	**155 days**	**Mon 3/17/14**	**Wed 10/22/14**	**3,480 hrs**	
152	1.4.1.3.1	HIPAA Txns	155 days	Mon 3/17/14	Wed 10/22/14	620 hrs	EDIDev1[25%],EDIDev2[25%]
153	1.4.1.3.2	Data Warehouse/BI	155 days	Mon 3/17/14	Wed 10/22/14	620 hrs	App DBA1[25%],AppDBA2[25%]
154	1.4.1.3.3	ESB	155 days	Mon 3/17/14	Wed 10/22/14	620 hrs	ESBArch1[25%],ESBArch2[25%]
155	1.4.1.3.4	ECM/E-forms/Indexing	155 days	Mon 3/17/14	Wed 10/22/14	620 hrs	ECMDev1[25%],Workflow Engr1[25%]
156	1.4.1.3.5	PMO	125 days	Mon 3/17/14	Wed 9/10/14	1,000 hrs	PMOToolsConfigSpec
157	**1.4.2**	**Infrastructure Build and Readiness - Production Environment**	**185 days**	**Mon 3/17/14**	**Fri 12/5/14**	**1,320 hrs**	
158	**1.4.2.1**	**Planning and Management**	**10 days**	**Mon 3/17/14**	**Fri 3/28/14**	**40 hrs**	
159	1.4.2.1.1	Conduct Meetings to Finalize Production Infrastructure	10 days	Mon 3/17/14	Fri 3/28/14	40 hrs	InfrArch[25%],Tech Arch[25%]
160	**1.4.2.2**	**Hardware/Software Installation and Configuration (Curam and Connecture)**	**30 days**	**Mon 3/17/14**	**Fri 4/25/14**	**480 hrs**	
161	1.4.2.2.1	VMs Purchased, Delivered, Installed	5 days	Mon 3/17/14	Fri 3/21/14	80 hrs	InfrArch,Tech Arch
162	1.4.2.2.2	Server Commissioning	5 days	Mon 3/24/14	Fri 3/28/14	80 hrs	InfrArch,Tech Arch
163	1.4.2.2.3	WAS ND Installation	5 days	Mon 3/31/14	Fri 4/4/14	80 hrs	InfrArch,Tech Arch
164	1.4.2.2.4	DB Install	5 days	Mon 4/7/14	Fri 4/11/14	80 hrs	DBA1,DBA2
165	1.4.2.2.5	Build script creation	10 days	Mon 4/14/14	Fri 4/25/14	160 hrs	RelMgr,SysAdmin

ID	WI	Task Name	Dura	Start	Finish	Work	Resource Names
166	**1.4.2.3**	**Setup, Maintenance, and Support - Production Environment (Other SW Tools)**	**60 days**	**Thu 9/11/14**	**Fri 12/5/14**	**800 hrs**	
167	1.4.2.3.1	HIPAA Txns	30 days	Thu 10/23/14	Fri 12/5/14	120 hrs	EDIDev1[25%],EDIDev2[25%]
168	1.4.2.3.2	Data Warehouse/BI	30 days	Thu 10/23/14	Fri 12/5/14	120 hrs	App DBA1[25%],AppDBA2[25%]
169	1.4.2.3.3	ESB	30 days	Thu 10/23/14	Fri 12/5/14	240 hrs	ESBArch1[50%],ESBArch2[50%]
170	1.4.2.3.4	ECM/E-forms/Indexing	30 days	Thu 10/23/14	Fri 12/5/14	120 hrs	ECMDev1[25%],Workflow Engr1[25%]
171	1.4.2.3.5	PMO	30 days	Thu 9/11/14	Wed 10/22/14	200 hrs	PMOToolsConfigSpec[83%]
172							
173	**1.5**	**Requirements, Analysis, and Design**	**123.12 days**	**Thu 6/26/14**	**Mon 12/22/14**	**2,108.43 hrs**	
174	**1.5.1**	**Requirements, Analysis, and Design Phase Deliverables**	**123.12 days**	**Thu 6/26/14**	**Mon 12/22/14**	**2,108.43 hrs**	
175	**1.5.1.1**	**Create Preliminary Design Review (PDR) Deliverables**	**58.79 days**	**Thu 6/26/14**	**Fri 9/19/14**	**771.17 hrs**	
176	**1.5.1.1.1**	**PDR DED Deliverables Management**	**29.5 days**	**Thu 6/26/14**	**Fri 8/8/14**	**140.6 hrs**	
177	**5.1.1.1.1**	**Develop and Submit DED's for PDR Deliverables**	**19.5 days**	**Thu 6/26/14**	**Fri 7/25/14**	**47.32 hrs**	
178	.1.1.1.1.1	Develop Requirements Document DED	0.5 days	Thu 6/26/14	Fri 6/27/14	8 hrs	SrBA1,BA1
179	.1.1.1.1.2	Develop Detailed Design Document DED	0.5 days	Fri 6/27/14	Fri 6/27/14	8 hrs	SrBA1,BA1
180	.1.1.1.1.3	Develop Technical Design Documents DED	0.5 days	Thu 6/26/14	Fri 6/27/14	4 hrs	SrDev1
181	.1.1.1.1.4	Develop Information Security Risk Assessment DED	0.5 days	Thu 7/24/14	Fri 7/25/14	11.32 hrs	Tech Arch[83%],SecArch,Security Lead
182	.1.1.1.1.5	Develop System Security Plan DED	0.5 days	Thu 7/24/14	Fri 7/25/14	4 hrs	SecurityLead
183	.1.1.1.1.6	Develop Test Plan DED	0.5 days	Thu 7/24/14	Fri 7/25/14	4 hrs	Test Mgr
184	.1.1.1.1.7	Develop Technical Architecture Diagrams DED	0.5 days	Thu 7/24/14	Fri 7/25/14	4 hrs	LeadArch
185	.1.1.1.1.8	Develop Logical Data Model DED	0.5 days	Thu 7/24/14	Fri 7/25/14	4 hrs	DBA1
186	.5.1.1.1.2	Deliver DEDs to MLTC for Review	0 days	Fri 7/25/14	Fri 7/25/14	0 hrs	PM
187	.5.1.1.1.3	MLTC Review of DEDs	5 days	Fri 7/25/14	Fri 8/1/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%],MLTC SME[0%]
188	.5.1.1.1.4	Correct and Resubmit DEDs	2 days	Fri 8/1/14	Tue 8/5/14	93.28 hrs	Tech Arch[83%],SecArch,Security Lead,SrBA1,Test Mgr,PM
189	.5.1.1.1.5	MLTC Review and Approval of DEDs	3 days	Tue 8/5/14	Fri 8/8/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%],MLTC SME[0%]
190	.5.1.1.1.6	MLTC Approval of PDR DEDs	0 days	Fri 8/8/14	Fri 8/8/14	0 hrs	MLTC PM
191	**1.5.1.1.2**	**PDR Deliverabes (Iterative approach with Development Iterations)**	**8 days**	**Fri 8/8/14**	**Wed 8/20/14**	**502.57 hrs**	
192	.5.1.1.2.1	Develop Requirements Document (P)	2 days	Fri 8/8/14	Tue 8/12/14	64 hrs	BA1,SrBA1,BA2,BA3
193	.5.1.1.2.2	Develop Detailed Design Documents (P)	2 days	Tue 8/12/14	Thu 8/14/14	64 hrs	BA1,SrBA1,BA2,BA3
194	.5.1.1.2.3	Develop Technical Design Documents (P)	2 days	Fri 8/8/14	Tue 8/12/14	64 hrs	SrDev1,SrDev2,Tech Writer1,Tech Writer2
195	.5.1.1.2.4	Develop Information Security Risk Assessment (P)	2 days	Fri 8/8/14	Tue 8/12/14	45.28 hrs	SecArch,Tech Arch[83%],Security Lead
196	.5.1.1.2.5	Develop System Security Plan (P)	2 days	Fri 8/8/14	Tue 8/12/14	32 hrs	SecArch,SecurityLead
197	.5.1.1.2.6	Develop Test Plan (P)	2 days	Fri 8/8/14	Tue 8/12/14	16 hrs	Test Mgr
198	.5.1.1.2.7	Develop Technical Architecture Diagrams (F)	3 days	Fri 8/8/14	Wed 8/13/14	24 hrs	LeadArch
199	.5.1.1.2.8	Develop Logical Data Model (F)	2 days	Fri 8/8/14	Tue 8/12/14	16 hrs	RelMgr
200	.5.1.1.2.9	Perform Internal Quality Review of Deliverables	3 days	Wed 8/13/14	Mon 8/18/14	84 hrs	SrBA1,BA Lead,LeadArch[50%],QA
201	.1.1.2.10	Correct Internal Quality Review Findings	2 days	Mon 8/18/14	Wed 8/20/14	93.28 hrs	PM,SecArch,Tech Arch[83%],Security Lead,SrBA1,Test Mgr
202	**1.5.1.1.3**	**Preliminary Design Review (PDR)**	**21.29 days**	**Wed 8/20/14**	**Fri 9/19/14**	**128 hrs**	
203	.5.1.1.3.1	Deliver all PDR Deliverables to MLTC for Review	0 days	Wed 8/20/14	Wed 8/20/14	0 hrs	PM
204	.5.1.1.3.2	Conduct Review of all PDR Documents with MLTC	0.29 days	Mon 8/25/14	Mon 8/25/14	8 hrs	LeadArch[50%],PM[50%],MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%],MLTC SME[0%],BA Lead[50%],Tech Lead,Test Mgr
205	.5.1.1.3.3	MLTC Provides Written Feedback	5 days	Mon 8/25/14	Tue 9/2/14	0 hrs	MLTC PM[0%],IV&V[0%]
206	.5.1.1.3.4	Update Phase Deliverables	3 days	Tue 9/2/14	Fri 9/5/14	120 hrs	SrDev2,Tech Arch,Tech Arch-Int,SrDev1,BA1

ID	WBS	Task Name	Duration	Start	Finish	Work	Resource Names
207	1.5.1.1.3.5	MLTC Approves and Submits PDR Documents to CMS\CCIIO for Scheduled Review	0 days	Fri 9/12/14	Fri 9/12/14	0 hrs	MLTC PM
208	1.5.1.1.3.6	MILESTONE: Preliminary Design Review - APPROVED	5 days	Fri 9/12/14	Fri 9/19/14	0 hrs	CMS
209							
210	**1.5.1.2**	**Create Detailed Design Review (DDR) Deliverables**	**42.67 days**	**Fri 9/19/14**	**Wed 11/19/14**	**917.28 hrs**	
211	**1.5.1.2.1**	**DDR DED Deliverables Management**	**11 days**	**Fri 9/19/14**	**Mon 10/6/14**	**141.28 hrs**	
212	**1.5.1.2.1.1**	**Develop and Submit DED's for DDR Deliverables**	**2 days**	**Fri 9/19/14**	**Tue 9/23/14**	**48 hrs**	
213	1.2.1.1.1	Develop System Design Document DED	1 day	Fri 9/19/14	Mon 9/22/14	8 hrs	SrDev1
214	1.2.1.1.2	Develop Interface Control Document DED	1 day	Mon 9/22/14	Tue 9/23/14	8 hrs	IntfDev1
215	1.2.1.1.3	Develop Database Design Document DED	1 day	Fri 9/19/14	Mon 9/22/14	8 hrs	DBA1
216	1.2.1.1.4	Develop Data Management Plan DED	1 day	Fri 9/19/14	Mon 9/22/14	8 hrs	DBA2
217	1.2.1.1.5	Develop Physical Data Model DED	1 day	Fri 9/19/14	Mon 9/22/14	8 hrs	DBA3
218	1.2.1.1.6	Develop Data Conversion Plan DED	1 day	Fri 9/19/14	Mon 9/22/14	8 hrs	DataConvLead
219	1.5.1.2.1.2	Deliver DEDs to MLTC for Review	0 days	Mon 9/22/14	Mon 9/22/14	0 hrs	PM
220	1.5.1.2.1.3	MLTC Review of DEDs	5 days	Mon 9/22/14	Mon 9/29/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%],MLTC SME[0%]
221	1.5.1.2.1.4	Correct and Resubmit DEDs	2 days	Mon 9/29/14	Wed 10/1/14	93.28 hrs	Tech Arch[83%],SecArch,Security Lead,SrBA1,Test Mgr,PM
222	1.5.1.2.1.5	MLTC Review and Approval of DEDs	3 days	Wed 10/1/14	Mon 10/6/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%],MLTC SME[0%]
223	1.5.1.2.1.6	MLTC Approval of DDR DEDs	0 days	Mon 10/6/14	Mon 10/6/14	0 hrs	MLTC PM
224	**1.5.1.2.2**	**DDR Deliverabes (Iterative approach with Development Iterations)**	**10 days**	**Mon 10/6/14**	**Mon 10/20/14**	**648 hrs**	
225	**1.5.1.2.2.1**	**Refine Requirements Document (I)**	**6 days**	**Mon 10/6/14**	**Tue 10/14/14**	**288 hrs**	
226	1.2.2.1.1	Refine Requirements Document	2 days	Mon 10/6/14	Wed 10/8/14	64 hrs	BA1,SrBA1,BA2,BA3
227	1.2.2.1.2	Update Requirements Traceability Matrix	2 days	Wed 10/8/14	Fri 10/10/14	64 hrs	BA1,SrBA1,BA2,BA3
228	1.2.2.1.3	Create User Stories or User Cases	4 days	Wed 10/8/14	Tue 10/14/14	160 hrs	BA1,SrBA1,BA2,MLTC EE Users,MLTC SME
229	1.5.1.2.2.2	Develop System Design Document (P)	2 days	Tue 10/14/14	Thu 10/16/14	96 hrs	SrDev4,SrDev3,SrDev2,SrDev1,Dev2,Dev1
230	1.5.1.2.2.3	Develop Interface Control Document (P)	2 days	Mon 10/6/14	Wed 10/8/14	64 hrs	IntfDev3,IntfDev4,IntfDev2,IntfDev1
231	1.5.1.2.2.4	Develop Database Design Document (P)	2 days	Mon 10/6/14	Wed 10/8/14	16 hrs	DBA1
232	1.5.1.2.2.5	Develop Data Management Plan (P)	2 days	Mon 10/6/14	Wed 10/8/14	16 hrs	DBA2
233	1.5.1.2.2.6	Develop Physical Data Model (P)	2 days	Mon 10/6/14	Wed 10/8/14	16 hrs	DBA3
234	1.5.1.2.2.7	Develop Data Conversion Plan (P)	2 days	Mon 10/6/14	Wed 10/8/14	16 hrs	DataConvLead
235	1.5.1.2.2.8	Perform Internal Quality Review of Deliverables	2 days	Tue 10/14/14	Thu 10/16/14	56 hrs	SrBA1,BA Lead,LeadArch[50%],QA
236	1.5.1.2.2.9	Correct Internal Quality Review Findings	2 days	Thu 10/16/14	Mon 10/20/14	80 hrs	DataConvLead,DBA1,IntfDev1,Dev1,BA1
237	**1.5.1.2.3**	**Detail Design Review (DDR)**	**21.67 days**	**Mon 10/20/14**	**Wed 11/19/14**	**128 hrs**	
238	1.5.1.2.3.1	Deliver all DDR Deliverables to MLTC for Review	0 days	Mon 10/20/14	Mon 10/20/14	0 hrs	PM
239	1.5.1.2.3.2	Conduct Review of all DDR Documents with MLTC	0.67 days	Thu 10/23/14	Fri 10/24/14	8 hrs	LeadArch[50%],PM[50%],MLTC PM[0%],Tech Lead[50%],MLTC Stakeholders[0%],MLTC SME[0%]
240	1.5.1.2.3.3	MLTC Provides Written Feedback	5 days	Fri 10/24/14	Fri 10/31/14	0 hrs	MLTC PM[0%],IV&V[0%]
241	1.5.1.2.3.4	Update Phase Deliverables	3 days	Fri 10/31/14	Wed 11/5/14	120 hrs	SrDev2,Tech Arch,Tech Arch-Int,SrDev1,BA1
242	1.5.1.2.3.5	MLTC Approves and Submits DDR Documents to CMS\CCIIO for Scheduled Review	0 days	Wed 11/12/14	Wed 11/12/14	0 hrs	MLTC PM[0%]
243	1.5.1.2.3.6	MILESTONE: Detail Design Review - APPROVED	5 days	Wed 11/12/14	Wed 11/19/14	0 hrs	CMS
244							
245	**1.5.1.3**	**Complete Final Detailed Design Review (FDDR) Deliverables**	**26.67 days**	**Wed 11/12/14**	**Mon 12/22/14**	**420 hrs**	
246	**1.5.1.3.1**	**FDDR DED Deliverables Management**	**5 days**	**Wed 11/19/14**	**Wed 11/26/14**	**16 hrs**	
247	**1.5.1.3.1.1**	**Develop and Submit DED's for FDDR Deliverables**	**1 day**	**Wed 11/19/14**	**Thu 11/20/14**	**8 hrs**	
248	1.3.1.1.1	Develop System of Record Notice DED	1 day	Wed 11/19/14	Thu 11/20/14	8 hrs	PM

ID	WI	Task Name	Dur	Start	Finish	Work	Resource Name
249	5.1.3.1.2	Deliver DEDs to MLTC for Review	0 days	Thu 11/20/14	Thu 11/20/14	0 hrs	PM
250	5.1.3.1.3	MLTC Review of DEDs	2 days	Thu 11/20/14	Mon 11/24/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
251	5.1.3.1.4	Correct and Resubmit DEDs	1 day	Mon 11/24/14	Tue 11/25/14	8 hrs	PM
252	5.1.3.1.5	MLTC Review and Approval of DEDs	1 day	Tue 11/25/14	Wed 11/26/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
253	5.1.3.1.6	MLTC Approval of FDDR DEDs	0 days	Wed 11/26/14	Wed 11/26/14	0 hrs	MLTC PM
254	**1.5.1.3.2**	**FDDR Deliverabes (Iterative approach with Development Iterations)**	**5 days**	**Wed 11/12/14**	**Wed 11/19/14**	**276 hrs**	
255	**5.1.3.2.1**	**Finalize Requirements Document**	**3 days**	**Wed 11/12/14**	**Mon 11/17/14**	**96 hrs**	
256	1.3.2.1.1	Finalize Requirements Document (F)	1 day	Wed 11/12/14	Thu 11/13/14	32 hrs	BA1,SrBA1,BA2,BA3
257	1.3.2.1.2	Update Requirements Traceability Matrix	1 day	Thu 11/13/14	Fri 11/14/14	32 hrs	BA1,SrBA1,BA2,BA3
258	1.3.2.1.3	Finalize User Stories or User Cases	1 day	Fri 11/14/14	Mon 11/17/14	32 hrs	BA1,SrBA1,BA2,BA3
259	5.1.3.2.2	Finalize System Design Document (F)	1 day	Wed 11/12/14	Thu 11/13/14	48 hrs	SrDev4,SrDev3,SrDev2,SrDev1,Dev2,Dev1
260	5.1.3.2.3	Finalize Interface Control Document (F)	1 day	Wed 11/12/14	Thu 11/13/14	32 hrs	IntfDev3,IntfDev4,IntfDev2,IntfDev1
261	5.1.3.2.4	Finalize Database Design Document (F)	1 day	Wed 11/12/14	Thu 11/13/14	8 hrs	DBA1
262	5.1.3.2.5	Finalize Data Management Plan (F)	1 day	Wed 11/12/14	Thu 11/13/14	8 hrs	DBA2
263	5.1.3.2.6	Finalize Physical Data Model (F)	1 day	Wed 11/12/14	Thu 11/13/14	8 hrs	DBA3
264	5.1.3.2.7	Finalize Data Conversion Plan (F)	1 day	Wed 11/12/14	Thu 11/13/14	8 hrs	DataConvLead
265	5.1.3.2.8	Perform Internal Quality Review of Deliverables	1 day	Mon 11/17/14	Tue 11/18/14	28 hrs	SrBA1,BA Lead,LeadArch[50%],QA
266	5.1.3.2.9	Correct Internal Quality Review Findings	1 day	Tue 11/18/14	Wed 11/19/14	40 hrs	DataConvLead,DBA1,IntfDev1,Dev1,BA1
267	**1.5.1.3.3**	**Final Detailed Design Review (FDDR)**	**21.67 days**	**Wed 11/19/14**	**Mon 12/22/14**	**128 hrs**	
268	5.1.3.3.1	Deliver all FDDR Deliverables to MLTC for Review	0 days	Wed 11/19/14	Wed 11/19/14	0 hrs	PM
269	5.1.3.3.2	Conduct Review of all FDDR Documents with MLTC	0.67 days	Mon 11/24/14	Mon 11/24/14	8 hrs	LeadArch[50%],MLTC Stakeholders,PM[50%],MLTC PM[0%],Tech Lead[50%],MLTC SME[0%]
270	5.1.3.3.3	MLTC Provides Written Feedback	5 days	Mon 11/24/14	Wed 12/3/14	0 hrs	MLTC PM[0%],IV&V[0%]
271	5.1.3.3.4	Update Phase Deliverables	3 days	Wed 12/3/14	Mon 12/8/14	120 hrs	SrDev2,Tech Arch,Tech Arch-Int,SrDev1,BA1
272	5.1.3.3.5	MLTC Approves and Submits FDDR Documents to CMS\CCIIO for Scheduled Review	0 days	Mon 12/15/14	Mon 12/15/14	0 hrs	MLTC PM
273	5.1.3.3.6	MILESTONE: Final Detail Design Review - APPROVED	5 days	Mon 12/15/14	Mon 12/22/14	0 hrs	CMS
274							
275	**1.6**	**Development and Test Phase**	**152 days**	**Thu 7/24/14**	**Mon 3/2/15**	**52,742.57 hrs**	
276	**1.6.1**	**Software Configuration and Development**	**70 days**	**Thu 7/24/14**	**Fri 10/31/14**	**36,920 hrs**	
277	**1.6.1.1**	**Curam**	**40 days**	**Thu 7/24/14**	**Fri 9/19/14**	**2,000 hrs**	
278	**1.6.1.1.1**	**Curam Development Team 1**	**40 days**	**Thu 7/24/14**	**Fri 9/19/14**	**2,000 hrs**	
279	**6.1.1.1.1**	**Iteration #1**	**10 days**	**Thu 7/24/14**	**Thu 8/7/14**	**400 hrs**	**Dev1,SrDev3,SrDev4,Dev2,BA1**
286	**6.1.1.1.2**	**Iteration #2**	**10 days**	**Thu 7/24/14**	**Thu 8/7/14**	**400 hrs**	**Dev2,SrDev3,Dev1,RulesDev1,BA2**
293	**6.1.1.1.3**	**Iteration #3**	**10 days**	**Thu 8/7/14**	**Thu 8/21/14**	**400 hrs**	**Dev2,SrDev3,Dev1,RulesDev1,BA2**
300	**6.1.1.1.4**	**Iteration #4**	**10 days**	**Thu 8/21/14**	**Fri 9/5/14**	**400 hrs**	**SrDev3,SrDev4,Dev2,Dev1,BA1**
307	**6.1.1.1.5**	**Iteration #5**	**10 days**	**Fri 9/5/14**	**Fri 9/19/14**	**400 hrs**	**SrDev3,SrDev4,Dev2,Dev1,BA1**
314	**1.6.1.2**	**Plan Presentation, Selection and Enrollment (Connecture)**	**50 days**	**Thu 7/24/14**	**Fri 10/3/14**	**2,000 hrs**	
315	**1.6.1.2.1**	**Connecture Development Team 1**	**50 days**	**Thu 7/24/14**	**Fri 10/3/14**	**2,000 hrs**	
316	**6.1.2.1.1**	**Iteration #1**	**10 days**	**Thu 7/24/14**	**Thu 8/7/14**	**400 hrs**	**Dev1,SrDev3,SrDev4,Dev2,BA1**
322	**6.1.2.1.2**	**Iteration #2**	**10 days**	**Thu 8/7/14**	**Thu 8/21/14**	**400 hrs**	**SrDev4,Dev2,Dev1,SrDev3,BA1**
328	**6.1.2.1.3**	**Iteration #3**	**10 days**	**Thu 8/21/14**	**Fri 9/5/14**	**400 hrs**	**Dev1,SrDev3,SrDev4,Dev2,BA1**
334	**6.1.2.1.4**	**Iteration #4**	**10 days**	**Fri 9/5/14**	**Fri 9/19/14**	**400 hrs**	**Dev1,SrDev3,SrDev4,Dev2,BA1**
340	**6.1.2.1.5**	**Iteration #5**	**10 days**	**Fri 9/19/14**	**Fri 10/3/14**	**400 hrs**	**Dev1,SrDev3,SrDev4,Dev2,BA1**
346	**1.6.1.3**	**Data Warehouse/BI and Reporting**	**50 days**	**Thu 7/24/14**	**Fri 10/3/14**	**10,800 hrs**	
347	**1.6.1.3.1**	**Reporting Team 1**	**50 days**	**Thu 7/24/14**	**Fri 10/3/14**	**3,600 hrs**	

ID	WBS	Task Name	Duration	Start	Finish	Work	Resource Names
348	6.1.3.1.1	Iteration #1	10 days	Thu 7/24/14	Thu 8/7/14	720 hrs	BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3,DataArch1
353	6.1.3.1.2	Iteration #2	10 days	Thu 8/7/14	Thu 8/21/14	720 hrs	DataArch1,BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3
358	6.1.3.1.3	Iteration #3	10 days	Thu 8/21/14	Fri 9/5/14	720 hrs	BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3,DataArch1
363	6.1.3.1.4	Iteration #4	10 days	Fri 9/5/14	Fri 9/19/14	720 hrs	DataArch1,BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3
368	6.1.3.1.5	Iteration #5	10 days	Fri 9/19/14	Fri 10/3/14	720 hrs	BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3,DataArch1
373	1.6.1.3.2	Reporting Team 2	50 days	Thu 7/24/14	Fri 10/3/14	3,600 hrs	
374	6.1.3.2.1	Iteration #1	10 days	Thu 7/24/14	Thu 8/7/14	720 hrs	BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3,DataArch1
379	6.1.3.2.2	Iteration #2	10 days	Thu 8/7/14	Thu 8/21/14	720 hrs	DataArch1,BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3
384	6.1.3.2.3	Iteration #3	10 days	Thu 8/21/14	Fri 9/5/14	720 hrs	BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3,DataArch1
389	6.1.3.2.4	Iteration #4	10 days	Fri 9/5/14	Fri 9/19/14	720 hrs	DataArch1,BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3
394	6.1.3.2.5	Iteration #5	10 days	Fri 9/19/14	Fri 10/3/14	720 hrs	BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3,DataArch1
399	1.6.1.3.3	Reporting Team 3	50 days	Thu 7/24/14	Fri 10/3/14	3,600 hrs	
400	6.1.3.3.1	Iteration #1	10 days	Thu 7/24/14	Thu 8/7/14	720 hrs	BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3,DataArch1
405	6.1.3.3.2	Iteration #2	10 days	Thu 8/7/14	Thu 8/21/14	720 hrs	DataArch1,BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3
410	6.1.3.3.3	Iteration #3	10 days	Thu 8/21/14	Fri 9/5/14	720 hrs	BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3,DataArch1
415	6.1.3.3.4	Iteration #4	10 days	Fri 9/5/14	Fri 9/19/14	720 hrs	DataArch1,BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3
420	6.1.3.3.5	Iteration #5	10 days	Fri 9/19/14	Fri 10/3/14	720 hrs	BA1,BA2,ETLDev1,ETLDev2,ETL Dev3,Report Dev1,Report Dev2,Report Dev3,DataArch1
425	1.6.1.4	Data Obfuscation	50 days	Thu 7/24/14	Fri 10/3/14	3,600 hrs	
426	1.6.1.4.1	EDO Development Team 1	50 days	Thu 7/24/14	Fri 10/3/14	3,600 hrs	
427	6.1.4.1.1	Iteration #1	10 days	Thu 7/24/14	Thu 8/7/14	720 hrs	BA1,BA2,EDODev1,EDODev2,EDODev3,EDO Dev4,App DBA1,AppDBA2,SysDBA1
432	6.1.4.1.2	Iteration #2	10 days	Thu 8/7/14	Thu 8/21/14	720 hrs	BA1,BA2,EDODev1,EDODev2,EDODev3,EDO Dev4,App DBA1,AppDBA2,SysDBA1
437	6.1.4.1.3	Iteration #3	10 days	Thu 8/21/14	Fri 9/5/14	720 hrs	BA1,BA2,EDODev1,EDODev2,EDODev3,EDO Dev4,App DBA1,AppDBA2,SysDBA1
442	6.1.4.1.4	Iteration #4	10 days	Fri 9/5/14	Fri 9/19/14	720 hrs	BA1,BA2,EDODev1,EDODev2,EDODev3,EDO Dev4,App DBA1,AppDBA2,SysDBA1
447	6.1.4.1.5	Iteration #5	10 days	Fri 9/19/14	Fri 10/3/14	720 hrs	BA1,BA2,EDODev1,EDODev2,EDODev3,EDO Dev4,App DBA1,AppDBA2,SysDBA1
452	1.6.1.5	HIPAA Txns	50 days	Thu 8/21/14	Fri 10/31/14	1,600 hrs	
453	1.6.1.5.1	HIPAA Txns Development Team 1	50 days	Thu 8/21/14	Fri 10/31/14	1,600 hrs	
454	6.1.5.1.1	Iteration #1	10 days	Thu 8/21/14	Fri 9/5/14	320 hrs	BA1,BA2,EDIDev1,EDIDev2
459	6.1.5.1.2	Iteration #2	10 days	Fri 9/5/14	Fri 9/19/14	320 hrs	BA1,BA2,EDIDev1,EDIDev2
464	6.1.5.1.3	Iteration #3	10 days	Fri 9/19/14	Fri 10/3/14	320 hrs	BA1,BA2,EDIDev1,EDIDev2

ID	WI	Task Name	Dur	Start	Finish	Work	Resource Name
469	6.1.5.1.4	Iteration #4	10 days	Fri 10/3/14	Fri 10/17/14	320 hrs	BA1,BA2,EDIDev1,EDIDev2
474	6.1.5.1.5	Iteration #5	10 days	Fri 10/17/14	Fri 10/31/14	320 hrs	BA1,BA2,EDIDev1,EDIDev2
479	1.6.1.6	ECM/E-forms/Indexing	50 days	Thu 7/24/14	Fri 10/3/14	2,520 hrs	
480	1.6.1.6.1	ECM/E-forms/Indexing Development Team 1	50 days	Thu 7/24/14	Fri 10/3/14	2,520 hrs	
481	6.1.6.1.1	Iteration #1	10 days	Thu 7/24/14	Thu 8/7/14	504 hrs	BA1[70%],BA2[70%],ECMDev1[140%],ECMDev2[140%],BA3[70%],ECMDev3[70%],Workflow Engr1[70%]
486	6.1.6.1.2	Iteration #2	10 days	Thu 8/7/14	Thu 8/21/14	504 hrs	BA1[70%],BA2[70%],ECMDev1[140%],ECMDev2[140%],BA3[70%],ECMDev3[70%],Workflow Engr1[70%]
491	6.1.6.1.3	Iteration #3	10 days	Thu 8/21/14	Fri 9/5/14	504 hrs	BA1[70%],BA2[70%],ECMDev1[140%],ECMDev2[140%],BA3[70%],ECMDev3[70%],Workflow Engr1[70%]
496	6.1.6.1.4	Iteration #4	10 days	Fri 9/5/14	Fri 9/19/14	504 hrs	BA1[70%],BA2[70%],ECMDev1[140%],ECMDev2[140%],BA3[70%],ECMDev3[70%],Workflow Engr1[70%]
501	6.1.6.1.5	Iteration #5	10 days	Fri 9/19/14	Fri 10/3/14	504 hrs	BA1[70%],BA2[70%],ECMDev1[140%],ECMDev2[140%],BA3[70%],ECMDev3[70%],Workflow Engr1[70%]
506	1.6.1.7	ESB	70 days	Thu 7/24/14	Fri 10/31/14	1,600 hrs	
507	1.6.1.7.1	ESB Development Team 1	50 days	Thu 8/21/14	Fri 10/31/14	800 hrs	
508	6.1.7.1.1	Iteration #1	10 days	Thu 8/21/14	Fri 9/5/14	160 hrs	ESBArch1,ESBArch2
513	6.1.7.1.2	Iteration #2	10 days	Fri 9/5/14	Fri 9/19/14	160 hrs	ESBArch1,ESBArch2
518	6.1.7.1.3	Iteration #3	10 days	Fri 9/19/14	Fri 10/3/14	160 hrs	ESBArch1,ESBArch2
523	6.1.7.1.4	Iteration #4	10 days	Fri 10/3/14	Fri 10/17/14	160 hrs	ESBArch1,ESBArch2
528	6.1.7.1.5	Iteration #5	10 days	Fri 10/17/14	Fri 10/31/14	160 hrs	ESBArch1,ESBArch2
533	1.6.1.7.2	ESB Development Team 2	50 days	Thu 7/24/14	Fri 10/3/14	800 hrs	
534	6.1.7.2.1	Iteration #1	10 days	Thu 7/24/14	Thu 8/7/14	160 hrs	ESBArch1,ESBArch2
539	6.1.7.2.2	Iteration #2	10 days	Thu 8/7/14	Thu 8/21/14	160 hrs	ESBArch1,ESBArch2
544	6.1.7.2.3	Iteration #3	10 days	Thu 8/21/14	Fri 9/5/14	160 hrs	ESBArch1,ESBArch2
549	6.1.7.2.4	Iteration #4	10 days	Fri 9/5/14	Fri 9/19/14	160 hrs	ESBArch1,ESBArch2
554	6.1.7.2.5	Iteration #5	10 days	Fri 9/19/14	Fri 10/3/14	160 hrs	ESBArch1,ESBArch2
559	1.6.1.8	Interfaces	50 days	Thu 8/7/14	Fri 10/17/14	4,800 hrs	
560	1.6.1.8.1	Interface Development Team 1	50 days	Thu 8/7/14	Fri 10/17/14	1,600 hrs	
561	6.1.8.1.1	Interfaces - Iteration #1	10 days	Thu 8/7/14	Thu 8/21/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
567	6.1.8.1.2	Interfaces - Iteration #2	10 days	Thu 8/21/14	Fri 9/5/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
573	6.1.8.1.3	Interfaces - Iteration #3	10 days	Fri 9/5/14	Fri 9/19/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
579	6.1.8.1.4	Interfaces - Iteration #4	10 days	Fri 9/19/14	Fri 10/3/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
585	6.1.8.1.5	Interfaces - Iteration #5	10 days	Fri 10/3/14	Fri 10/17/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
591	1.6.1.8.2	Interface Development Team 2	50 days	Thu 8/7/14	Fri 10/17/14	1,600 hrs	
592	6.1.8.2.1	Interfaces - Iteration #1	10 days	Thu 8/7/14	Thu 8/21/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
598	6.1.8.2.2	Interfaces - Iteration #2	10 days	Thu 8/21/14	Fri 9/5/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
604	6.1.8.2.3	Interfaces - Iteration #3	10 days	Fri 9/5/14	Fri 9/19/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
610	6.1.8.2.4	Interfaces - Iteration #4	10 days	Fri 9/19/14	Fri 10/3/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
616	6.1.8.2.5	Interfaces - Iteration #5	10 days	Fri 10/3/14	Fri 10/17/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
622	1.6.1.8.3	Interface Development Team 3	50 days	Thu 8/7/14	Fri 10/17/14	1,600 hrs	
623	6.1.8.3.1	Interfaces - Iteration #1	10 days	Thu 8/7/14	Thu 8/21/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
629	6.1.8.3.2	Interfaces - Iteration #2	10 days	Thu 8/21/14	Fri 9/5/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
635	6.1.8.3.3	Interfaces - Iteration #3	10 days	Fri 9/5/14	Fri 9/19/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4

ID	WBS	Task Name	Duration	Start	Finish	Work	Resource Names
641	6.1.8.3.4	Interfaces - Iteration #4	10 days	Fri 9/19/14	Fri 10/3/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
647	6.1.8.3.5	Interfaces - Iteration #5	10 days	Fri 10/3/14	Fri 10/17/14	320 hrs	IntfDev1,IntfDev2,IntfDev3,IntfDev4
653	1.6.1.9	Data Conversion	50 days	Wed 8/13/14	Thu 10/23/14	2,000 hrs	
654	1.6.1.9.1	Data Conversion Team 1	50 days	Wed 8/13/14	Thu 10/23/14	2,000 hrs	
655	6.1.9.1.1	Data Conversion - Iteration #1	10 days	Wed 8/13/14	Wed 8/27/14	400 hrs	DataConv4,DataConv3,Data Conv2,DataConv1,DataConv5
661	6.1.9.1.2	Data Conversion - Iteration #2	10 days	Wed 8/27/14	Thu 9/11/14	400 hrs	DataConv4,DataConv3,Data Conv2,DataConv1,DataConv5
667	6.1.9.1.3	Data Conversion - Iteration #3	10 days	Thu 9/11/14	Thu 9/25/14	400 hrs	DataConv4,DataConv3,Data Conv2,DataConv1,DataConv5
673	6.1.9.1.4	Data Conversion - Iteration #4	10 days	Thu 9/25/14	Thu 10/9/14	400 hrs	DataConv4,DataConv3,Data Conv2,DataConv1,DataConv5
679	6.1.9.1.5	Data Conversion - Iteration #5	10 days	Thu 10/9/14	Thu 10/23/14	400 hrs	DataConv4,DataConv3,Data Conv2,DataConv1,DataConv5
685	1.6.1.10	Enterprise Security	50 days	Thu 7/24/14	Fri 10/3/14	6,000 hrs	
686	.6.1.10.1	Enterprise Security Development Team 1	50 days	Thu 7/24/14	Fri 10/3/14	2,000 hrs	
687	.1.10.1.1	Enterprise Security - Iteration #1	10 days	Thu 7/24/14	Thu 8/7/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
692	.1.10.1.2	Enterprise Security - Iteration #2	10 days	Thu 8/7/14	Thu 8/21/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
697	.1.10.1.3	Enterprise Security - Iteration #3	10 days	Thu 8/21/14	Fri 9/5/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
702	.1.10.1.4	Enterprise Security - Iteration #4	10 days	Fri 9/5/14	Fri 9/19/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
707	.1.10.1.5	Enterprise Security - Iteration #5	10 days	Fri 9/19/14	Fri 10/3/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
712	.6.1.10.2	Enterprise Security Development Team 2	50 days	Thu 7/24/14	Fri 10/3/14	2,000 hrs	
713	.1.10.2.1	Enterprise Security - Iteration #1	10 days	Thu 7/24/14	Thu 8/7/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
718	.1.10.2.2	Enterprise Security - Iteration #2	10 days	Thu 8/7/14	Thu 8/21/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
723	.1.10.2.3	Enterprise Security - Iteration #3	10 days	Thu 8/21/14	Fri 9/5/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
728	.1.10.2.4	Enterprise Security - Iteration #4	10 days	Fri 9/5/14	Fri 9/19/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
733	.1.10.2.5	Enterprise Security - Iteration #5	10 days	Fri 9/19/14	Fri 10/3/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
738	.6.1.10.3	Enterprise Security Development Team 3	50 days	Thu 7/24/14	Fri 10/3/14	2,000 hrs	
739	.1.10.3.1	Enterprise Security - Iteration #1	10 days	Thu 7/24/14	Thu 8/7/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
744	.1.10.3.2	Enterprise Security - Iteration #2	10 days	Thu 8/7/14	Thu 8/21/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
749	.1.10.3.3	Enterprise Security - Iteration #3	10 days	Thu 8/21/14	Fri 9/5/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
754	.1.10.3.4	Enterprise Security - Iteration #4	10 days	Fri 9/5/14	Fri 9/19/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
759	.1.10.3.5	Enterprise Security - Iteration #5	10 days	Fri 9/19/14	Fri 10/3/14	400 hrs	SecArch,SecSpec1-IDAM,SecSpec2-IDAM,SecSpec3-IDAM,SecSpec4-IDAM
764							

ID	WI	Task Name	Dur.	Start	Finish	Work	Resource Name
765	1.6.2	System Testing	102 days	Fri 10/3/14	Mon 3/2/15	14,296 hrs	
766	1.6.2.1	Component Testing Team 1	50 days	Fri 10/3/14	Tue 12/16/14	2,400 hrs	
767	1.6.2.1.1	Iteration #1 Component Testing	10 days	Fri 10/3/14	Fri 10/17/14	480 hrs	SrTester1,SrTester2,SrTester3,Tester1,Tester 2,Tester 3
773	1.6.2.1.2	Iteration #2 Component Testing	10 days	Fri 10/17/14	Fri 10/31/14	480 hrs	SrTester1,SrTester2,SrTester3,Tester1,Tester 2,Tester 3
779	1.6.2.1.3	Iteration #3 Component Testing	10 days	Fri 10/31/14	Fri 11/14/14	480 hrs	SrTester1,SrTester2,SrTester3,Tester1,Tester 2,Tester 3
785	1.6.2.1.4	Iteration #4 Component Testing	10 days	Fri 11/14/14	Tue 12/2/14	480 hrs	SrTester1,SrTester2,SrTester3,Tester1,Tester 2,Tester 3
791	1.6.2.1.5	Iteration #5 Component Testing	10 days	Tue 12/2/14	Tue 12/16/14	480 hrs	SrTester1,SrTester2,SrTester3,Tester1,Tester 2,Tester 3
797	1.6.2.2	Component Testing Team 2	50 days	Fri 10/3/14	Tue 12/16/14	2,000 hrs	
798	1.6.2.2.1	Iteration #1 Component Testing	10 days	Fri 10/3/14	Fri 10/17/14	400 hrs	SrTester1,SrTester2,Tester1,Tester 2,Tester 3
804	1.6.2.2.2	Iteration #2 Component Testing	10 days	Fri 10/17/14	Fri 10/31/14	400 hrs	SrTester1,SrTester2,Tester1,Tester 2,Tester 3
810	1.6.2.2.3	Iteration #3 Component Testing	10 days	Fri 10/31/14	Fri 11/14/14	400 hrs	SrTester1,SrTester2,Tester1,Tester 2,Tester 3
816	1.6.2.2.4	Iteration #4 Component Testing	10 days	Fri 11/14/14	Tue 12/2/14	400 hrs	SrTester1,SrTester2,Tester1,Tester 2,Tester 3
822	1.6.2.2.5	Iteration #5 Component Testing	10 days	Tue 12/2/14	Tue 12/16/14	400 hrs	SrTester1,SrTester2,Tester1,Tester 2,Tester 3
828	1.6.2.3	System Integration Testing Team 1	50 days	Fri 10/3/14	Tue 12/16/14	2,400 hrs	
829	1.6.2.3.1	Iteration #1 Integration Testing	10 days	Fri 10/3/14	Fri 10/17/14	480 hrs	Tester1,SrTester3,SrTester2,Tester 3,SrTester1,Tester 2
835	1.6.2.3.2	Iteration #2 Integration Testing	10 days	Fri 10/17/14	Fri 10/31/14	480 hrs	Tester1,SrTester3,SrTester2,Tester 3,SrTester1,Tester 2
841	1.6.2.3.3	Iteration #3 Integration Testing	10 days	Fri 10/31/14	Fri 11/14/14	480 hrs	Tester1,SrTester3,SrTester2,Tester 3,SrTester1,Tester 2
847	1.6.2.3.4	Iteration #4 Integration Testing	10 days	Fri 11/14/14	Tue 12/2/14	480 hrs	Tester1,SrTester3,SrTester2,Tester 3,SrTester1,Tester 2
853	1.6.2.3.5	Iteration #5 Integration Testing	10 days	Tue 12/2/14	Tue 12/16/14	480 hrs	Tester1,SrTester3,SrTester2,Tester 3,SrTester1,Tester 2
859	1.6.2.4	System Integration Testing Team 2	50 days	Fri 10/3/14	Tue 12/16/14	2,000 hrs	
860	1.6.2.4.1	Iteration #1 Integration Testing	10 days	Fri 10/3/14	Fri 10/17/14	400 hrs	Tester1,SrTester2,Tester 3,SrTester1,Tester 2
866	1.6.2.4.2	Iteration #2 Integration Testing	10 days	Fri 10/17/14	Fri 10/31/14	400 hrs	Tester1,SrTester2,Tester 3,SrTester1,Tester 2
872	1.6.2.4.3	Iteration #3 Integration Testing	10 days	Fri 10/31/14	Fri 11/14/14	400 hrs	Tester1,SrTester2,Tester 3,SrTester1,Tester 2
878	1.6.2.4.4	Iteration #4 Integration Testing	10 days	Fri 11/14/14	Tue 12/2/14	400 hrs	Tester1,SrTester2,Tester 3,SrTester1,Tester 2
884	1.6.2.4.5	Iteration #5 Integration Testing	10 days	Tue 12/2/14	Tue 12/16/14	400 hrs	Tester1,SrTester2,Tester 3,SrTester1,Tester 2
890							
891	1.6.2.5	Stress/Performance Testing	102 days	Fri 10/3/14	Mon 3/2/15	1,412 hrs	
892	1.6.2.5.1	Plan Stress/Performance Tests	10 days	Fri 10/3/14	Fri 10/17/14	80 hrs	Test Mgr
893	1.6.2.5.2	Conduct Stress/Performance Tests	75 days	Fri 10/17/14	Thu 2/5/15	600 hrs	Tester 3[50%],SrTester3[50%]
894	1.6.2.5.3	Resolve Stress/Performance Test Issues	90 days	Fri 10/17/14	Thu 2/26/15	700 hrs	SrTester3[49%],Tester 3[49%]
895	1.6.2.5.4	Create Stress/Performance Test Results Document	2 days	Thu 2/26/15	Mon 3/2/15	32 hrs	SrTester3,Tester 3
896	1.6.2.5.5	Deliver Stress/Performance Test Results Documet to MLTC	0 days	Mon 3/2/15	Mon 3/2/15	0 hrs	PM
897							
898	1.6.2.6	Parallel/Regression Testing	92 days	Fri 10/17/14	Mon 3/2/15	1,312 hrs	
899	1.6.2.6.1	Plan Parallel/Regression Tests	10 days	Fri 10/17/14	Fri 10/31/14	80 hrs	Test Mgr
900	1.6.2.6.2	Conduct Parallel/Regression Tests	70 days	Fri 10/31/14	Thu 2/12/15	600 hrs	Tester1[54%],SrTester1[54%]
901	1.6.2.6.3	Resolve Parallel/Regression Test Issues	80 days	Fri 10/31/14	Thu 2/26/15	600 hrs	SrTester1[47%],Tester1[47%]
902	1.6.2.6.4	Create Parallel/Regression Test Results Document	2 days	Thu 2/26/15	Mon 3/2/15	32 hrs	SrTester1,Tester1
903	1.6.2.6.5	Deliver Parallel/Regression Test Results Documet to MLTC	0 days	Mon 3/2/15	Mon 3/2/15	0 hrs	PM

ID	WBS	Task Name	Duration	Start	Finish	Work	Resource Names
904							
905	**1.6.2.7**	**Network Intrusion/Security Testing**	**102 days**	**Fri 10/3/14**	**Mon 3/2/15**	**1,412 hrs**	
906	1.6.2.7.1	Plan Network Intrusion/Security Tests	10 days	Fri 10/3/14	Fri 10/17/14	80 hrs	SecurityLead
907	1.6.2.7.2	Conduct Network Intrusion/Security Tests	37.5 days	Fri 10/17/14	Fri 12/12/14	600 hrs	SrTester3,Tester 2
908	1.6.2.7.3	Resolve Stress/Performance Test Issues	90 days	Fri 10/17/14	Thu 2/26/15	700 hrs	SrTester3[49%],Tester 2[49%]
909	1.6.2.7.4	Create Stress/Performance Test Results Document	2 days	Thu 2/26/15	Mon 3/2/15	32 hrs	SrTester3,Tester 2
910	1.6.2.7.5	Deliver Stress/Performance Test Results Documet to MLTC	0 days	Mon 3/2/15	Mon 3/2/15	0 hrs	PM
911							
912	**1.6.2.8**	**UAT Support**	**45 days**	**Fri 12/26/14**	**Mon 3/2/15**	**1,360 hrs**	
913	1.6.2.8.1	MLTC Staff UAT Testing	35 days	Fri 12/26/14	Mon 2/16/15	0 hrs	MLTC EE Users[0%],MLTC SME[0%]
914	1.6.2.8.2	Support UAT Testing	40 days	Fri 12/26/14	Mon 2/23/15	640 hrs	Tester 3[67%],SrTester3[67%],BA[67%]
915	1.6.2.8.3	Reolve UAT Issues	45 days	Fri 12/26/14	Mon 3/2/15	720 hrs	Tester 3,SrTester3
916							
917	**1.6.3**	**Development and Test Phase Deliverables**	**39.5 days**	**Wed 11/19/14**	**Mon 1/19/15**	**1,526.57 hrs**	
918	**1.6.3.1**	**Create Pre-Operational Readiness Review (PORR) Deliverables**	**39.5 days**	**Wed 11/19/14**	**Mon 1/19/15**	**1,526.57 hrs**	
919	**1.6.3.1.1**	**PORR DED Deliverables Management**	**8 days**	**Wed 11/19/14**	**Wed 12/3/14**	**237.28 hrs**	
920	**6.3.1.1.1**	**Develop and Submit DED's for PORR Deliverables**	**1 day**	**Wed 11/19/14**	**Thu 11/20/14**	**144 hrs**	
921	3.1.1.1.1	Develop Contingency/Disaster Recovery Plan DED	1 day	Wed 11/19/14	Thu 11/20/14	8 hrs	Tech Arch
922	3.1.1.1.2	Develop Implementation Plan DED	1 day	Wed 11/19/14	Thu 11/20/14	8 hrs	ImplMgr
923	3.1.1.1.3	Develop User Manuals DED	1 day	Wed 11/19/14	Thu 11/20/14	24 hrs	Tech Writer1,BA1,User Support Mgr
924	3.1.1.1.4	Develop O&M Manuals DED	1 day	Wed 11/19/14	Thu 11/20/14	24 hrs	SysAdmin,SrDev1,Tech Writer2
925	3.1.1.1.5	Develop Training Plan DED	1 day	Wed 11/19/14	Thu 11/20/14	8 hrs	Trainer
926	3.1.1.1.6	Develop Test Reports DED	1 day	Wed 11/19/14	Thu 11/20/14	8 hrs	Test Mgr
927	3.1.1.1.7	Develop Data Use/Data Exchange/Interconnection Security Agreement DED	1 day	Wed 11/19/14	Thu 11/20/14	16 hrs	Tech Arch-Int,Security Lead
928	3.1.1.1.8	Develop Code Review Results Reports DED	1 day	Wed 11/19/14	Thu 11/20/14	8 hrs	TechLead
929	3.1.1.1.9	Develop Business Product Documents DED	1 day	Wed 11/19/14	Thu 11/20/14	32 hrs	BA2,TechWriter3,Report Dev1,Tech Arch
930	.1.1.1.10	Develop Training Materials DED	1 day	Wed 11/19/14	Thu 11/20/14	8 hrs	Trainer 1
931	6.3.1.1.2	Deliver DEDs to MLTC for Review	0 days	Thu 11/20/14	Thu 11/20/14	0 hrs	PM
932	6.3.1.1.3	MLTC Review of DEDs	3 days	Thu 11/20/14	Tue 11/25/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
933	6.3.1.1.4	Correct and Resubmit DEDs	2 days	Tue 11/25/14	Mon 12/1/14	93.28 hrs	Tech Arch[83%],Test Mgr,ImplMgr,Tech Writer1,BA1,Trainer
934	6.3.1.1.5	MLTC Review and Approval of DEDs	2 days	Mon 12/1/14	Wed 12/3/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
935	6.3.1.1.6	MLTC Approval of PORR DEDs	0 days	Wed 12/3/14	Wed 12/3/14	0 hrs	MLTC PM
936	**1.6.3.1.2**	**PORR Deliverabes**	**16 days**	**Wed 11/19/14**	**Mon 12/15/14**	**1,149.28 hrs**	
937	6.3.1.2.1	Finalize Test Plan (F)	5 days	Wed 11/19/14	Wed 11/26/14	80 hrs	Tester1,Test Mgr
938	6.3.1.2.2	Develop Contingency/Disaster Recovery Plan (P)	3 days	Wed 12/3/14	Mon 12/8/14	72 hrs	Tech Arch,SysAdmin,SecArch
939	6.3.1.2.3	Develop Implementation Plan (P)	3 days	Wed 12/3/14	Mon 12/8/14	72 hrs	ImplMgr,TechLead,BA2
940	6.3.1.2.4	Develop User Manuals (P)	3.75 days	Wed 12/3/14	Tue 12/9/14	120 hrs	Tech Writer1,BA1,User Support Mgr,Tech Writer2
941	6.3.1.2.5	Develop O&M Manuals (P)	3.75 days	Wed 12/3/14	Tue 12/9/14	120 hrs	SysAdmin,SrDev1,TechWriter3,TechWriter4
942	6.3.1.2.6	Develop Training Plan (P)	3.33 days	Wed 12/3/14	Mon 12/8/14	80 hrs	Trainer,Training Mgr,Trainer 1
943	6.3.1.2.7	Develop Test Reports (P)	3.33 days	Wed 12/3/14	Mon 12/8/14	80 hrs	SrTester1,SrTester2,SrTester3
944	6.3.1.2.8	Develop Data Use/Data Exchange/Interconnection Security Agreement (P)	3 days	Wed 12/3/14	Mon 12/8/14	48 hrs	Tech Arch-Int,Security Lead
945	6.3.1.2.9	Develop Code Review Results Report (F)	3 days	Wed 12/3/14	Mon 12/8/14	72 hrs	TechLead,SrDev1,SrDev2
946	.3.1.2.10	Develop Business Product Documents (P)	3 days	Wed 12/3/14	Mon 12/8/14	96 hrs	BA2,TechWriter3,Report Dev1,Tech Arch
947	.3.1.2.11	Develop Training Materials (P)	4 days	Wed 12/3/14	Tue 12/9/14	96 hrs	Trainer 1,Trainer 2,Trainer
948	.3.1.2.12	Perform Internal Quality Review of Deliverables	2 days	Tue 12/9/14	Thu 12/11/14	104 hrs	SrBA1,BA Lead,LeadArch[50%],QA,TechLead,Training Mgr,Security Lead

ID	WI	Task Name	Dur.	Start	Finish	Work	Resource Name
949	6.3.1.2.13	Correct Internal Quality Review Findings	2 days	Thu 12/11/14	Mon 12/15/14	109.28 hrs	Tech Writer1,ImplMgr,BA1,Trainer,Tester1,Tech Arch-Int[83%],Report Dev1
950	1.6.3.1.3	**Pre-Operational Readiness Review (PORR)**	**23.5 days**	**Mon 12/15/14**	**Mon 1/19/15**	**140 hrs**	
951	6.3.1.3.1	Deliver all PORR Deliverables to MLTC for Review	0 days	Mon 12/15/14	Mon 12/15/14	0 hrs	PM
952	6.3.1.3.2	Conduct Review of all PORR Documents with MLTC	0.5 days	Thu 12/18/14	Thu 12/18/14	20 hrs	PM,Tech Lead,Tech Arch,Test Mgr,SecurityLead,MLTC PM[0%],MLTC
953	6.3.1.3.3	MLTC Provides Written Feedback	7 days	Thu 12/18/14	Tue 12/30/14	0 hrs	MLTC PM[0%],IV&V[0%]
954	6.3.1.3.4	Update Phase Deliverables	3 days	Tue 12/30/14	Mon 1/5/15	120 hrs	SrDev2,Tech Arch,Tech Arch-Int,SrDev1,BA1
955	6.3.1.3.5	MLTC Approves and Submits PORR Documents to CMS\CCIIO for Scheduled Review	0 days	Mon 1/12/15	Mon 1/12/15	0 hrs	MLTC PM
956	6.3.1.3.6	**MILESTONE: Pre-Operational Readiness Review (PORR) - APPROVED**	5 days	Mon 1/12/15	Mon 1/19/15	0 hrs	CMS
957							
958	**1.7**	**Implementation Phase**	**38.55 days**	**Mon 1/19/15**	**Fri 3/13/15**	**2,327.17 hrs**	
959	**1.7.1**	**Implementation Phase Deliverables**	**37.55 days**	**Mon 1/19/15**	**Thu 3/12/15**	**1,281.23 hrs**	
960	**1.7.1.1**	**Create/Finalize Operational Readiness Review (ORR) Deliverables**	**37.55 days**	**Mon 1/19/15**	**Thu 3/12/15**	**1,281.23 hrs**	
961	1.7.1.1.1	**ORR DED Deliverables Management**	**9.83 days**	**Mon 1/19/15**	**Mon 2/2/15**	**72 hrs**	
962	7.1.1.1.1	**Develop and Submit DED's for ORR Deliverables**	**3.5 days**	**Mon 1/19/15**	**Fri 1/23/15**	**40 hrs**	
963	.1.1.1.1	Develop Post Implementation Support Plan DED	1 day	Mon 1/19/15	Tue 1/20/15	0 hrs	
964	.1.1.1.2	Develop System of Record Notice DED	0.5 days	Mon 1/19/15	Tue 1/20/15	8 hrs	Tech Arch,SecArch
965	.1.1.1.3	Develop Project Completion Report DED	1 day	Mon 1/19/15	Tue 1/20/15	8 hrs	PM
966	.1.1.1.4	Develop SLAs/MOUs DED	1 day	Tue 1/20/15	Wed 1/21/15	8 hrs	PM
967	.1.1.1.5	Develop POA&M DED	1 day	Wed 1/21/15	Thu 1/22/15	8 hrs	PM
968	.1.1.1.6	Develop Authority to Operate DED	0.5 days	Thu 1/22/15	Fri 1/23/15	8 hrs	PM,Security Lead
969	.7.1.1.1.2	Deliver DEDs to MLTC for Review	0 days	Fri 1/23/15	Fri 1/23/15	0 hrs	PM
970	.7.1.1.1.3	MLTC Review of DEDs	3 days	Fri 1/23/15	Wed 1/28/15	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
971	.7.1.1.1.4	Correct and Resubmit DEDs	1.33 days	Wed 1/28/15	Thu 1/29/15	32 hrs	Security Lead,SecArch,PM
972	.7.1.1.1.5	MLTC Review and Approval of DEDs	2 days	Thu 1/29/15	Mon 2/2/15	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%]
973	.7.1.1.1.6	MLTC Approval of ORR DEDs	0 days	Mon 2/2/15	Mon 2/2/15	0 hrs	MLTC PM
974	**1.7.1.1.2**	**ORR Deliverabes**	**17.05 days**	**Mon 1/19/15**	**Wed 2/11/15**	**1,081.28 hrs**	
975	.7.1.1.2.1	Finalize Contingency/Disaster Recovery Plan (F)	3 days	Mon 1/19/15	Thu 1/22/15	72 hrs	Tech Arch,SysAdmin,SecArch
976	.7.1.1.2.2	Finalize Implementation Plan (F)	3 days	Mon 1/19/15	Thu 1/22/15	72 hrs	ImplMgr,TechLead,BA2
977	.7.1.1.2.3	Finalize User Manuals (F)	3 days	Mon 1/19/15	Thu 1/22/15	96 hrs	Tech Writer1,BA1,User Support Mgr,Tech Writer2
978	.7.1.1.2.4	Finalize O&M Manuals (F)	3 days	Mon 1/19/15	Thu 1/22/15	96 hrs	SysAdmin,SrDev1,TechWriter3,TechWriter4
979	.7.1.1.2.5	Finalize Training Plan (F)	3 days	Mon 1/19/15	Thu 1/22/15	72 hrs	Trainer,Training Mgr,Trainer 1
980	.7.1.1.2.6	Finalize Test Reports (P)	3 days	Mon 1/19/15	Thu 1/22/15	72 hrs	SrTester1,SrTester2,SrTester3
981	.7.1.1.2.7	Finalize Data Use/Data Exchange/Interconnection Security Agreement (F)	3 days	Mon 1/19/15	Thu 1/22/15	48 hrs	Tech Arch-Int,Security Lead
982	.7.1.1.2.8	Finalize Business Product Documents (F)	3 days	Mon 1/19/15	Thu 1/22/15	96 hrs	BA2,TechWriter3,Report Dev1,Tech Arch
983	.7.1.1.2.9	Finalize Training Materials (F)	4 days	Mon 1/19/15	Fri 1/23/15	96 hrs	Trainer 1,Trainer 2,Trainer
984	.1.1.2.10	Finalize Privacy Impact Assessment (F)	2 days	Fri 1/23/15	Tue 1/27/15	32 hrs	Security Lead,SecArch
985	.1.1.2.11	Develop Post Implementation Support Plan (F)	1 day	Tue 1/27/15	Wed 1/28/15	16 hrs	TechLead,ImplMgr
986	.1.1.2.12	Develop System of Record Notice (F)	1 day	Wed 1/28/15	Thu 1/29/15	16 hrs	Tech Arch,SecArch
987	.1.1.2.13	Develop Project Completion Report (F)	2 days	Thu 1/29/15	Mon 2/2/15	16 hrs	PM
988	.1.1.2.14	Develop SLAs/MOUs (F)	1 day	Mon 2/2/15	Tue 2/3/15	16 hrs	PM,Contracts
989	.1.1.2.15	Develop POA&M (F)	1 day	Tue 2/3/15	Wed 2/4/15	8 hrs	PM
990	**.1.1.2.16**	**Develop Authority to Operate (F)**	**1.5 days**	**Wed 2/4/15**	**Fri 2/6/15**	**44 hrs**	**PM,Security Lead**
991	.1.2.16.1	Complie Security Certification & Accreditation Letters	0.5 days	Wed 2/4/15	Thu 2/5/15	8 hrs	PM,Security Lead

ID	WBS	Task Name	Duration	Start	Finish	Work	Resource Names
992	..1.2.16.2	Confirm Section 508 Product Certifications/Exceptions Re	0.5 days	Thu 2/5/15	Thu 2/5/15	8 hrs	PM,Security Lead
993	..1.2.16.3	Request Authority to Operate Approval from Designated Approving Authority (DAA)	0.5 days	Thu 2/5/15	Fri 2/6/15	4 hrs	PM
994	'.1.1.2.17	Perform Internal Quality Review of Deliverables	2 days	Fri 2/6/15	Tue 2/10/15	104 hrs	SrBA1,BA Lead,LeadArch[50%],QA,TechLead,Training Mgr,Security Lead
995	'.1.1.2.18	Correct Internal Quality Review Findings	1.55 days	Tue 2/10/15	Wed 2/11/15	109.28 hrs	Tech Writer1,ImplMgr,BA1,Trainer,Tester1,Tech Arch-Int[83%],Report Dev1,SecArch,PM
996	**1.7.1.1.3**	**Operational Readiness MLTC Review (ORR)**	**20.5 days**	**Wed 2/11/15**	**Thu 3/12/15**	**127.95 hrs**	
997	.7.1.1.3.1	Deliver all ORR Deliverables to MLTC for Review	0 days	Wed 2/11/15	Wed 2/11/15	0 hrs	PM
998	.7.1.1.3.2	Conduct Review of all ORR Documents with MLTC	0.5 days	Mon 2/16/15	Tue 2/17/15	8 hrs	LeadArch[18%],PM[18%],MLTC PM[0%],IV&V[0%],Test Mgr[18%],ImplMgr[36%],Training Mgr[36%],User Support Mgr[36%],Security Lead[36%],MLTC Project Sponsor[0%],MLTC Stakeholders[0%]
999	.7.1.1.3.3	MLTC Provides Written Feedback	5 days	Tue 2/17/15	Tue 2/24/15	0 hrs	MLTC PM[0%],IV&V[0%]
1000	.7.1.1.3.4	Update Phase Deliverables	2 days	Tue 2/24/15	Thu 2/26/15	119.95 hrs	Trainer,ImplMgr,Tech Arch-Int[83%],Tech Writer1,BA1,Tester1,Report Dev1,SecArch,PM
1001	.7.1.1.3.5	MLTC Approves and Submits ORR Documents to CMS\CCIIO for Scheduled Review	0 days	Thu 3/5/15	Thu 3/5/15	0 hrs	MLTC PM
1002	.7.1.1.3.6	**MILESTONE: Operational Readiness Review (ORR) - APPROVED**	5 days	Thu 3/5/15	Thu 3/12/15	0 hrs	CMS
1003							
1004	**1.7.2**	**Training**	**35.13 days**	**Mon 1/19/15**	**Mon 3/9/15**	**449 hrs**	
1005	1.7.2.1	Schedule Training Sessions & Rooms per Training Plan	1 day	Mon 1/19/15	Tue 1/20/15	4 hrs	Training Mgr[50%]
1006	1.7.2.2	Conduct Training Planning Meetings with MLTC	20 days	Mon 1/19/15	Mon 2/16/15	124 hrs	Training Mgr[13%],PM[13%],Trainer 1[13%],Trainer 2[13%],Trainer 3[13%],Trainer 4[13%]
1007	1.7.2.3	Confirm Training Materials Approved by MLTC	0.13 days	Mon 2/16/15	Mon 2/16/15	1 hr	PM
1008	1.7.2.4	Conduct Training for MLTC Staff	10 days	Mon 2/23/15	Mon 3/9/15	320 hrs	Trainer 1,Trainer 2,Trainer 4,Trainer 3,MLTC SME[0%]
1009	**1.7.3**	**System Readiness and Deployment**	**30.5 days**	**Mon 1/19/15**	**Tue 3/3/15**	**496.93 hrs**	
1010	1.7.3.1	Collaborate with MLTC for Deployment of System to Production	30 days	Mon 1/19/15	Mon 3/2/15	52.93 hrs	PM[2%],LeadArch[20%],MLTC PM[0%],MLTC Stakeholders[0%]
1011	1.7.3.2	Conduct Implementation Schedule Meeting with MLTC	0.5 days	Mon 3/2/15	Tue 3/3/15	4 hrs	LeadArch[50%],PM[50%],MLTC PM[0%],IV&V[0%],MLTC Project Sponsor[0%],MLTC Stakeholders[0%]
1012	1.7.3.3	MLTC Approval of Implementation Schedule & Plan	0 days	Tue 3/3/15	Tue 3/3/15	0 hrs	MLTC PM,MLTC Project Sponsor,MLTC Stakeholders
1013	1.7.3.4	Confirmation that Training is Complete	0 days	Tue 3/3/15	Tue 3/3/15	0 hrs	PM,MLTC PM[0%]
1014	1.7.3.5	Conduct Implementation Activities	30 days	Mon 1/19/15	Mon 3/2/15	240 hrs	LeadArch[50%],Tech Arch[50%]
1015	1.7.3.6	Implementation DBA Tasks	30 days	Mon 1/19/15	Mon 3/2/15	200 hrs	DBA1[42%],DBA2[42%]
1016	**1.7.4**	**MILESTONE: GO-LIVE Implementation (Production Release Date)**	**1 day**	**Thu 3/12/15**	**Fri 3/13/15**	**100 hrs**	**Implementation Team[1,250%]**
1017	**1.7.5**	**Successful Deployment of System to Production**	0 days	Fri 3/13/15	Fri 3/13/15	0 hrs	
1018							
1019	**1.8**	**Verification, Validation and Stabilization Begins**	**195 days**	**Fri 4/24/15**	**Thu 1/21/16**	**20,601 hrs**	
1020	1.8.1	Verification, Validation and Stabilization 1	25 days	Fri 4/24/15	Thu 5/28/15	2,289 hrs	BA1[164%],Tester1[164%],QA[164%],PM[164%],Config Mgr[164%],RelMgr[164%],SecurityLead[164%]
1021	1.8.2	Verification, Validation and Stabilization 2	20 days	Fri 5/29/15	Thu 6/25/15	2,289 hrs	BA1[204%],Tester1[204%],QA[204%],PM[204%],Config Mgr[204%],RelMgr[204%],SecurityLead[204%]
1022	1.8.3	Verification, Validation and Stabilization 3	25 days	Fri 6/26/15	Thu 7/30/15	2,289 hrs	BA1[164%],Tester1[164%],QA[164%],PM[164%],Config Mgr[164%],RelMgr[164%],SecurityLead[164%]
1023	1.8.4	Verification, Validation and Stabilization 4	20 days	Fri 7/31/15	Thu 8/27/15	2,289 hrs	BA1[204%],Tester1[204%],QA[204%],PM[204%],Config Mgr[204%],RelMgr[204%],SecurityLead[204%]
1024	1.8.5	Verification, Validation and Stabilization 5	20 days	Fri 8/28/15	Thu 9/24/15	2,289 hrs	BA1[204%],Tester1[204%],QA[204%],PM[204%],Config Mgr[204%],RelMgr[204%],SecurityLead[204%]

ID	WI	Task Name	Dur.	Start	Finish	Work	Resource Name
1025	1.8.6	Verification, Validation and Stabilization 6	25 days	Fri 9/25/15	Thu 10/29/15	2,289 hrs	BA1[164%],Tester1[164%],QA[164%],PM[164%],Config Mgr[164%],RelMgr[164%],SecurityLead[164%]
1026	1.8.7	Verification, Validation and Stabilization 7	20 days	Fri 10/30/15	Thu 11/26/15	2,289 hrs	BA1[204%],Tester1[204%],QA[204%],PM[204%],Config Mgr[204%],RelMgr[204%],SecurityLead[204%]
1027	1.8.8	Verification, Validation and Stabilization 8	20 days	Fri 11/27/15	Thu 12/24/15	2,289 hrs	BA1[204%],Tester1[204%],QA[204%],PM[204%],Config Mgr[204%],RelMgr[204%],SecurityLead[204%]
1028	1.8.9	Verification, Validation and Stabilization 9	20 days	Fri 12/25/15	Thu 1/21/16	2,289 hrs	BA1[204%],Tester1[204%],QA[204%],PM[204%],Config Mgr[204%],RelMgr[204%],SecurityLead[204%]
1029							
1030	**1.9**	**Federal System Certification and Accreditation (Optional)**	**52 days**	**Tue 5/27/14**	**Fri 8/8/14**	**572 hrs**	
1031	1.9.1	Develop Federal Certification Documentation	10 days	Tue 5/27/14	Tue 6/10/14	320 hrs	PM1,PM2,Tech Writer1,Tech Writer2
1032	1.9.2	Conduct Review of Federal Certification Documentation with MLTC	1 day	Tue 6/10/14	Wed 6/11/14	16 hrs	PM1,PM2,MLTC PM[0%],MLTC Stakeholders[0%]
1033	1.9.3	Make Revisions of Federal Certification Documentation	2 days	Wed 6/11/14	Fri 6/13/14	64 hrs	PM1,PM2,Tech Writer1,Tech Writer2
1034	1.9.4	Perform Quality Review of Federal Certification Documentation	2 days	Fri 6/13/14	Tue 6/17/14	32 hrs	QA1,QA2
1035	1.9.5	Deliver Federal Certification Documentation to MLTC	0 days	Tue 6/17/14	Tue 6/17/14	0 hrs	PM
1036	**1.9.6**	**MLTC Review of Federal Certification Documentation**	**37 days**	**Tue 6/17/14**	**Fri 8/8/14**	**140 hrs**	
1037	1.9.6.1	MLTC Review of Federal Certification Documentation	7 days	Tue 6/17/14	Thu 6/26/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%],MLTC Project Sponsor[0%]
1038	1.9.6.2	Make Revisions of Federal Certification Documentation	3 days	Thu 6/26/14	Tue 7/1/14	48 hrs	PM1[50%],PM2[50%],Tech Writer1[50%],Tech Writer2[50%]
1039	1.9.6.3	Perform Quality Review of Federal Certification Documentation	1 day	Tue 7/1/14	Wed 7/2/14	12 hrs	PM[50%],QA
1040	1.9.6.4	MLTC Re-Review of Federal Certification Documentation	5 days	Wed 7/2/14	Thu 7/10/14	0 hrs	MLTC PM[0%],IV&V[0%],MLTC Stakeholders[0%],MLTC Project Sponsor[0%]
1041	1.9.6.5	MLTC APPROVAL of Federal Certification Documentation	1 day	Thu 7/10/14	Fri 7/11/14	0 hrs	MLTC PM[0%],MLTC Project Sponsor[0%],MLTC Stakeholders[0%]
1042	1.9.6.6	Participate in Federal Certification Meetings	20 days	Fri 7/11/14	Fri 8/8/14	80 hrs	PM[17%],LeadArch[17%],Security Lead[17%],MLTC PM[0%],IV&V[0%],MLTC Project Sponsor[0%],MLTC

Milestones and Deliverables

Milestones and Deliverables

E. MILESTONES AND DELIVERABLES

Wipro understands the State of Nebraska's expectation and need for a Medicaid Enrollment & Eligibility COTS System to replace the current N-FOCUS legacy system. The ***SmartPro MedEE*** solution was created upon a philosophy of providing a stable, scalable and well integrated COTS System which can be ultimately certified by CMS. In order to make way for that we are leveraging the CMS recommended Enterprise Life Cycle (ELC) approach for this implementation. Our Wipro/IBM team will leverage this approach in implementing the ***SmartPro MedEE*** solution in Nebraska.

Form C-1 Nebraska Milestones & Deliverables

Form C-1 Nebraska Milestones & Deliverables		
Number	**Nebraska Milestone/Deliverable**	**Confirmation**
1.	Project Management Services (Weekly/Monthly Project Status Meetings, Weekly/Monthly Status Written Reports, CMS Gate Reviews, etc.)	Confirmed
2.	Project Management Plan	Confirmed
3.	Project Schedule	Confirmed
4.	Scope Management Plan	Confirmed
5.	Requirements Management & Traceability Plan	Confirmed
6.	Issue Resolution Plan	Confirmed
7.	Risk Management Plan	Confirmed
8.	Configuration Management Plan	Confirmed
9.	Performance Management Plan	Confirmed
10.	Communications Management Plan	Confirmed
11.	Project Orientation Plan	Confirmed
12.	Acquisition Plan	Confirmed
13.	Quality Management Plan	Confirmed
14.	Change Management Plan	Confirmed
15.	Staff Management Plan	Confirmed
16.	Financial Management Plan	Confirmed
17.	Concept of Operations	Confirmed
18.	Migration Plan	Confirmed
19.	Sandbox Environment	Confirmed
20.	Configuration/Development Environment	Confirmed
21.	Test Environment	Confirmed
22.	Quality Assurance Environment	Confirmed
23.	Production Environment	Confirmed
24.	Training Environment	Confirmed
25.	Disaster Recovery Environment	Confirmed

Form C-1 Nebraska Milestones & Deliverables		
Number	**Nebraska Milestone/Deliverable**	**Confirmation**
26.	Detailed Design Documents	Confirmed
27.	Technical Design Documents	Confirmed
28.	Architectural Diagrams and Design Documents	Confirmed
29.	Network Diagrams	Confirmed
30.	Data Management Plan	Confirmed
31.	Data Model Diagrams	Confirmed
32.	JAD Sessions	Confirmed
33.	Data Conversion Plan	Confirmed
34.	Requirements Traceability Matrix	Confirmed
35.	Gap Analysis Report	Confirmed
36.	Interface Control Documents (ICD)	Confirmed
37.	Business Rules Configuration Documents	Confirmed
38.	Operational Readiness Plan	Confirmed
39.	Test Plans	Confirmed
40.	Testing Results (Unit, Integration, etc.)	Confirmed
41.	Annual Penetration Tests	Confirmed
42.	Release Plan	Confirmed
43.	Information Security Risk Assessment (ISRA)	Confirmed
44.	Data Use/Data Exchange/ Interconnection Security Agreements	Confirmed
45.	Service Level Agreements/Memorandum of Understandings	Confirmed
46.	System Security Plan (SSP, Workbook, etc.)	Confirmed
47.	IRS Safeguard Procedures Report (SPR)	Confirmed
48.	Security Assessment Report (SAR)	Confirmed
49.	Plan of Action and Milestones (POA&M)	Confirmed
50.	User Cases or User Stories	Confirmed
51.	Business Process Reengineering Plan	Confirmed
52.	Business Design Documents	Confirmed
53.	Business Process Models	Confirmed
54.	Organization Change Management Plan	Confirmed
55.	Business Process Gap Analysis	Confirmed
56.	Training Plan	Confirmed
57.	Courseware	Confirmed
58.	Training Delivery	Confirmed
59.	Training Competency Reports	Confirmed
60.	Training Assessment Reports	Confirmed
61.	Knowledge Transfer Plan	Confirmed

Form C-1 Nebraska Milestones & Deliverables		
Number	**Nebraska Milestone/Deliverable**	**Confirmation**
62.	Knowledge Transfer Competency Reports	Confirmed
63.	Business Intelligence and Analytics documents	Confirmed
64.	EES Canned Reports	Confirmed
65.	EES Standardized Reports	Confirmed
66.	Data Dictionary	Confirmed
67.	COTS Manufacturer Documentation	Confirmed
68.	COTS User Manuals	Confirmed
69.	Technical Operations Manuals	Confirmed
70.	Systems Administration Manuals	Confirmed
71.	Systems Standards Manuals	Confirmed
72.	Implementation Plan	Confirmed
73.	Contingency/Recovery Plan	Confirmed
74.	Systems Maintenance, Support & Systems Transfer Plan	Confirmed
75.	Post-Implementation Support Plan	Confirmed
76.	Disaster Recovery Plan	Confirmed
77.	Monthly Performance Status Reports	Confirmed
78.	Service Level Requirements	Confirmed
79.	Turnover Plan	Confirmed
80.	Final Contract Reports	Confirmed

Page Left Intentionally Blank

Form C-2 Milestones and Deliverables Mapping and Schedule

Form C-2 Milestones and Deliverables Mapping and Schedule			
Phase	**Bidder Milestone/ Deliverable**	**Mapping Nebraska Milestone/Deliverable**	**Schedule**
Initiation (PSR)	Project Kick Off	Project Kick Off Minutes	03/17/2014
Initiation (PSR)	Acquisition Plan	12. Acquisition Plan	05/28/2014
Initiation (PSR)	Risk Management and Issues Resolution Plan (F)	6. Issues Resolution Plan 7. Risk Management Plan	05/28/2014
Initiation (PSR)	Scope Management Plan (F)	4. Scope Management Plan 5. Requirement Management and Traceability Plan	05/28/2014
Initiation (PSR)	Project Management Plan (P)	2. Project Management Plan 11. Project Orientation Plan 15. Staff Management Plan 16. Financial Management Plan	05/28/2014
Initiation (PSR)	Project Schedule (P)	3. Project Schedule	05/28/2014
Initiation (PSR)	Concept of Operation Plan (F)	17. Concept of Operational Plan	05/28/2014
Initiation (PSR)	Communication Plan (F)	10. Communication Plan	05/28/2014
Initiation (PSR)	Configuration and Performance Management Plan (F)	8. Configuration Management Plan 9. Performance Management Plan	05/28/2014
Concept (AR)	Migration Plan (F)	18. Migration Plan	06/13/2014
Concept (AR)	Architecture Diagrams and Design Documents (Environments) (F)	19. Sandbox Environment 20. Configuration/Development Environment 21. Test Environment 22. Quality Assurance Environment 23. Production Environment 24. Training Environment 25. Disaster Recovery Environment 28. Architectural Diagrams and Design Documents	06/13/2014
Concept (AR)	Business Process Models and Gap Analysis (F)	35. Gap Analysis Report 51. Business Process Reengineering Plan 52. Business Design Documents 53. Business Process Models 55. Business Process Gap Analysis	06/13/2014
Planning (PBR)	Project Management Plan (F)	2. Project Management Plan	07/25/2014

Form C-2 Milestones and Deliverables Mapping and Schedule			
Phase	**Bidder Milestone/ Deliverable**	**Mapping Nebraska Milestone/Deliverable**	**Schedule**
Planning (PBR)	Project Schedule (F)	3. Project Schedule	07/25/2014
Planning (PBR)	Quality Management Plan	13. Quality Management Plan	07/25/2014
Planning (PBR)	Change Management Plan	14. Change Management Plan	07/25/2014
Planning (PBR)	Project Process Agreement (F)	None	07/25/2014
Planning (PBR)	Release Plan (F)	42. Release Plan	07/25/2014
Planning (PBR)	Privacy Impact Assessment (P)	none	07/25/2014
Requirements, Analysis, and Design (PDR)	Requirements Document (P)	32. RAD and DSD JAD Sessions	09/22/2014
Requirements, Analysis, and Design (PDR)	Detailed Design Documents (P)	26. Detailed Design Documents 37. Business Rules Configuration Documents	09/22/2014
Requirements, Analysis, and Design (PDR)	Technical Design Documents (P)	27. Technical Design Documents	09/22/2014
Requirements, Analysis, and Design (PDR)	Information Security Risk Assessment (P)	43. Information Security Risk Assessment (ISRA)	09/22/2014
Requirements, Analysis, and Design (PDR)	System Security Plan (P)	46. System Security Plan (SSP, Workbook, etc.)	09/22/2014
Requirements, Analysis, and Design (PDR)	Test Plan (P)	39. Test Plans	09/22/2014
Requirements, Analysis, and Design (PDR)	Technical Architecture Diagrams (F)	28. Architectural Diagrams and Design Documents	09/22/2014
Requirements, Analysis, and Design (PDR)	Logical Data Model (F)	66. Data Dictionary 31. Data Model Diagrams	09/22/2014
Requirements, Analysis, and Design (PDR)	Requirements Document (I)	50. User Cases or User Stories	11/21/2014

Form C-2 Milestones and Deliverables Mapping and Schedule			
Phase	**Bidder Milestone/ Deliverable**	**Mapping Nebraska Milestone/Deliverable**	**Schedule**
Requirements, Analysis, and Design (PDR)	System Design Document (P)	27. Technical Design Documents	11/21/2014
Requirements, Analysis, and Design (PDR)	Interface Control Document (P)	36. Interface Control Documents (ICD)	11/21/2014
Requirements, Analysis, and Design (PDR)	Database Design Document (P)	27. Technical Design Documents	11/21/2014
Requirements, Analysis, and Design (PDR)	Data Management Plan (P)	30. Data Management Plan	11/21/2014
Requirements, Analysis, and Design (PDR)	Physical Data Model (P)	29. Network Diagrams	11/21/2014
Requirements, Analysis, and Design (PDR)	Data Conversion Plan (P)	33. Data Conversion Plan	11/21/2014
Requirements, Analysis, and Design (PDR)	Requirements Document (F)	34 Requirements Traceability Matrix	12/26/2014
Requirements, Analysis, and Design (PDR)	System Design Document (F)	27. Technical Design Documents	12/26/2014
Requirements, Analysis, and Design (PDR)	Interface Control Document (F)	36. Interface Control Documents (ICD)	12/26/2014
Requirements, Analysis, and Design (PDR)	Database Design Document (F)	27. Technical Design Documents	12/26/2014
Requirements, Analysis, and Design (PDR)	Data Management Plan (F)	30. Data Management Plan	12/26/2014
Requirements, Analysis, and Design (PDR)	Physical Data Model (F)	29. Network Diagrams	12/26/2014
Requirements, Analysis, and Design (PDR)	Data Conversion Plan (F)	33. Data Conversion Plan	12/26/2014
Requirements, Analysis, and Design (PDR)	System of Record Notice (P)	none	12/26/2014

Form C-2 Milestones and Deliverables Mapping and Schedule			
Phase	**Bidder Milestone/ Deliverable**	**Mapping Nebraska Milestone/Deliverable**	**Schedule**
Development and Test (PORR)	Test Plan (F)	39. Test Plans	01/26/2015
Development and Test (PORR)	Contingency/Recover Plan (P)	73. Contingency/Recovery Plan 76. Disaster Recovery Plan	01/26/2015
Development and Test (PORR)	Implementation Plan (P)	72. Implementation Plan 38. Operational Readiness Plan 61. Knowledge Transfer Plan	01/26/2015
Development and Test (PORR)	User Manuals (P)	68. COTS User Manuals	01/26/2015
Development and Test (PORR)	O&M Manuals (P)	67. COTS Manufacturer Documentation 69. Technical Operations Manuals 70. Systems Administration Manuals 71. Systems Standards Manuals	01/26/2015
Development and Test (PORR)	Training Plan (P)	56. Training Plan	01/26/2015
Development and Test (PORR)	Test Reports (P)	40. Testing Results (Unit, Integration, etc.)	01/26/2015
Development and Test (PORR)	Data Use/Data Exchange/Interconnection Security Agreement (P)	44. Data Use/Data Exchange/Interconnection Security Agreement	01/26/2015
Development and Test (PORR)	Information Security Risk Assessment (F)	43. Information Security Risk Assessment (ISRA) 48. Security Assessment Report (SAR) 41. Annual Penetration Tests 47. IRS Safeguard Procedures Report	01/26/2015
Development and Test (PORR)	System Security Plan (F)	46. System Security Plan (SSP, Workbook, etc.)	01/26/2015
Development and Test (PORR)	Automated Code Review Results (F)	40. Testing Results (Unit, Integration, etc.)	01/26/2015
Development and Test (PORR)	Business Product (P)	67. COTS Manufacturer Documentation 63. Business Intelligence and Analytics documents 64. EES Canned Reports 65. EES Standardized Reports	01/26/2015
Development and Test (PORR)	Training Materials (P)	57. Courseware	01/26/2015
Implementation (ORR)	Contingency/Recover Plan (F)	73. Contingency/Recovery Plan 76. Disaster Recovery Plan	03/19/2015

Form C-2 Milestones and Deliverables Mapping and Schedule			
Phase	**Bidder Milestone/ Deliverable**	**Mapping Nebraska Milestone/Deliverable**	**Schedule**
Implementation (ORR)	Implementation Plan (F)	72. Implementation Plan 38. Operational Readiness Plan 61. Knowledge Transfer Plan	03/19/2015
Implementation (ORR)	Post-Implementation Support Plan	75. Post-Implementation Support Plan 74. Systems Maintenance, Support & Systems Transfer Plan 79. Turnover Plan	03/19/2015
Implementation (ORR)	User Manuals (F)	68. COTS User Manuals	03/19/2015
Implementation (ORR)	O&M Manuals (F)	67. COTS Manufacturer Documentation 69. Technical Operations Manuals 70. Systems Administration Manuals 71. Systems Standards Manuals	03/19/2015
Implementation (ORR)	Training Plan (F)	56. Training Plan	03/19/2015
Implementation (ORR)	Test Reports (F)	40. Testing Results (Unit, Integration, etc.)	03/19/2015
Implementation (ORR)	Data Use/Data Exchange/Interconnection Security Agreement (F)	44. Data Use/Data Exchange/Interconnection Security Agreement	03/19/2015
Implementation (ORR)	Business Products (F)	67. COTS Manufacturer Documentation 63. Business Intelligence and Analytics documents 64. EES Canned Reports 65. EES Standardized Reports	03/19/2015
Implementation (ORR)	Training Materials (F)	57. Courseware 58. Training Delivery 59. Training Competency Reports 60. Training Assessment Reports 62. Knowledge Transfer Competency Reports	03/19/2015
Implementation (ORR)	System of Record Notice (F)	none	03/19/2015
Implementation (ORR)	Project Completion Report (F)	77. Monthly Performance Status Reports 80. Final Contract Reports	03/19/2015
Implementation (ORR)	SLAs/MOU	45. Service Level Agreements/Memorandum of Understandings 78. Service Level Requirements	03/19/2015

Form C-2 Milestones and Deliverables Mapping and Schedule			
Phase	**Bidder Milestone/ Deliverable**	**Mapping Nebraska Milestone/Deliverable**	**Schedule**
Implementation (ORR)	Privacy Impact Assessment (F)	none	03/19/2015
Implementation (ORR)	POA&M (F)	49. Plan of Action and Milestones (POA&M)	03/19/2015
Implementation (ORR)	Authority to Operate (F)	none	03/19/2015
Implementation (ORR)	Verification, Validation and Stabilization 1	none	4/24/2015
Implementation (ORR)	Verification, Validation and Stabilization 2	none	5/29/2015
Implementation (ORR)	Verification, Validation and Stabilization 3	none	6/26/2015
Implementation (ORR)	Verification, Validation and Stabilization 4	none	7/31/2015
Implementation (ORR)	Verification, Validation and Stabilization 5	none	8/28/2015
Implementation (ORR)	Verification, Validation and Stabilization 6	none	9/25/2015
Implementation (ORR)	Verification, Validation and Stabilization 7	none	10/30/2015
Implementation (ORR)	Verification, Validation and Stabilization 8	none	11/27/2015
Implementation (ORR)	Verification, Validation and Stabilization 9	none	12/25/2015

(F) – Final / (P) – Preliminary / none – no mapping with RFP Deliverables

Form C-3 Milestones & Deliverables Payment Percentage

Form C-3 Milestones and Deliverables Payment Percentage	
Key Payment Milestones	**% Of Payment Upon Successful Completion**
Initiation/Project Kick-off	23% (Twenty three Percent)
Initiation (PRR)	8% (Eight Percent)
Concept (AR)	2% (Two Percent)
Planning (PBR)	8% (Eight Percent)
Requirements, Analysis, and Design (PDR)	29% (Twenty nine Percent)
Development and Test (PORR)	5% (Five Percent)
Implementation (ORR)	9% (Nine Percent)
Verification, Validation & Stabilization	16% (Sixteen Percent)

Page Left Intentionally Blank

F. PERSONNEL MANAGEMENT AND PLANNING

For more than 25 years, Wipro has provided health and life sciences organizations and agencies in the US and around the world with innovative, mission-critical solutions and services. We have led and supported the installation, configuration and complete enterprise system integration projects and other critical large-scale change initiatives with on-time, cost effective delivery.

We know that the State of Nebraska seeks a contractor to implement a comprehensive, state of the art, automated Eligibility and Enrollment System. The Wipro/IBM consortium represents a world class team of experts to deliver the proven, most widely trusted, state-of-the-art eligibility and enrollment system available in the market today. Because the implementation is under Wipro's leadership, Wipro will be responsible for successful project management throughout the life of the engagement.

Using CMS' Exchange Life Cycle and, assuming an agile and iterative development methodology, the Wipro/IBM Team has developed a comprehensive project work plan that identifies the interrelated tasks, activities and dependencies that must be accomplished or met within an extremely tight time line, to successfully complete on schedule. The major activities are identified and decomposed into smaller, more manageable components so that all project activities are specified in the plan. Each phase of the work plan is a complete unit of work activities, deliverables and milestones, integrated as part of the comprehensive work plan. This approach will provide the State's staff, other designated contractor staff and the Wipro/IBM Team with an unfettered view into the project's activities, progress, schedule and dependencies so the collective team can guide coordinate and collaborate as needed to keep the project on the critical path.

Supervision within the project is carried out by a unified project management staff under the leadership of well-qualified, experienced project managers who are self-directed and accountable to our clients for project success. The Wipro/IBM personnel is a blended team that has come into this project from different employers. Both Wipro and IBM are widely experienced with a track record of success in the health solutions market.

Of the many activities to be performed during the project, those listed below stand out as the most important for project success:

- Building on the final, refined Project Plan delivered after contract award, Wipro will implement established and proven multi-process project controls and reporting.
- We will also work with the State to make certain the most effective and efficient protocols are established for status reviews and issue reporting and resolution.
- Our standard project control system includes formalized project management software, a structured review, and issue tracking process and detailed procedures for effecting the submission/review/approval of all project deliverables.

Wipro commits to facilitating and encouraging active cross-functional, cross-group, and cross-location coordination and communication related to new technology and automation. Our collaborative approach to cultural change management provides a strong foundation on which to build the relationships needed to successfully manage change. As new technologies are introduced, Wipro will work closely with the State to identify affected stakeholders, develop appropriate communications plans and works diligently to bring those affected into the decision-making process. As the technology is implemented, Wipro works closely with user groups to identify impacts, test changes, incorporate feedback and implement changes in a way that fully supports their business needs.

Wipro commits to providing as part of an annual planning cycle, specific short-term steps and schedules for projects or changes to the proposed solution expected to occur within the first twelve (12) months.

Wipro acknowledges the need for and commits to providing reasonable access to specialists within the organization as needed to assist the Nebraska project team in developing and implementing the Long-Range IT Plan.

Wipro commits to planning and projecting costs to maintain, provide, replace, or eliminate any software to include the impact to any current processes.

Wipro commits to anticipating and planning for possible application interface problems due to more current releases of software.

Wipro commits to scheduling implementation of new releases, enhancements, and maintenance features with advance notification of at least four weeks unless approved by the state agency.

Wipro aligns our successful project management/oversight methodology and strategy with the Project Management Institute (PMI) model. We research and stay updated on industry best practices in the ever changing healthcare environment and continue to mature our processes to maximize responsiveness. Our Project Managers have the knowledge, ability, and experience relative to the disciplines described in the Project Management Body of Knowledge® (PMBOK®) and will follow and adhere to PMBOK throughout the entire life cycle of the project.

Wipro will take the lead in coordinating the efforts of the project management personnel representing our team involved in this project. Wipro fully commits that its project management staff will actively work to ensure a successful project, within scope, budget, and defined delivery dates.

Wipro believes that the "culture that values cooperation, teamwork and planning" is critical to project success. This is truly a multi-organizational effort, with no one organization truly having the self-contained resources to achieve project success alone.

Wipro understands the role and responsibilities of the Independent validation and verification (IV&V) function, with extensive experience based on our existing contract providing Missouri's MMIS system and Fiscal Agent services.

Wipro will ensure that appropriate project management methodologies are employed, will respond to IV&V raised concerns and issues, take appropriate corrective actions, and respond appropriately to IV&V comments on project artifacts. Wipro believes that it is important to clarify the relationship between the IV&V contractor and the Wipro Project Management team, removing any ambiguities early, during project initiation.

Effective knowledge transfer from the State to us is equally important to achieving project success. One of the most common root causes of failure in large complex projects is the inability of the project team to gain timely and effective access to "customer" business and subject manager expertise. The State's commitment to providing access to its expertise will prove crucial to the project's success.

We will explicitly design these requirements into the formal processes of the Risk and Issue Management Plan. In this Plan, we will establish the Risk and Issue Logs, and the rules by which Risks, Issues, and Opportunities are identified, monitored, mitigated, assigned, tracked, and resolved.

As effective Risk Management is essential to success in executing larger, complex projects, we place great emphasis on the early recognition of potential risks. We commit to their documentation and the immediate establishment of appropriate sensors and metrics to continuously monitor the Risks' probabilities of actually occurring, and turning into Issues. Commensurate with their potential impact and the current assessment of the probability of their occurrence, we prepare in advance plans to mitigate both the probability of their occurrence, and their adverse impact should they materialize.

Wipro places special emphasis on quality metrics: how quality is defined, and how it is measured and monitored. As a CMMi Level 5 organization, Wipro maintains an extensive quality metrics database covering

thousands of projects. Wipro will use this extensive library of hard data in its task of developing and evaluating the quality processes required for the NEES program. Once measures are established, they can be continuously evaluated against this historical data to establish credible estimates of true quality performance, and of likely outcomes of the processes being measured.

We will adhere to scheduling and holding a regular weekly project/operational status meeting, in which we will present and review the Change Management report (past and pending changes); the Issue Management log (materialized Risks/Issues and their Status); Project Activities (recent and near-term planned activities). We will deliver the initial written Status Report to the project team prior to each meeting, to allow for review and the development of questions and answers relating to the content of the report.

Change Management is considered key in delivering a quality system, on time, and within budget. Wipro follows a formal, documented Change Management Process to ensure that changes to a project are managed and handled appropriately. Our Change Management Process assumes the establishment of a Change Control Board committee. We recommend this committee be constituted of project stakeholders from both Wipro and the State agency. The Change Control Board is the authority and final decision maker regarding the acceptance or denial of all changes introduced to a project as outlined in our process flow to manage Change Requests.

Project change requests that are manageable within the established budget will be documented as zero-impact change requests and implemented with the State's approval. Changes that will impact a project in some manner will be put through the Change Management Process for the State's approval.

In accordance with our Change Management Process, all changes are submitted as formal Change Requests and are reviewed internally by the Project Manager who investigates the request and determines a remedy that provides a recommended solution. The project's Change Control Board is presented with the investigation documentation and determines the feasibility of the change request and the risk to the project.

Based on the nature of the change, the cost is added to the Change Request and submitted to the State for approval. When approved, the change will be added to the work plan schedule and tracked through completion.

Our methodology for managing change control identifies the project control items, the means by which to control and manage change, to those items and responsibilities of the team members in controlling and managing change. This rigorous process is undertaken so we can validate that each change introduced is appropriately defined, evaluated, and approved prior to implementation.

Exhibits and Samples

Exhibits and Samples

EXHIBITS AND SAMPLES

1. WIPRO LIMITED AND SUBSIDIARIES CONDENSED CONSOLIDATED INTERIM FINANCIAL STATEMENTS UNDER IFRS

Page Left Intentionally Blank

WIPRO LIMITED AND SUBSIDIARIES

CONDENSED CONSOLIDATED INTERIM FINANCIAL STATEMENTS UNDER IFRS

AS OF AND FOR THE THREE AND SIX MONTHS ENDED SEPTEMBER 30, 2013

WIPRO LIMITED AND SUBSIDIARIES
CONDENSED CONSOLIDATED INTERIM STATEMENTS OF FINANCIAL POSITION
(₹ in millions, except share and per share data, unless otherwise stated)

	Notes	As of March 31, 2013	As of September 30, 2013	2013 Convenience translation into US$ in millions (Unaudited)
ASSETS				
Goodwill	6	54,756	62,751	1,003
Intangible assets	6	1,714	1,879	30
Property, plant and equipment	5	50,525	52,377	837
Derivative assets	13	51	236	4
Non-current tax assets		10,308	11,061	177
Deferred tax assets		4,235	4,776	76
Other non-current assets	10	10,738	11,731	187
Total non-current assets		132,327	144,811	2,313
Inventories	8	3,263	3,296	53
Trade receivables		76,635	78,087	1,248
Other current assets	10	31,069	36,162	578
Unbilled revenues		31,988	40,714	651
Available for sale investments	7	69,171	72,582	1,160
Current tax assets		7,408	9,619	154
Derivative assets	13	3,031	3,210	51
Cash and cash equivalents	9	84,838	83,897	1,341
Total current assets		307,403	327,567	5,234
TOTAL ASSETS		439,730	472,378	7,547
EQUITY				
Share capital		4,926	4,930	79
Share premium		11,760	12,340	197
Retained earnings		259,178	280,566	4,483
Share based payment reserve		1,316	988	16
Other components of equity		7,174	8,292	132
Shares held by controlled trust		(542)	(542)	(9)
Equity attributable to the equity holders of the company		283,812	306,574	4,900
Non-controlling Interest		1,171	1,186	19
Total equity		284,983	307,760	4,919
LIABILITIES				
Long - term loans and borrowings	11	854	10,963	175
Deferred tax liabilities		846	983	16
Derivative liabilities	13	118	1,902	30
Non-current tax liability		4,790	4,512	72
Other non-current liabilities	12	3,390	2,907	46
Provisions	12	9	3	-
Total non-current liabilities		10,007	21,270	339
Loans and borrowings and bank overdrafts	11	62,962	45,451	726
Trade payables and accrued expenses		48,067	50,853	812
Unearned revenues		10,347	11,532	184
Current tax liabilities		10,226	13,157	210
Derivative liabilities	13	975	6,843	109
Other current liabilities	12	10,989	14,384	230
Provisions	12	1,174	1,128	18
Total current liabilities		144,740	143,348	2,290
TOTAL LIABILITIES		154,747	164,618	2,629
TOTAL EQUITY AND LIABILITIES		439,730	472,378	7,547

The accompanying notes form an integral part of these condensed consolidated interim financial statements

As per our report of even date attached

for **B S R & Co. LLP**
Chartered Accountants
Firm's Registration No:101248W

Supreet Sachdev
Partner
Membership No. 205385

Bangalore
October 22, 2013

For and on behalf of the Board of Directors

Azim Premji
Chairman

N Vaghul
Director

B C Prabhakar
Director

Suresh C Senapaty
Executive Director & Chief Financial Officer

T K Kurien
Executive Director & Chief Executive Officer

V Ramachandran
Company Secretary

WIPRO LIMITED AND SUBSIDIARIES
CONDENSED CONSOLIDATED INTERIM STATEMENTS OF INCOME
(₹ in millions, except share and per share data, unless otherwise stated)

	Notes	Three months ended September 30, 2012	Three months ended September 30, 2013	Three months ended September 30, 2013 Convenience translation into US $ in millions (Unaudited) Refer note 2 (iv)	Six months ended September 30, 2012	Six months ended September 30, 2013	Six months ended September 30, 2013 Convenience translation into US $ in millions (Unaudited) Refer note 2 (iv)
Continuing Operations							
Gross revenues	16	92,203	107,727	1,721	183,030	205,021	3,276
Cost of revenues	17	(63,958)	(74,207)	(1,186)	(127,654)	(141,424)	(2,260)
Gross profit		**28,245**	**33,520**	**536**	**55,376**	**63,597**	**1,016**
Selling and marketing expenses	17	(5,960)	(7,605)	(122)	(11,732)	(14,465)	(231)
General and administrative expenses	17	(5,098)	(5,686)	(91)	(10,657)	(11,253)	(180)
Foreign exchange gains/(losses), net		160	2,193	35	1,816	2,245	36
Results from operating activities		**17,347**	**22,422**	**358**	**34,803**	**40,124**	**641**
Finance expenses	18	(535)	(656)	(10)	(1,826)	(1,151)	(18)
Finance and other income	19	2,930	3,412	55	5,343	6,774	108
Profit before tax		**19,742**	**25,178**	**401**	**38,320**	**45,747**	**731**
Income tax expense	15	(4,637)	(5,754)	(92)	(8,467)	(10,005)	(160)
Profit for the period from continuing operations		**15,105**	**19,424**	**311**	**29,853**	**35,742**	**571**
Discontinued operations							
Profit after tax for the period from discontinued operations	4	1,065	-	-	2,215	-	-
Profit for the period		**16,170**	**19,424**	**311**	**32,068**	**35,742**	**571**
Profit attributable to:							
Equity holders of the company		16,106	19,321	309	31,907	35,555	568
Non-controlling interest		64	103	2	161	187	3
		16,170	**19,424**	**311**	**32,068**	**35,742**	**571**
Profit from continuing operations attributable to:							
Equity holders of the company		15,044	19,321	309	29,700	35,555	568
Non-controlling interest		61	103	2	153	187	3
		15,105	**19,424**	**311**	**29,853**	**35,742**	**571**
Earnings per equity share:	20						
Basic		6.57	7.87	0.13	13.01	14.48	0.23
Diluted		6.55	7.85	0.13	12.98	14.44	0.23
From continuing operations							
Basic		6.13	7.87	0.13	12.11	14.48	0.23
Diluted		6.12	7.85	0.13	12.08	14.44	0.23
Weighted average number of equity shares used in computing earnings per equity share:							
Basic		2,453,173,688	2,454,919,674	2,454,919,674	2,452,384,099	2,454,939,900	2,454,939,900
Diluted		2,458,188,698	2,461,759,416	2,461,759,416	2,457,689,075	2,461,551,636	2,461,551,636

The accompanying notes form an integral part of these condensed consolidated interim financial statements

As per our report of even date attached

for **B S R & Co. LLP**
Chartered Accountants
Firm's Registration No:101248W

Supreet Sachdev
Partner
Membership No. 205385

Bangalore
October 22, 2013

For and on behalf of the Board of Directors

Azim Premji
Chairman

N Vaghul
Director

B C Prabhakar
Director

Suresh C Senapaty
Executive Director & Chief Financial Officer

T K Kurien
Executive Director & Chief Executive Officer

V Ramachandran
Company Secretary

WIPRO LIMITED AND SUBSIDIARIES
CONDENSED CONSOLIDATED INTERIM STATEMENTS OF COMPREHENSIVE INCOME
(₹ in millions, except share and per share data, unless otherwise stated)

	Notes	Three months ended September 30,			Six months ended September 30,		
		2012	2013	2013 Convenience Translation into US $ in millions (Unaudited) Refer note 2(iv)	2012	2013	2013 Convenience Translation into US $ in millions (Unaudited) Refer note 2(iv)
Profit for the period		16,170	19,424	311	32,068	35,742	571
Items that will not be reclassified to profit or loss							
Defined benefit plan actuarial gains/(losses)		-	174	3	-	105	2
		-	174	3	-	105	2
Items that may be reclassified subsequently to profit or loss							
Foreign currency translation differences	14	(2,106)	2,627	42	2,188	6,679	107
Net change in fair value of cash flow hedges	13,15	3,524	(1,755)	(28)	1,777	(5,320)	(85)
Net change in fair value of available for sale investments	7, 15	145	(309)	(5)	291	(181)	(3)
		1,563	563	9	4,256	1,178	19
Total other comprehensive income, net of taxes		1,563	737	12	4,256	1,283	21
Total comprehensive income for the period		17,733	20,161	322	36,324	37,025	592
Attributable to:							
Equity holders of the company		17,728	19,983	319	36,141	36,667	586
Non-controlling interest		5	178	3	183	358	6
		17,733	20,161	322	36,324	37,025	592

The accompanying notes form an integral part of these condensed consolidated interim financial statements

As per our report of even date attached

for **B S R & Co. LLP**
Chartered Accountants
Firm's Registration No:101248W

Supreet Sachdev
Partner
Membership No. 205385

Bangalore
October 22, 2013

For and on behalf of the Board of Directors

Azim Premji
Chairman

N Vaghul
Director

B C Prabhakar
Director

Suresh C Senapaty
Executive Director & Chief Financial Officer

T K Kurien
Executive Director & Chief Executive Officer

V Ramachandran
Company Secretary

WIPRO LIMITED AND SUBSIDIARIES
CONDENSED CONSOLIDATED INTERIM STATEMENTS OF CHANGES IN EQUITY
(₹ in millions, except share and per share data, unless otherwise stated)

Particulars	No. of Shares	Share Capital	Share premium	Retained earnings	Other components of equity: Share based payment reserve	Other components of equity: Foreign currency translation reserve	Other components of equity: Cash flow hedging reserve	Other components of equity: Other reserves	Shares held by controlled trust *	Equity attributable to the equity holders of the company	Non-controlling Interest	Total equity
As at April 1, 2012	2,458,756,228	4,917	30,457	241,912	1,976	7,908	(1,358)	44	(542)	285,314	849	286,163
Total comprehensive income for the period												
Profit for the period	-	-	-	31,907	-	-	-	-	-	31,907	161	32,068
Other comprehensive income	-	-	-	-	-	2,166	1,777	291	-	4,234	22	4,256
Total comprehensive income for the period	**-**	**-**	**-**	**31,907**	**-**	**2,166**	**1,777**	**291**	**-**	**36,141**	**183**	**36,324**
Transaction with owners of the company, recognized directly in equity												
Contributions by and distributions to owners of the Company												
Cash dividend paid (Including dividend tax thereon)	-	-	-	(11,375)	-	-	-	-	-	(11,375)	-	(11,375)
Issue of equity shares on exercise of options	3,238,884	6	987	-	(987)	-	-	-	-	6	-	6
Compensation cost related to employee share based payment transactions	-	-	-	-	154	-	-	-	-	154	-	154
Total transactions with owners of the company	**3,238,884**	**6**	**987**	**(11,375)**	**(833)**	**-**	**-**	**-**	**-**	**(11,215)**	**-**	**(11,215)**
As at September 30, 2012	**2,461,995,112**	**4,923**	**31,444**	**262,444**	**1,143**	**10,074**	**419**	**335**	**(542)**	**310,240**	**1,032**	**311,272**

WIPRO LIMITED AND SUBSIDIARIES
CONDENSED CONSOLIDATED INTERIM STATEMENTS OF CHANGES IN EQUITY
(₹ in millions, except share and per share data, unless otherwise stated)

Particulars	No. of Shares	Share Capital	Share premium	Retained earnings	Other components of equity: Share based payment reserve	Other components of equity: Foreign currency translation reserve	Other components of equity: Cash flow hedging reserve	Other components of equity: Other reserves	Shares held by controlled trust *	Equity attributable to the equity holders of the company	Non-controlling Interest	Total equity
As at April 1, 2013	2,462,934,730	4,926	11,760	259,178	1,316	5,470	1,489	215	(542)	283,812	1,171	284,983
Change in accounting policy adoption of Revised IAS 19	-	-	-	(6)	-	-	-	6	-	-	-	-
Total comprehensive income for the period												
Profit for the period	-	-	-	35,555	-	-	-	-	-	35,555	187	35,742
Other comprehensive income	-	-	-	-	-	6,508	(5,320)	(76)	-	1,112	171	1,283
Total comprehensive income for the period	**-**	**-**	**-**	**35,555**	**-**	**6,508**	**(5,320)**	**(76)**	**-**	**36,667**	**358**	**37,025**
Transaction with owners of the company, recognized directly in equity												
Contributions by and distributions to owners of the Company												
Issue of equity shares on exercise of options	2,153,515	4	580	-	(580)	-	-	-	-	4	-	4
Dividends	-	-	-	(14,331)	-	-	-	-	-	(14,331)	(343)	(14,674)
Compensation cost related to employee share based payment transactions	-	-	-	(37)	252	-	-	-	-	215	-	215
Effect of demerger of diversified business	-	-	-	207	-	-	-	-	-	207	-	207
	2,153,515	**4**	**580**	**(14,161)**	**(328)**	**-**	**-**	**-**	**-**	**(13,905)**	**(343)**	**(14,248)**
As at September 30, 2013	**2,465,088,245**	**4,930**	**12,340**	**280,566**	**988**	**11,978**	**(3,831)**	**145**	**(542)**	**306,574**	**1,186**	**307,760**
Convenience translation into US $ in million (Unaudited) Refer note 2(iv)		**79**	**197**	**4,483**	**16**	**191**	**(61)**	**2**	**(9)**	**4,900**	**19**	**4,919**

* Represents 14,841,271 and 16,640,212 treasury shares as of September 30, 2012 and 2013, respectively.

The accompanying notes form an integral part of these condensed consolidated interim financial statements

As per our report of even date attached

for **B S R & Co. LLP**
Chartered Accountants
Firm's Registration No:101248W

Supreet Sachdev
Partner
Membership No. 205385

Bangalore
October 22, 2013

For and on behalf of the Board of Directors

Azim Premji
Chairman

N Vaghul
Director

B C Prabhakar
Director

Suresh C Senapaty
Executive Director & Chief Financial Officer

T K Kurien
Executive Director & Chief Executive Officer

V Ramachandran
Company Secretary

CONDENSED CONSOLIDATED INTERIM STATEMENTS OF CASH FLOWS
(₹ in millions, except share and per share data, unless otherwise stated)

	Six months ended September 30,		
	2012	2013	2013 Convenience Translation into US$ in millions (Unaudited) Refer note 2(iv)
Cash flows from operating activities:			
Profit for the period	32,068	35,742	571
Adjustments:			
Gain on sale of property, plant and equipment and intangible assets, net	(56)	(48)	(1)
Depreciation and amortization	5,499	5,117	82
Exchange (gain) / loss, net	(311)	906	14
Impact of hedging activities, net	(86)	-	-
Gain on sale of investments, net	(930)	(474)	(8)
Share based compensation expense	154	215	3
Income tax expense	9,124	10,005	160
Share of losses of equity accounted investees	138	-	-
Dividend and interest (income)/expenses, net	(4,385)	(5,827)	(94)
Changes in operating assets and liabilities:			
Trade receivables	(3,072)	(1,452)	(23)
Unbilled revenue	(1,172)	(8,726)	(139)
Inventories	(1,337)	(33)	(1)
Other assets	(815)	(6,998)	(112)
Trade payables, accrued expenses and other liabilities and provision	2,969	9,153	146
Unearned revenue	962	1,185	19
Cash generated from operating activities before taxes	38,750	38,765	619
Income taxes paid, net	(8,133)	(9,481)	(153)
Net cash generated from operating activities	**30,617**	**29,284**	**468**
Cash flows from investing activities:			
Purchase of property, plant and equipment	(5,295)	(4,495)	(72)
Proceeds from sale of property, plant and equipment	128	262	4
Purchase of available for sale investments	(242,206)	(226,558)	(3,620)
Proceeds from sale of available for sale investments	219,028	223,475	3,571
Investment in inter-corporate deposits	(7,460)	(1,905)	(31)
Refund of inter-corporate deposits	4,460	4,460	71
Investment in associate	(130)	-	-
Impact of net investment hedging activities, net	-	(4,560)	(73)
Cash payment pursuant to demerger	-	(3,250)	(52)
Payment for business acquisitions including deposit in escrow, net of cash acquired	(2,271)	-	-
Interest received	3,361	4,731	76
Dividend received	477	110	2
Net cash used in investing activities	**(29,908)**	**(7,730)**	**(124)**
Cash flows from financing activities:			
Proceeds from issuance of equity shares/shares pending allotment	6	4	-
Repayment of loans and borrowings	(44,032)	(67,904)	(1,085)
Proceeds from loans and borrowings	43,136	59,868	957
Interest paid on loans and borrowings	(547)	(502)	(8)
Payment of cash dividend (including dividend tax thereon)	(11,375)	(14,594)	(233)
Net cash used in financing activities	**(12,812)**	**(23,128)**	**(370)**
Net decrease in cash and cash equivalents during the period	(12,103)	(1,574)	(25)
Effect of exchange rate changes on cash and cash equivalents	739	1,188	19
Cash and cash equivalents at the beginning of the period	77,202	84,120	1,344
Cash and cash equivalents at the end of the period (Note 9)	**65,838**	**83,734**	**1,338**

The accompanying notes form an integral part of these condensed consolidated interim financial statements

As per our report of even date attached

for **B S R & Co. LLP**
Chartered Accountants
Firm's Registration No:101248W

Supreet Sachdev
Partner
Membership No. 205385

Bangalore
October 22, 2013

For and on behalf of the Board of Directors

Azim Premji
Chairman

N Vaghul
Director

B C Prabhakar
Director

Suresh C Senapaty
Executive Director & Chief Financial Officer

T K Kurien
Executive Director & Chief Executive Officer

V Ramachandran
Company Secretary

1. The Company overview:

Wipro Limited ("Wipro" or the "Parent Company"), together with its subsidiaries (collectively, "the Company" or the "Group") is a leading India based provider of IT Services, including Business Process Outsourcing ("BPO") services and IT products, globally.

Wipro is a public limited company incorporated and domiciled in India. The address of its registered office is Wipro Limited, Doddakannelli, Sarjapur Road, Bangalore - 560 035, Karnataka, India. Wipro has its primary listing with Bombay Stock Exchange and National Stock Exchange in India. The Company's American Depository Shares representing equity shares are also listed on the New York Stock Exchange. These condensed consolidated interim financial statements were authorized for issue by the Company's Board of Directors on October 22, 2013.

2. Basis of preparation of financial statements

(i) Statement of compliance:

These condensed consolidated interim financial statements have been prepared in accordance with International Financial Reporting Standards and its interpretations ("IFRS"), as issued by the International Accounting Standards Board ("IASB"). Selected explanatory notes are included to explain events and transactions that are significant to an understanding of the changes in financial position and performance of the Company since the last annual consolidated financial statements as at and for the year ended March 31, 2013. These condensed consolidated interim financial statements do not include all the information required for full annual financial statements prepared in accordance with the IFRS.

(ii) Basis of preparation

These condensed consolidated interim financial statements are prepared in accordance with *International Accounting Standard (IAS) 34, "Interim Financial Reporting"*.

The condensed consolidated interim financial statements correspond to the classification provisions contained in *IAS 1(revised), "Presentation of Financial Statements"*. For clarity, various items are aggregated in the statements of income and statements of financial position. These items are disaggregated separately in the Notes, where applicable. The accounting policies have been consistently applied to all periods presented in these condensed consolidated interim financial statements.

All amounts included in the condensed consolidated interim financial statements are reported in millions of Indian rupees (₹ in millions) except share and per share data, unless otherwise stated. Due to rounding off, the numbers presented throughout the document may not add up precisely to the totals and percentages may not precisely reflect the absolute figures.

When an operation is classified as a discontinued operation the comparative income statement is re-presented as if the operation had been discontinued from the start of the comparative period. The Company has retrospectively applied the discontinued operation presentation from the start of the comparative period.

During the six months ended September 30, 2013, the Company has applied IAS 19 (as revised in June 2011) Employee Benefits and the related consequential amendments. IAS 19R has been applied retrospectively in accordance with transitional provisions. As a result, all actuarial gains or losses are immediately recognized in other comprehensive income and permanently excluded from profit or loss. Further, the profit or loss will no longer include an expected return on plan assets. Instead net interest recognized in profit or loss is calculated by applying the discount rate used to measure the defined benefit obligation to the net defined benefit liability or asset. The actual return on the plan assets above or below the discount rate is recognized as part of re-measurement of net defined liability or asset through other comprehensive income. The adoption of Revised IAS 19 did not have a material impact on the consolidated financial statements. Also, the comparative information has not been restated as the effect of the change in the accounting policy is not material on the consolidated interim financial statements.

The condensed consolidated interim financial statements have been prepared on a historical cost convention and on an accrual basis, except for the following material items that have been measured at fair value as required by relevant IFRS:

a. Derivative financial instruments;
b. Available-for-sale financial assets; and
c. The defined benefit asset is recognised as plan assets, unrecognized past service cost, less the present value of the defined benefit obligation.

(iv) Convenience translation (unaudited)

The accompanying condensed consolidated interim financial statements have been prepared and reported in Indian rupees, the national currency of India. Solely for the convenience of the readers, the condensed consolidated interim financial statements as of and for the three and six months ended September 30, 2013, have been translated into United States dollars at the certified foreign exchange rate of $ 1 = ₹62.58, as published by Federal Reserve Board of Governors on September 30, 2013. No representation is made that the Indian rupee amounts have been, could have been or could be converted into United States dollars at such a rate or any other rate.

(v) Use of estimates and judgment

The preparation of the condensed consolidated interim financial statements in conformity with IFRSs requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from those estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. In particular, information about significant areas of estimation, uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the condensed consolidated interim financial statements is included in the following notes:

a) **Revenue recognition**: The Company uses the percentage of completion method using the input (cost expended) method to measure progress towards completion in respect of fixed price contracts. Percentage of completion method accounting relies on estimates of total expected contract revenue and costs. This method is followed when reasonably dependable estimates of the revenues and costs applicable to various elements of the contract can be made. Key factors that are reviewed in estimating the future costs to complete include estimates of future labour costs and productivity efficiencies. Because the financial reporting of these contracts depends on estimates that are assessed continually during the term of these contracts, recognized revenue and profit are subject to revisions as the contract progresses to completion. When estimates indicate that a loss will be incurred, the loss is provided for in the period in which the loss becomes probable. To date, the Company has not incurred a material loss on any fixed-price and fixed-timeframe contract.

b) **Goodwill**: Goodwill is tested for impairment at least annually and when events occur or changes in circumstances indicate that the recoverable amount of the cash generating unit is less than its carrying value. The recoverable amount of cash generating units is determined based on higher of value-in-use and fair value less cost to sell. The calculation involves use of significant estimates and assumptions which includes revenue growth rates and operating margins used to calculate projected future cash flows, risk-adjusted discount rate, future economic and market conditions.

c) **Income taxes:** The major tax jurisdictions for the Company are India and the United States of America. Significant judgments are involved in determining the provision for income taxes including judgment on whether tax positions are probable of being sustained in tax assessments. A tax assessment can involve complex issues, which can only be resolved over extended time periods. Though, the Company considers all these issues in estimating income taxes, there could be an unfavorable resolution of such issues.

d) **Deferred taxes**: Deferred tax is recorded on temporary differences between the tax bases of assets and liabilities and their carrying amounts, at the rates that have been enacted or substantively enacted at the reporting date. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable profits during the periods in which those temporary differences and tax loss carry-forwards become deductible. The Company considers the expected reversal of deferred tax liabilities and projected future taxable income in making this assessment. The amount of the deferred income tax assets considered realizable, however, could be reduced in the near term if estimates of future taxable income during the carry-forward period are reduced.

e) **Business combination**: In accounting for business combinations, judgment is required in identifying whether an identifiable intangible asset is to be recorded separately from goodwill. Additionally, estimating the acquisition

measurements are based on information available at the acquisition date and are based on expectations and assumptions that have been deemed reasonable by management. Changes in these judgments, estimates, and assumptions can materially affect the results of operations.

f) **Other estimates:** The preparation of financial statements involves estimates and assumptions that affect the reported amount of assets, liabilities, disclosure of contingent liabilities at the date of financial statements and the reported amount of revenues and expenses for the reporting period. Specifically, the Company estimates the uncollectability of accounts receivable by analyzing historical payment patterns, customer concentrations, customer credit-worthiness and current economic trends. If the financial condition of a customer deteriorates, additional allowances may be required. Similarly, the Company provides for inventory obsolescence, excess inventory and inventories with carrying values in excess of net realizable value based on assessment of the future demand, market conditions and specific inventory management initiatives. If market conditions and actual demands are less favorable than the Company's estimates, additional inventory provisions may be required. In all cases inventory is carried at the lower of historical cost and net realizable value. The stock compensation expense is determined based on the Company's estimate of equity instruments that will eventually vest.

3. Significant accounting policies

Please refer to the Company's Annual Report for the year ended March 31, 2013 for a discussion of the Company's other critical accounting policies.

New Accounting standards adopted by the Company:

The Company has, with effect from April 01, 2013, adopted the following new accounting standards and amendments to accounting standards, including any consequential amendments to other accounting standard.

Amendment to IAS 1 "Presentation of Financial Statements" that will improve and align the presentation of items of other comprehensive income (OCI) in financial statements prepared in accordance with International Financial Reporting Standards (IFRSs). Consequent to the adoption of Amendments to IAS 1, the Company has modified the presentation of items of other comprehensive income in the consolidated statement of comprehensive income, to present separately items that may be reclassified subsequently to profit or loss from those that will not be. The adoption of amendment to IAS 1 has no impact on the recognised assets, liabilities and comprehensive income of the Company.

Amendments to IFRS 7 – *Financial Instruments Disclosures* *

IFRS 10 - *Consolidated Financial Statements (2011)**

IFRS 12 - *Disclosure of Interests in Other Entities* *

IFRS 13 – *Fair Value Measurement* *

IAS 19 – *Employee Benefits (2011)* *

* the adoption of these accounting standards including consequential amendments did not have any material impact on the consolidated financial statements of the Company.

New Accounting standards not yet adopted by the Company:

A number of new standards, amendments to standards and interpretations are not yet effective for annual periods beginning after 1 April 2013, and have not been applied in preparing these consolidated financial statements. These are:

In November 2009, the IASB issued the chapter of *IFRS 9 "Financial Instruments relating to the classification and measurement of financial assets"*. The new standard represents the first phase of a three-phase project to replace *IAS 39 "Financial Instruments: Recognition and Measurement"* (IAS 39) with IFRS 9 Financial Instruments (IFRS 9). IFRS 9 uses a single approach to determine whether a financial asset is measured at amortized cost or fair value, replacing the many different rules in IAS 39. The approach in IFRS 9 is based on how an entity manages its financial assets (its business model) and the contractual cash flow characteristics of the financial assets. In October 2010, the IASB added the requirement relating to classification and measurement of financial liabilities to IFRS 9. Under the amendment, an entity measuring its financial liability at fair value, can present the amount of fair value change attributable to entity's own credit risk in other comprehensive income. Further the IASB also decided to carry-forward unchanged from IAS 39 requirements relating to de-recognition of financial assets and financial liabilities. IFRS 9 is effective for fiscal years beginning on or after January 1, 2015. Earlier application is permitted. The Company is evaluating the impact these amendments will have on the Company's consolidated financial statements.

liabilities". The purpose of the amendment is to clarify some of the requirements for offsetting financial assets and financial liabilities on the statements of financial position. This includes clarifying the meaning of "currently has a legally enforceable right to set-off" and also the application of the IAS 32 offsetting criteria to settlement systems (such as central clearing house systems) which apply gross settlement mechanisms that are not simultaneous. The amendment is effective retrospectively for fiscal years beginning on or after January 1, 2014. Earlier application is permitted. The Company is evaluating the impact these amendments will have on the Company's consolidated financial statements.

4. Demerger of diversified business and discontinued operations

During the financial year 2012-13, the Company had initiated and completed the demerger of its consumer care and lighting, infrastructure engineering and other non-IT business segment (collectively, "the Diversified Business"). The scheme was effective March 31, 2013 after the sanction of the Honorable High Court and filing of the certified copy of the scheme with the Registrar of Companies.

Following the Effective Date, the Diversified Business is classified and presented in the consolidated financial statements as discontinued operation in accordance with IFRS 5 – Non-Current Assets Held for Sale and Discontinued Operations. The Demerger is considered as business under common control and hence is outside the scope of application of IFRS 3 and IFRIC 17. Accordingly, assets and liabilities of the Diversified Business as on the Effective Date are at their carrying values.

In connection with the demerger, all subsidiaries which pertained to the Diversified Business were transferred to the Resulting Company. Certain of these subsidiaries in turn possessed subsidiaries which do not pertain to the Diversified Business and instead are considered a portion of the IT Services business segment. The Company has entered into a share purchase agreement with the Resulting Company to affect the transfer of the IT Services related subsidiaries back to Wipro. The transfer of the above subsidiaries will be complete on conclusion of the regulatory process. In the interim, the board of directors of the Resulting Company has authorized Wipro to retain all operating and management control for such subsidiaries, including the power to govern the operating and financial policies, the appointing of a majority of the board of directors, and appointment of key management personnel, and accordingly, the results of such subsidiaries are included with the results of the Company in the consolidated financial statements. Also refer note 24.

The results of the Diversified Business are as follows:

	Three months ended September 30,		Six months ended September 30,	
	2012	**2013**	**2012**	**2013**
Revenues	₹ 14,194	₹ -	₹ 28,199	₹ -
Expenses (net)	(12,954)	-	(25,694)	-
Finance and other income/(expense), net	302	-	505	-
Share of profits/(losses) of equity accounted investee	(35)	-	(138)	-
Profit before tax	1,507	-	2,872	-
Income tax expense	(442)	-	(657)	-
Profit for the period from discontinued operations	**₹ 1,065**	**₹ -**	**₹ 2,215**	**₹ -**
Profit from discontinued operations attributable to:				
Equity holders of the company	₹ 1,062	₹ -	₹ 2,207	₹ -
Non-controlling interest	3	-	8	-
	₹ 1,065	**₹ -**	**₹ 2,215**	**₹ -**
Earnings per equity share:				
Basic	0.43	-	0.90	-
Diluted	0.43	-	0.90	-
Weighted average number of equity shares used in computing earnings per equity share:				
Basic	2,453,173,688	-	2,452,384,099	-
Diluted	2,458,188,698	-	2,457,689,075	-

Cash flows from/ (used in) discontinued operations

	Six months ended September 30,	
	2012	**2013**
Net cash flows from operating activities	₹ 3,366	₹ -
Net cash flows used in investing activities	(1,989)	-
Net cash flows used in financing activities	(651)	-
Effect on net cash flows for the period	**₹ 726**	**₹ -**

5. Property, plant and equipment

	Land	Buildings	Plant and machinery*	Furniture fixtures and equipment	Vehicles	Total
Gross carrying value:						
As at April 1, 2012	₹ 4,243	₹ 25,326	₹ 65,575	₹ 12,510	₹ 2,082	₹ 109,736
Translation adjustment	9	143	672	53	2	879
Additions	150	240	3,605	349	34	4,378
Acquisition through business combination	-	3	15	4	-	22
Disposal / adjustments	-	(68)	(609)	(155)	(240)	(1,072)
As at September 30, 2012	₹ 4,402	₹ 25,644	₹ 69,258	₹ 12,761	₹ 1,878	₹ 113,943
Accumulated depreciation/impairment:						
As at April 1, 2012	₹ -	₹ 3,259	₹ 42,797	₹ 8,266	₹ 1,885	₹ 56,207
Translation adjustment	-	51	414	37	5	507
Depreciation	-	371	3,924	824	84	5,203
Disposal / adjustments	-	(64)	(593)	(124)	(220)	(1001)
As at September 30, 2012	₹ -	₹ 3,617	₹ 46,542	₹ 9,003	₹ 1,754	₹ 60,916
Capital work-in-progress						₹ 6,362
Net carrying value as at September 30, 2012 #						**₹ 59,389**
Gross carrying value:						
As at April 1, 2012	₹ 4,243	₹ 25,326	₹ 65,575	₹ 12,510	₹ 2,082	₹ 109,736
Translation adjustment	15	267	1,235	70	9	1,596
Additions	159	396	5,960	910	52	7,477
Acquisition through business combination		2	200	7	-	209
Disposal / adjustments	(4)	(109)	(1,624)	(716)	(417)	(2,870)
Effect of demerger of diversified business	(423)	(3,095)	(9,548)	(1,101)	(296)	(14,463)
As at March 31, 2013	₹ 3,990	₹ 22,787	₹ 61,798	₹ 11,680	₹ 1,430	₹ 101,685
Accumulated depreciation/impairment:						
As at April 1, 2012	₹ -	₹ 3,259	₹ 42,797	₹ 8,266	₹ 1,885	₹ 56,207
Translation adjustment	-	89	786	23	9	907
Depreciation	-	745	7,651	1,647	143	10,186
Disposal / adjustments	-	(69)	(1,503)	(645)	(391)	(2,608)
Effect of demerger of diversified business	-	(987)	(5,641)	(717)	(251)	(7,596)
As at March 31, 2013	₹ -	₹ 3,037	₹ 44,090	₹ 8,574	₹ 1,395	₹ 57,096
Capital work-in-progress **						₹ 5,936
Net carrying value as at March 31, 2013						**₹ 50,525**
Gross carrying value:						
As at April 1, 2013	₹ 3,990	₹ 22,787	₹ 61,798	₹ 11,680	₹ 1,430	₹ 101,685
Translation adjustment	29	470	2,957	296	3	3,755
Additions	2	148	4,427	419	9	5,005
Disposal / adjustments	(96)	(37)	(317)	(187)	(305)	(942)
As at September 30, 2013	₹ 3,925	₹ 23,368	₹ 68,865	₹ 12,208	₹ 1,137	₹ 109,503
Accumulated depreciation/impairment:						
As at April 1, 2013	₹ -	₹ 3,037	₹ 44,090	₹ 8,574	₹ 1,395	₹ 57,096
Translation adjustment	-	165	1,885	202	2	2,254
Depreciation	-	355	3,542	880	27	4,804
Disposal / adjustments	-	(37)	(167)	(216)	(307)	(727)
As at September 30, 2013	₹ -	₹ 3,520	₹ 49,350	₹ 9,440	₹ 1,117	₹ 63,427
Capital work-in-progress						₹ 6,301
Net carrying value as at September 30, 2013						**₹ 52,377**

* Including computer equipment and software.

** Net of ₹ 2,855 pertaining to discontinued operations.

Includes carrying values of continuing and discontinued operations as of September 30, 2012.

6. Goodwill and intangible assets

The movement in goodwill balance is given below:

	Year ended March 31, 2013	Six months ended September 30, 2013
Balance at the beginning of the period	₹ 67,937	₹ 54,756
Translation adjustment	3,810	7,995
Acquisition through business combination, net	1,669	-
Effect of demerger of diversified business	(18,660)	-
Balance at the end of the period	**₹ 54,756**	**₹ 62,751**

	Intangible assets		
	Customer related	Marketing related	Total
Gross carrying value:			
As at April 1, 2012	₹ 2,930	₹ 3,663	₹ 6,593
Translation adjustment	21	2	23
Acquisition through business combination	156	541	697
As at September 30, 2012	₹ 3,107	₹ 4,206	₹ 7,313
Accumulated amortization and impairment:			
As at April 1, 2012	₹ 1,162	₹ 1,202	₹ 2,364
Translation adjustment	-	(17)	(17)
Amortization	222	51	273
As at September 30, 2012	₹ 1,384	₹ 1,236	₹ 2,620
Net carrying value as at September 30, 2012	**₹ 1,723**	**₹ 2,970**	**₹ 4,693**
Gross carrying value:			
As at April 1, 2012	₹ 2,930	₹ 3,663	₹ 6,593
Translation adjustment	31	55	86
Acquisition through business combination	497	663	1,160
Effect of demerger of diversified business	(455)	(3,563)	(4,018)
As at March 31, 2013	₹ 3,003	₹ 818	₹ 3,821
Accumulated amortization and impairment:			
As at April 1, 2012	₹ 1,162	₹ 1,202	₹ 2,364
Translation adjustment	-	125	125
Amortization	470	53	523
Effect of demerger of diversified business	-	(905)	(905)
As at March 31, 2013	₹ 1,632	₹ 475	₹ 2,107
Net carrying value as at March 31, 2013	**₹ 1,371**	**₹ 343**	**₹ 1,714**
Gross carrying value:			
As at April 1, 2013	₹ 3,003	₹ 818	₹ 3,821
Translation adjustment	152	65	217
Acquisition through business combination	102	-	102
As at September 30, 2013	₹ 3,257	₹ 883	₹ 4,140
Accumulated amortization and impairment:			
As at April 1, 2013	₹ 1,632	₹ 475	₹ 2,107
Translation adjustment	-	93	93
Amortization	229	34	263
Effect of demerger of diversified business	(202)	-	(202)
As at September 30, 2013	₹ 1,659	₹ 602	₹ 2,261
Net carrying value as at September 30, 2013	**₹ 1,598**	**₹ 281**	**₹ 1,879**

Amortization expense on intangible assets is included in selling and marketing expenses in the condensed consolidated interim statement of income.

7. Available for sale investments

Available for sale investments consists of the following:

	As at March 31, 2013				As at September 30, 2013			
	Cost*	Gross gain recognized directly in equity	Gross loss recognized directly in equity	Fair Value	Cost*	Gross gain recognized directly in equity	Gross loss recognized directly in equity	Fair Value
Investment in liquid and short-term mutual funds and others	₹ 37,478	₹ 295	₹ -	₹ 37,773	₹ 66,208	₹ 450	₹ (401)	₹ 66,257
Certificate of deposits	31,419	-	(21)	31,398	6,311	14	-	6,325
Total	**₹ 68,897**	**₹ 295**	**₹ (21)**	**₹ 69,171**	**₹ 72,519**	**₹ 464**	**₹ (401)**	**₹ 72,582**

*Available for sale investments include investments amounting to ₹ 507 (March 31, 2013: ₹ 544) pledged as margin money deposit for entering into currency future contracts.

8. Inventories

Inventories consist of the following:

	As at	
	March 31, 2013	September 30, 2013
Stores and spare parts	₹ 1,234	₹ 1,066
Raw materials and components	648	512
Work in progress	43	63
Finished goods	1,338	1,655
	₹ 3,263	**₹ 3,296**

9. Cash and cash equivalents

Cash and cash equivalents as of March 31, 2013 and September 30, 2013 consist of cash and balances on deposit with banks. Cash and cash equivalents consist of the following:

	As at	
	March 31, 2013	September 30, 2013
Cash and bank balances	₹ 35,683	₹ 20,787
Demand deposits with banks [1]	49,155	63,110
	₹ 84,838	**₹ 83,897**

[1]These deposits can be withdrawn by the Company at any time without prior notice and without any penalty on the principal.

Cash and cash equivalent consists of the following for the purpose of the cash flow statement:

	As at September 30	
	2012	2013
Cash and cash equivalents	₹ 66,574	₹ 83,897
Bank overdrafts	(736)	(163)
	₹ 65,838	**₹ 83,734**

10. Other assets

	As at	
	March 31, 2013	September 30, 2013
Current		
Interest bearing deposits with corporate [1]	₹ 9,460	₹ 6,905
Prepaid expenses	6,100	7,386
Due from officers and employees	1,666	2,453
Finance lease receivables	2,484	2,911
Advance to suppliers	1,975	2,194
Deferred contract costs	2,422	2,931
Interest receivable	2,235	3,306
Deposits	894	1,319
Balance with excise and customs	1,415	1,835
Non-convertible debenture	42	-
Others [2]	2,376	4,922
	₹ 31,069	**₹ 36,162**
Non current		
Prepaid expenses including rentals for leasehold land	₹ 4,195	₹ 4,401
Finance lease receivables	5,418	5,495
Deferred contract costs	-	1,396
Deposits	422	86
Others	703	353
	₹ 10,738	**₹ 11,731**
Total	**₹ 41,807**	**₹ 47,893**

[1] Such deposits earn a fixed rate of interest and will be liquidated within 12 months

[2] Others include ₹ 2,314 (March 31, 2013: ₹ 1,111) due from Wipro Enterprises Limited and its subsidiaries.

11. Loans and borrowings

A summary of loans and borrowings is as follows:

	As at	
	March 31, 2013	September 30, 2013
Short-term borrowings from bank	₹ 42,241	₹ 44,348
External commercial borrowing	20,147	9,394
Obligations under finance leases	1,145	2,216
Term loans and others [1]	283	456
Total loans and borrowings	**₹ 63,816**	**₹ 56,414**

[1] Term Loans and others include ₹ 318 (March 31, 2013: Nil) due to Wipro Enterprises Limited and its subsidiaries.

12. Other liabilities and provisions

	As at	
Other liabilities:	March 31, 2013	September 30, 2013
Current:		
Statutory and other liabilities	₹ 4,042	₹ 3,675
Employee benefit obligations	4,011	5,306
Advance from customers	2,405	2,508
Others [1]	531	2,895
	₹ 10,989	**₹ 14,384**
Non-current:		
Employee benefit obligations	₹ 2,812	₹ 2,551
Others	578	356
	₹ 3,390	**₹ 2,907**
Total	**₹ 14,379**	**₹ 17,291**

[1] Others include ₹ 1,803 (March 31, 2013: Nil) due to Wipro Enterprises Limited and its subsidiaries

	March 31, 2013	September 30, 2013
Provisions:		
Current:		
Provision for warranty.....	₹ 305	₹ 286
Others.....	869	842
	₹ 1,174	**₹ 1,128**
Non-current:		
Provision for warranty.....	₹ 9	₹ 3
Total.....	**₹ 1,183**	**₹ 1,131**

Provision for warranty represents cost associated with providing sales support services which are accrued at the time of recognition of revenues and are expected to be utilized over a period of 1 to 2 years. Other provisions primarily include provisions for tax related contingencies and litigations. The timing of cash outflows in respect of such provision cannot be reasonably determined.

13. Financial instruments

Derivative assets and liabilities:

The Company is exposed to foreign currency fluctuations on foreign currency assets / liabilities, forecasted cash flows denominated in foreign currency and net investment in foreign operations. The Company follows established risk management policies, including the use of derivatives to hedge foreign currency assets / liabilities, foreign currency forecasted cash flows and net investment in foreign operations. The counter party in these derivative instruments is a bank and the Company considers the risks of non-performance by the counterparty as non-material.

The following table presents the aggregate contracted principal amounts of the Company's derivative contracts outstanding:

	As at	
	March 31, 2013	September 30, 2013
Designated derivative instruments		
Sell	$ 777	$ 765
	£ 61	£ 78
	¥ -	¥ -
	€ 108	€ 81
	AUD 9	AUD 4
Interest rate swaps	$ 30	$ 150
Net investment hedges in foreign operations		
Cross-currency swaps	¥ 24,511	¥ -
Others	$ 357	$ 302
	€ 40	€ 35
Non designated derivative instruments		
Sell	$ 1,241	$ 716
	£ 73	£ 77
	€ 47	€ 63
	AUD 60	AUD 60
	¥ -	¥ 815
	SGD -	SGD 8
	ZAR -	ZAR 169
Buy	$ 767	$ 664
	¥ 1,525	¥ -
Cross currency swaps	¥ 7,000	¥ -

The following table summarizes activity in the cash flow hedging reserve within equity related to all derivative instruments classified as cash flow hedges:

	As at September 30,	
	2012	2013
Balance as at the beginning of the period	₹ (1,605)	₹ 1,669
Net (gain)/loss reclassified into statement of income on occurrence of hedged transactions[1]	(22)	-
Changes in fair value of effective portion of derivatives	2,041	(6,231)
Gain/ (losses) on cash flow hedging derivatives, net	₹ 2,019	₹ (6,231)
Balance as at the end of the period	₹ 414	₹ (4,562)
Deferred tax thereon	₹ 5	₹ 731
Balance as at the end of the period, net of deferred tax	**₹ 419**	**₹ (3,831)**

[1] On occurrence of hedge transactions, net (gain)/loss was included as part of revenues.

As at March 31, 2013, September 30, 2012 and 2013, there were no significant gains or losses on derivative transactions or portions thereof that have become ineffective as hedges, or associated with an underlying exposure that did not occur.

14. Foreign currency translation reserve

The movement in foreign currency translation reserve attributable to equity holders of the Company is summarized below:

	As at September 30,	
	2012	2013
Balance at the beginning of the period	₹ 7,908	₹ 5,470
Translation difference related to foreign operations	2,817	10,552
Change in effective portion of hedges of net investment in foreign operations	(651)	(4,044)
Total change during the period	₹ 2,166	₹ 6,508
Balance at the end of the period	**₹ 10,074**	**₹ 11,978**

15. Income taxes

Income tax expense / (credit) has been allocated as follows:

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
Income tax expense as per the statement of income	₹ 4,637	₹ 5,754	₹ 8,467	₹ 10,005
Income tax included in other comprehensive income on:				
unrealized gain / (loss) on investment securities	20	(43)	40	(27)
unrealized gain / (loss) on cash flow hedging derivatives	563	(365)	243	(911)
Defined benefit plan actuarial gains / (losses)	-	45	-	27
Total income taxes for continuing operations	**₹ 5,220**	**₹ 5,391**	**₹ 8,750**	**₹ 9,094**

Income tax expense consists of the following:

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
Current taxes				
Domestic	₹ 4,201	₹ 4,439	₹ 6,999	₹ 7,846
Foreign	1,403	913	2,739	1,604
	₹ 5,604	₹ 5,352	₹ 9,738	₹ 9,450
Deferred taxes				
Domestic	₹ (511)	₹ (45)	₹ (592)	₹ (236)
Foreign	(14)	447	(22)	791
	₹ (525)	₹ 402	₹ (614)	₹ 555
Total income tax expense	**₹ 5,079**	**₹ 5,754**	**₹ 9,124**	**₹ 10,005**

	September 30,		September 30,	
	2012	2013	2012	2013
Total taxes of continuing operations.....	₹ 4,637	₹ 5,754	₹ 8,467	₹ 10,005
Total taxes of discontinued operations.....	442	-	657	-
Total income tax expense.....	**₹ 5,079**	**₹ 5,754**	**₹ 9,124**	**₹ 10,005**

Income tax expense is net of reversal of provisions recorded in earlier periods, which are no longer required, amounting to ₹ (93) and ₹ 131 for the three months ended September 30, 2012 and 2013 respectively and ₹ 354 and ₹ 643 for the six months ended September 30, 2012 and 2013 respectively.

16. Revenues (continuing operations)

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
Rendering of services.....	₹ 83,284	₹ 98,476	₹ 164,567	₹ 187,771
Sale of products.....	8,919	9,251	18,463	17,250
Total revenues.....	₹ 92,203	₹ 107,727	₹ 183,030	₹ 205,021

17. Expenses by nature (continuing operations)

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
Employee compensation.....	₹ 44,527	₹ 52,730	₹ 88,059	₹ 101,058
Raw materials, finished goods, process stocks and stores and spares consumed.....	7,240	7,038	15,096	13,718
Sub-contracting/technical fees/third party application....	9,001	10,541	17,745	20,747
Travel.....	3,554	4,155	7,123	8,008
Depreciation and amortization.....	2,549	2,616	5,003	5,117
Repairs.....	1,968	3,274	4,494	4,982
Advertisement.....	365	305	702	652
Communication.....	1,201	1,479	2,414	2,718
Rent.....	1,062	1,160	2,064	2,253
Power and fuel.....	724	760	1,361	1,434
Legal and professional fees.....	411	566	970	1,194
Rates, taxes and insurance.....	648	592	1,160	1,002
Carriage and freight.....	40	29	96	70
Provision for doubtful debt.....	150	325	379	598
Miscellaneous expenses.....	1,576	1,928	3,377	3,591
Total cost of revenues, selling and marketing and general and administrative expenses	**₹ 75,016**	**₹ 87,498**	**₹ 150,043**	**₹ 167,142**

18. Finance expense (continuing operations)

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
Interest expense.....	₹ 264	₹ 300	₹ 554	₹ 472
Exchange fluctuation on foreign currency borrowings, net.....	271	356	1,272	679
Total.....	**₹ 535**	**₹ 656**	**₹ 1,826**	**₹ 1,151**

19. Finance and other income (continuing operations)

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
Interest income.....	₹ 2,113	₹ 3,065	₹ 3,936	₹ 6,190
Dividend income.....	129	60	477	110
Gains/(losses) on sale of investments.....	688	287	930	474
Total.....	**₹ 2,930**	**₹ 3,412**	**₹ 5,343**	**₹ 6,774**

A reconciliation of profit for the period and equity shares used in the computation of basic and diluted earnings per equity share is set out below:

Basic: Basic earnings per share is calculated by dividing the profit attributable to equity shareholders of the Company by the weighted average number of equity shares outstanding during the period, excluding equity shares purchased by the Company and held as treasury shares. Equity shares held by controlled Wipro Equity Reward Trust ('WERT') and Wipro Inc Benefit Trust (WIBT) have been reduced from the equity shares outstanding for computing basic and diluted earnings per share. Earnings per share and number of shares outstanding for the three and six months ended September 30, 2012 and 2013 have been adjusted for the grant of 1 employee stock option for every 8.25 employee stock option held by each eligible employee in terms of the demerger scheme as on the Record Date.

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
Profit from continuing operation attributable to equity holders of the Company	₹ 15,044	₹ 19,321	₹ 29,700	₹ 35,555
Weighted average number of equity shares outstanding	2,453,173,688	2,454,919,674	2,452,384,099	2,454,939,900
Basic earnings per share	₹ 6.57	₹ 7.87	₹ 13.01	₹ 14.48
Basic earnings per share from continuing operations	6.13	7.87	12.11	14.48

Diluted: Diluted earnings per share is calculated by adjusting the weighted average number of equity shares outstanding during the period for assumed conversion of all dilutive potential equity shares. Employee share options are dilutive potential equity shares for the Company.

The calculation is performed in respect of share options to determine the number of shares that could have been acquired at fair value (determined as the average market price of the Company's shares during the period). The number of shares calculated as above is compared with the number of shares that would have been issued assuming the exercise of the share options.

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
Profit from continuing operation attributable to equity holders of the Company	₹ 15,044	₹ 19,321	₹ 29,700	₹ 35,555
Weighted average number of equity shares outstanding	2,453,173,688	2,454,919,674	2,452,384,099	2,454,939,900
Effect of dilutive equivalent share options	5,015,010	6,839,742	5,304,976	6,611,736
Weighted average number of equity shares for diluted earnings per share	2,458,188,698	2,461,759,416	2,457,689,075	2,461,551,636
Diluted earnings per share	₹ 6.55	₹ 7.85	₹ 12.98	₹ 14.44
Diluted earnings per share from continuing operations	6.12	7.85	12.08	14.44

21. Employee benefits (continuing operations)

a) Employee costs include:

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
Salaries and bonus	₹ 43,447	₹ 51,706	₹ 85,965	₹ 98,862
Employee benefit plans				
Gratuity	114	142	321	275
Contribution to provident and other funds	893	732	1,683	1,706
Share based compensation	73	150	90	215
	₹ 44,527	**₹ 52,730**	**₹ 88,059**	**₹ 101,058**

The employee benefit cost is recognized in the following line items in the statement of income:

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
Cost of revenues	₹ 37,478	₹ 44,036	₹ 73,891	₹ 84,544
Selling and marketing expenses	4,271	5,748	8,375	10,756
General and administrative expenses	2,778	2,946	5,793	5,758
	₹ 44,527	**₹ 52,730**	**₹ 88,059**	**₹ 101,058**

The Company has granted nil options under RSU option plan during the three and six months ended September 30, 2012 and 2013.

The Company has adopted Revised IAS 19 with effect from April 01, 2013. The impact of adoption of Revised IAS 19 on consolidated financial statements is not material.

22. Commitments and contingencies

Capital commitments: As at March 31, 2013 and September 30, 2013, the Company had committed to spend approximately ₹ 1,259 and ₹ 1,279 respectively, under agreements to purchase property and equipment. These amounts are net of capital advances paid in respect of these purchases.

Guarantees: As at March 31, 2013 and September 30, 2013, performance and financial guarantees provided by banks on behalf of the Company to the Indian Government, customers and certain other agencies amount to approximately ₹ 23,753 and ₹ 22,785, respectively, as part of the bank line of credit.

Contingencies and lawsuits: The Company had received tax demands aggregating to ₹ 37,721 (including interest of ₹ 12,170) arising primarily on account of denial of deduction under section 10A of the Income Tax Act, 1961 in respect of profit earned by the Company's undertaking in Software Technology Park at Bangalore for the years ended March 31, 2001 to March 31, 2008. The appeals filed against the said demand before the Appellate authorities have been allowed in favor of the Company by the second appellate authority for the years up to March 31, 2007. Further appeals have been filed by the Income tax authorities before the Hon'ble High Court. For the year ended March 31, 2008, based on DRP directions confirming the position of the assessing officer, the final assessment order was passed by the assessing officer. The Company has filed an appeal against the said order before the Appellate Tribunal.

In March 2013, the Company received the draft assessment order, on similar grounds as that of earlier years, with a demand of ₹ 7,159 (including interest of ₹ 848) for the financial year ended March 31, 2009. The Company has filed its objections against the said demand before the Dispute Resolution Panel, within the time limit prescribed under the statute.

Considering the facts and nature of disallowance and the order of the appellate authority upholding the claims of the Company for earlier years, the Company believes that the final outcome of the above disputes should be in favor of the Company and there should not be any material impact on the condensed interim financial statements.

The Company is subject to legal proceedings and claims which have arisen in the ordinary course of its business. The resolution of these legal proceedings is not likely to have a material and adverse effect on the results of operations or the financial position of the Company.

The Contingent liability in respect of disputed demands for excise duty, custom duty, sales tax and other matters amounts to ₹ 2,273 and ₹ 2,269 as of March 31, 2013 and September 30, 2013, respectively.

23. Segment Information

The Company is organised by business, which primarily includes IT Services (comprising of IT Services and BPO Services) and IT Products and Others. Consequent to the demerger of Consumer Care and Lighting, Infrastructure Engineering and other non-IT businesses (collectively, "the Diversified Business"), the Company has re-organised the IT Services business with the object of making industry practice its focal point for performance evaluation and internal financial reporting and decision making. Consequently, the format for reporting IT services business has been changed to industry segments (Industry practice). Industry segments primarily consist of Banking, Financial Services and Insurance (BFSI), Healthcare and Life Sciences (HLS), Retail, Consumer, Transport and Government (RCTG), Energy, Natural Resources and Utilities (ENU), Manufacturing and Hi-tech (MFG), Global Media and Telecom (GMT) and others.

The IT Services reportable segment information for the comparative period by industry class of customers is not restated to reflect the above change since the meaningful segregation of the data is impracticable and cost to develop it is excessive. However, as required under IFRS 8, the Company has presented segment information for the current period on both the old basis and new basis of segmentation.

The Chairman of the Company has been identified as the Chief Operating Decision Maker (CODM) as defined by IFRS 8, *"Operating Segments"*. The Chairman of the Company evaluates the segments based on their revenue growth and operating income.

Information on reportable segment on the new basis of segmentation for the three months ended September 30, 2013 is as follows:

	BFSI	HLS	RCTG	ENU	MFG	GMT	IT Services	IT Products	Reconciling items	Entity total
Revenue	26,570	10,174	14,916	15,897	19,100	14,022	100,679	9,374	(133)	109,920
Operating Income	5,981	1,904	3,252	4,260	4,489	3,157	23,043	152	(374)	22,821
Unallocated							(399)	-	-	(399)
Operating Income total							22,644	152	(374)	22,422
Finance expense										(656)
Finance and other income										3,412
Profit before tax										25,178
Income tax expense										(5,754)
Profit for the period										19,424
Depreciation and Amortisation										2,616

Information on reportable segments on the old basis of segmentation in given below:

	Three months ended September 30, 2012						
	IT Services and Products			Consumer Care and Lighting (discontinued)	Others (discontinued)	Reconciling Items	Entity Total
	IT Services	IT Products	Total				
Revenues	83,732	8,990	92,722	10,075	3,778	(9)	106,566
Cost of revenues	(55,949)	(8,079)	(64,028)	(5,513)	(3,326)	(295)	(73,162)
Selling and marketing expenses	(5,539)	(340)	(5,879)	(2,900)	(136)	(81)	(8,996)
General and administrative expenses	(4,939)	(299)	(5,238)	(528)	(136)	81	(5,821)
Operating income of segment	17,305	272	17,577	1,134	180	(304)	18,587
Finance expense							(537)
Finance and other income							3,234
Share of profits of equity accounted investees							(35)
Profit before tax							21,249
Income tax expense							(5,079)
Profit for the period							16,170
Depreciation and amortization expense			2,435	118	126	116	2,795
Average capital employed			161,248	24,031	11,840	173,183	370,302
Return on capital employed			44%	19%	6%	-	20%

	Three months ended September 30, 2013						
	IT Services and Products			Consumer Care and Lighting (discontinued)	Others (discontinued)	Reconciling Items	Entity Total
	IT Services	IT Products	Total				
Revenues	100,679	9,374	110,053	-	-	(133)	109,920
Cost of revenues	(65,597)	(8,581)	(74,178)	-	-	(29)	(74,207)
Selling and marketing expenses	(7,122)	(344)	(7,466)	-	-	(139)	(7,605)
General and administrative expenses	(5,316)	(297)	(5,613)	-	-	(73)	(5,686)
Operating income of segment	**22,644**	**152**	**22,796**	**-**	**-**	**(374)**	**22,422**
Finance expense							(656)
Finance and other income							3,412
Profit before tax							25,178
Income tax expense							(5,754)
Profit for the period							**19,424**
Depreciation and amortization expense			2,493			123	2,616
Average capital employed			167,141			192,676	359,817
Return on capital employed			55%				24%

2013 is as follows:

	BFSI	HLS	RCTG	ENU	MFG	GMT	IT Services	IT Products	Reconciling items	Entity total
Revenue	50,262	18,941	28,365	30,125	36,129	26,220	190,042	17,540	(316)	207,266
Operating Income	10,771	3,308	5,800	7,848	7,874	5,392	40,993	283	(648)	40,628
Unallocated							(504)	-	-	(504)
Operating Income total							40,489	283	(648)	40,124
Finance expense										(1,151)
Finance and other income										6,774
Profit before tax										45,747
Income tax expense										(10,005)
Profit for the period										35,742
Depreciation and Amortisation										5,117

Information on reportable segments on the old basis of segmentation in given below:

	Six months ended September 30, 2012						
	IT Services and Products			Consumer Care and Lighting (discontinued)	Others (discontinued)	Reconciling Items	Entity Total
	IT Services	IT Products	Total				
Revenues	166,875	18,523	185,398	19,873	7,665	160	213,096
Cost of revenues	(111,055)	(16,736)	(127,791)	(10,812)	(6,871)	(558)	(146,032)
Selling and marketing expenses	(10,870)	(684)	(11,554)	(5,899)	(270)	(181)	(17,904)
General and administrative expenses	(10,202)	(620)	(10,822)	(889)	(247)	107	(11,851)
Operating income of segment	34,748	483	35,231	2,273	277	(472)	37,309
Finance expense							(1,904)
Finance and other income							5,925
Share of profits of equity accounted investees							(138)
Profit before tax							41,192
Income tax expense							(9,124)
Profit for the period							32,068
Depreciation and amortization expense			4,776	232	259	232	
Average capital employed			156,709	23,421	11,979	166,385	358,494
Return on capital employed			45%	19%	5%	-	21%

	Six months ended September 30, 2013						
	IT Services and Products			Consumer Care and Lighting (discontinued)	Others (discontinued)	Reconciling Items	Entity Total
	IT Services	IT Products	Total				
Revenues	190,042	17,540	207,582	-	-	(316)	207,266
Cost of revenues	(125,466)	(15,940)	(141,406)	-	-	(18)	(141,424)
Selling and marketing expenses	(13,504)	(693)	(14,197)	-	-	(268)	(14,465)
General and administrative expenses	(10,583)	(624)	(11,207)	-	-	(46)	(11,253)
Operating income of segment	**40,489**	**283**	**40,772**	**-**	**-**	**(648)**	**40,124**
Finance expense							(1,151)
Finance and other income							6,774
Profit before tax							45,747
Income tax expense							(10,005)
Profit for the period							**35,742**
Depreciation and amortization expense			4,862			255	5,117
Average capital employed *			165,673			190,813	356,486
Return on capital employed			49%				23%

* Opening capital employed is represented net off adjustment of capital employed relating to diversified business.

September 30, 2012:

	Three months ended September 30, 2012	Six months ended September 30, 2012
Revenues:		
Revenue as per segment reporting	₹ 106,566	₹ 213,096
Less: foreign exchange (gains) / losses, net included in segment revenue	(160)	(1,816)
Less: revenues for discontinued operations (note 4)	(14,194)	(28,199)
Inter-group transactions	(9)	(51)
Revenues for continuing operations	**₹ 92,203**	**₹ 183,030**
Profit before tax:		
Profit before tax as per segment reporting	₹ 21,249	₹ 41,192
Less: profit before tax for discontinued operations (note 4)	(1,507)	(2,872)
Profit before tax for continuing operations	**₹ 19,742**	**₹ 38,320**

The Company has four geographic segments: India, the United States, Europe and Rest of the world. Revenues from the geographic segments based on domicile of the customer for continuing operations are as follows:

	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
India.....	₹ 11,130	₹ 11,301	₹ 22,616	₹ 21,996
United States.....	43,372	46,241	86,174	90,907
Europe.....	24,100	27,810	48,273	54,347
Rest of the world.....	13,761	24,568	27,783	40,016
	₹ 92,363	**₹ 109,920**	**₹ 184,846**	**₹ 207,266**

Management believes that it is currently not practicable to provide disclosure of geographical location wise assets, since the meaningful segregation of the available information is onerous.

No client individually accounted for more than 10% of the revenues during the six months ended September 30, 2012 and 2013.

Notes:

a) The company has the following reportable segments:

i) IT Services industry segments primarily consisting of Banking, Financial Services and Insurance (BFSI), Healthcare and Life Sciences (HLS), Retail, Consumer, Transport and Government (RCTG), Energy, Natural Resources and Utilities (ENU), Manufacturing (MFG), Global Media and Telecom (GMT) and others. Key service offering includes software application development and maintenance, research and development services for hardware and software design, business application services, analytics, consulting , infrastructure outsourcing services and business process outsourcing services.

ii) IT Products: The IT Products segment sells a range of Wipro personal desktop computers, Wipro servers and Wipro notebooks. The Company is also a value added reseller of desktops, servers, notebooks, storage products, networking solutions and packaged software for leading international brands. In certain total outsourcing contracts of the IT Services segment, the Company delivers hardware, software products and other related deliverables. Revenue relating to these items is reported as revenue from the sale of IT Products.

iii) Corporate activities such as treasury, legal and accounting, which do not qualify as operating segments under IFRS 8, and elimination of inter-segment transactions have been considered as 'reconciling items'.

iv) Hitherto the Demerger of the Diversified Business (refer note 4) during the year ended March 31, 2013, the "Consumer Care and Lighting" and "Others" have been discontinued effective March 31, 2013.

b) Revenues include excise duty of ₹ 13 and ₹ 13 for the three months ended September 30, 2012 and 2013, respectively and ₹ 19 and ₹ 27 for the six months ended September 30, 2012 and 2013, respectively. For the purpose of segment reporting, the segment revenues are net of excise duty. Excise duty is reported in reconciling items.

c) For the purpose of segment reporting, the Company has included the impact of 'foreign exchange gains / (losses), net' in revenues (which is reported as a part of operating profit in the statement of income).

basis of straight line amortization. The differential impact of accelerated amortization of stock compensation expense over stock compensation expense allocated to the individual business segments is reported in reconciling items.

e) For evaluating the performance of the individual business segments, amortization of intangibles acquired through business combinations are reported in reconciling items.

f) For evaluating the performance of the individual business segments, loss on disposal of subsidiaries are reported in reconciling items.

g) The Company generally offers multi-year payment terms in certain total outsourcing contracts. These payment terms primarily relate to IT hardware, software and certain transformation services in outsourcing contracts. Corporate treasury provides internal financing to the business units offering multi-year payments terms. Accordingly, such receivables are reflected in capital employed in reconciling items. As of September 30, 2012 and 2013, capital employed in reconciling items includes ₹ 13,862 and ₹ 13,414 respectively, of such receivables on extended collection terms. The finance income on deferred consideration earned under these contracts is included in the revenue of the respective segment and is eliminated under reconciling items.

h) Operating income of segments is after recognition of stock compensation expense arising from the grant of options for continuing operations is as follows:

Segments	Three months ended September 30,		Six months ended September 30,	
	2012	2013	2012	2013
IT Services	₹ 184	₹ 139	₹ 253	₹ 201
IT Products	11	6	16	10
Reconciling items	(122)	5	(179)	4
Total	**₹ 73**	**₹ 150**	**₹ 90**	**₹ 215**

24. List of subsidiaries as of September 30, 2013 are provided in the table below.

Subsidiaries	Subsidiaries	Subsidiaries	Country of Incorporation
Wipro LLC (formerly Wipro Inc).			USA
	Wipro Gallagher Solutions Inc		USA
	Enthink Inc. *		USA
	Infocrossing Inc.		USA
	Wipro Promax Analytics Solutions LLC [Promax Analytics Solutions Americas LLC]		USA
	Wipro Insurance Solution LLC		USA
Wipro Energy IT Services India Private Limited (formerly SAIC India Private Limited)			India
Wipro Japan KK			Japan
Wipro Shanghai Limited			China
Wipro Trademarks Holding Limited			India
Wipro Travel Services Limited			India
Wipro Holdings (Mauritius) Limited			Mauritius
	Wipro Holdings UK Limited		U.K.
		Wipro Technologies UK Limited	U.K.
		Wipro Holding Austria GmbH[(A)]	Austria
		3D Networks (UK) Limited	U.K.
		Wipro Europe Limited [(A)] (formerly SAIC Europe Limited)	U.K
Wipro Cyprus Private Limited			Cyprus
	Wipro Technologies S.A DE C. V		Mexico
	Wipro BPO Philippines LTD. Inc		Philippines
	Wipro Holdings Hungary Korlátolt Felelősségű Társaság		Hungary
	Wipro Technologies Argentina SA		Argentina
	Wipro Information Technology Egypt SAE		Egypt
	Wipro Arabia Limited*		Saudi Arabia
	Wipro Poland Sp Zoo		Poland
	Wipro IT Services Poland Sp. z o. o		Poland

			Incorporation
	Wipro Outsourcing Services UK Limited		U.K.
	Wipro Technologies South Africa (Proprietary) Limited		South Africa
		Wipro Technologies Nigeria Limited	Nigeria
	Wipro Information Technology Netherlands BV (formerly Retail Box BV)		Netherland
		Wipro Portugal S.A.[(A)] (Formerly Enabler Informatica SA)	Portugal
		Wipro Technologies Limited, Russia	Russia
		Wipro Technology Chile SPA	Chile
		Wipro Technologies Canada Limited	Canada
		Wipro Information Technology Kazakhstan LLP	Kazakhstan
		Wipro Technologies W.T. Sociedad Anonima	Costa Rica
		Wipro Outsourcing Services (Ireland) Limited	Ireland
		Wipro Technologies Norway AS	Norway
		Wipro Technologies VZ, C.A.	Venezuela
	Wipro Technologies SRL		Romania
	PT WT Indonesia[#]		Indonesia
	Wipro Australia Pty Limited[#]		Australia
		Wipro Promax Holdings Pty Ltd (formerly Promax Holdings Pty Ltd) [(A)]	Australia
	Wipro Technocentre (Singapore) Pte Limited[#]		Singapore
	Wipro (Thailand) Co Limited[#]		Thailand
	Wipro Bahrain Limited WLL[#]		Bahrain
	Wipro Gulf LLC (formerly SAIC Gulf LLC)		Sultanate of Oman
	Wipro Technologies Spain S.L.		Spain
Wipro Networks Pte Limited (formerly 3D Networks Pte Limited)			Singapore
Planet PSG Pte Limited			Singapore
	Wipro Technologies SDN BHD		Malaysia
Wipro Chengdu Limited			China
Wipro Technology Services Limited			India
Wipro Airport IT Services Limited[*]			India

*All the above direct subsidiaries are 100% held by the Company except that the Company holds 98% of the equity securities of Enthink Inc., 66.67% of the equity securities of Wipro Arabia Limited and 74% of the equity securities of Wipro Airport IT Services Limited.

[#] In connection with the demerger, all subsidiaries which pertained to the Diversified Business were transferred to the Resulting Company. Certain of these subsidiaries in turn possessed subsidiaries which do not pertain to the Diversified Business and instead are considered a portion of the IT Services business segment. The Company has entered into a share purchase agreement with the Resulting Company to affect the transfer of the IT Services related subsidiaries back to Wipro. The transfer of the above subsidiaries will be complete on conclusion of the regulatory process. In the interim, the board of directors of the Resulting Company has authorized Wipro to retain all operating and management control for such subsidiaries, including the power to govern the operating and financial policies, the appointing of a majority of the board of directors, and appointment of key management personnel, and accordingly, the results of such subsidiaries are included with the results of the Company in the consolidated financial statements.

Step Subsidiary details of Wipro Holding Austria GmbH, Wipro Portugal S.A, Wipro Europe Limited and Wipro Promax Holdings Pty Ltd are as follows:

Subsidiaries	Subsidiaries	Country of Incorporation
Wipro Holding Austria GmbH	Wipro Technologies Austria GmbH	Austria
	New Logic Technologies SARL	France
Wipro Europe Limited (formerly SAIC Europe Limited)	Wipro UK Limited (formerly SAIC Limited)	U.K.
	Wipro Europe (formerly Science Applications International, Europe SARL)	France
Wipro Portugal S.A.	SAS Wipro France (formerly Enabler France SAS)	France
	Wipro Retail UK Limited (formerly Enabler UK Limited)	U.K.
	Wipro do Brasil Technologia Ltda (formerly Enabler Brazil Ltda)	Brazil
	Wipro Technologies Gmbh (formerly Enabler & Retail Consult GmbH)	Germany
Wipro Promax Holdings Pty Ltd (formerly Promax Holdings Pty Ltd)	Wipro Promax Analytics Solutions Pty Ltd (formerly Promax Applications Group Pty Ltd)	Australia
	Wipro Promax IP Pty Ltd (formerly PAG IP Pty Ltd)	Australia
	Wipro Promax Analytics Solutions (Europe) Limited [Promax Analytics Solutions (Europe) Ltd]	UK

25. Details of balances with banks as of September 30, 2013 are as follows:

Bank Name	In Current Account	In Deposit Account	Total
Canara Bank	₹ -	₹ 15,650	₹ 15,650
Axis Bank	-	8,670	8,670
Citi Bank	5,605	2,794	8,399
Corporation Bank	1	8,346	8,347
HSBC Bank	4,432	2,148	6,580
Indian Overseas Bank	22	5,122	5,144
State Bank of Travancore	-	5,000	5,000
ICICI Bank	17	4,175	4,192
Yes Bank	-	3,000	3,000
Union Bank of India	-	2,960	2,960
Wells Fargo Bank	1,982	-	1,982
Allahabad Bank	-	1,500	1,500
Central Bank of India	-	1,500	1,500
Karur Vysya Bank	-	750	750
Oriental Bank of Commerce	-	750	750
HDFC bank	468	259	727
Ratnakar Bank	-	430	430
Bank of America	321	-	321
Saudi British Bank	282	-	282
Standard Chartered bank	232	-	232
Standard Bank	199	-	199
Others including cash and cheques on hand	7,226	56	7,282
Total	**20,787**	**63,110**	**83,897**

(a) Investments in liquid and short-term mutual funds/ marketable bonds/ other investments as of September 30, 2013:

Fund House	As of September 30, 2013
LIC Housing Finance Limited	₹ 6,616
IDFC Ltd	5,627
L&T Finance Ltd	5,134
Bajaj Finance	4,360
Reliance Mutual Fund	3,622
Birla Sun life Mutual Ltd	3,223
Indian Government Bonds	3,213
ICICI Prudential Mutual Fund	2,902
SBI Mutual Fund	2,839
Sundaram Finance Ltd	2,818
HDFC Ltd	2,621
NABARD	2,440
TATA Global Beverages	2,427
HDFC Mutual Fund	2,264
SIDBI	2,066
Opera Corporation	1,535
IL&FS	1,226
Religare Mutual Fund.	1,211
IDFC Mutual Fund	1,160
DWS Mutual Fund	1,139
Kotak Mutual Fund	1,127
National Housing Bank Ltd	755
Exim Bank of India	542
Mahindra & Mahindra Finance Ltd	503
Bharath Aluminum Co. Ltd	500
Kotak Mahindra Prime	498
LIC Nomura Mutual Fund	424
E.I.D. Parry	352
JP Morgan Mutual Fund	344
UTI Mutual Fund	335
TATA Mutual Fund	316
L&T Mutual Fund	301
Axeda Corporation	283
Mahindra Motor Vehicle Limited	264
IRFC	257
Tata Capital Financial Services Ltd	254
Power Finance Corporation Ltd	204
TUBE Investments	151
DSP Black Rock Mutual Fund	139
Steel Authority of India Limited	100
Others	165
Total	**66,257**

(b) Investment in Certificates of Deposit as of September 30, 2013:

Name of the Bank	As of September 30, 2013
Bank of Baroda	₹ 1,225
Corporation Bank	1,205
Bank of India	1,201
State Bank of Travancore	737
Oriental Bank of Commerce	736
State Bank of Patiala	491
Punjab National Bank	245
Central Bank of India	245
State Bank of Hyderabad	240
Total	**6,325**

The accompanying notes form an integral part of these condensed consolidated interim financial statements

As per our report of even date attached

for **B S R & Co. LLP**
Chartered Accountants
Firm's Registration No:101248W

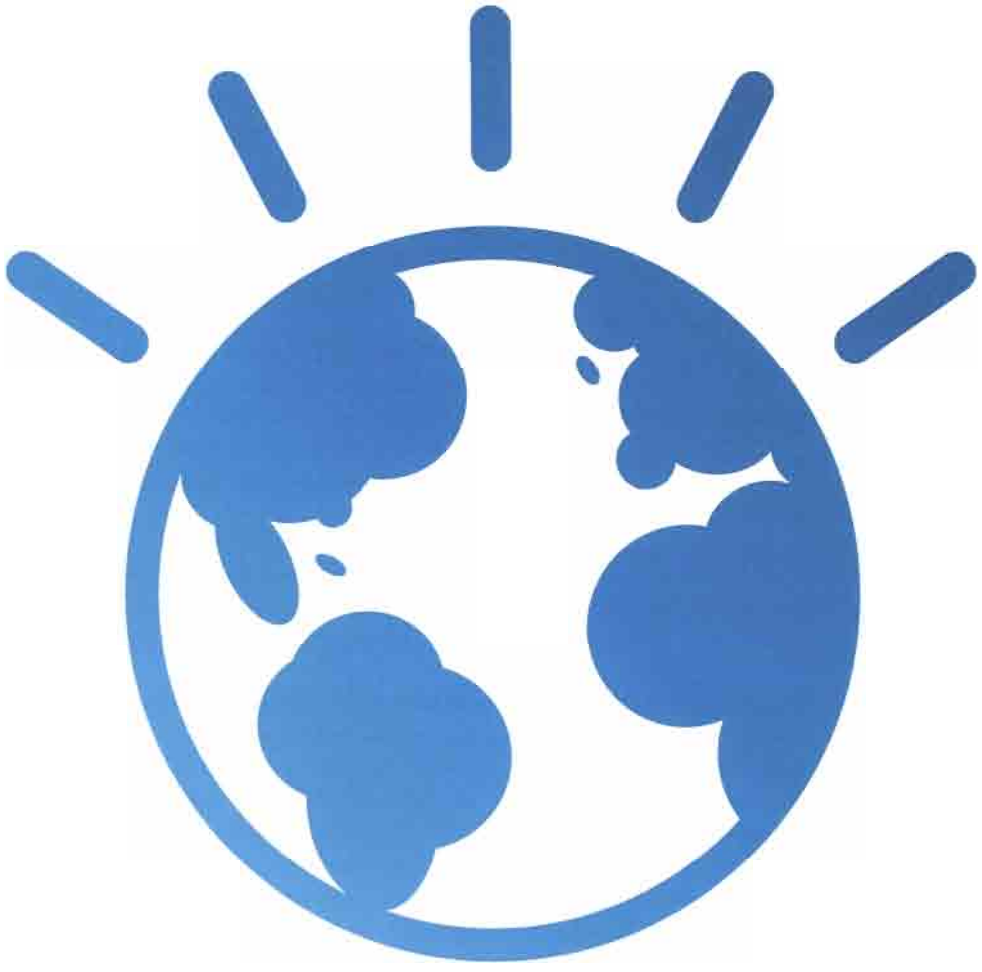
Supreet Sachdev
Partner
Membership No. 205385

Bangalore
October 22, 2013

For and on behalf of the Board of Directors

Azim Premji	**N Vaghul**	**B C Prabhakar**	
Chairman	*Director*	*Director*	
Suresh C Senapaty	**T K Kurien**	**V Ramachandran**	
Executive Director & Chief Financial Officer	*Executive Director & Chief Executive Officer*	*Company Secretary*	

Page Left Intentionally Blank



Dear IBM Investor:

I am pleased to report that in 2012, IBM achieved record operating earnings per share, record free cash flow and record profit margins, with revenues that were flat at constant currency. Operating earnings per share were up 13 percent, putting us well on track to our 2015 Road Map objective of at least $20 of operating earnings per share. Importantly, we continued to deliver value to you, our owners.

This performance is a testament to our strategic position and capabilities, the discipline of our management systems, and the dedication and expertise of more than 430,000 IBMers around the world. Importantly, it reflects the impact of a distinct choice we have made about IBM's business and technology model.

IBM is an innovation company. Both in what we do and in how we do it, we pursue continuous transformation—always remixing to higher value in our portfolio and skills, in the capabilities we deliver to our clients and in our own operations and management practices.

This is not the only path to success in our industry, and it is not the easiest one. But it is ours. In this letter, I will report on our 2012 results, and then put them in context of our model of continuous transformation.

Results in 2012

Earnings per share: Diluted operating earnings per share in 2012 were $15.25, a new record. This marked 10 straight years of double-digit EPS growth.

Margins: IBM's operating pre-tax income margin rose for the 10th consecutive year—to 22.2 percent, up 12 points since 2000.

Cash flow: IBM has consistently generated strong cash flow, a key indicator of real business performance. In 2012 our free cash flow was $18.2 billion, a record for IBM and $12 billion higher than a decade ago. We ended 2012 with $11.1 billion of cash and marketable securities.

Revenue and income: Our revenue in 2012 was $104.5 billion, down 2 percent as reported and flat at constant currency. We grew operating net income by 8 percent, to $17.6 billion, our highest ever.

Investment and return to shareholders: In 2012 we invested $3.7 billion for 11 acquisitions in key areas of software and services; $4.3 billion in net capital expenditures; and $6.3 billion in R&D. We were able to return $15.8 billion to you—$12 billion through share repurchases and $3.8 billion through dividends. Last year's dividend increase was 13 percent, marking the 17th year in a row in which we have raised our dividend, and the 97th consecutive year in which we have paid one.

Since 2000, we have added $14.6 billion to IBM's operating pre-tax profit base, and increased our pre-tax income 1.7 times, our operating earnings per share 3.6 times and our free cash flow 1.7 times. Cumulatively, we have generated about $150 billion of free cash flow.

IBM's Model: Continuous Transformation

In an industry characterized by a relentless cycle of innovation and commoditization, one model for success is that of the commodity player—winning through low

price, efficiency and economies of scale. Ours is a different choice: the path of innovation, reinvention and shift to higher value.

We remix to higher value: We do so in our portfolio, in our organic R&D investment, and through targeted acquisitions and divestitures.

- *We remix our research and development:* Two decades ago, 70 percent of our researchers were working in materials science, hardware and related technology. Even the one-in-ten working in software were focused on operating systems and compilers. Today, 60 percent are in fields that support our key growth initiatives, such as the 400 mathematicians developing algorithms for business analytics, as well as a diverse group of specialists that include medical doctors, computational biologists, experts in natural language processing, and weather and climate forecasters. Since the beginning of 2010, we have spent $19 billion on R&D, and in 2012 IBM earned the most U.S. patents for the 20th straight year, with a record total of 6,478.
- *We acquire new capabilities:* Organizations run into trouble when they look to fulfill a new strategy or provide the basis for transformation through acquisitions. We practice a disciplined approach that asks three questions: Does it build on or extend a capability IBM already has? Does the company have scalable intellectual property? Can it take advantage of our reach into 170 countries? Our balanced formula has built a strong track record since 2000, with more than 140 acquisitions.
- *We divest nonstrategic assets:* Always moving to the future isn't just about what you invent. It also involves choices about when to move on. Over the past decade we have divested almost $15 billion of annual revenue—businesses that no longer fit our strategy. If we had not done so, we would be a larger company today, but with lower margins and capabilities less essential to our clients.

2012 Performance

($ in billions except per share amounts)

For the year ended December 31:	2012
Operating earnings per share	$ 15.25
Revenue	$104.50
Operating net income	$ 17.60
Free cash flow	$ 18.20
Returned to shareholders	$ 15.80

We make markets: We create new markets by category, by geography and by client.

- *We make markets by category:* Our software and services businesses today look very different from just a few years ago, offering new solution categories like MobileFirst, Social Business and Smarter Commerce. In our hardware business, momentum is building for our new PureSystems family, which launched the new category of workload-optimized systems. PureSystems has seen more than 2,300 installations in more than 70 countries in just two quarters.
- *We make markets by geography:* We are achieving strong results in the world's growth markets, working closely with businesses, institutions and governments as they seek to modernize their infrastructures and societies. We opened 144 new branches in these markets in 2012. We also continue remixing to more profitable opportunities in these countries, through Smarter Planet solutions such as Smarter Transportation, Smarter Finance and Smarter Cities.

- *We make markets by client:* We unlock new opportunity within our existing client base by creating capabilities for a new generation of IT buyers—from chief marketing officer to chief financial officer to the head of human resources and more. I discuss this in greater depth below.

We reinvent core franchises: Our System z enterprise server, introduced in 2012, is just the latest reinvention of the mainframe, and it drove System z's largest capacity shipment ever during the fourth quarter—with more than half of that growth coming from Linux workloads. Core software platforms such as WebSphere have been entirely transformed. And Information Technology Services, which was once a significant reseller of others' technology—generating good revenue but low margins—has shifted significantly to high-value services such as data center energy efficiency, security, and business continuity and recovery. This has contributed to a 6-point pre-tax income margin improvement in services since 2000.

We remix our skills and expertise: An innovation model means continuously remixing and deepening our expertise. For example, over the past three years we have increased our skill base in analytics by more than 8,100 experts. We have also added nearly 9,500 sellers in key areas of industry expertise—such as healthcare, energy, telecom and banking, as well as emerging sectors such as metals and mining. This year, IBM Global Business Services and IBM Research will launch the IBM Client Experience Lab, as well as joint GBS and Software practices in social business and mobility—including a tripling of our skill base in social and mobile technologies and doubling our skill base in Smarter Commerce.

We reinvent the enterprise itself: We have been highly disciplined about driving productivity—through the adoption of common, shared operations and systems; the streamlining of enterprise-wide processes; and the leveraging of global skills—all in the service of global integration. And we are now taking the next step, becoming a Smarter Enterprise:

- In part, this means applying analytics to every part of our business—changing how we manage risk, drive efficiency, increase marketing effectiveness and infuse business insight across the company.
- In part, it means using social technologies to identify IBM experts and enable them to deliver their knowledge and leverage our entire portfolio to create a seamless, high-value client experience.

This ongoing transformation gives us confidence that we will achieve our goal of $8 billion in productivity savings over the course of our 2015 Road Map. Sixty percent of our productivity savings are reinvested in the business.

Revenue Increase for IBM Growth Initiatives in 2012

For the year ended December 31:	2012
Smarter Planet	25%
Business Analytics	13%
Cloud	80%
Growth Markets	7%*

* at constant currency

We use our strong cash flow strategically: Our cash flow generation fuels reinvestment in the business—in R&D, capital expenditures and acquisitions. At the same time, we deliver consistently strong returns to you, our owners.



Virginia M. Rometty
CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER

A New Era of Computing

To sustain an innovation model in our industry, a company must do more than accommodate major technology shifts. It must lead them. IBM has done this repeatedly over the past century—not only pioneering new technology models, but capturing significant economic value.

Today, another new wave is sweeping in—powered by Big Data, analytics, mobile, social and cloud. We anticipated this several years ago with our point of view on building a Smarter Planet—a world that was becoming instrumented, interconnected and intelligent. Now, the IT environment is moving from monolithic applications to dynamic services; from structured data at rest to unstructured data in motion; from PCs to unprecedented numbers and kinds of devices; from stable to unpredictable workloads; from static infrastructure to cloud services; and from proprietary standards to open innovation.

This shift plays strongly to IBM's historic position in enterprise computing. So we are, as we have so often done in the past, reshaping our investment, innovation and market strategies to lead.

We see three defining characteristics of this new era—what we call Smarter Computing:

1. Smarter Computing is designed for Big Data. Every two days, as much data is now generated as in all of human history up to 2003. This is "Big Data," and it constitutes a vast new natural resource that can revolutionize industries and societies—with the right technology, capable of analyzing and extracting value and insight from it. This is one reason IBM's analytics business is growing so strongly, as we work with clients to drive intelligence into every aspect of their operations. Indeed, we have raised our 2015 Road Map target for Business Analytics from $16 billion to $20 billion of revenue. We are also rapidly advancing the marketplace applications for our breakthrough "cognitive" computing system, Watson, which is already demonstrating its potential to transform healthcare and finance. We will introduce our first commercial Watson offerings this year.

To sustain an innovation model in our industry, a company must do more than accommodate major technology shifts.

2. Smarter Computing is built on software-defined environments. To handle today's volume, velocity and variety of data, enterprise data centers must become more dynamic and flexible. One way to think about this is to imagine entire IT infrastructures that are as programmable as individual systems. This new model is known as the "software-defined environment," and cloud computing is its first manifestation. However, it will not be the last. This new model optimizes the entire computing "stack"—compute, storage and network resources—so that it can adapt to the type of work required. Hardware built for these new environments will be of significant business value—exemplified by IBM's systems today. From System z, to Power Systems, to storage, to our new PureSystems family, IBM systems are software-defined.

3. Smarter Computing is open. Only through open standards and platforms can enterprises support an expanding universe of heterogeneous data, devices and services, and engage in today's rich innovation ecosystems. The challenge is how to turn open approaches into successful business. IBM helped do so with Linux, Eclipse and Apache, supporting their growth into standards with vital industry ecosystems, and then developing high-value IBM business on top of them. Today, we are repeating this strategy through a number of collaborations such as OpenStack, a new open source cloud platform; Hadoop, an open source platform for Big Data; and several promising open source hardware projects.

Taken together, computing that is open, software-defined, and designed for Big Data constitutes a profound shift in information technology. And as in prior such shifts, it will create new markets and new clients. We are pursuing them aggressively.

New Clients, New Markets

As I mentioned, to capture the opportunities opened up by this new era of technology, IBM is engaging with new kinds of clients as we make new markets in Big Data/analytics, cloud for the enterprise, emerging economies and Smarter Planet. Indeed, from a business perspective, Smarter Planet is a platform for a growing array of new markets—such as Smarter Commerce, Smarter Cities and Social Business—and these new markets take concrete shape through the engagement and enablement of a new generation of IT clients. Today, we are working around the world and across multiple industries with many new leaders.

Perhaps the most active among them in embracing the new era of technology have been chief marketing officers, who are looking to reinvent the practice of marketing—for example, by understanding and enabling customers as individuals, rather than "segments." This helped our Global Business Services Smarter Commerce signings grow by nearly 200 percent in 2012—reaching $2 billion.

At the same time, chief procurement officers are expected to increase their annual investment in Supplier Intelligence by 30 percent through 2015, as they reshape their global supply chains. And leaders of human resources are investing in analytics to build smarter workforces and social enterprises. One analyst has ranked IBM as number one in enterprise social business for the past three years.

"Front-office" transformation has the potential to fuel the biggest wave of business technology investment since the era of enterprise resource planning.

City mayors are deploying Intelligent Operations Centers to transform public services in Davao, Philippines; Rio de Janeiro, Brazil; and Miami-Dade County, Florida. And urban transportation managers, such as those in Singapore and Eindhoven, Netherlands, are reducing urban congestion by offering drivers alternate route

recommendations in exchange for their cars' data on braking, acceleration and location.

This list could go on. "Front-office" transformation has the potential to fuel the biggest wave of business technology investment since the era of enterprise resource planning (ERP). And that creates a powerful set of conditions for the tens of thousands of business advisors and industry experts embedded in the world's greatest engine of technical innovation.

In sum, our strong strategic positioning, solid balance sheet, recurring revenue, robust profit streams, global reach—and especially our institutional capacity for innovation and continuous transformation—give us confidence that we will continue to provide differentiating value to our clients, employees, partners and communities—and therefore to you, our owners. "Generating Higher Value at IBM" (pp. 8–15) summarizes how.

On Being Essential

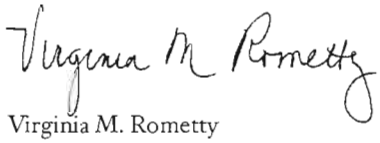
In closing, let me say a few words on the deeper meaning of this model of continuous transformation to higher value, at this particular moment in history.

As I have noted, an innovation model does not present an easy path, especially in an industry as fast-changing as ours. But once you are clear on your choice, it shapes everything you do: your business strategy, how you recruit talent, how you develop skills, how you invent, how you run the company. And for IBM, it means something more.

It speaks to IBMers' aspiration to be essential to each of our vital constituencies—our clients, our communities, our partners, our investors, and one another. We see this as our purpose as an enterprise—to serve their plans for success, their need to transform and their own unique sense of purpose.

The era opening before us offers a historic opportunity for both businesses and societies to pursue this higher purpose. A vast new natural resource is being unleashed—promising to do for our century what steam, electricity and fossil fuels did for the Industrial Age. The economic and societal potential of this new gusher of data is incalculable. It is the opportunity of our lifetime—and IBMers are determined to seize it.

It is in this spirit that I express my deep pride in the worldwide IBM team for bringing us to where we are, and my gratitude to you, our shareholders, for your unwavering support. I hope you share our excitement about your company's performance and the way in which IBMers are building a smarter planet and a brighter future.



Virginia M. Rometty
CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER

This letter includes selected references to certain non-GAAP financial measures that are made to facilitate a comparative review of the company's ongoing operational performance. For information about the company's financial results related to (i) operating pre-tax income, operating pre-tax income margin and operating earnings per share and (ii) free cash flow, which are in each case non-GAAP measures, see the company's Forms 8-K dated January 22, 2013 and February 26, 2013 (Attachment II—Non-GAAP Supplementary Materials).

Generating Higher Value at IBM

IBM is an innovation company. We pursue continuous transformation both in what we do and how we do it—always remixing to higher value in our offerings and skills, in our operations and management practices, and in the transformational capabilities we deliver to our clients.

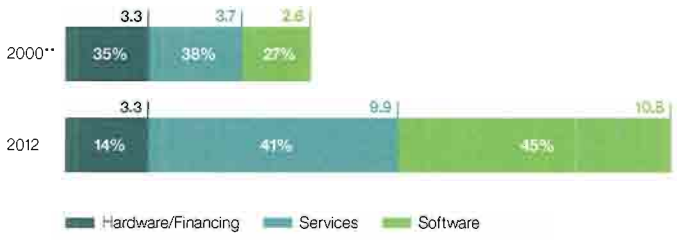
2015 Road Map

Each year IBM describes how the company manages its business and serves its shareholders in a detailed financial road map.

A long-term perspective ensures IBM is well positioned to take advantage of major shifts occurring in technology, business and the global economy.

1. We continuously change our business mix toward higher-value, more profitable technologies and market opportunities.

Segment Pre-tax Income*
($ in billions)



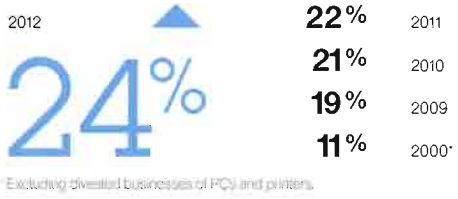
* Sum of external segment pre-tax income not equal to IBM pre-tax income.

** Excludes Enterprise investments and not restated for stock-based compensation. 2000 Segment PTI is reclassified to conform with 2012 presentation.

About 50% of IBM segment profit expected to come from Software by 2015.

2. We have become a globally integrated enterprise to capture new growth and productivity.

Growth Markets Share of Geographic Revenue



Excluding divested businesses of PCs and printers.

IBM operations in more than 170 countries leverage the company's global scale and expertise.

A globally integrated model allows us to focus resources on client-oriented work and enables rapid deployment of IBM capabilities to growth markets. In 2012, we continued our rapid geographic expansion — opening 144 branch offices. Our growth markets delivered more than 60 percent of our geographic gross profit growth between 2010 and 2012.

Global integration of all our major enterprise functions — from service delivery to marketing — has enabled IBM to deliver enterprise productivity savings while improving quality.

Approaching 30% of geographic revenue from growth markets by 2015.

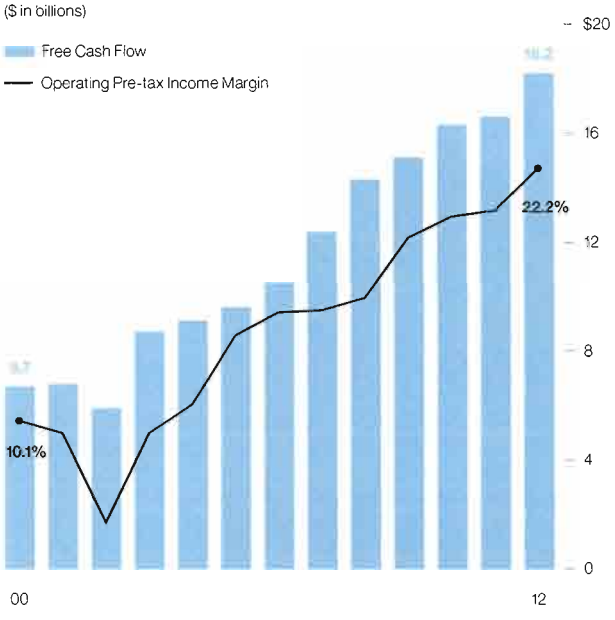
3. By aligning our business model with our clients' needs, we achieve our financial goals.

Our operating (non-GAAP) pre-tax income margin in 2012 was 22.2 percent, 12 points higher than in 2000. The primary driver of this performance was gross profit margin expansion, as a result of the shift in our business mix to more profitable, higher-value segments and improved productivity.

At the same time, we've increased R&D investment. Since the beginning of 2000, we've spent $75 billion in R&D, enabling us to deliver key innovations and maintain U.S. patent leadership for our 20th consecutive year in 2012.

Our solid business model performance has resulted in consistently strong free cash flow. In 2012 our free cash flow was $18.2 billion, $12 billion higher than a decade ago.

Free Cash Flow and Operating Pre-tax Income Margin*
($ in billions)



*Excludes acquisition-related and nonrecurring retirement-related charges.

4. This allows us to invest in future sources of growth and provide strong returns to our shareholders.

Primary Uses of Cash Since the Beginning of 2000
($ in billions)



Acquisitions: Since the beginning of 2000, we have acquired more than 140 companies in strategic areas including analytics, cloud, security and Smarter Commerce. We expect to spend $20 billion in acquisitions over the 2015 Road Map period to support growth initiatives.

Capital Expenditures: We have invested more than $55 billion since 2000 to advance our capabilities.

Share Repurchase and Dividends: Since 2000, we have returned almost $150 billion to shareholders—paying $26 billion in dividends and reducing the outstanding share count by over 35 percent. We expect to return $70 billion to shareholders in our 2015 Road Map period—$50 billion through gross share repurchases and $20 billion in dividends.

$70 billion expected to be returned to shareholders through 2015.

5. This delivers long-term value and performance for all key IBM stakeholders—investors, clients, employees and society.

Our 2015 Road Map continues the drive to higher value—with the expectation of at least $20 operating (non-GAAP) EPS in 2015.

Key 2015 Road Map Objectives:

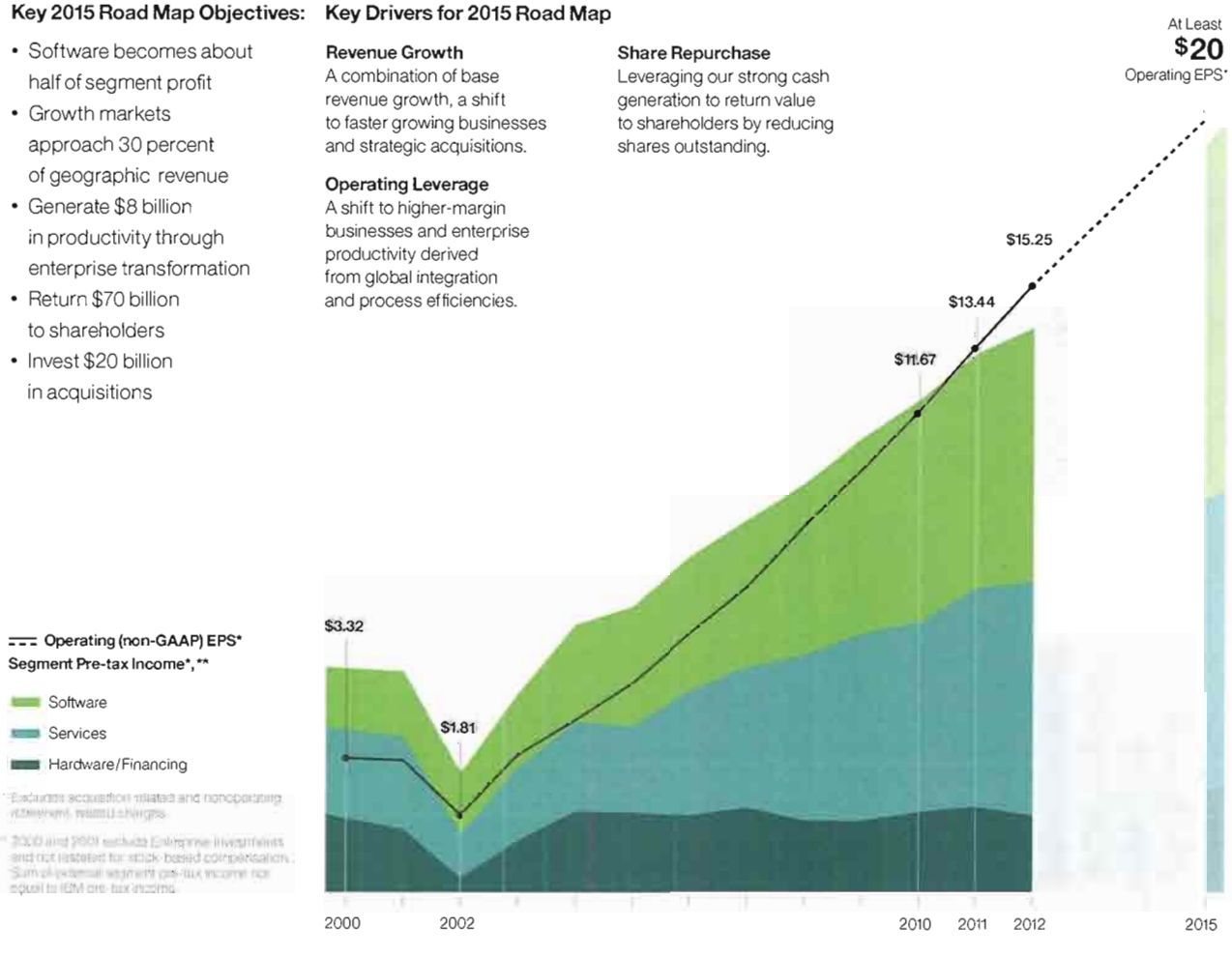
- Software becomes about half of segment profit
- Growth markets approach 30 percent of geographic revenue
- Generate $8 billion in productivity through enterprise transformation
- Return $70 billion to shareholders
- Invest $20 billion in acquisitions

Key Drivers for 2015 Road Map

Revenue Growth
A combination of base revenue growth, a shift to faster growing businesses and strategic acquisitions.

Operating Leverage
A shift to higher-margin businesses and enterprise productivity derived from global integration and process efficiencies.

Share Repurchase
Leveraging our strong cash generation to return value to shareholders by reducing shares outstanding.



* Excludes acquisition related and nonoperating retirement-related charges.

** 2000 and 2001 exclude Enterprise Investments and not restated for stock-based compensation. Sum of external segment pre-tax income not equal to IBM pre-tax income.

6. Five years ago, we saw the emergence of a Smarter Planet—a world becoming instrumented, interconnected and intelligent.

The IT industry and the global economy have been transformed by massive amounts of data, new ways to deliver computing and the rise of mobile and social platforms.

Big Data is the planet's new natural resource.
Hundreds of billions of connected sensors and devices have created a massive, invisible flow of digital "1s" and "0s"—a global gusher of information.

Advanced analytics enable us to mine it.
Enterprises and institutions are analyzing this flow of streaming, unstructured data and acting upon those insights in real time.

Cloud computing is coming of age.
The model of computing known as "the cloud" delivers on-demand computing over the Internet. It brings new scale and efficiency to service delivery and enables more agile ways of doing business.

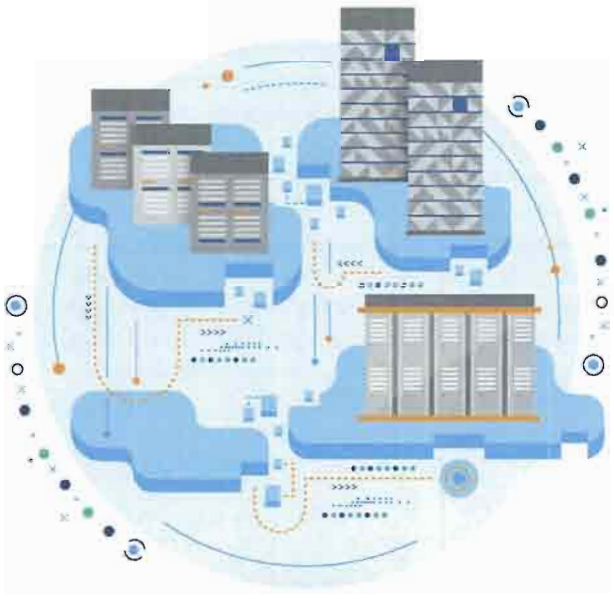
Social and mobile create a new platform for work.
With devices in hand, individuals now expect to interact with the world around them—as consumers, as students, as citizens. For many, mobile devices have supplanted the PC, consumer electronics and even the wallet.

7. To lead this shift, IBM is pioneering a new computing model—what we call Smarter Computing. It has three core attributes.

Designed for Data
As new sources of data continue to grow in volume, variety and velocity, so too does their potential to revolutionize the decision-making processes in every industry—if organizations can analyze it all and extract insight.

IBM has the world's deepest portfolio of analytics solutions and software; 30,000 enterprise analytics engagements; a leading position in powerful optimized systems; and the business and industry expertise of 9,000 business analytics consultants, 400 researchers and 9 analytics solution centers. We have acquired 33 companies since 2005, including five in 2012, to build targeted analytics and information expertise—helping clients turn massive volumes of real-time, unstructured data into high-value knowledge available instantly.





Defined by Software

Entire IT environments can now be as simple, adaptable and programmable as individual systems are today—thanks to a new model known as the software-defined environment. Cloud is its first major manifestation—but it will not be the last.

In a software-defined environment, networks, storage and servers, as well as software, can be tuned flexibly to a desired workload. Hardware systems optimized for these new environments—such as IBM's System z mainframe, Power Systems, storage systems and our new PureSystems—are creating significant new business value.

IBM's SmartCloud manages 13 billion security events for more than 4,000 clients per day and connects more than 300,000 trading entities. IBM has also helped clients build more than 3,500 private clouds.



Open and Collaborative

An expanding universe of mobile devices, networked services and social enterprises requires open platforms. IBM helped open platforms such as Linux, Eclipse and Apache become standards with vital industry ecosystems, and then we developed high-value businesses on top of them. Today, IBM collaborates broadly to support open platforms such as OpenStack and Hadoop.

IBM has been the market leader in social enterprise software* for the past three years. With thousands of mobile experts, 270 patents in wireless innovations and 160 IBM Research scientists focused on mobile technologies, IBM has helped more than 1,000 clients become mobile enterprises. Looking ahead, we will integrate these capabilities with the powerful behavioral analytics of newly acquired Kenexa to help leaders of human resources build smarter workforces.

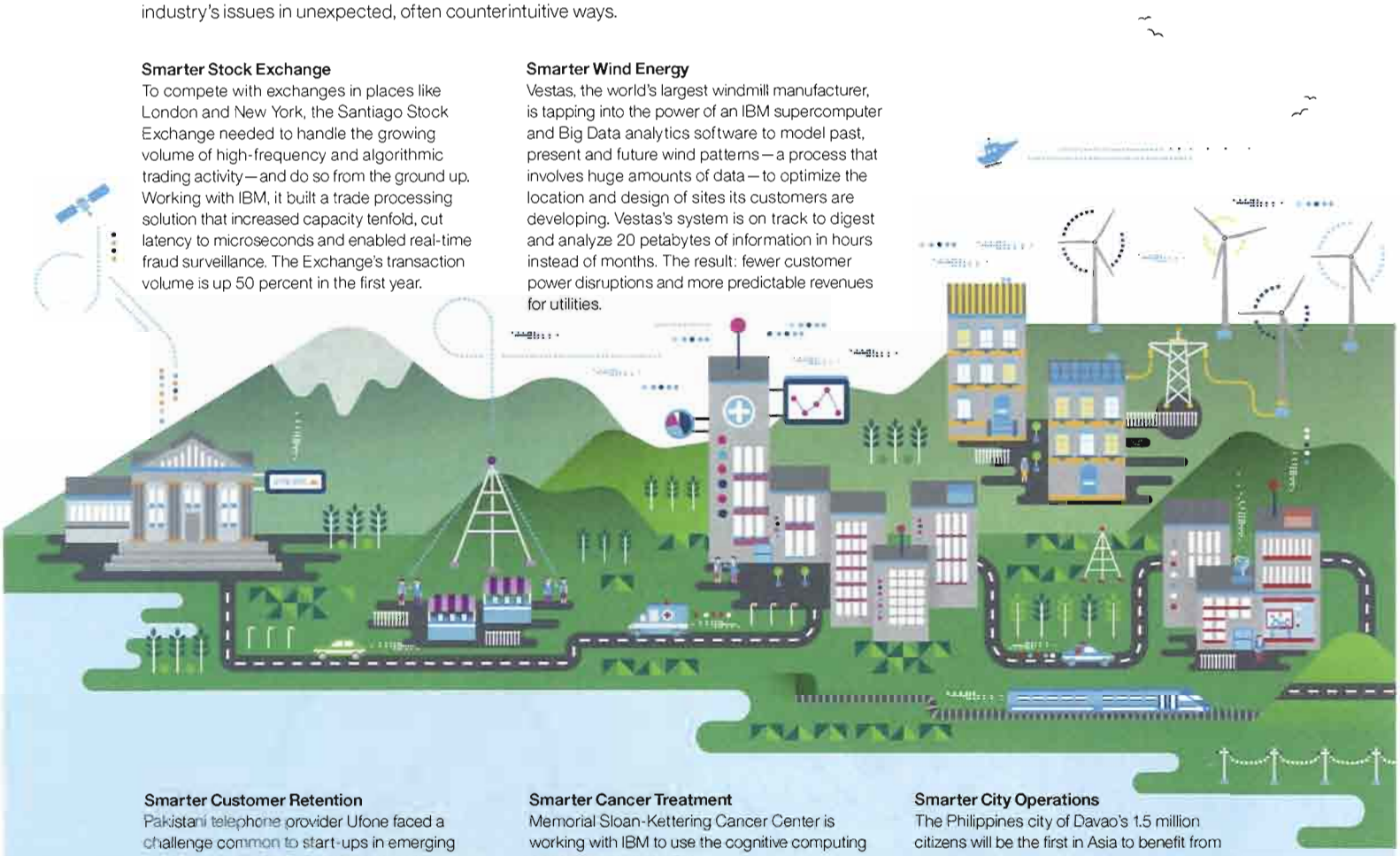
*IDC "Worldwide Enterprise Social Software 2011 Vendor Shares," June 2012.

8. The infusion of digital intelligence into the world's systems is changing the way people, organizations and entire industries approach what they do.

In thousands of Smarter Planet client engagements, IBM is helping our clients seize competitive advantage, not only through improved productivity but by reframing their industry's issues in unexpected, often counterintuitive ways.

Smarter Stock Exchange
To compete with exchanges in places like London and New York, the Santiago Stock Exchange needed to handle the growing volume of high-frequency and algorithmic trading activity—and do so from the ground up. Working with IBM, it built a trade processing solution that increased capacity tenfold, cut latency to microseconds and enabled real-time fraud surveillance. The Exchange's transaction volume is up 50 percent in the first year.

Smarter Wind Energy
Vestas, the world's largest windmill manufacturer, is tapping into the power of an IBM supercomputer and Big Data analytics software to model past, present and future wind patterns—a process that involves huge amounts of data—to optimize the location and design of sites its customers are developing. Vestas's system is on track to digest and analyze 20 petabytes of information in hours instead of months. The result: fewer customer power disruptions and more predictable revenues for utilities.



Smarter Customer Retention
Pakistani telephone provider Ufone faced a challenge common to start-ups in emerging markets. After a period of rapid growth—reaching 24 million subscribers in less than a decade—it had to retain those customers in an increasingly competitive market. IBM analytics enabled it to scan call detail records in near-real time, flagging customers who fit the profile for a particular promotion. Today, by issuing offers customized to a user's unique usage patterns, Ufone has doubled its campaign response rates.

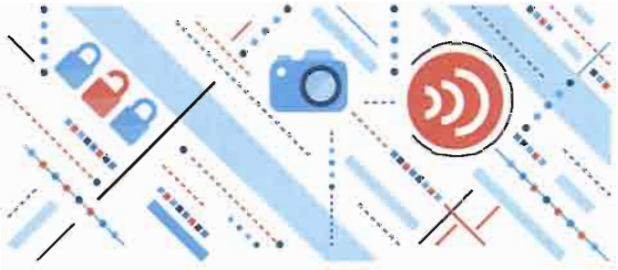
Smarter Cancer Treatment
Memorial Sloan-Kettering Cancer Center is working with IBM to use the cognitive computing capabilities found in IBM's Watson to help doctors develop personalized, evidence-based cancer treatment options. The system uses insights gleaned from the deep experience of Memorial Sloan-Kettering's world-renowned oncologists to provide individualized treatment options based on a patient's medical information, the synthesis of a vast array of updated and vetted treatment guidelines, and published research. The result: a decision support system for physicians that will offer individualized, confidence-weighted treatment options for their patients.

Smarter City Operations
The Philippines city of Davao's 1.5 million citizens will be the first in Asia to benefit from an Intelligent Operations Center. It ties together data and operations of four agencies—crime prevention; emergency response; threat prevention and response; and traffic management. Geolocation mapping, in combination with GPS-equipped task forces on the ground, will allow officials to analyze building, street and infrastructure data to substantially reduce response times. A new early warning system will monitor key risk indicators so agencies can take quick action before situations escalate.

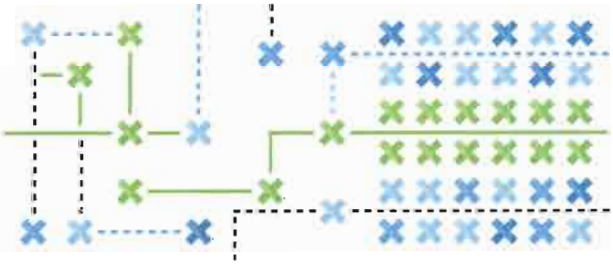
9. Looking ahead, IBM Research is probing the future of information technology.

For all its remarkable advances, computation in the past half-century—the era of "programmable" computers—has been limited to "yes/no" decisions. The new era now emerging will unlock far deeper understanding of the complexities and ambiguities of the real world—both natural and man-made.

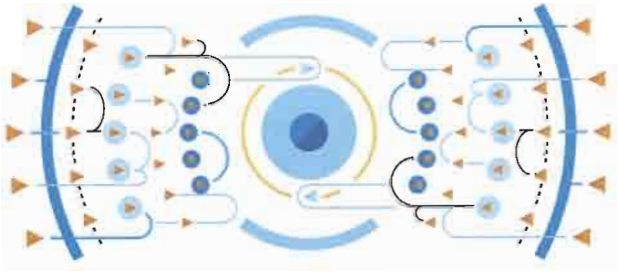
Doing so will require both steady incremental advances and true scientific breakthroughs that come only from deep, multidisciplinary research—such as that underway today in IBM's labs.



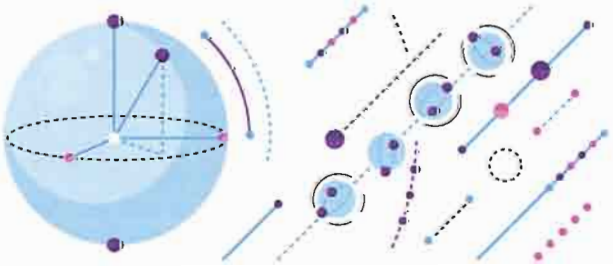
Massive-Scale Analytics for Cybersecurity IBM researchers have found cyber criminals hiding in billions of log files by surfacing small "tells" in the actions of attackers who elude even the most advanced virus detection.



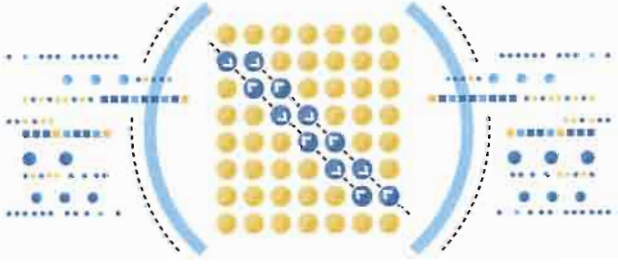
Accelerated Discovery IBM researchers are unlocking data-driven "white spaces," such as finding new uses for drugs already proven safe in the data of 15 million patents, 18 million scientific papers, 10 million chemical compounds and 100 million genes.



"Synapse" Chip IBM researchers are now developing cognitive computer chips that learn without programming. Modeled on the human brain, they have already simulated more than 500 billion neurons and 100 trillion synapses.



Quantum Computing IBM researchers have taken a step closer to a practical quantum computer, based not only on digital "1s" and "0s" but also on multiphased "qubits" that enable millions of computations at once.



Atomic-Scale Memory IBM researchers have extended the frontiers of the unimaginably small by showing the possibility of storing a "bit" of memory on just 12 atoms. Such a breakthrough holds the potential to increase storage capacity one thousandfold.

Generating Higher Value at IBM includes selected references to certain non-GAAP financial measures that are made to facilitate a comparative view of the company's ongoing operations performance. For information about the company's financial results related to (i) operating pre-tax income, operating pre-tax income margin and operating earnings per share and (ii) free cash flow for 2012, see the company's 8-K (Exhibit 99.1) dated January 22, 2013 and February 26, 2013 (Attachment II—Non-GAAP Supplementary Materials). For information about the company's financial results related to (i) growth markets, share of geographic revenue excluding divested PCs and printers, and (ii) free cash flow, in each case for 2010, see the company's Form 8-K submitted to the SEC on May 12, 2010 (Attachment I—Non-GAAP Supplementary Materials).

($ in millions except per share amounts)

For the year ended December 31:	2012	2011
Revenue	$104,507	$106,916
Net income	$ 16,604	$ 15,855
Operating (non-GAAP) earnings*	$ 17,627	$ 16,318
Earnings per share of common stock		
Assuming dilution	$ 14.37	$ 13.06
Basic	$ 14.53	$ 13.25
Diluted operating (non-GAAP)*	$ 15.25	$ 13.44
Net cash provided by operating activities	$ 19,586	$ 19,846
Capital expenditures, net	4,307	4,059
Share repurchases	11,995	15,046
Cash dividends paid on common stock	3,773	3,473
Per share of common stock	3.30	2.90

At December 31:	2012	2011
Cash, cash equivalents and marketable securities	$ 11,128	$ 11,922
Total assets	119,213	116,433
Working capital	5,807	8,805
Total debt	33,269	31,320
Total equity	18,984	20,236
Common shares outstanding (in millions)	1,117	1,163
Market capitalization	$214,032	$213,886
Stock price per common share	$ 191.55	$ 183.88
Number of employees in IBM/wholly owned subsidiaries	434,246	433,362

* See page 38 for a reconciliation of net income to operating earnings.

Management Discussion

Overview	18
Forward-Looking and Cautionary Statements	18
Management Discussion Snapshot	19
Description of Business	21
Year in Review	26
Prior Year in Review	44
Other Information	55
Looking Forward	55
Liquidity and Capital Resources	56
Critical Accounting Estimates	59
Currency Rate Fluctuations	61
Market Risk	62
Financing Risks	62
Employees and Related Workforce	63
Global Financing	63
Report of Management	68
Report of Independent Registered Public Accounting Firm	69

Consolidated Financial Statements

Earnings	70
Comprehensive Income	71
Financial Position	72
Cash Flows	73
Changes in Equity	74

Notes to Consolidated Financial Statements

A	Significant Accounting Policies	76
B	Accounting Changes	86
C	Acquisitions/Divestitures	87
D	Financial Instruments	92
E	Inventories	98
F	Financing Receivables	99
G	Property, Plant and Equipment	102
H	Investments and Sundry Assets	102
I	Intangible Assets Including Goodwill	102
J	Borrowings	104
K	Other Liabilities	106
L	Equity Activity	107
M	Contingencies and Commitments	110
N	Taxes	113
O	Research, Development and Engineering	115
P	Earnings Per Share of Common Stock	116
Q	Rental Expense and Lease Commitments	116
R	Stock-Based Compensation	117
S	Retirement-Related Benefits	120
T	Segment Information	134
U	Subsequent Events	138

Five-Year Comparison of Selected Financial Data	139
Selected Quarterly Data	140
Performance Graph	141
Board of Directors and Senior Leadership	142
Stockholder Information	143

Overview

The financial section of the International Business Machines Corporation (IBM or the company) 2012 Annual Report includes the Management Discussion, the Consolidated Financial Statements and the Notes to the Consolidated Financial Statements. This Overview is designed to provide the reader with some perspective regarding the information contained in the financial section.

Organization of Information

- The Management Discussion is designed to provide readers with an overview of the business and a narrative on the company's financial results and certain factors that may affect its future prospects from the perspective of the company's management. The "Management Discussion Snapshot," on pages 19 to 21, presents an overview of the key performance drivers in 2012.
- Beginning with the "Year in Review" on page 26, the Management Discussion contains the results of operations for each reportable segment of the business and a discussion of the company's financial position and cash flows. Other key sections within the Management Discussion include: "Looking Forward" on page 55, and "Liquidity and Capital Resources" on pages 56 through 58.
- Global Financing is a reportable segment that is measured as a stand-alone entity. A separate "Global Financing" section is included beginning on page 63.
- The Consolidated Financial Statements are presented on pages 70 through 75. These statements provide an overview of the company's income and cash flow performance and its financial position.
- The Notes follow the Consolidated Financial Statements. Among other items, the Notes contain the company's accounting policies (pages 76 to 86), acquisitions and divestitures (pages 87 through 91), detailed information on specific items within the financial statements, certain contingencies and commitments (pages 110 to 113) and retirement-related benefits information (pages 120 to 134).
- The Consolidated Financial Statements and the Notes have been prepared in accordance with accounting principles generally accepted in the United States (GAAP).
- The references to "adjusted for currency" or "at constant currency" in the Management Discussion do not include operational impacts that could result from fluctuations in foreign currency rates. Certain financial results are adjusted based on a simple mathematical model that translates current period results in local currency using the comparable prior year period's currency conversion rate. This approach is used for countries where the functional currency is the local country currency. This information is provided so that certain financial results can be viewed without the impact of fluctuations in foreign currency rates, thereby facilitating period-to-period comparisons of business performance. See "Currency Rate Fluctuations" on page 61 for additional information.
- Within the financial statements and tables in this Annual Report, certain columns and rows may not add due to the use of rounded numbers for disclosure purposes. Percentages reported are calculated from the underlying whole-dollar numbers.

Operating (non-GAAP) Earnings

In an effort to provide better transparency into the operational results of the business, the company separates business results into operating and non-operating categories. Operating earnings is a non-GAAP measure that excludes the effects of certain acquisition-related charges and retirement-related costs, and their related tax impacts. For acquisitions, operating earnings exclude the amortization of purchased intangible assets and acquisition-related charges such as in-process research and development, transaction costs, applicable restructuring and related expenses and tax charges related to acquisition integration. For retirement-related costs, the company characterizes certain items as operating and others as non-operating. The company includes defined benefit plan and nonpension postretirement benefit plan service cost, amortization of prior service cost and the cost of defined contribution plans in operating earnings. Non-operating retirement-related cost includes defined benefit plan and nonpension postretirement benefit plan interest cost, expected return on plan assets, amortized actuarial gains/losses, the impacts of any plan curtailments/settlements and multi-employer plan costs, pension insolvency costs and other costs. Non-operating costs are primarily related to changes in pension plan assets and liabilities which are tied to financial market performance and the company considers these costs to be outside the operational performance of the business.

Overall, the company believes that providing investors with a view of operating earnings as described above provides increased transparency and clarity into both the operational results of the business and the performance of the company's pension plans; improves visibility to management decisions and their impacts on operational performance; enables better comparison to peer companies; and allows the company to provide a long-term strategic view of the business going forward. For its 2015 earnings per share road map, the company is utilizing an operating view to establish its objectives and track its progress. The company's reportable segment financial results reflect operating earnings, consistent with the company's management and measurement system.

Forward-Looking and Cautionary Statements

Certain statements contained in this Annual Report may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any forward-looking statement in this Annual Report speaks only as of the date on which it is made; the company assumes no obligation to update or revise any such statements. Forward-looking statements are based on the company's current assumptions regarding future business and financial performance; these statements, by their nature, address matters that are uncertain to different degrees. Forward-looking statements involve a number of risks, uncertainties and other factors that could cause actual results to be materially different, as discussed more fully elsewhere in this Annual Report and in the company's filings with the Securities and Exchange Commission (SEC), including the company's 2012 Form 10-K filed on February 26, 2013.

Management Discussion Snapshot

($ and shares in millions except per share amounts)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent/ Margin Change
Revenue	$104,507	$106,916	(2.3)%*
Gross profit margin	48.1%	46.9%	1.2 pts.
Total expense and other income	$ 28,396	$ 29,135	(2.5)%
Total expense and other income-to-revenue ratio	27.2%	27.3%	(0.1)pts.
Income before income taxes	$ 21,902	$ 21,003	4.3%
Provision for income taxes	5,298	5,148	2.9%
Net income	$ 16,604	$ 15,855	4.7%
Net income margin	15.9%	14.8%	1.1 pts.
Earnings per share of common stock			
Assuming dilution	$ 14.37	$ 13.06	10.0%
Weighted-average shares outstanding			
Assuming dilution	1,155.4	1,213.8	(4.8)%
Assets**	$119,213	$116,433	2.4%
Liabilities**	$100,229	$ 96,197	4.2%
Equity**	$ 18,984	$ 20,236	(6.2)%

* 0.0 percent adjusted for currency.
** At December 31.

The following table provides the company's operating (non-GAAP) earnings for 2012 and 2011.

($ in millions except per share amounts)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change
Net income as reported	$16,604	$15,855	4.7%
Non-operating adjustments (net of tax)			
Acquisition-related charges	541	495	29.5
Non-operating retirement-related costs/(income)	381	(32)	NM
Operating (non-GAAP) earnings*	$17,627	$16,318	8.0%
Diluted operating (non-GAAP) earnings per share	$ 15.25	$ 13.44	13.5%

NM—Not meaningful
*See page 38 for a more detailed reconciliation of net income to operating earnings.

In 2012, the company reported revenue of $104.5 billion, expanded gross, pre-tax and net income margins, and delivered diluted earnings per share growth of 10.0 percent as reported and 13.5 percent on an operating (non-GAAP) basis. This was the 10th consecutive year of double-digit earnings per share growth for the company. The company generated $19.6 billion in cash from operations, and $18.2 billion in free cash flow driving shareholder returns of $15.8 billion in gross common stock repurchases and dividends. The free cash flow performance in 2012 was $12.3 billion greater than the company generated in 2002. The financial results demonstrate the strength and flexibility of the company's business model, which is designed to deliver profit and cash on a sustained basis.

The company continued to deliver value to its clients and capitalize on key trends in 2012. The company had strong performance in business analytics, cloud and Smarter Planet—key growth initiatives that leverage the software portfolio and contribute to margin expansion. Within the growth markets, the company continued to expand its capabilities and build out IT infrastructures in emerging markets. In 2012, the growth markets revenue growth rate at constant currency outpaced the major markets by 8 points. The company continues to invest for innovation and technological leadership. These investments supported the introduction of the new System z mainframe, storage and POWER7+ products in hardware, as well as a series of major launches across software that included more than 400 new or upgraded product announcements. The introduction of PureSystems, a new category of expert integrated systems, brings together hardware and software and provides built-in expertise to deliver a more efficient and effective solution to the company's clients. In addition, the company was awarded more U.S. patents in 2012 than any other company for the 20th consecutive year, with many of the patents this year in key areas such as business analytics, Big Data, cybersecurity, cloud, mobile, social networking and software-defined environments. The company also continued to add to its capabilities to support the growth initiatives by acquiring 11 companies in 2012—investing approximately $4 billion. At the same time, the company divested its Retail Store Solutions (RSS) business as it focused the Smarter Commerce portfolio on higher value, intellectual property-based opportunities. Throughout the year, the company continued the transformation of the business—shifting to higher value areas and improving its structure—resulting in a higher quality revenue stream and margin expansion.

Segment performance was led by Software which increased revenue 2.0 percent (4 percent adjusted for currency) driven by key branded middleware which increased 2.9 percent (5 percent adjusted for currency). Global Services revenue decreased 2.3 percent as reported, but was up 0.4 percent on a constant currency basis. Global Services revenue performance was led by the growth markets which were up 4.8 percent (9 percent adjusted for currency) and now represents more than 20 percent of total Global Services revenue. Systems and Technology revenue decreased 6.9 percent; adjusting for the divested RSS business, revenue declined 5.1 percent (4 percent adjusted for currency). The company's new mainframe was well received in the market, with System z revenue increasing 5.4 percent (6 percent adjusted for currency) versus the prior year. Global Financing revenue decreased 4.2 percent as reported, 1 percent on a constant currency basis, compared to the prior year.

Across all of the segments, the company continued to have strong performance in its key growth initiatives. These are not standalone offerings; they are integrated into the overall client offerings and are included in the financial results of the segments. In the growth markets, revenue increased 4.2 percent (7 percent adjusted for currency) year to year and represented 24 percent of total geographic revenue, an increase of 8 points since 2006. The company has been successful in capturing the opportunity in these faster growing markets. The company's business analytics initiative continues to expand. The company has made significant strides and expanded its leadership in a number of strategic areas

including Risk Management, Price and Promotion Optimization and Sales Performance Management. The value proposition in business analytics uniquely leverages the integration between the software portfolio and the Global Business Services (GBS) consulting expertise. In 2012, business analytics revenue increased 13 percent compared to the prior year, led by the GBS consulting practice. Within cloud computing, the company's SmartCloud portfolio addresses the full scope of enterprise client requirements. In 2012, the company continued to see strong demand for the foundational offerings in hardware and software that help clients build and run their private clouds, as well as for cloud-based solutions, like the company's Software as a Service (SaaS) offerings. With strong global growth, cloud revenue for 2012 increased 80 percent compared to the prior year. The Smarter Planet growth initiative expanded significantly in the past year—measured in terms of offerings, markets, clients and revenue performance. Clients are leveraging the company's growing capabilities in areas like: Smarter Commerce, Social Business and Smarter Cities, and in next generation systems, like Watson, which are helping clients with their complex challenges. For the year, Smarter Planet solutions generated revenue growth of over 25 percent versus the prior year. Overall, within the offerings in business analytics, cloud and Smarter Planet, approximately half of the revenue is software. Therefore, as these offerings become a larger percentage of total revenue, they are driving the higher quality revenue stream and improved mix and margins.

The consolidated gross profit margin increased 1.2 points versus 2011 to 48.1 percent. This was the ninth consecutive year of improvement in the gross profit margin. The operating (non-GAAP) gross margin of 48.7 percent increased 1.5 points compared to the prior year. The increase in gross margin in 2012 was driven by margin improvements in Software and both Global Services segments, and an improved revenue mix driven by Software.

Total expense and other income decreased 2.5 percent in 2012 versus the prior year. Total operating (non-GAAP) expense and other income decreased 3.9 percent compared to the prior year. The year-to-year drivers were approximately:

	Total Consolidated	Operating (non-GAAP)
• Currency*	(5) points	(5) points
• Acquisitions**	3 points	2 points
• Base expense	(0) points	(2) points

*Reflects impacts of translation and hedging programs.
**Includes acquisitions completed in prior 12-month period.

Pre-tax income grew 4.3 percent and the pre-tax margin was 21.0 percent, an increase of 1.3 points versus 2011. Net income increased 4.7 percent and the net income margin was 15.9 percent, an increase of 1.1 points versus 2011. The effective tax rate for 2012 was 24.2 percent compared with 24.5 percent in the prior year. Operating (non-GAAP) pre-tax income grew 7.3 percent and the operating (non-GAAP) pre-tax margin was 22.2 percent, an increase of 2.0 points versus the prior year. Operating (non-GAAP) net income increased 8.0 percent and the operating (non-GAAP) net income margin of 16.9 percent increased 1.6 points versus the prior year. The operating (non-GAAP) effective tax rate was 24.0 percent versus 24.5 percent in 2011.

Diluted earnings per share improved 10.0 percent year to year reflecting the growth in net income and the benefits of the common stock repurchase program. In 2012, the company repurchased approximately 61 million shares of its common stock. Diluted earnings per share of $14.37 increased $1.31 from the prior year. Operating (non-GAAP) diluted earnings per share of $15.25 increased $1.81 versus 2011 driven by the following factors:

- Revenue decrease at actual rates $(0.30)
- Margin expansion $ 1.38
- Common stock repurchases $ 0.73

At December 31, 2012, the company's balance sheet and liquidity positions remained strong and were well positioned to support the company's objectives. Cash and marketable securities at year end was $11,128 million. Key drivers in the balance sheet and total cash flows are highlighted below.

Total assets increased $2,780 million ($3,242 million adjusted for currency) from December 31, 2011 driven by:

- Increases in total receivables ($3,053 million), goodwill ($3,034 million), marketable securities ($717 million) and intangible assets ($395 million), partially offset by
- Decreases in prepaid pension assets ($1,899 million), cash and cash equivalents ($1,511 million) and prepaid expenses and other current assets ($1,224 million).

Total liabilities increased $4,032 million ($4,511 million adjusted for currency) from December 31, 2011 driven by:

- Increased retirement and nonpension postretirement benefit obligations ($2,044 million), total debt ($1,949 million), taxes ($1,635 million) and total deferred income ($399 million), partially offset by
- Decreases in other liabilities ($1,389 million) and accounts payable ($565 million).

Total equity of $18,984 million decreased $1,252 million from December 31, 2011 as a result of:

- Increased treasury stock ($12,168 million) driven by share repurchases and increased losses in accumulated other comprehensive income/(loss) of ($3,874 million) driven by pension remeasurements, partially offset by
- Higher retained earnings ($12,783 million) and common stock ($1,980 million).

The company generated $19,586 million in cash flow provided by operating activities, a decrease of $260 million when compared to 2011, primarily driven by a decrease in cash due to receivables ($1,290 million) and an increased use of cash for accounts payable ($675 million), partially offset by a decrease in net taxes paid ($999 million) and the increase in net income ($749 million). Net cash used in investing activities of $9,004 million was $4,608 million higher than 2011, primarily due to an increase in cash used of $2,719 million associated with net purchases and sales of marketable securities

and other investments, increased cash used for acquisitions ($1,911 million) and increased net capital investments ($248 million), partially offset by increased cash from divestitures ($585 million). Net cash used in financing activities of $11,976 million was $1,719 million lower, compared to 2011, primarily due to lower cash used for common stock repurchases ($3,051 million), partially offset by lower cash provided by common stock transactions ($914 million) and increased dividend payments ($300 million).

In January 2013, the company disclosed that it is expecting GAAP earnings of at least $15.53 and operating (non-GAAP) earnings of at least $16.70 per diluted share for the full year 2013.

For additional information and details, see the "Year in Review" section on pages 26 through 43. For additional information regarding 2002 free cash flow, see the company's Form 8-K filed with the SEC on January 22, 2013.

Description of Business

Please refer to IBM's Annual Report on Form 10-K filed with the SEC on February 26, 2013 for a more detailed version of this Description of Business, especially Item 1A. entitled "Risk Factors."

The company creates business value for clients and solves business problems through integrated solutions that leverage information technology and deep knowledge of business processes. IBM solutions typically create value by reducing a client's operational costs or by enabling new capabilities that generate revenue. These solutions draw from an industry-leading portfolio of consulting, delivery and implementation services, enterprise software, systems and financing.

Strategy

Despite the volatility of the information technology (IT) industry over the past decade, IBM has consistently delivered strong performance, with a steady track record of sustained earnings per share growth and cash generation. The company has shifted its business mix, exiting certain segments while increasing its presence in higher-value areas such as services, software and integrated solutions. As part of this shift, the company has acquired more than 140 companies since 2000, complementing and scaling its portfolio of products and offerings.

IBM's strategy of delivering high value solutions to enterprise clients has yielded consistent business results. Working with enterprise clients across the full spectrum of their business and technical opportunities, IBM delivers leadership innovation in technology, high value solutions and insights that improve client and industry outcomes. A highly engaged, global workforce with deep technical and business skills, teamed with an unmatched ecosystem of partners provides a world-class client experience.

These priorities reflect a broad shift in client spending toward innovation and efficiency, as companies seek higher levels of business value from their IT investments. IBM has been able to deliver this enhanced client value thanks to its industry expertise, understanding of clients' businesses, sustained investment in core and applied research and development (R&D), global reach and the breadth and depth of the company's capabilities.

New types of solutions, new market opportunities and new decision makers are emerging as clients look to make use of technology to generate innovation and competitive advantage. These opportunities are driven by a new era of computing that is enabled by analytics, cloud computing, Big Data, mobility, social computing and supported by enterprise grade security solutions. The company's strategy is to establish leadership in this new era of smarter computing—computing that is designed for Big Data, built on software-defined environments and open—in order to enhance the value we deliver, create new markets and engage new clients.

To capture the opportunities arising from these market trends, IBM is focused on four key growth initiatives: Smarter Planet, Growth Markets, Business Analytics and Optimization and Cloud Computing. Each initiative represents a significant growth opportunity with attractive profit margins for IBM.

Smarter Planet

Smarter Planet is IBM's vision of a technology-enabled world that is more instrumented, interconnected and intelligent than ever before, enabling people and organizations to tackle significant business and societal challenges. At the heart of this vision is the opportunity for meaningful innovation—exploring and extending the boundaries of businesses, industries and communities. It's about helping the company's clients become better at what they do for their clients. IBM's strategy is to accelerate progress toward a "smarter planet" by equipping clients with the advanced, integrated capabilities they need to thrive in this exciting new world that is unfolding before us—capabilities such as analytics for business and physical systems, business process management, social business, mobile computing and cloud computing.

IBM has continued to deepen its commitment to understanding and delivering on the promise of Smarter Planet for both line of business and IT executives across a broad range of industries. An industry-based approach is central to the strategy, since every industry confronts a distinct set of challenges and opportunities in today's constantly transforming world. Whether "smarter" means helping a hospital group to deliver improved healthcare, a local government to ease traffic congestion, or a retail chain to execute a successful cross-channel campaign, IBM is aggressively developing and investing in a portfolio of industry solutions that helps these clients achieve their goals.

Three initiatives that drive significant value illustrate IBM's deep commitment to building a smarter planet: Smarter Commerce, Smarter Cities and Social Business. IBM's Smarter Commerce model integrates and transforms how companies manage and adapt their buy, market, sell and service processes, placing the customer squarely at the center of their business. IBM's Smarter Cities initiative enables federal, state and local governments to make smarter decisions, anticipate issues and coordinate resources more effectively, while delivering citizen-centric services that underpin sustainable economic growth. IBM's Social Business initiative helps clients integrate social technologies and practices into their front-end processes to more effectively create and share knowledge to accelerate innovation, improve customer service, and build a smarter workforce. Each of these initiatives is powered by market-leading IBM innovations and software, developed both by IBM and through acquisitions.

Growth Markets

The company has benefited from its investments over the past several years in the growth markets. The focus now is on geographic expansion of IBM's presence; on selected industries of the highest impact and opportunity; on countries' build-outs of infrastructure aligned with their national agendas; and, on creating markets and new business models to serve the different requirements that exist in these emerging countries. The company's effort in developing new growth markets within the African continent is a good example of this focus. Many of these initiatives are leading-edge, both in technologies and business models, and are delivering both increased revenue and margin expansion.

In order to support this growth, IBM continues to invest significantly in these markets to expand capacity, to develop talent and to deepen its R&D capabilities on the ground. At the same time, IBM continues to leverage talent across the growth markets under its globally integrated enterprise model to the benefit of both its clients and the company worldwide.

Business Analytics and Optimization

Business Analytics and Optimization (BAO) is the category of software, systems and services that help organizations take advantage of all the data available to them for better and faster decision making and process optimization. This includes data that is being labeled "Big Data," which is data of extreme volume, data being generated at a high velocity, and newer varieties of data like blogs, tweets, pictures, videos, unstructured text created by the explosion of social media websites and the instrumentation of nearly everything. BAO is core to achieving a smarter planet, helping leaders of this new information-centric and insight-driven world infuse intelligence into their business processes.

Smarter Analytics is IBM's unique offering for the BAO category. With Smarter Analytics and the company's deep expertise, IBM can help organizations: 1) grow, retain and satisfy customers through deep insight on individual customers and similar segments; 2) increase operational efficiency through, for example, supply chain optimization, predictive maintenance, fraud reduction and optimization of sales incentives and compensation; 3) transform their financial processes such as planning, budgeting, forecasting, financial consolidation, regulatory filing and financial reporting; and 4) better manage risk and regulatory compliance.

The company's approach to analytics is to ensure clients have complete end-to-end solutions across industries and functional focus areas like finance, sales, marketing, operations and risk. These solutions are designed to help organizations: 1) align around all their data—both traditional and big data—and establish a strong information foundation; 2) apply analytics to their data so they can anticipate and shape business outcomes, identify patterns and gain insights into future performance; 3) enable workers on the front lines who collectively make thousands and even millions of decisions daily with insight that is immediately actionable so they can make the best possible decision—decisions like what claims to fast track in an insurance call center, or what offer is the best for each individual customer who calls a call center; and 4) create a culture that takes action on analytics and that truly transforms.

IBM is committed to continually innovating across the spectrum of analytic capabilities, systems, research, services, deployment and skills. For example, in 2012, the game changing innovations in Watson were applied to Healthcare and Financial Services, analytic research like the ground-breaking work being done on temporal causal modeling and visualization, and investments in analytic skills and deployment ability in our new Analytics research centers in Columbus, Ohio and Halifax, Nova Scotia.

Cloud Computing

Cloud is a model for consuming and delivering business and IT services. It can deliver significant economies, enable new levels of speed, flexibility and agility and even serve as a transformative platform for business innovation. From a business perspective, cloud computing is reshaping industry ecosystems, invigorating product innovation and enabling new business models that leverage new sources of competitive differentiation. From an IT perspective, cloud offers improved access to and utilization of information technology through use of highly efficient virtualization and management technology, consumer-style user interfaces and ubiquitous connectivity, including via mobile technologies.

IBM has already helped thousands of its clients adopt and leverage cloud computing through its broad portfolio of IBM SmartCloud products, solutions and services. Organizations moving beyond initial exploration of cloud computing seek solutions that align with their specific needs. IBM's breadth of cloud capabilities gives it a unique ability to help clients exploit the advantages of cloud. IBM has cloud solutions that span infrastructure, platform, applications and business process services all geared to enable clients to drive significant business value through the rapid adoption and exploitation of new cloud capabilities. IBM's expert consulting, breakthrough technologies and a portfolio of cloud-based services are squarely focused on the requirements of the enterprise.

The company offers a full array of cloud delivery models, including private clouds, public clouds and a hybrid of both. IBM helps build out private, on-premises cloud-based environments that provide the control, security and isolation that clients require for their most mission-critical workloads. IBM public clouds provide infrastructure, platforms and applications as rapidly provisioned and highly-scalable cloud services on a pay-as-you-go basis. Hybrid clouds provide seamless integration across private and public cloud models, ensuring the interoperability, portability and scalability that clients need to realize the full value of cloud.

Business Model

The company's business model is built to support two principal goals: helping clients to become more innovative, efficient and competitive through the application of business insight and IT solutions; and providing long-term value to shareholders. The business model has been developed over time through strategic investments in capabilities and technologies that have superior long-term growth and profitability prospects based on the value they deliver to clients.

The company's global capabilities include services, software, systems, fundamental research and related financing. The broad mix of businesses and capabilities are combined to provide integrated solutions to the company's clients.

The business model is resilient, adapting to the continuously changing market and economic environment. The company continues to divest certain businesses and strengthen its position through strategic organic investments and acquisitions in higher-value segments like business analytics, Smarter Planet and cloud computing. In addition, the company has transformed itself into a globally integrated enterprise which has improved overall productivity and is driving investment and expanding participation in the world's fastest growing markets.

This business model, supported by the company's financial model, has enabled the company to deliver strong earnings, cash flows and returns to shareholders over the long term.

Business Segments and Capabilities

The company's major operations consists of five business segments: Global Technology Services and Global Business Services, which the company collectively calls Global Services, Software, Systems and Technology and Global Financing.

Global Services is a critical component of the company's strategy of providing IT infrastructure and business insight and solutions to clients. While solutions often include industry-leading IBM software and systems, other suppliers' products are also used if a client solution requires it. Approximately 60 percent of external Global Services segment revenue is annuity based, coming primarily from outsourcing and maintenance arrangements. The Global Services backlog provides a solid revenue base entering each year. Within Global Services, there are two reportable segments: Global Technology Services and Global Business Services.

Global Technology Services (GTS) primarily provides IT infrastructure and business process services, creating business value for clients through unique technology and IP integrated services within its global delivery model. By leveraging insights and experience drawn from IBM's global scale, skills and technology, with applied innovation from IBM Research, clients gain access to leading-edge, high-quality services with improved productivity, flexibility, cost and outcomes.

GTS Capabilities

Strategic Outsourcing Services: delivers comprehensive IT outsourcing services dedicated to transforming clients' existing infrastructures to consistently deliver improved quality, flexibility, risk management and financial value. The company integrates long-standing expertise in service management and technology with the ability to exploit the power of new technologies from IBM systems and software, such as cloud computing, analytics and virtualization, to deliver high performance, innovation and improved ability to achieve business objectives.

Global Process Services: delivers a range of offerings consisting of standardized through transformational solutions including processing platforms and business process outsourcing. These services deliver improved business results to clients through the strategic change and/or operation of the client's business processes, applications and infrastructure.

Integrated Technology Services: delivers a portfolio of project-based and managed services that enable clients to transform and optimize their IT environments by driving efficiency, flexibility and productivity, while reducing costs. The standardized portfolio is built around key assets and patented software, and incorporates best practices and proven methodologies that ensure predictive quality of delivery, security and compliance.

Technology Support Services: delivers a complete line of support services from product maintenance through solution support to maintain and improve the availability of clients' IT infrastructures.

Global Business Services (GBS) has the mission to deliver predictable business outcomes to the company's clients across two primary business areas: Consulting and Application Management Services. These professional services deliver business value and innovation to clients through solutions which leverage industry and business process expertise. The role of GBS is to drive initiatives that integrate IBM content and solutions and drive the progress of the company's four primary growth initiatives.

As clients transform themselves in response to market trends like Big Data, social and mobile computing, GBS is aligning its expertise and capabilities to address two interdependent categories of opportunity: Front Office Digitization, which describes the markets forming around new models of engagement with all audiences; and the Globally Integrated Enterprise, which describes the mandate to integrate data and processes in support of the new front-office programs, and build far more flexible information applications.

GBS Capabilities

Consulting: delivering client value with solutions in Strategy and Transformation; Application Innovation Services; Enterprise Applications and Smarter Analytics. Consulting is also focused on bringing to market client solutions that drive Front Office Digitization in Smarter Commerce, Cloud, Mobile and Social Business.

Application Management Services: application management, maintenance and support services for packaged software, as well as custom and legacy applications. Value is delivered through advanced capabilities in areas such as application testing and modernization, cloud application services, the company's highly differentiated globally integrated capability model, industry knowledge and the standardization and automation of application management.

Software consists primarily of middleware and operating systems software. Middleware software enables clients to integrate systems, processes and applications across a standard software platform to improve their business results, solve critical problems and gain competitive advantage within their industries. IBM middleware is designed on open standards, making it easier to integrate disparate business applications, developed by different methods and implemented at different times. Operating systems are the software engines that run computers. Approximately two-thirds of external Software segment revenue is annuity based, coming from recurring license charges and ongoing post-contract support. The remaining one-third relates to one-time charge (OTC) arrangements in which clients pay one, up-front payment for a perpetual license. Typically, the sale of OTC software includes one year of post-contract support. Clients can also purchase ongoing post-contract support after the first year, which includes unspecified product upgrades and technical support.

Software Capabilities

WebSphere Software: delivers capabilities that enable organizations to run high-performance business applications. With these applications, clients can integrate and manage business processes across their organizations with the flexibility and agility they need to respond to changing conditions. Built on services-oriented architecture (SOA), and open standards support for cloud, mobile and social interactions, the WebSphere platform enables enterprises to extend their reach and optimize interactions with their key constituents. Smarter Commerce software helps companies better manage and improve each step of their value chain and capitalize on opportunities for profitable growth, efficiency and increased customer loyalty.

Information Management Software: enables clients to integrate, manage and analyze enormous amounts of data from a large variety of sources in order to gain competitive advantage and improve their business outcomes. With this approach, clients can extract real value out of their data and use it to make better business decisions. IBM's middleware and integrated solutions include advanced database management, information integration, data governance, enterprise content management, data warehousing, business analytics and intelligence, predictive analytics and big data analytics.

Tivoli Software: helps clients optimize the value they get from their infrastructures and technology assets through greater visibility, control and automation across their end-to-end business operations. These asset management solutions foster integrated service delivery for cloud and datacenter management, enterprise endpoint and mobile device management, asset and facilities management, and storage management. Tivoli includes security systems software that provides clients with a single security intelligence platform that enables them to better secure all aspects of their enterprise and prevent security breaches.

Lotus Software: enables businesses to connect people and processes for more effective communication and increased productivity through collaboration, messaging and social networking software. By remaining at the forefront of collaboration tools, IBM's social business offerings help organizations reap real benefits associated with social networking, as well as create a more efficient and effective workforce.

Rational Software: supports software development for both IT, as well as complex and embedded system solutions, with a suite of Collaborative Lifecycle Management products. Jazz, Rational's technology platform, transforms the way people work together to build software, making software delivery more integrated and collaborative, while optimizing for successful business outcomes.

Operating Systems: software that manages the fundamental processes that make computers run.

Systems and Technology (STG) provides clients with business solutions requiring advanced computing power and storage capabilities. Approximately half of Systems and Technology's server and storage sales transactions are through the company's business partners; with the balance direct to end-user clients. In addition, Systems and Technology provides leading semiconductor technology, products and packaging solutions for IBM's own advanced technology needs and for external clients.

Systems and Technology Capabilities

Systems: a range of general purpose and integrated systems designed and optimized for specific business, public and scientific computing needs. These systems—System z, Power Systems and System x—are typically the core technology in data centers that provide required infrastructure for business and institutions. Also, these systems form the foundation for IBM's integrated offerings, such as IBM PureSystems, IBM Smart Analytics, IBM Netezza, IBM SmartCloud Entry and IBM BladeCenter for Cloud. IBM servers use both IBM and non-IBM microprocessor technology and operating systems. All IBM servers run Linux, a key open-source operating system.

Storage: data storage products and solutions that allow clients to retain and manage rapidly growing, complex volumes of digital information. These solutions address critical client requirements for information retention and archiving, security, compliance and storage optimization including data deduplication, availability and virtualization. The portfolio consists of a broad range of disk and tape storage systems and software.

Microelectronics: semiconductor design and manufacturing primarily for use in IBM systems and storage products as well as delivering semiconductors and related services to external clients.

Global Financing facilitates clients' acquisition of IBM systems, software and services. Global Financing invests in financing assets, leverages with debt and manages the associated risks with the objective of generating consistently strong returns on equity. The primary focus on the company's offerings and clients mitigates many of the risks normally associated with a financing company. Global Financing has the benefit of both a deep knowledge of its client base and a clear insight into the products and services that are being financed. This combination allows Global Financing to effectively manage two of the major risks (credit and residual value) that are normally associated with financing.

Global Financing Capabilities

Client Financing: lease and loan financing to end users and internal clients for terms generally between one and seven years. Internal financing is predominantly in support of Global Services' long-term client service contracts. Global Financing also factors a selected portion of the company's accounts receivable, primarily for cash management purposes. All internal financing arrangements are at arm's-length rates and are based upon market conditions.

Commercial Financing: short-term inventory and accounts receivable financing to dealers and remarketers of IT products.

Remanufacturing and Remarketing: as equipment is returned at the conclusion of a lease transaction, these assets are refurbished and sold or leased to new or existing clients both externally and internally. Externally remarketed equipment revenue represents sales or leases to clients and resellers. Internally remarketed equipment revenue primarily represents used equipment that is sold internally to Systems and Technology and Global Services. Systems and Technology may also sell the equipment that it purchases from Global Financing to external clients.

IBM Worldwide Organizations

The following worldwide organizations play key roles in IBM's delivery of value to its clients:

- Sales and Distribution
- Research, Development and Intellectual Property
- Enterprise Transformation
- Integrated Supply Chain

Sales and Distribution

IBM has a significant global presence, operating in more than 170 countries, with an increasingly broad-based geographic distribution of revenue. The company's Sales and Distribution organization manages a strong global footprint, with dedicated country-based operating units focused on delivering client value. Within these units, client relationship professionals work with integrated teams of consultants, product specialists and delivery fulfillment teams to improve clients' business performance. These teams deliver value by understanding the clients' businesses and needs, and then bring together capabilities from across IBM and an extensive network of Business Partners to develop and implement solutions.

By combining global expertise with local experience, IBM's geographic structure enables dedicated management focus for local clients, speed in addressing new market opportunities and timely investments in emerging opportunities. The geographic units align industry-skilled resources to serve clients' agendas. IBM extends capabilities to mid-market client segments by leveraging industry skills with marketing, Inside Sales and local Business Partner resources.

Through its growth markets organization, the company continues to increase its focus on the emerging markets around the world that have market growth rates greater than the global average—countries within Southeast Asia, Eastern Europe, the Middle East and Latin America. The company's major markets include the G7 countries of Canada, France, Germany, Italy, Japan, the United States (U.S.) and the United Kingdom (UK) plus Austria, the Bahamas, Belgium, the Caribbean region, Cyprus, Denmark, Finland, Greece, Iceland, Ireland, Israel, Malta, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland.

The majority of IBM's revenue, excluding the company's original equipment manufacturer (OEM) technology business, occurs in industries that are broadly grouped into six sectors:

- Financial Services: Banking, Financial Markets, Insurance
- Public: Education, Government, Healthcare, Life Sciences
- Industrial: Aerospace and Defense, Automotive, Chemical and Petroleum, Electronics
- Distribution: Consumer Products, Retail, Travel and Transportation
- Communications: Telecommunications, Media and Entertainment, Energy and Utilities
- General Business: Cross-sector representation of intermediate-sized large enterprises as well as mid-market clients (less than 1,000 employees)

Research, Development and Intellectual Property

IBM's R&D operations differentiate the company from its competitors. IBM annually invests over $6 billion for R&D, focusing on high-growth, high-value opportunities.

IBM Research works with clients and the company's business units through 12 global labs on near-term and mid-term innovations. It contributes many new technologies to IBM's portfolio every year and helps clients address their most difficult challenges. IBM Research also explores the boundaries of science and technology—from nanotechnology, to future systems, to big data analytics, to secure clouds, to IBM Watson, a "cognitive" learning system that applied advanced analytics to defeat the all-time champions on the television quiz show, *Jeopardy!*. The Watson system is being introduced to the market for advanced healthcare applications and is being further developed and extended within healthcare and in other industries.

IBM Research also focuses on differentiating IBM's services businesses providing new capabilities and solutions. It has the world's largest mathematics department of any public company, enabling IBM to create unique analytic solutions and actively engage with clients on their toughest challenges.

In 2012, IBM was awarded more U.S. patents than any other company for the 20th consecutive year. IBM's 6,478 patents in 2012 included inventions that will enable fundamental advancements in analytics, big data, cybersecurity, cloud, mobile, social networking and software defined environments, as well as industry solutions for retail, banking, healthcare and transportation. It was the most U.S. patents ever awarded to one company in a single year.

The company continues to actively seek intellectual property protection for its innovations, while increasing emphasis on other initiatives designed to leverage its intellectual property leadership. Some of IBM's technological breakthroughs are used exclusively in IBM products, while others are licensed and may be used in either/both IBM products and/or the products of the licensee. While the company's various proprietary intellectual property rights are important to its success, IBM believes its business as a whole is not materially dependent on any particular patent or license, or any particular group of patents or licenses. IBM owns or is licensed under a number of patents, which vary in duration, relating to its products.

Enterprise Transformation

A key element of the company's strategy has been focused on becoming the premier globally integrated enterprise. The company has implemented a consistent set of processes and standards worldwide to reduce inefficiencies and improve collaboration. With its processes fully standardized, the company implemented a new operating model with work shared in global resource centers of excellence located where it made the most business sense. The company has shifted resources toward building client relationships and employee skills, while positioning the company for new market opportunities. During this transformation, IBM pioneered this new operating model, changing from a classic "multinational," with smaller versions of the parent company replicated in countries around the world, to a global model with one set of processes, shared services and broadly distributed decision making.

The company has now embarked on the next generation of its transformation in which new capabilities and technologies like business analytics and cloud computing will drive performance. The proven principles of the globally integrated enterprise will be applied to all of the company's spending to continue to drive additional productivity benefits in shared services, end-to-end process transformation and integrated operations. The company primarily reinvests the benefits of its enterprise transformation initiatives in remixing its spending profile and resources to the higher growth, higher margin initiatives such as business analytics, Smarter Planet and cloud computing, in addition to improving profitability.

Integrated Supply Chain

IBM spends approximately $35 billion annually through its supply chain, procuring materials and services globally. In addition, in 2012, the company managed approximately $20 billion in procurement spending for its clients through the Global Process Services organization. The supply, manufacturing, and logistics and customer fulfillment operations are integrated in one operating unit that has optimized inventories over time. Simplifying and streamlining internal processes has improved sales force productivity and operational effectiveness and efficiency. Continuous improvements to supply chain resiliency against marketplace changes and risks have been particularly valuable in maintaining continuity during natural disasters and other disruptive events.

The company's continuing efforts to derive business value from its own globally integrated supply chain provides a strategic advantage for the company to create value for clients. IBM leverages its supply chain expertise for clients through its supply chain business transformation outsourcing service to optimize and help operate clients' end-to-end supply chain processes, from procurement to logistics.

Increasingly the company is using analytics to measure, manage and fine tune its supply chain operations, which will help to reshape its operations and create value for clients. The goal is to continue to increase the use of analytics in the five major areas of supply chain: 1) Supply Chain Visibility, 2) Risk Management, 3) Customer Insight, 4) Cost Containment, and 5) Global Supply Chain and Sustainability.

Year in Review

Segment Details

The following is an analysis of the 2012 versus 2011 reportable segment results. The table below presents each reportable segment's external revenue and gross margin results.

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent/ Margin Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Revenue				
Global Technology Services	$ 40,236	$ 40,879	(1.6)%	1.3%
Gross margin	36.6%	35.0%	1.6 pts.	
Global Business Services	18,566	19,284	(3.7)%	(1.6)%
Gross margin	30.0%	28.8%	1.2 pts.	
Software	25,448	24,944	2.0%	4.3%
Gross margin	88.7%	88.5%	0.2 pts.	
Systems and Technology	17,667	18,985	(6.9)%	(5.9)%
Gross margin	39.1%	39.8%	(0.7) pts.	
Global Financing	2,013	2,102	(4.2)%	(1.2)%
Gross margin	46.5%	49.8%	(3.3) pts.	
Other	577	722	(20.1)%	(18.7)%
Gross margin	(71.6)%	(54.5)%	(17.1) pts.	
Total consolidated revenue	$104,507	$106,916	(2.3)%	0.0%
Total consolidated gross profit	$ 50,298	$ 50,138	0.3%	
Total consolidated gross margin	48.1%	46.9%	1.2 pts.	
Non-operating adjustments				
Amortization of acquired intangible assets	375	340	10.3%	
Acquisition-related charges	1	1	13.1	
Retirement-related costs/(income)	264	2	NM	
Operating (non-GAAP) gross profit	$ 50,938	$ 50,481	0.9%	
Operating (non-GAAP) gross margin	48.7%	47.2%	1.5 pts.	

NM – Not meaningful

The following table presents each reportable segment's external revenue as a percentage of total segment external revenue and each reportable segment's pre-tax income as a percentage of total segment pre-tax income.

	Revenue		Pre-tax Income*	
For the year ended December 31:	2012	2011	2012	2011
Global Technology Services	38.7%	38.5%	29.0%	27.4%
Global Business Services	17.9	18.2	12.4	13.1
Total Global Services	56.6	56.7	41.4	40.6
Software	24.5	23.5	45.0	43.5
Systems and Technology	17.0	17.9	5.1	7.1
Global Financing	1.9	2.0	8.5	8.8
Total	100.0%	100.0%	100.0%	100.0%

*Segment pre-tax income includes transactions between segments that are intended to reflect an arm's-length transfer price and excludes certain unallocated corporate items; see note T, "Segment Information," on pages 134 to 138 for additional information.

Global Services

In 2012, the Global Services segments, Global Technology Services (GTS) and Global Business Services (GBS), delivered revenue of $58,802 million, grew pre-tax profit 7 percent and expanded pre-tax margin 1.5 points on an as-reported basis. Revenue performance was led by strength in the growth markets which were up 4.8 percent (9 percent adjusted for currency) and now represents over 20 percent of total Global Services revenue. Revenue from the major markets declined 4.0 percent (2 percent adjusted for currency) year to year. The services segments also had strength in all the key growth initiatives, which are becoming a larger part of the services business as the company continues to shift toward higher value content. Total outsourcing revenue of $27,552 million decreased 2.6 percent (flat adjusted for currency) and total transactional revenue of $23,907 million decreased 1.8 percent (flat adjusted for currency) year to year.

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Global Services external revenue	$58,802	$60,163	(2.3)%	0.4%
Global Technology Services	$40,236	$40,879	(1.6)%	1.3%
Outsourcing	23,344	23,911	(2.4)	0.5
Integrated Technology Services	9,550	9,453	1.0	3.7
Maintenance	7,343	7,515	(2.3)	0.6
Global Business Services	$18,566	$19,284	(3.7)%	(1.6)%
Outsourcing	4,209	4,390	(4.1)	(1.7)
Consulting and Systems Integration	14,358	14,895	(3.6)	(1.6)

Global Technology Services revenue of $40,236 million in 2012 decreased 1.6 percent as reported, but increased 1 percent adjusted for currency year to year. Revenue growth from the backlog was partially offset by a decline in revenue from new signings and a decrease in sales in existing accounts. Revenue performance was led by the growth markets which were up 5.0 percent (9 percent adjusted for currency). GTS Outsourcing revenue decreased 2.4 percent as reported, but increased 1 percent adjusted for currency in 2012. Outsourcing revenue from the growth markets increased 2.4 percent (7 percent adjusted for currency), as the outsourcing offerings help clients build out their IT infrastructures. Integrated Technology Services (ITS) revenue increased 1.0 percent (4 percent adjusted for currency) in 2012 compared to 2011, and continued to be led by strength in the growth markets which increased 10.3 percent (13 percent adjusted for currency).

Global Business Services revenue of $18,566 million decreased 3.7 percent (2 percent adjusted for currency) in 2012. On a geographic basis, solid performance in the growth markets, with revenue up 4.3 percent (8 percent adjusted for currency), was offset by a 5.1 percent decline (3 percent adjusted for currency) in the major markets. The growth initiatives—business analytics, Smarter Planet and cloud had solid double-digit revenue growth, and represented over one-third of total GBS revenue in 2012. As GBS shifts more of its business to higher value content, these larger, more complex engagements are having a positive effect on the GBS backlog. The GBS backlog grew for the fourth consecutive year at constant currency—although the backlog is mixing to longer duration engagements. Application Outsourcing revenue decreased 4.1 percent (2 percent adjusted for currency) in 2012 year to year, and Consulting and Systems Integration (C&SI) revenue decreased 3.6 percent (2 percent adjusted for currency). Both GBS lines of business had solid revenue performance year to year in the growth markets with Application Outsourcing and C&SI up 1.5 percent and 5.3 percent, respectively, as reported, and up 6 percent and 8 percent, respectively, at constant currency.

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent/ Margin Change
Global Services			
Global Technology Services			
External gross profit	$14,740	$14,320	2.9%
External gross profit margin	36.6%	35.0%	1.6 pts.
Pre-tax income	$ 6,961	$ 6,284	10.8%
Pre-tax margin	16.8%	14.9%	1.9 pts.
Global Business Services			
External gross profit	$ 5,564	$ 5,545	0.3%
External gross profit margin	30.0%	28.8%	1.2 pts.
Pre-tax income	$ 2,983	$ 3,006	(0.8)%
Pre-tax margin	15.5%	15.0%	0.5 pts.

GTS gross profit increased 2.9 percent in 2012 and the gross profit margin improved 1.6 points year to year with margin expansion in each line of business, led by Outsourcing. Pre-tax income of $6,961 million in 2012 increased 10.8 percent year to year and the pre-tax margin expanded 1.9 points to 16.8 percent. Normalized for workforce rebalancing charges of $151 million and $5 million in the third quarter of 2012 and 2011, respectively, GTS pre-tax income was up 13.1 percent and pre-tax margin expanded 2.2 points. The year-over-year gross and pre-tax margin expansion was driven by several factors: the work done to improve the profitability of a number of low margin contracts in the outsourcing portfolio, increased contribution from the higher margin growth markets, and increased efficiency and productivity from the focus on automation and process primarily through the company's enterprise productivity initiatives.

The GBS gross profit margin expanded 1.2 points, led primarily by improved profit performance in Application Outsourcing. GBS pre-tax income of $2,983 million declined 0.8 percent in 2012 with a pre-tax margin of 15.5 percent, an improvement of 0.5 points year to year. Normalized for workforce rebalancing charges of $113 million and $5 million in the third quarter of 2012 and 2011, respectively, GBS pre-tax income was up 2.8 percent and the pre-tax margin expanded 1.1 points. The gross and pre-tax margins benefitted from improved service delivery and yield from the company's enterprise productivity initiatives.

The total Global Services business delivered strong profit and margin expansion throughout 2012. Pre-tax income of $9,944 million in 2012 increased 7.0 percent year to year. Normalized for the higher level of workforce rebalancing charges in 2012, pre-tax income was up 9.8 percent and the pre-tax margin expanded 1.9 points compared to the prior year.

Global Services Backlog

The estimated Global Services backlog at December 31, 2012 was $140 billion, a decrease of 0.3 percent as reported, but an increase of 1 percent adjusted for currency compared to the December 31, 2011 balance, and an increase of 1.9 percent (3 percent adjusted for currency) compared to the September 30, 2012 balance. Revenue generated from the backlog is approximately 70 percent of total services annual revenue in any year, with the remainder coming from transactional signings in the year, and sales and volumes into the existing client base. In 2013, the projected total services revenue from the backlog is expected to be up 1 percent year to year at consistent foreign currency exchange rates. This includes 2 percent growth from the run out of the opening backlog and a 1 percent impact from the work done to restructure a number of lower margin contracts in the outsourcing business. Despite the impact to revenue growth, these restructured contracts have improved the profitability of the backlog. These contracts provided year-to-year profit improvement in 2012. This impact, which will carryforward to 2013, will contribute modest profit growth in 2013 off this higher profit base, with the gross profit coming from the backlog more representative of a 2 percent backlog growth versus a 1 percent growth.

The total estimated growth markets backlog at December 31, 2012 increased 13.6 percent (15 percent adjusted for currency) year to year. The estimated transactional backlog at December 31, 2012 increased 8.7 percent (9 percent adjusted for currency) and the estimated outsourcing backlog decreased 3.3 percent (2 percent adjusted for currency), respectively, from the December 31, 2011 levels.

($ in billions)

At December 31:	2012	2011	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Backlog				
Total backlog	$140.3	$140.6	(0.3)%	0.6%
Outsourcing backlog	89.4	92.5	(3.3)	(2.4)

Total Global Services backlog includes GTS Outsourcing, ITS, GBS Outsourcing, Consulting and Systems Integration and Maintenance. Outsourcing backlog includes GTS Outsourcing and GBS Outsourcing. Transactional backlog includes ITS and Consulting and Systems Integration. Total backlog is intended to be a statement of overall work under contract and therefore does include Maintenance. Backlog estimates are subject to change and are affected by several factors, including terminations, changes in the scope of contracts, periodic revalidations, adjustments for revenue not materialized and adjustments for currency.

Global Services signings are management's initial estimate of the value of a client's commitment under a Global Services contract. There are no third-party standards or requirements governing the calculation of signings. The calculation used by management involves estimates and judgments to gauge the extent of a client's commitment, including the type and duration of the agreement, and the presence of termination charges or wind-down costs.

Signings include GTS Outsourcing, ITS, GBS Outsourcing and Consulting and Systems Integration contracts. Contract extensions and increases in scope are treated as signings only to the extent of the incremental new value. Maintenance is not included in signings as maintenance contracts tend to be more steady state, where revenues equal renewals.

Contract portfolios purchased in an acquisition are treated as positive backlog adjustments provided those contracts meet the company's requirements for initial signings. A new signing will be recognized if a new services agreement is signed incidental or coincidental to an acquisition or divestiture.

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Total signings	$56,595	$57,435	(1.5)%	1.1%
Outsourcing signings	$27,891	$29,251	(4.6)%	(1.9)%
Transactional signings	28,703	28,184	1.8	4.1

Software

($ in millions)

For the year ended December 31:	2012	2011*	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Software external revenue	$25,448	$24,944	2.0%	4.3%
Middleware	$20,983	$20,650	1.6%	3.9%
Key Branded Middleware	16,528	16,055	2.9	5.2
WebSphere Family			7.8	9.9
Information Management			1.5	3.8
Lotus			(2.1)	0.3
Tivoli			4.1	6.2
Rational			(1.6)	0.6
Other middleware	4,455	4,596	(3.1)	(0.6)
Operating systems	2,525	2,480	1.8	4.3
Other	1,940	1,813	7.0	9.2

* Reclassified to conform with 2012 presentation.

Software revenue of $25,448 million increased 2.0 percent (4 percent adjusted for currency) in 2012 compared to 2011. Software revenue growth continued to be led by the key branded middleware products with constant currency growth in all the brands, and particular strength and share gains in WebSphere and Tivoli. Software continued its momentum throughout 2012 in the growth initiatives with strong performance in business analytics, Smarter Commerce and cloud. The Software business delivered $10.8 billion in segment

pre-tax profit, an increase of $840 million from 2011. The results reflect the company's sustained investment in strategic branded software. In addition to organic investments, acquisitions have provided additional capabilities, while leveraging the existing portfolio of offerings. The software business completed nine acquisitions in 2012, further increasing the company's capabilities in analytics, cloud and Smarter Planet.

Key branded middleware revenue increased 2.9 percent (5 percent adjusted for currency) and again gained market share in 2012, as the Software business continued to be the leader in the middleware market. Revenue continued to mix to the faster growing and higher value branded middleware products which accounted for 65 percent of total software revenue in 2012, an increase of 1 point from 2011.

WebSphere revenue increased 7.8 percent (10 percent adjusted for currency) in 2012, with strong performance throughout the year, and gained share. Revenue performance included strong growth in the core offerings of commerce and application servers. Commerce revenue increased 14 percent (15 percent adjusted for currency) and application server products increased 6 percent (8 percent adjusted for currency). The company further strengthened its WebSphere portfolio during the year with the acquisitions of Worklight, DemandTec, Emptoris and Tealeaf.

Information Management revenue increased 1.5 percent (4 percent adjusted for currency) in 2012 compared to 2011. Performance was led by growth in the business analytics offerings. The acquisitions of Varicent and Vivisimo expanded the Business Analytics and Optimization software capabilities. Varicent's analytics software helps clients optimize sales performance management. Vivisimo expands the breadth of the company's big data capabilities and creates the most complete end-to-end big data solution for clients.

Tivoli revenue increased 4.1 percent (6 percent adjusted for currency) in 2012, led by its storage and security offerings, and gained share. Tivoli storage revenue was up 12 percent (14 percent adjusted for currency) in 2012, with double-digit constant currency growth in each quarter, reflecting the value of storage software. Tivoli security revenue increased 8 percent (10 percent adjusted for currency), with strong contribution from Q1 Labs which provides next generation security intelligence.

Lotus revenue decreased 2.1 percent as reported, but was flat year to year at constant currency in 2012. The social business offerings performed well, including contribution from the acquisition of Kenexa, a leading provider of recruiting and talent management solutions.

Rational revenue decreased 1.6 percent as reported, but increased 1 percent at constant currency in 2012 year over year, and held share.

Operating systems revenue increased 1.8 percent (4 percent adjusted for currency) in 2012 compared to 2011, driven by Platform Computing which provides cluster and grid management software for distributed computing environments.

Other software revenue increased 7.0 percent (9 percent adjusted for currency) driven by growth in software-related services.

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent/ Margin Change
Software			
External gross profit	$22,569	$22,065	2.3%
External gross profit margin	88.7%	88.5%	0.2 pts.
Pre-tax income	$10,810	$ 9,970	8.4%
Pre-tax margin	37.6%	35.3%	2.3 pts.

Software gross profit increased 2.3 percent to $22,569 million in 2012, with a gross profit margin of 88.7 percent, up 0.2 points year to year. Software pre-tax income of $10,810 million increased 8.4 percent and the pre-tax margin improved 2.3 points to 37.6 percent. Normalized for workforce rebalancing charges of $94 million and $6 million in the third quarter of 2012 and 2011, respectively, software pre-tax income was up 9.3 percent and the pre-tax margin expanded 2.6 points. The Software business had another successful year leveraging revenue growth and expense productivity to drive significant margin expansion and profit growth.

Systems and Technology

($ in millions)

For the year ended December 31:	2012	2011*	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Systems and Technology external revenue	$17,667	$18,985	(6.9)%	(5.9)%
System z			5.4%	6.3%
Power Systems			(8.5)	(7.4)
System x			(3.7)	(2.7)
Storage			(5.8)	(4.1)
Total Systems excluding Retail Store Solutions			(3.7)	(2.5)
Microelectronics OEM			(14.4)	(14.4)
Total Systems and Technology excluding Retail Store Solutions			(5.1)	(4.0)
Retail Store Solutions (Divested in 2012)			(52.6)	(51.7)

*Reclassified to conform with 2012 presentation.

Systems and Technology revenue decreased 6.9 percent (6 percent adjusted for currency) in 2012 versus 2011. Adjusting for the divested RSS business, revenue declined 5.1 percent (4 percent adjusted for currency) in 2012. Growth markets revenue increased 0.3 percent (1 percent adjusted for currency) in 2012, compared to the prior year while major markets revenue decreased 8.3 percent (7 percent adjusted for currency). During 2012, the company's continued investments for innovation supported the introduction of the new System z mainframe, the PureSystems offerings and new Storage and POWER7+ products. In its introductory year, the company sold more than 2,300 PureSystems in over 70 countries.

System z revenue increased 5.4 percent (6 percent adjusted for currency) in 2012 versus 2011. The increase was driven by the new mainframe which began shipping late in the third quarter. Fourth quarter revenue increased 55.6 percent (56 percent adjusted for currency), as revenue increased in the major markets over 50 percent and over 65 percent in the growth markets. MIPS (millions of instructions per second) shipments increased 19 percent in 2012 versus the prior year. The increase in MIPS was driven by the new mainframe shipments, including specialty engines, which increased 44 percent year over year driven by Linux workloads. This is a good indicator of new workloads moving to this platform. The performance reflects the technology leadership and value of the vertically integrated stack that the company's flagship server is delivering to its clients.

Power Systems revenue decreased 8.5 percent (7 percent adjusted for currency) in 2012 versus 2011. Low-end servers increased 6 percent (7 percent adjusted for currency) offset by declines in high-end and midrange products. Early in October, the company announced new POWER7+ based servers. The high-end and midrange models available in the fourth quarter performed well in the period. The company will continue to refresh the Power portfolio in the first half of 2013. In 2012, the company had nearly 1,200 competitive displacements resulting in over $1 billion of business; almost equally from Hewlett Packard and Oracle/Sun.

System x revenue decreased 3.7 percent (3 percent adjusted for currency) in 2012 versus 2011. High-end System x revenue increased 5 percent (6 percent adjusted for currency) in 2012 versus the prior year, while high-volume and blade servers declined year to year.

Storage revenue decreased 5.8 percent (4 percent adjusted for currency) in 2012 versus 2011. Total disk revenue decreased 3 percent (1 percent adjusted for currency) in 2012 versus 2011. Tape revenue decreased 16 percent (14 percent adjusted for currency) in 2012 versus the prior year. The value in storage solutions continues to shift to software, as demonstrated by the ongoing success the company is having in its Tivoli storage software offerings.

Retail Stores Solutions revenue decreased 52.6 percent (52 percent adjusted for currency) in 2012 versus 2011. In the third quarter, the company divested the Retail Stores Solutions business to Toshiba Tec. See the caption, "Divestitures," on page 91 for additional information regarding the transaction.

Microelectronics OEM revenue decreased 14.4 percent (14 percent adjusted for currency) in 2012 versus 2011.

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent/ Margin Change
Systems and Technology			
External gross profit	$6,903	$7,555	(8.6)%
External gross profit margin	39.1%	39.8%	(0.7) pts.
Pre-tax income	$1,227	$1,633	(24.9)%
Pre-tax margin	6.7%	8.2%	(1.5) pts.

The decrease in external gross profit in 2012 versus 2011 was due to lower revenue and a lower overall gross profit margin.

Overall gross margin decreased 0.7 points in 2012 versus the prior year. The decrease was driven by lower margins in System x (0.6 points), Microelectronics (0.6 points), Storage (0.5 points) and Power Systems (0.2 points), partially offset by improvement due to revenue mix (1.2 points).

Systems and Technology's pre-tax income decreased $406 million (24.9 percent) to $1,227 million in 2012, with a pre-tax margin of 6.7 percent. Normalized for workforce rebalancing charges of $46 million and $3 million in the third quarter of 2012 and 2011, respectively, pre-tax income decreased 22.2 percent and the pre-tax margin decreased by 1.3 points.

Global Financing

See pages 63 through 67 for an analysis of Global Financing's segment results.

Geographic Revenue

In addition to the revenue presentation by reportable segment, the company also measures revenue performance on a geographic basis. The following geographic, regional and country-specific revenue performance excludes OEM revenue, which is discussed separately below.

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Total revenue	$104,507	$106,916	(2.3)%	0.0%
Geographies	$102,268	$104,170	(1.8)%	0.5%
Americas	44,556	44,944	(0.9)	0.0
Europe/Middle East/Africa	31,775	33,952	(6.4)	(1.0)
Asia Pacific	25,937	25,273	2.6	3.3
Major markets			(3.5)%	(1.3)%
Growth markets			4.2%	6.9%
BRIC countries			7.4%	12.2%

Total geographic revenue decreased 1.8 percent (flat adjusted for currency) in 2012; excluding the divested RSS business, revenue decreased 1.4 percent as reported, but increased 1 percent at constant currency compared to the prior year. Revenue performance at constant currency was driven by strong results in the growth markets, offsetting a modest decline year to year in the major markets.

Across all geographies, growth markets revenue increased 4.2 percent (7 percent adjusted for currency) and these countries now represent 24 percent of total geographic revenue, an increase of 8 points since 2006 when the company introduced its 2010 road map. Adjusted for currency, revenue growth in these fast growing markets outpaced the major markets in 2012 by approximately 8 points. The BRIC countries of Brazil, Russia, India and China combined revenue increased 7.4 percent (12 percent adjusted for currency) in 2012, with double-digit growth in Russia, India and China, adjusted for currency. Overall in 2012, the company had double-digit constant currency revenue growth in nearly 35 growth market countries. The company is continuing to expand into new countries and territories, to build out IT infrastructures in support of economic growth and to take a leadership position in key industries. To drive market expansion, in 2012 the company accelerated the opening of new branch offices resulting in a doubling of the number of face-to-face branches when compared to 2011. The company now has almost 450 face-to-face and virtual branch offices in the growth markets.

Americas revenue decreased 0.9 percent (flat adjusted for currency) in 2012. Within the major market countries, the U.S. decreased 1.1 percent and Canada decreased 1.5 percent as reported (flat adjusted for currency). Revenue in the Latin America growth markets increased 1.4 percent (8 percent adjusted for currency) with constant currency growth in Brazil of 6 percent, down 4.6 percent as reported.

Europe/Middle East/Africa (EMEA) revenue decreased 6.4 percent (1 percent adjusted for currency) in 2012 compared to 2011. Within the major market countries, the UK was essentially flat (up 1 percent adjusted for currency), Germany was down 7.6 percent (flat adjusted for currency), France was down 12.6 percent (6 percent adjusted for currency) and Italy was down 8.4 percent (1 percent adjusted for currency). The EMEA growth markets increased 0.8 percent (5 percent at constant currency) led by growth in Russia of 11.7 percent (13 percent adjusted for currency).

Asia Pacific revenue increased 2.6 percent (3 percent adjusted for currency) year over year. The Asia Pacific growth markets increased 6.0 percent (7 percent adjusted for currency), with growth led by China (17.9 percent as reported, 16 percent at constant currency) and India (decreased 0.9 percent as reported, increased 13 percent at constant currency). Japan revenue decreased 1.9 percent (2 percent adjusted for currency) but improved sequentially throughout the year at constant currency and returned to growth in the fourth quarter of 2012.

OEM revenue of $2,239 million in 2012 decreased 18.5 percent (18 percent adjusted for currency) compared to 2011, driven by the Microelectronics OEM business.

Total Expense and Other Income

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent/ Margin Change
Total consolidated expense and other (income)	$28,396	$29,135	(2.5)%
Non-operating adjustments			
Amortization of acquired intangible assets	(328)	(289)	13.3
Acquisition-related charges	(35)	(45)	(21.2)
Non-operating retirement-related (costs)/income	(274)	74	NM
Total operating (non-GAAP) expense and other (income)	$27,760	$28,875	(3.9)%
Total consolidated expense-to-revenue ratio	27.2%	27.3%	(0.1) pts.
Operating (non-GAAP) expense-to-revenue ratio	26.6%	27.0%	(0.4) pts.

NM—Not meaningful

Total expense and other (income) decreased 2.5 percent in 2012 versus 2011. Total operating (non-GAAP) expense and other (income) decreased 3.9 percent versus the prior year. The key drivers of the year-to-year change in total expense and other (income) were approximately:

	Total Consolidated	Operating (non-GAAP)
• Currency*	(5) points	(5) points
• Acquisitions**	3 points	2 points
• Base expense	(0) points	(2) points

*Reflects impacts of translation and hedging programs.

**Includes acquisitions completed in prior 12-month period.

In the execution of its strategy, the company continues to invest in its growth initiatives, innovation and strategic acquisitions. The company also has had an ongoing focus on increasing efficiency and productivity across the business.

For additional information regarding total expense and other income, see the following analyses by category.

Selling, General and Administrative

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change
Selling, general and administrative expense			
Selling, general and administrative—other	$19,589	$20,287	(3.4)%
Advertising and promotional expense	1,339	1,373	(2.5)
Workforce rebalancing charges	803	440	82.5
Retirement-related costs	945	603	56.7
Amortization of acquired intangible assets	328	289	13.3
Stock-based compensation	498	514	(3.0)
Bad debt expense	50	88	(42.5)
Total consolidated selling, general and administrative expense	$23,553	$23,594	(0.2)%
Non-operating adjustments			
Amortization of acquired intangible assets	(328)	(289)	13.3
Acquisition-related charges	(22)	(20)	10.2
Non-operating retirement-related (costs)/income	(294)	(13)	NM
Operating (non-GAAP) selling, general and administrative expense	$22,910	$23,272	(1.6)%

NM—Not meaningful

Total Selling, general and administrative (SG&A) expense decreased 0.2 percent in 2012 versus 2011. The decrease was primarily driven by the effects of currency (3 points), partially offset by acquisition-related spending (2 points), while base spending was essentially flat.

Operating (non-GAAP) SG&A expense decreased 1.6 percent primarily driven by the effects of currency (3 points) and lower base spending (1 point), partially offset by acquisition-related spending (2 points). The increase in workforce rebalancing charges was due to actions primarily focused on the company's non-U.S. operations in the third quarter of 2012. The increase in retirement-related costs was primarily driven by the charge related to a court decision regarding one of IBM UK's defined benefit plans. As a result of the ruling, the company recorded an additional retirement-related obligation of $162 million in the third quarter of 2012. This charge is not reflected in operating (non-GAAP) SG&A expense. See note M, "Contingencies and Commitments," on pages 110 through 112 for additional information. Bad debt expense decreased $37 million in 2012 versus 2011, as the company increased its provisions in 2011 reflecting the European credit environment. The accounts receivable provision coverage is 1.4 percent at December 31, 2012, a decrease of 10 basis points from year-end 2011.

Other (Income) and Expense

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change
Other (income) and expense			
Foreign currency transaction losses/(gains)	$(240)	$ 513	NM%
(Gains)/losses on derivative instruments	72	(113)	NM
Interest income	(109)	(136)	(20.2)
Net (gains)/losses from securities and investment assets	(55)	(227)	(75.5)
Other	(511)	(58)	NM
Total consolidated other (income) and expense	$(843)	$ (20)	NM%
Non-operating adjustment			
Acquisition-related charges	(13)	(25)	(46.0)
Operating (non-GAAP) other (income) and expense	$(857)	$ (45)	NM%

NM—Not meaningful

Other (income) and expense was income of $843 million and $20 million in 2012 and 2011, respectively. The increase in income of $823 million in 2012 was primarily driven by higher gains from foreign currency transactions ($753 million) due to rate volatility year to year, and the gain associated with the divested RSS business ($446 million) reflected in Other in the table above. These increases in income were partially offset by increased losses on derivative instruments ($184 million) and lower gains from securities and investment asset sales ($171 million). In 2011, the company had investment gains of over $200 million, primarily from the sale of Lenovo shares.

Research, Development and Engineering

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change
Total consolidated research, development and engineering	$6,302	$6,258	0.7%
Non-operating adjustment			
Non-operating retirement-related (costs)/income	20	88	(76.9)
Operating (non-GAAP) research, development and engineering	$6,322	$6,345	(0.4)%

The company continues to invest in research and development, focusing its investments on high-value, high-growth opportunities and extending its technology leadership. Total research, development and engineering (RD&E) expense increased 0.7 percent in 2012 versus 2011, primarily driven by acquisitions (3 points), partially offset by the effects of currency (2 points) and lower base spending (1 point). Operating (non-GAAP) RD&E expense decreased 0.4 percent in 2012 compared to the prior year primarily driven by the effects of currency (2 points) and lower base spending (2 points), partially offset by acquisitions (3 points). RD&E investments represented 6.0 percent of revenue in 2012, compared to 5.9 percent in 2011.

Intellectual Property and Custom Development Income

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change
Sales and other transfers of intellectual property	$ 324	$ 309	4.7%
Licensing/royalty-based fees	251	211	19.0
Custom development income	500	588	(14.9)
Total	$1,074	$1,108	(3.0)%

The timing and amount of sales and other transfers of IP may vary significantly from period to period depending upon timing of divestitures, industry consolidation, economic conditions and the timing of new patents and know-how development. There were no significant individual IP transactions in 2012 or 2011.

Interest Expense

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change
Interest expense			
Total	$459	$411	11.8%

The increase in interest expense in 2012 versus 2011 was primarily driven by higher average debt levels, partially offset by lower average interest rates. Interest expense is presented in cost of financing in the Consolidated Statement of Earnings only if the related external borrowings are to support the Global Financing external business. See pages 66 and 67 for additional information regarding Global Financing debt and interest expense. Overall interest expense (excluding capitalized interest) for 2012 was $1,004 million, an increase of $40 million year to year.

Stock-Based Compensation

Total pre-tax stock-based compensation cost of $688 million decreased $9 million compared to 2011. The decrease was primarily related to the company's performance share units ($30 million), partially offset by increases related to restricted stock units ($16 million) and the assumption of stock-based awards previously issued by acquired entities ($5 million). Cost, and the year-to-year change, was reflected in the following categories: Cost: $132 million, up $11 million; SG&A expense: $498 million, down $16 million; and RD&E expense: $59 million, down $4 million.

See note R, "Stock-Based Compensation," on pages 117 to 120 for additional information on stock-based incentive awards.

Retirement-Related Plans

The following table provides the total pre-tax cost for all retirement-related plans. These amounts are included in the Consolidated Statement of Earnings within the caption (e.g., Cost, SG&A, RD&E) relating to the job function of the plan participants.

($ in millions)

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change
Retirement-related plans—cost			
Service cost	$ 493	$ 549	(10.2)%
Amortization of prior service cost/(credits)	(148)	(157)	(5.5)
Cost of defined contribution plans	1,506	1,513	(0.4)
Total operating costs	$ 1,851	$ 1,905	(2.8)%
Interest cost	4,238	4,601	(7.9)
Expected return on plan assets	(6,356)	(6,574)	(3.3)
Recognized actuarial losses	2,407	1,788	34.6
Plan amendments/curtailments/ settlements	1	1	14.4
Multi-employer plan/other costs	247	112	121.3
Total non-operating costs/ (income)	$ 538	$ (72)	NM%
Total retirement-related plans—cost	$ 2,389	$ 1,832	30.3%

NM—Not meaningful

In 2012, total retirement-related plans cost increased by $556 million compared to 2011, primarily driven by an increase in recognized actuarial losses of $619 million, lower expected return on plan assets ($219 million) and the charge related to the UK pension litigation ($162 million). These increases were partially offset by lower interest cost of $363 million and lower service cost of $56 million.

As discussed in the "Operating (non-GAAP) Earnings" section on page 18, the company characterizes certain retirement-related costs as operating and others as non-operating. Utilizing this characterization, operating retirement-related costs in 2012 were $1,851 million, a decrease of $54 million compared to 2011, primarily driven by the $56 million decrease in service cost. Non-operating costs of $538 million increased $610 million in 2012, compared to the prior year, driven primarily by the increase in recognized actuarial losses ($619 million), lower expected return on plan assets ($219 million) and the charge related to the UK pension litigation ($162 million), partially offset by lower interest cost ($363 million).

Income Taxes

The effective tax rate for 2012 was 24.2 percent compared with 24.5 percent in 2011. The operating (non-GAAP) tax rate for 2012 was 24.0 percent compared with 24.5 percent in 2011. The 0.3 point decrease in the as-reported effective tax rate was primarily driven by a more favorable geographic mix of pre-tax earnings (2.6 points) and the one-time benefit in the first quarter associated with a tax restructuring in Latin America (0.8 points), primarily offset by a decrease in the utilization of foreign tax credits in 2012 (2.9 points) and the unfavorable tax impact of the gain on the RSS divestiture (0.3 points).The remaining items were individually insignificant.

Earnings Per Share

Basic earnings per share is computed on the basis of the weighted-average number of shares of common stock outstanding during the period. Diluted earnings per share is computed on the basis of the weighted-average number of shares of common stock outstanding plus the effect of dilutive potential common shares outstanding during the period using the treasury stock method. Dilutive potential common shares include outstanding stock options and stock awards.

For the year ended December 31:	2012	2011	Yr.-to-Yr. Percent Change
Earnings per share of common stock			
Assuming dilution	$14.37	$13.06	10.0%
Basic	$14.53	$13.25	9.7%
Diluted operating (non-GAAP)	$15.25	$13.44	13.5%
Weighted-average shares outstanding (in millions)			
Assuming dilution	1,155.4	1,213.8	(4.8)%
Basic	1,142.5	1,197.0	(4.5)%

Actual shares outstanding at December 31, 2012 and 2011 were 1,117.4 million and 1,163.2 million, respectively. The average number of common shares outstanding assuming dilution was 58.3 million shares lower in 2012 versus 2011. The decrease was primarily the result of the common stock repurchase program. See note L, "Equity Activity," on page 107 for additional information regarding common stock activities. Also see note P, "Earnings Per Share of Common Stock," on page 116.

Financial Position

Dynamics

At December 31, 2012, the company's balance sheet and liquidity positions remained strong and well-positioned to support the company's long-term objectives. Cash and marketable securities at year end were $11,128 million, a decrease of $794 million from the prior year-end position. During the year the company continued to manage the investment portfolio to meet its capital preservation and liquidity objectives. At December 31, 2012, there were no holdings of European sovereign debt securities in the investment portfolio.

Total debt of $33,269 million increased $1,949 million from the prior year-end level. The commercial paper balance at December 31, 2012 was $1,800 million, a decrease of $500 million from the prior year. Within total debt, $24,501 million is in support of the Global Financing business which is leveraged at a 7.0 to 1 ratio. The company continues to have substantial flexibility in the market. During 2012, the company completed bond issuances totaling $7,875 million, with terms ranging from three to 30 years and priced from 0.55 to 4.00 percent depending on the maturity. The company has consistently generated strong cash flow from operations and continues to have access to additional sources of liquidity through the capital markets and its $10 billion global credit facility, with 100 percent of the facility available on a same-day basis.

Consistent with accounting standards, the company remeasures the funded status of its retirement and postretirement plans at December 31. At December 31, 2012, the overall net underfunded position was $20,190 million, an increase of $3,800 million from December 31, 2011, as the increase in the benefit obligation due to the reduction in discount rates more than offset the returns on plan assets. At year end, the company's qualified defined benefit plans were well funded and the cash requirements related to these plans remain stable going forward at approximately $1 billion per year through 2015. In 2012, the return on the U.S. Personal Pension Plan assets was 11.3 percent and the plan was 98 percent funded. Overall, global asset returns were 11.1 percent and the company's qualified defined benefit plans worldwide were 94 percent funded.

The company's qualified defined benefit plans do hold European sovereign debt securities in their trust funds. See note S, "Retirement-Related Benefits," on page 128 for additional information.

During 2012, the company generated $19,586 million in cash from operations, a decrease of $260 million compared to 2011. In addition, the company generated $18,185 million in free cash flow in 2012, an increase of $1,581 million over the prior year. See pages 56 and 57 for additional information on free cash flow. The company returned $15,768 million to shareholders in 2012, with $11,995 million in gross share repurchases and $3,773 million in dividends. In 2012, the company repurchased approximately 61 million shares and had $8.7 billion remaining in share repurchase authorization at year end. The company's strong cash generation permits the company to invest and deploy capital to areas with the most attractive long-term opportunities.

The assets and debt associated with the Global Financing business are a significant part of the company's financial position. The financial position amounts appearing on page 72 are the consolidated amounts including Global Financing. The amounts appearing in the separate Global Financing section, beginning on page 63, are supplementary data presented to facilitate an understanding of the Global Financing business.

Working Capital

($ in millions)

At December 31:	2012	2011
Current assets	$49,433	$50,928
Current liabilities	43,625	42,123
Working capital	$ 5,807	$ 8,805
Current ratio	1.13:1	1.21:1

Working capital decreased $2,998 million from the year-end 2011 position. The key changes are described below:

Current assets decreased $1,496 million ($1,212 million adjusted for currency) due to:

- A decrease of $1,224 million in prepaid expenses and other current assets due to:
  - A decrease of $610 million related to derivatives; $398 million in cash collateral received, and $213 million primarily related to currency rate volatility; and
  - A decrease of $614 million in various prepaid expenses (taxes, maintenance, insurance, deposits)
- A decline of $794 million ($661 million adjusted for currency) in cash and cash equivalents, and marketable securities (see cash flow analysis in the following column); and
- A decrease of $308 million in inventory, primarily in Systems and Technology; partially offset by
- An increase of $1,016 million ($1,047 million adjusted for currency) in short-term receivables primarily attributable to higher volumes of financing receivables driven by customer loans and inventory financing.

Current liabilities increased $1,502 million ($1,682 million adjusted for currency) as a result of:

- An increase of $1,635 million in taxes primarily due to the reclassification of long-term tax liabilities to short term; and
- An increase of $719 million ($879 million adjusted for currency) in short-term debt due to:
  - Reclassifications of $5,638 million from long-term debt and short-term additions of $4,541 million, offset by
  - Maturities of approximately $8,792 million, and a decline of approximately $500 million in commercial paper; partially offset by
- A decrease of $565 million in accounts payable primarily related to the obligation to return cash collateral received related to derivative valuations.

Cash Flow

The company's cash flows from operating, investing and financing activities, as reflected in the Consolidated Statement of Cash Flows on page 73, is summarized in the table below. These amounts include the cash flows associated with the Global Financing business.

($ in millions)

For the year ended December 31:	2012	2011
Net cash provided by/(used in)		
Operating activities	$ 19,586	$ 19,846
Investing activities	(9,004)	(4,396)
Financing activities	(11,976)	(13,696)
Effect of exchange rate changes on cash and cash equivalents	(116)	(493)
Net change in cash and cash equivalents	$ (1,511)	$ 1,262

Net cash provided by operating activities decreased by $260 million in 2012 as compared to 2011 driven by the following key factors:

- A decrease in cash due to receivables of $1,290 million (normalized for a $339 million tax refund received in 2012), as a result of higher volumes in 2012;
- A decrease in vendor payables of $675 million;
- An increase in cash used for workforce rebalancing payments of $236 million, primarily in the non-U.S.; and
- An increase in cash used for retirement-related plans of $181 million driven by an increase in nonpension post-retirement contributions, partially offset by
- Lower net tax payments of $999 million compared to 2011;
- Improved net income of $749 million; and
- Lower cash requirements for inventory of $442 million.

Net cash used in investing activities increased $4,608 million primarily driven by:

- A net increase of $1,325 million in net cash used for acquisitions/divestitures; and
- A decrease in cash of $2,719 million from net purchases of marketable securities and other investments.

Net cash used in financing activities decreased $1,719 million primarily as a result of:

- A decrease of $2,137 million of net cash used for common stock transactions; partially offset by
- An increase of $300 million in cash dividends paid.

Noncurrent Assets and Liabilities

($ in millions)

At December 31:	2012	2011
Noncurrent assets	$69,780	$65,505
Long-term debt	$24,088	$22,857
Noncurrent liabilities (excluding debt)	$32,516	$31,217

The increase in noncurrent assets of $4,276 million ($4,454 million adjusted for currency) was driven by:

- An increase of $3,429 million ($3,236 million adjusted for currency) in goodwill and intangible assets driven by acquisitions;
- An increase of $470 million in deferred taxes ($580 million adjusted for currency) driven by retirement-related activity; and
- An increase of $2,036 million in financing receivables ($2,214 million adjusted for currency) driven by increased volumes, partially offset by
- A decrease of $1,899 million in prepaid pension assets ($1,922 million adjusted for currency) primarily driven by plan remeasurements.

Long-term debt increased by $1,231 million primarily driven by new debt issuances of $7,700 million, partially offset by reclasses to short-term debt of $5,638 million, and debt repurchased as a result of the debt exchange of $665 million.

Other noncurrent liabilities, excluding debt, increased $1,299 million ($1,558 million adjusted for currency) primarily driven by:

- An increase in retirement and nonpension benefit obligations of $2,044 million ($2,264 million adjusted for currency) as a result of pension remeasurements; and
- An increase in deferred income of $644 million driven by services and software arrangements; partially offset by
- A decrease of $1,389 million in other liabilities driven by a reclass of tax-related liabilities to short term.

Debt

The company's funding requirements are continually monitored and strategies are executed to manage the overall asset and liability profile. Additionally, the company maintains sufficient flexibility to access global funding sources as needed.

($ in millions)

At December 31:	2012	2011
Total company debt	$33,269	$31,320
Total Global Financing segment debt	$24,501	$23,332
Debt to support external clients	21,583	20,051
Debt to support internal clients	2,919	3,281

Global Financing provides financing predominantly for the company's external client assets, as well as for assets under contract by other IBM units. These assets, primarily for Global Services, generate long-term, stable revenue streams similar to the Global Financing asset portfolio. Based on their attributes, these Global Services assets are leveraged with the balance of the Global Financing asset base. The debt analysis in the previous column is further detailed in the Global Financing section on pages 66 and 67.

Given the significant leverage, the company presents a debt-to-capitalization ratio which excludes Global Financing debt and equity as management believes this is more representative of the company's core business operations. This ratio can vary from period to period as the company manages its global cash and debt positions.

"Core" debt-to-capitalization ratio (excluding Global Financing debt and equity) was 36.1 percent at December 31, 2012 compared to 32.0 percent at December 31, 2011. The increase was primarily driven by an increase in non-Global Financing debt of $780 million and a decrease in non-Global Financing equity of $1,497 million from the December 31, 2011 balances.

Consolidated debt-to-capitalization ratio at December 31, 2012 was 63.7 percent versus 60.7 percent at December 31, 2011.

The increase in both the "core" debt-to-capitalization ratio and the consolidated debt-to-capitalization ratio was impacted by the $5.2 billion impact to equity as a result of retirement-related plan remeasurements in December.

Debt Exchange

In the second quarter of 2012, the company completed an exchange of approximately $6 million of principal of its 7.125 percent debentures due in 2096, $104 million principal of its 8.00 percent notes due in 2038 and $800 million of principal of its 5.60 percent senior notes due in 2039 for approximately $1,107 million of 4.00 percent senior notes due in 2042 and cash of approximately $121 million. The exchange was completed to retire high coupon debt in the current favorable interest rate environment.

The debt exchange was accounted for as a non-revolving debt modification in accordance with accounting guidance, and therefore it did not result in any gain or loss recorded in the Consolidated Statement of Earnings. Cash payments will be amortized over the life of the new debt. Administrative fees with third parties in relation to the exchange were expensed as incurred.

Equity

Total equity decreased by $1,252 million as a result of an increase in treasury stock of $12,168 million; pension adjustments of $3,669 million reflecting the impact of retirement-related plan remeasurements; partially offset by an increase in retained earnings of $12,783 million, and an increase of $1,980 million in common stock primarily driven by stock option exercises and stock based compensation.

GAAP Reconciliation

The tables below provide a reconciliation of the company's income statement results as reported under GAAP to its operating earnings presentation which is a non-GAAP measure. The company's calculation of operating earnings, as presented, may differ from similarly titled measures reported by other companies. Please refer to the "Operating (non-GAAP) Earnings" section on page 18 for the company's rationale for presenting operating earnings information.

($ in millions except per share amounts)

For the year ended December 31, 2012:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	Operating (non-GAAP)
Gross profit	$50,298	$ 376	$ 264	$50,938
Gross profit margin	48.1%	0.4 pts.	0.3 pts.	48.7%
SG&A	$23,553	$(349)	$(294)	$22,910
RD&E	6,302	0	20	6,322
Other (income) and expense	(843)	(13)	0	(857)
Total expense and other (income)	28,396	(363)	(274)	27,760
Pre-tax income	21,902	739	538	23,179
Pre-tax income margin	21.0%	0.7 pts.	0.5 pts.	22.2%
Provision for income taxes*	$ 5,298	$ 98	$ 156	$ 5,552
Effective tax rate	24.2%	(0.4) pts.	0.1 pts.	24.0%
Net income	$16,604	$ 641	$ 381	$17,627
Net income margin	15.9%	0.6 pts.	0.4 pts.	16.9%
Diluted earnings per share	$ 14.37	$0.55	$0.33	$ 15.25

* The tax impact on operating (non-GAAP) pre-tax income is calculated under the same accounting principles applied to the GAAP pre-tax income which employs an annual effective tax rate method to the results.

($ in millions except per share amounts)

For the year ended December 31, 2011:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	Operating (non-GAAP)
Gross profit	$50,138	$ 341	$ 2	$50,481
Gross profit margin	46.9%	0.3 pts.	0.0 pts.	47.2%
SG&A	$23,594	$(309)	$ (13)	$23,272
RD&E	6,258	0	88	6,345
Other (income) and expense	(20)	(25)	0	(45)
Total expense and other (income)	29,135	(334)	74	28,875
Pre-tax income	21,003	675	(72)	21,605
Pre-tax income margin	19.6%	0.6 pts.	(0.1) pts.	20.2%
Provision for income taxes*	$ 5,148	$ 179	$ (40)	$ 5,287
Effective tax rate	24.5%	0.1 pts.	(0.1) pts.	24.5%
Net income	$15,855	$ 495	$ (32)	$16,318
Net income margin	14.8%	0.5 pts.	(0.0) pts.	15.3%
Diluted earnings per share	$ 13.06	$0.41	$(0.03)	$ 13.44

* The tax impact on operating (non-GAAP) pre-tax income is calculated under the same accounting principles applied to the GAAP pre-tax income which employs an annual effective tax rate method to the results.

Consolidated Fourth-Quarter Results

($ and shares in millions except per share amounts)

For the fourth quarter:	2012	2011	Yr.-to-Yr. Percent/ Margin Change
Revenue	$29,304	$29,486	(0.6)%*
Gross profit margin	51.8%	49.9%	1.8 pts.
Total expense and other income	$ 7,336	$ 7,448	(1.5)%
Total expense and other income-to-revenue ratio	25.0%	25.3%	(0.2) pts.
Income before income taxes	$ 7,831	$ 7,274	7.7%
Provision for income taxes	1,998	1,784	12.0%
Net income	$ 5,833	$ 5,490	6.3%
Net income margin	19.9%	18.6%	1.3 pts.
Earnings per share of common stock			
Assuming dilution	$ 5.13	$ 4.62	11.0%
Weighted-average shares outstanding			
Assuming dilution	1,136.4	1,188.7	(4.4)%

*0.3 percent adjusted for currency.

The following table provides the company's operating (non-GAAP) earnings for the fourth quarter of 2012 and 2011.

($ in millions except per share amounts)

For the fourth quarter:	2012	2011	Yr.-to-Yr. Percent Change
Net income as reported	$5,833	$5,490	6.3%
Non-operating adjustments (net of tax)			
Acquisition-related charges	243	119	103.4
Non-operating retirement-related costs/(income)	53	(12)	NM
Operating (non-GAAP) earnings*	$6,129	$5,597	9.5%
Diluted operating (non-GAAP) earnings per share	$ 5.39	$ 4.71	14.4%

*See page 43 for a more detailed reconciliation of net income to operating earnings.
NM—Not meaningful

Snapshot

In the fourth quarter of 2012, the company improved its year-to-year revenue growth rate, primarily in higher margin areas, while driving significant margin expansion and profit growth. The company delivered diluted earning per share of $5.13, a growth of 11.0 percent, and $5.39, an increase of 14.4 percent on an operating (non-GAAP) basis. The company generated $6.3 billion in cash from operations in the fourth quarter driving shareholder returns of $4.0 billion in gross common stock repurchases and dividends.

Revenue in the fourth quarter declined 0.6 percent as reported, but was flat at constant currency. Normalized for the RSS divestiture, revenue increased 1 point at constant currency in the quarter, a 2 point improvement from the third quarter of 2012 constant currency growth rate. Consistent with the company's business model to move to higher value areas, revenue continued to grow in the higher margin businesses which contributed to the overall margin expansion and profit growth in the fourth quarter.

On a geographic basis, revenue performance was led by the growth markets which increased 6.8 percent as reported and 7 percent at constant currency. The BRIC countries delivered combined growth of 11.4 percent (14 percent adjusted for currency). In the fourth quarter, over 30 growth market countries grew constant currency revenue at a double-digit rate reflecting ongoing broad-based strength.

Within the company's segments, performance was led by continued momentum in the growth initiatives and successful product launches in high-end systems—both of which drove a more profitable mix. Software revenue increased 3.5 percent (4 percent adjusted for currency), driven by business analytics, Smarter Commerce and cloud with strength in several emerging areas where the company has been targeting its investments—Social Business, mobile and security. Systems and Technology revenue declined 0.7 percent (1 percent adjusted for currency); adjusted for the RSS divestiture, revenue increased 3.6 percent (4 percent adjusted for currency) versus the prior year. New product introductions performed well in the quarter. System z revenue increased 55.6 percent (56 percent adjusted for currency) reflecting strong acceptance of the new mainframe. System z revenue increased over 50 percent in the major markets and over 65 percent in the growth markets. Global Services revenue decreased 2.1 percent (1 percent adjusted for currency) with the constant currency growth rate consistent with the third quarter of 2012. Global Services continued to have strong performance in all of the key growth initiatives which are becoming a larger part of the services business.

The consolidated gross profit margin increased 1.8 points versus the fourth quarter of 2011 to 51.8 percent. The operating (non-GAAP) gross margin increased 2.1 points to 52.3 percent. The improvement was driven by a combination of strong mainframe growth, good margin expansion in both services segments and an improving segment mix due to the relative strength of software.

Total expense and other income decreased 1.5 percent in the fourth quarter compared to the prior year. Total operating (non-GAAP) expense and other income decreased 2.3 percent. The year-to-year drivers for both categories were approximately:

	Total Consolidated	Operating (non-GAAP)
• Currency*	(1) point	(1) point
• Acquisitions**	2 points	2 points
• Base expense	(3) points	(3) points

*Reflects impacts of translation and hedging programs.
**Includes acquisitions completed in prior 12-month period.

Pre-tax income grew 7.7 percent and the pre-tax margin was 26.7 percent, an increase of 2.1 points versus the fourth quarter of 2011. Net income increased 6.3 percent and the net income margin increased 1.3 points to 19.9 percent. The effective tax rate for the fourth quarter was 25.5 percent, an increase of 1 point versus the prior year. Operating (non-GAAP) pre-tax income grew 9.5 percent and the operating (non-GAAP) pre-tax margin was 27.7 percent, an increase of 2.6 points versus the prior year. Operating (non-GAAP) net income increased 9.5 percent and the operating (non-GAAP) net income margin was 20.9 percent, an

increase of 1.9 points compared to the prior year. The operating (non-GAAP) effective tax rate was 24.4 percent, flat compared to the fourth quarter of 2011.

Diluted earnings per share of $5.13 increased $0.51 or 11.0 percent from the fourth quarter of 2011. In the fourth quarter, the company repurchased 15.4 million shares of its common stock. Operating (non-GAAP) diluted earnings per share increased 14.4 percent reflecting the growth in operating (non-GAAP) net income and the benefits of the common stock repurchase program. Operating (non-GAAP) diluted earnings per share of $5.39 increased $0.68 versus the fourth quarter of 2011 driven by the following factors:

- Revenue decrease at actual rates $(0.03)
- Margin expansion $ 0.47
- Common stock repurchases $ 0.24

Margin expansion was the largest contributor to the growth in operating (non-GAAP) earnings per share in the fourth quarter. This was achieved through a combination of gross margin improvements and expense productivity.

Segment Details

The following is an analysis of the fourth quarter of 2012 versus the fourth quarter of 2011 reportable segment external revenue and gross margin results. Segment pre-tax income includes transactions between the segments that are intended to reflect an arms-length transfer price and excludes certain unallocated corporate items.

($ in millions)

For the fourth quarter:	2012	2011	Yr.-to-Yr. Percent/ Margin Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Revenue				
Global Technology Services	$10,284	$10,452	(1.6)%	(0.3)%
Gross margin	37.6%	36.6%	1.1 pts.	
Global Business Services	4,720	4,877	(3.2)%	(2.0)%
Gross margin	29.9%	29.3%	0.7 pts.	
Software	7,915	7,648	3.5%	4.2%
Gross margin	90.6%	89.8%	0.8 pts.	
Systems and Technology	5,763	5,803	(0.7)%	(0.6)%
Gross margin	44.1%	40.5%	3.6 pts.	
Global Financing	535	548	(2.3)%	(0.9)%
Gross margin	43.8%	49.7%	(5.9) pts.	
Other	87	159	(45.3)%	(45.1)%
Gross margin	(73.2)%	(11.0)%	(62.2) pts.	
Total consolidated revenue	$29,304	$29,486	(0.6)%	0.3%
***Total consolidated* gross profit**	$15,167	$14,722	3.0%	
Total consolidated gross margin	51.8%	49.9%	1.8 pts.	
Non-operating adjustments				
Amortization of acquired intangible assets	99	81	22.4%	
Acquisition-related charges	0	0	50.8	
Retirement-related costs/(income)	60	(10)	NM	
Operating (non-GAAP) gross profit	$15,327	$14,793	3.6%	
Operating (non-GAAP) gross margin	52.3%	50.2%	2.1 pts.	

NM—Not meaningful

Global Services

The Global Services segments, Global Technology Services and Global Business Services delivered $15,004 million of revenue in the fourth quarter, a decrease of 2.1 percent (1 percent adjusted for currency) year to year. Overall revenue performance in the quarter was led by the growth markets with revenue up 5.8 percent (7 percent adjusted for currency). Total outsourcing revenue of $6,978 million decreased 3.2 percent (2 percent adjusted for currency) and total transactional revenue of $6,184 million decreased 1.0 percent (flat adjusted for currency) year over year. Total Global Services pre-tax income was $2,868 million, an increase of 3.5 percent year to year. The combined pre-tax margin improved 1 point year to year to 18.5 percent.

Global Technology Services revenue of $10,284 million decreased 1.6 percent as reported, but was flat on a constant currency basis in the fourth quarter versus the same period in 2011. There were two major factors within the major markets that impacted outsourcing

revenue growth in the quarter. First, GTS did a tremendous amount of work to address a number of low margin contracts to improve the profitability of the outsourcing portfolio. The benefits of that work were realized in profit and margin performance, though it did have some impact on revenue. In the fourth quarter, the impact was 1 point of year-to-year revenue growth to GTS, and to Global Services in total. Second, revenue from sales and volumes into existing base accounts declined year to year in the fourth quarter. This activity tends to be more transactional in nature and economically sensitive. The impact of these factors are reflected in GTS Outsourcing revenue, which decreased 3.1 percent (2 percent adjusted for currency) in the fourth quarter. Outsourcing revenue in the growth markets increased 6.1 percent, 8 percent at constant currency, and the outsourcing backlog in these markets was up 9 percent at constant currency. The backlog growth reflects an ongoing trend as clients are building out their infrastructures and scaling to meet the growth objectives of their businesses. ITS revenue of $2,542 million increased 2.1 percent (3 percent adjusted for currency) in the fourth quarter with the growth markets up 10.1 percent (10 percent at constant currency). GTS gross profit increased 1.3 percent and the gross profit margin improved 1.1 points to 37.6 percent with margin improvement across all lines of business. GTS fourth-quarter 2012 pre-tax income increased 5.0 percent to $2,027 million with the pre-tax margin expanding 1.2 points to 19.2 percent, versus the fourth quarter of 2011. Margin expansion resulted from increased efficiency and productivity from the focus on automation and process, primarily through the company's enterprise productivity initiatives.

Global Business Services revenue of $4,720 million decreased 3.2 percent (2 percent adjusted for currency) in the fourth quarter of 2012. From a geographic perspective, the growth markets increased 2.0 percent (3 percent at constant currency) and Japan improved 0.3 percent (6 percent at constant currency)—the second consecutive quarter of revenue growth in Japan. The growth initiatives continued to drive strong performance with double-digit revenue growth in business analytics, Smarter Planet and cloud offerings in the quarter. Application Outsourcing revenue decreased 3.8 percent (2 percent adjusted for currency) and C&SI revenue decreased 3.0 percent (2 percent adjusted for currency). GBS has been taking actions to address the more traditional customized packaged application work including: adding partners, increasing sales capability and targeting and closing large transformational opportunities in the growth markets. GBS gross profit decreased 1.0 percent in the fourth quarter with the gross profit margin expanding 0.7 points versus the prior year. GBS pre-tax income of $841 million was essentially flat year to year with a pre-tax margin of 17.2 percent, an improvement of 0.6 points. Improved utilization and improved services delivery more than offset the impact from revenue.

Software

Software revenue of $7,915 million increased 3.5 percent (4 percent adjusted for currency) in the fourth quarter with growth in all the key brands, and particular strength and share gains in WebSphere, Lotus and Rational. Key branded middleware revenue increased 5.4 percent (6 percent adjusted for currency) year to year and gained share as the software business continued to be the leader in the middleware market. The software business had continued momentum across its brands in the growth initiatives in the fourth quarter with strong performance in business analytics, Smarter Commerce and cloud. WebSphere revenue increased 10.6 percent (11 percent adjusted for currency) in the fourth quarter year to year and gained share. The company continued to expand its portfolio to capture the emerging opportunity around mobile computing and had solid revenue growth in several of its core WebSphere offerings, such as application servers and commerce in the fourth quarter. Information Management revenue increased 2.2 percent (3 percent adjusted for currency) and held share with strong performance in Information Integration and predictive analytics, both driven by big data. Tivoli revenue increased 4.3 percent (5 percent adjusted for currency) and held share, led by its storage and security offerings. Revenue from the storage portfolio increased 12 percent (13 percent adjusted for currency), reflecting the continued value of storage software. Tivoli security increased 16 percent (16 percent adjusted for currency) driven by Q1 Labs. Lotus revenue increased 8.6 percent (9 percent adjusted for currency) and gained share as the Lotus portfolio continues to transform to the faster-growing social business offerings. Revenue growth was driven by strong performance from the existing social business offerings and the recent acquisition of Kenexa, which closed in December 2012. Kenexa helps clients create a more efficient and effective workforce, and brings a unique combination of cloud-based technology and consulting services to an already extensive portfolio of social business solutions. Rational revenue increased 11.6 percent (12 percent adjusted for currency) in the fourth quarter and gained share. Growth was driven by double-digit growth in both analysis, modeling and design software and the Automated Software Quality business. Software gross profit increased 4.5 percent and the gross profit margin expanded 0.8 points to 90.6 percent. Software delivered pre-tax income of $4,017 million in the fourth quarter, a growth of 8.3 percent compared to the fourth quarter of 2011, with a pre-tax margin of 46.0 percent, up 2.4 points.

Systems and Technology

Systems and Technology revenue of $5,763 million decreased 0.7 percent (1 percent adjusted for currency); adjusted for the RSS divestiture, revenue increased 3.6 percent (4 percent adjusted for currency). Performance was driven by the company's new mainframe and momentum in PureSystems—the company's new expert integrated systems. System z revenue increased 55.6 percent (56 percent adjusted for currency) driven by the first full quarter of the new mainframe product. MIPS shipments increased 66 percent year to year; the largest quarter of MIPS shipments in history. Approximately half of these MIPS were specialty engines, which were up over 80 percent year to year driven by Linux workloads. Revenue growth in System z was over 50 percent in the major markets and over 65 percent in the growth markets. In the growth markets, the company had strong sales to established as well as new mainframe customers. Power Systems revenue decreased 18.9 percent (19 percent adjusted for currency), although both the new POWER7+ midrange and high-end Power servers performed well in the quarter. In the fourth quarter, the company had over 350 competitive displacements resulting in over $335 million of business; approximately half of which came from

Oracle/Sun and half from Hewlett Packard. System x revenue decreased 2.5 percent (3 percent adjusted for currency) in the fourth quarter year to year. Storage hardware revenue decreased 5.4 percent (5 percent adjusted for currency) driven by tape products. Total tape revenue decreased 23 percent (23 percent adjusted for currency) while total disk revenue was essentially flat year to year. Within disk, the company announced the new high-end DS8870 in October 2012, and the product was sold out in the fourth quarter. Systems and Technology gross margin increased 3.6 points to 44.1 percent driven primarily by a mix to the higher margin System z in the fourth quarter of 2012. Systems and Technology's pre-tax income increased 23.2 percent to $974 million in the fourth quarter and the pre-tax margin increased 3.2 points to 16.4 percent. Systems and Technology's profit performance was driven by the new product introductions in mainframe, Power, Storage and PureSystems.

Global Financing

Global Financing revenue of $535 million decreased 2.3 percent (1 percent adjusted for currency), driven by a decrease in financing revenue, partially offset by an increase in used equipment sales revenue. The Global Financing fourth-quarter pre-tax income increased 0.7 percent to $518 million and the pre-tax margin increased 0.9 points to 46.9 percent.

Geographic Revenue

Total geographic revenue of $28,624 million decreased 0.5 percent (flat adjusted for currency) in the fourth quarter of 2012 compared to the prior year. Americas revenue of $12,550 million increased 0.3 percent (1 percent adjusted for currency) in 2012, led by strong growth in Latin America (up 13.5 percent as reported and 18 percent adjusted for currency). The U.S. was down 0.7 percent, but the growth rate improved 3 points compared to the third quarter of 2012. Canada was down 6.2 percent (9 percent adjusted for currency) compared to strong year-to-year growth of 13 percent at constant currency in the fourth quarter of 2011. EMEA revenue of $9,091 million decreased 5.0 percent (3 percent adjusted for currency), reflecting the macroeconomic climate in that region. Germany was down 7.0 percent (4 percent adjusted for currency) and the UK was down 4.7 percent (7 percent adjusted for currency). Italy revenue decreased 3.4 percent (flat adjusted for currency), an improvement sequentially from the third-quarter constant currency growth rate. Asia Pacific revenue of $6,984 million increased 4.2 percent (5 percent adjusted for currency) led by Japan, which returned to growth (0.2 percent as reported, 5 percent at constant currency) in the fourth quarter of 2012. Across all geographies, revenue from the growth markets increased 6.8 percent (7 percent adjusted for currency) in the fourth quarter and outpaced growth in the major markets by 9 points on a constant currency basis. Revenue performance was again broad based with over 30 growth market countries delivering double-digit revenue growth year to year, adjusted for currency. Within the BRIC countries, combined revenue increased 11.4 percent (14 percent adjusted for currency), the strongest quarterly growth in 2012. Brazil returned to growth in the fourth quarter with revenue up 15.5 percent (24 percent adjusted for currency). The growth markets also had good performance in Africa, led by South Africa, and in the Middle East.

OEM revenue of $679 million in the fourth quarter decreased 4.9 percent (5 percent adjusted for currency) compared to the prior year.

Total Expense and Other Income

($ in millions)

For the fourth quarter:	2012	2011	Yr.-to-Yr. Percent/ Margin Change
Total consolidated expense and other (income)	**$7,336**	$7,448	(1.5)%
Non-operating adjustments			
Amortization of acquired intangible assets	(86)	(72)	19.6
Acquisition-related charges	(12)	(13)	(8.2)
Non-operating retirement-related (costs)/income	(23)	25	NM
Total operating (non-GAAP) expense and other (income)	**$7,215**	$7,388	(2.3)%
Total consolidated expense-to-revenue ratio	25.0%	25.3%	(0.2) pts.
Operating (non-GAAP) expense-to-revenue ratio	24.6%	25.1%	(0.4) pts.

NM—Not meaningful

Total expense and other income decreased 1.5 percent year to year in the fourth quarter with an expense-to-revenue-ratio of 25.0 percent compared to 25.3 percent in the fourth quarter of 2011. Total operating (non-GAAP) expense and other income decreased 2.3 percent in the fourth quarter. The decrease in total expense and other income was primarily driven by lower base expense (3 points) and currency (1 point), partially offset by increased expense from the company's acquisitions over the past 12 months (2 points). Within Selling, general and administrative expense, accounts receivable provisions were approximately $20 million in the fourth quarter of 2012 an improvement of nearly $70 million from the fourth quarter of 2011 when provisions were increased to reflect the European credit environment.

Cash Flow

The company generated $6,346 million in cash flow provided by operating activities, a decrease of $751 million compared to the fourth quarter of 2011, driven primarily by an increase in cash used in operating assets and liabilities ($889 million). Net cash used in investing activities of $4,092 million increased $587 million primarily due to an increase in cash used by non-operating finance receivables ($501 million) and an increase in cash used from net purchases of marketable securities and other investments ($300 million). Net cash used in financing activities of $3,791 million increased $982 million compared to the prior year primarily due to a net decrease in cash from total debt ($1,397 million); partially offset by a decrease in cash used for gross common stock repurchases ($575 million).

GAAP Reconciliation

The tables below provide a reconciliation of the company's income statement results as reported under GAAP to its operating earnings presentation which is a non-GAAP measure. The company's calculation of operating earnings, as presented, may differ from similarly titled measures reported by other companies. Please refer to the "Operating (non-GAAP) Earnings" section on page 18 for the company's rationale for presenting operating earnings information.

($ in millions except per share amounts)

For the fourth quarter 2012:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	Operating (non-GAAP)
Gross profit	$15,167	$ 100	$ 60	$15,327
Gross profit margin	51.8%	0.3 pts.	0.2 pts.	52.3%
SG&A	$ 5,921	$ (91)	$ (29)	$ 5,801
RD&E	1,580	0	6	1,586
Other (income) and expense	(47)	(7)	0	(54)
Total expense and other (income)	7,336	(98)	(23)	7,215
Pre-tax income	7,831	198	83	8,112
Pre-tax income margin	26.7%	0.7 pts.	0.3 pts.	27.7%
Provision for income taxes*	$ 1,998	$ (45)	$ 30	$ 1,983
Effective tax rate	25.5%	(1.2) pts.	0.1 pts.	24.4%
Net income	$ 5,833	$ 243	$ 53	$ 6,129
Net income margin	19.9%	0.8 pts.	0.2 pts.	20.9%
Diluted earnings per share	$ 5.13	$0.21	$ 0.05	$ 5.39

* The tax impact on operating (non-GAAP) pre-tax income is calculated under the same accounting principles applied to the GAAP pre-tax income which employs an annual effective tax rate method to the results.

($ in millions except per share amounts)

For the fourth quarter 2011:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	Operating (non-GAAP)
Gross profit	$14,722	$ 81	$ (10)	$14,793
Gross profit margin	49.9%	0.3 pts.	(0.0) pts.	50.2%
SG&A	$ 6,076	$ (82)	$ 2	$ 5,996
RD&E	1,555	0	23	1,578
Other (income) and expense	(44)	(2)	0	(46)
Total expense and other (income)	7,448	(85)	25	7,388
Pre-tax income	7,274	166	(35)	7,405
Pre-tax income margin	24.7%	0.6 pts.	(0.1) pts.	25.1%
Provision for income taxes*	$ 1,784	$ 47	$ (24)	$ 1,808
Effective tax rate	24.5%	0.1 pts.	(0.2) pts.	24.4%
Net income	$ 5,490	$ 119	$ (12)	$ 5,597
Net income margin	18.6%	0.4 pts.	(0.0) pts.	19.0%
Diluted earnings per share	$ 4.62	$0.10	$(0.01)	$ 4.71

* The tax impact on operating (non-GAAP) pre-tax income is calculated under the same accounting principles applied to the GAAP pre-tax income which employs an annual effective tax rate method to the results.

Prior Year in Review

The "Prior Year in Review" section provides a summary of the company's financial performance in 2011 as compared to 2010. For a detailed discussion of prior-year performance, see the 2011 Annual Report.

($ and shares in millions except per share amounts)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent/ Margin Change
Revenue	$106,916	$ 99,870	7.1%*
Gross profit margin	46.9%	46.1%	0.8pts.
Total expense and other income	$ 29,135	$ 26,291	10.8%
Total expense and other income-to-revenue ratio	27.3%	26.3%	0.9pts.
Income before income taxes	$ 21,003	$ 19,723	6.5%
Provision for income taxes	5,148	4,890	5.3%
Net income	$ 15,855	$ 14,833	6.9%
Net income margin	14.8%	14.9%	0.0pts.
Earnings per share of common stock			
Assuming dilution	$ 13.06	$ 11.52	13.4%
Weighted-average shares outstanding			
Assuming dilution	1,213.8	1,287.4	(5.7)%
Assets**	$116,433	$113,452	2.6%
Liabilities**	$ 96,197	$ 90,279	6.6%
Equity**	$ 20,236	$ 23,172	(12.7)%

*3.4 percent adjusted for currency.

**At December 31.

The following table provides the company's operating (non-GAAP) earnings for 2011 and 2010.

($ in millions except per share amounts)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent Change
Net income as reported	$15,855	$14,833	6.9%
Non-operating adjustments (net of tax)			
Acquisition-related charges	495	443	12.0
Non-operating retirement-related costs/(income)	(32)	(253)	(87.3)
Operating (non-GAAP) earnings*	$16,318	$15,023	8.6%
Diluted operating (non-GAAP) earnings per share	$ 13.44	$ 11.67	15.2%

*See page 54 for a more detailed reconciliation of net income to operating earnings.

Snapshot

In 2011, the company delivered strong financial results highlighted by solid revenue performance, continued margin expansion, strong profit and cash generation and effective use of cash. In its centennial year, the company achieved record levels of revenue, profit, free cash flow and earnings per share. The financial performance was the result of the transformation of the company which began years ago. This transformation has been focused on shifting the business to higher value areas of the market, improving productivity and investing in opportunities to drive future growth. These changes have contributed to nine consecutive years of double-digit earnings per share growth. More importantly, this transformation has strengthened the business and put the company on track to achieve its 2015 road map objective of at least $20 of operating (non-GAAP) earnings per share.

The focus on key growth initiatives and investments in innovation have enabled the company to expand into new markets and capitalize on trends like business analytics and cloud computing. The growth markets strategy to expand into new markets, build out IT infrastructures and lead in specific industries is driving strong performance and market share gains. Growth markets revenue increased 16.0 percent (11 percent adjusted for currency) in 2011 contributing approximately two-thirds of the total constant currency revenue growth for the year and represented 22 percent of total geographic revenue. The company's business analytics solutions helps clients leverage massive amounts of data and content to gain business insight and optimize results. Business analytics revenue increased 16 percent compared to 2010. The Smarter Planet offerings generated close to 50 percent growth year to year, with Smarter Commerce demonstrating strong market momentum. In Cloud Computing, the company is helping its clients improve the economics of information technology. In 2011, the company continued to expand its offerings and cloud revenue for the year was more than three times the prior year results. With strong contribution from these growth initiatives, the company delivered revenue growth of 7.1 percent (3 percent adjusted for currency) compared to 2010.

Segment performance was led by Software which increased revenue 10.9 percent (8 percent adjusted for currency) driven by key branded middleware which increased 15.6 percent (13 percent adjusted for currency) and continued to extend its lead in the middleware market. In the Global Services business, Global Technology Services increased 7.0 percent (3 percent adjusted for currency) and Global Business Services grew revenue 5.8 percent (1 percent adjusted for currency) driven by strong performance in the growth markets where both segments grew revenue 11 percent at constant currency. Systems and Technology delivered revenue growth of 5.6 percent (3 percent adjusted for currency) driven by strong performance in Power Systems which increased 12.0 percent (9 percent adjusted for currency) and the growth markets which increased 14.9 percent (12 percent adjusted for currency).

The consolidated gross profit margin increased 0.8 points versus 2010 to 46.9 percent. This was the eighth consecutive year of improvement in the gross profit margin. The operating (non-GAAP) gross margin of 47.2 percent increased 1.1 points compared to the prior year. The increase in gross margin in 2011 was driven by margin improvements in Software, Systems and Technology and Global Services, and an improved revenue mix driven by Software.

Total expense and other income increased 10.8 percent in 2011 versus the prior year. Total operating (non-GAAP) expense and other income increased 10.2 percent compared to the prior year. The year-to-year drivers for both categories were approximately:

- Currency* 4 points
- Acquisitions** 3 points
- Base expense 3 points

*Reflects impacts of translation and hedging programs.
**Includes acquisitions completed in prior 12-month period.

Pre-tax income grew 6.5 percent and the pre-tax margin was 19.6 percent, a decrease of 0.1 points versus 2010. Net income increased 6.9 percent and the net income margin was 14.8 percent, flat versus 2010. The effective tax rate for 2011 was 24.5 percent, compared with 24.8 percent in the prior year. Operating (non-GAAP) pre-tax income grew 8.7 percent and the operating (non-GAAP) pre-tax margin was 20.2 percent, an increase of 0.3 points versus the prior year. Operating (non-GAAP) earnings increased 8.6 percent and the operating (non-GAAP) earnings margin of 15.3 percent increased 0.2 points versus the prior year. The operating (non-GAAP) effective tax rate was 24.5 percent versus 24.4 percent in 2010.

Diluted earnings per share improved 13.4 percent reflecting the growth in net income and the benefits of the common stock repurchase program. In 2011, the company repurchased approximately 89 million shares of its common stock. Diluted earnings per share of $13.06 increased $1.54 from the prior year. Operating (non-GAAP) diluted earnings per share of $13.44 increased $1.77 versus 2010 driven by the following factors:

- Revenue increase at actual rates $0.82
- Margin expansion $0.18
- Common stock repurchases $0.77

At December 31, 2011, the company's balance sheet and liquidity were well positioned to support the company's objectives. Cash and cash equivalents at year end was $11,922 million. Key drivers in the balance sheet and total cash flows are highlighted below.

Total assets increased $2,981 million ($4,636 million adjusted for currency) from December 31, 2010 driven by:

- Increases in total receivables ($1,564 million), cash and cash equivalents ($1,262 million), goodwill ($1,077 million) and prepaid expenses and other assets ($1,022 million), partially offset by
- Decreases in marketable securities ($990 million) and investments and sundry assets ($883 million).

Total liabilities increased $5,918 million ($6,324 million adjusted for currency) from December 31, 2010 driven by:

- Increases in total debt ($2,695 million), retirement and nonpension postretirement benefit obligations ($2,396 million), accounts payable ($713 million) and deferred income ($798 million), partially offset by
- Decreases in taxes payable ($903 million).

Total equity of $20,236 million decreased $2,937 million from December 31, 2010 as a result of:

- Increased treasury stock ($14,803 million) driven by share repurchases, pension adjustments ($2,448 million) and currency translation adjustments ($711 million), partially offset by
- Higher retained earnings ($12,326 million) and common stock ($2,711 million).

The company generated $19,846 million in cash flow from operations, an increase of $298 million compared to 2010, primarily driven by the increase in net income. Net cash used in investing activities of $4,396 million was $4,111 million lower than 2010, driven by less cash used for acquisitions ($4,111 million). Net cash used in financing activities of $13,696 million was $1,267 million higher, compared to 2010, primarily due to lower cash from common stock transactions ($991 million) and increased dividend payments ($296 million).

Segment Details

The following is an analysis of the 2011 and 2010 reportable segment results. The table below presents each reportable segment's external revenue and gross margin results. Segment pre-tax income includes transactions between the segments that are intended to reflect an arm's-length transfer price and excludes certain unallocated corporate items.

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent/ Margin Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Revenue				
Global Technology Services	$ 40,879	$38,201	7.0%	2.7%
Gross margin	35.0%	34.5%	0.5 pts.	
Global Business Services	19,284	18,223	5.8%	1.5%
Gross margin	28.8%	28.0%	0.7 pts.	
Software	24,944	22,485	10.9%	8.0%
Gross margin	88.5%	87.9%	0.5 pts.	
Systems and Technology	18,985	17,973	5.6%	3.2%
Gross margin	39.8%	38.1%	1.6 pts.	
Global Financing	2,102	2,238	(6.1)%	(9.1)%
Gross margin	49.8%	51.3%	(1.5) pts.	
Other	722	750	(3.8)%	(6.3)%
Gross margin	(54.5)%	(8.6)%	(45.9) pts.	
Total consolidated revenue	$106,916	$99,870	7.1%	3.4%
Total consolidated gross profit	$ 50,138	$46,014	9.0%	
Total consolidated gross margin	46.9%	46.1%	0.8 pts.	
Non-operating adjustments				
Amortization of acquired intangible assets	340	260	30.8%	
Acquisition-related charges	1	0	NM	
Retirement-related costs/(income)	2	(204)	NM	
Operating (non-GAAP) gross profit	$ 50,481	$46,070	9.6%	
Operating (non-GAAP) gross margin	47.2%	46.1%	1.1 pts.	

NM—Not meaningful

The Product Lifecycle Management (PLM) transaction gain recorded in the first quarter of 2010 impacted the year-to-year results of the company's reportable segments for 2011 compared to 2010. In addition, workforce rebalancing charges were incurred in every segment in the first quarter of both years. The PLM transaction gain ($591 million) was recorded in Software in the first quarter of 2010.

In the segment analysis on page 47, each segment's pre-tax income and pre-tax margin for 2011 and 2010 is presented on an as-reported basis and on a basis normalized for these actions in both years to provide a better perspective of the underlying operational performance of the segments.

Global Services

The Global Services segments, GTS and GBS, delivered $60,163 million of revenue in 2011, an increase of 6.6 percent (2 percent adjusted for currency) compared to 2010. Services revenue performance, adjusted for currency, was consistent over the course of the year driven by stability in the backlog. Performance in 2011 was led by strength in the growth markets with total services revenue up 16.9 percent (11 percent adjusted for currency) and gross margin 2 points higher than in the major markets. The services segments also had good performance in the other key growth initiatives: cloud, business analytics and Smarter Planet. Total outsourcing revenue of $28,301 million increased 7.8 percent (3 percent adjusted for currency) and total transactional revenue of $24,348 million increased 6.2 percent (2 percent adjusted for currency) year to year.

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Global Services external revenue	$60,163	$56,424	6.6%	2.3%
Global Technology Services	$40,879	$38,201	7.0%	2.7%
Outsourcing	23,911	22,241	7.5	3.0
Integrated Technology Services	9,453	8,714	8.5	4.1
Maintenance	7,515	7,250	3.6	(0.2)
Global Business Services	$19,284	$18,223	5.8%	1.5%
Outsourcing	4,390	4,007	9.5	4.8
Consulting and Systems Integration	14,895	14,216	4.8	0.5

GTS revenue of $40,879 million increased 7.0 percent (3 percent adjusted for currency) in 2011 versus 2010. Revenue performance was led by the growth markets which were up 16.8 percent (11 percent adjusted for currency). GTS Outsourcing revenue increased 7.5 percent (3 percent adjusted for currency) in 2011 and gained share. Outsourcing performance in 2011 was driven by strength in the growth markets with revenue up 11 percent, adjusted for currency, as the outsourcing offerings are continuing to help clients build out their IT infrastructures. ITS revenue increased 8.5 percent (4 percent adjusted for currency) in 2011 versus 2010, also led by the growth markets which increased 13 percent, adjusted for currency. Revenue growth year over year, adjusted for currency, in both GTS Outsourcing and ITS was relatively consistent over the course of the year.

GBS revenue of $19,284 million increased 5.8 percent (1 percent adjusted for currency) in 2011 led by strength in the growth markets with revenue up 17.4 percent (11 percent adjusted for currency). Application Outsourcing revenue increased 9.5 percent (5 percent adjusted for currency) in 2011 year to year. C&SI, which includes Consulting, Application Management Services systems integration and the U.S. Federal business, grew revenue in 2011 4.8 percent (1 percent adjusted for currency). Both GBS lines of business had strong year-to-year performance in the growth markets with double-digit constant currency revenue growth. GBS was impacted in 2011 by revenue declines in Japan and in the Public Sector; excluding Japan and the Public Sector, total GBS revenue increased 11.9 percent in 2011 (8 percent adjusted for currency).

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent/ Margin Change
Global Services			
Global Technology Services			
External gross profit	$14,320	$13,194	8.5%
External gross profit margin	35.0%	34.5%	0.5 pts.
Pre-tax income	$ 6,284	$ 5,499	14.3%
Pre-tax margin	14.9%	13.9%	1.0 pts.
Pre-tax income—normalized*	$ 6,399	$ 5,771	10.9%
Pre-tax margin—normalized	15.2%	14.6%	0.6 pts.
Global Business Services			
External gross profit	$ 5,545	$ 5,106	8.6%
External gross profit margin	28.8%	28.0%	0.7 pts.
Pre-tax income	$ 3,006	$ 2,546	18.1%
Pre-tax margin	15.0%	13.4%	1.6 pts.
Pre-tax income—normalized**	$ 3,052	$ 2,674	14.1%
Pre-tax margin—normalized	15.2%	14.1%	1.1 pts.

*Excludes $116 million and $273 million of workforce rebalancing charges in the first quarter of 2011 and 2010, respectively.

**Excludes $45 million and $128 million of workforce rebalancing charges in the first quarter of 2011 and 2010, respectively.

GTS gross profit increased 8.5 percent in 2011 and gross margin improved 0.5 points year to year. Margin expansion was driven by improved gross profit performance in all lines of business. Pre-tax income increased to $6,284 million in 2011 with a pre-tax margin of 14.9 percent. On a normalized basis, segment pre-tax income in 2011 increased 10.9 percent and margin expanded 0.6 points to 15.2 percent.

GBS gross profit increased 8.6 percent in 2011 and gross margin improved 0.7 points to 28.8 percent, led primarily by margin improvement in Application Management Services Outsourcing. GBS segment pre-tax income improved 18.1 percent to $3,006 million with a pre-tax margin of 15.0 percent. On a normalized basis, segment pre-tax income in 2011 increased 14.1 percent with a pre-tax margin of 15.2 percent, an increase of 1.1 points year to year.

Total Global Services segment pre-tax income was $9,290 million in 2011, an increase of $1,246 million or 15.5 percent year to year. The combined pre-tax margin in 2011 improved 1.2 points versus 2010. On a normalized basis, total Global Services pre-tax income in 2011 increased 11.9 percent with a pre-tax margin of 15.2 percent, up 0.8 points year to year. In 2011, the company established two Global Services integration hubs which will drive the business to a new level of global consistency, integration and standardization in the development and delivery of solutions to clients. Both Global Services segments had strong profit and margin performance in 2011 as they continued to mix to higher value offerings and markets, and continued to focus on productivity and cost management.

Software

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Software external revenue	$24,944	$22,485	10.9%	8.0%
Middleware	$20,650	$18,445	12.0%	9.0%
Key Branded Middleware	16,051	13,879	15.6	12.7
WebSphere			40.5	37.4
Information Management			12.5	9.6
Lotus			3.8	0.2
Tivoli			10.2	7.4
Rational			4.9	1.8
Other middleware	4,600	4,565	0.8	(1.9)
Operating systems	2,479	2,282	8.6	5.6
Other	1,814	1,758	3.2	0.4

Software revenue of $24,944 million increased 10.9 percent (8 percent adjusted for currency) in 2011 compared to 2010. Adjusting for the divested PLM operations, revenue grew at 11.8 percent (9 percent adjusted for currency) in 2011. Revenue growth was driven by key branded middleware, reflecting continued strong demand for the company's offerings and solid growth in key focus areas such as Smarter Commerce and business analytics. Overall, the Software business had another very good year in 2011, delivering nearly $10 billion in segment pre-tax income, an increase of $500 million from 2010. The company continued to invest in additional capabilities for the Software business through both organic investments and strategic acquisitions, including the completion of five acquisitions in 2011, plus acquisitions announced in the fourth quarter of 2011 that closed in the first quarter of 2012.

Key branded middleware revenue increased 15.6 percent (13 percent adjusted for currency) and again gained market share in 2011, as the Software business extended its lead in the middleware market. Software revenue continued to mix to the faster growing branded middleware which accounted for 64 percent of total software revenue in 2011, an increase of 3 points from 2010. Performance in 2011 was led by strong double-digit growth in WebSphere. The Software business continued to have solid performance in its growth initiatives, with business analytics revenue up double digits in 2011 year to year.

WebSphere revenue increased 40.5 percent (37 percent adjusted for currency) in 2011 with strong performance throughout the year and gained share. WebSphere's five product areas all had revenue growth of 18 percent or higher in 2011, led by the Smarter Commerce offerings, which more than tripled year to year. This performance contributed to the company's overall growth in the retail industry in each of the last two years. The 2010 acquisitions of Sterling Commerce, Coremetrics and Unica Corporation all contributed to the WebSphere year-to-year performance.

Information Management revenue increased 12.5 percent (10 percent adjusted for currency) and gained share in 2011 compared to 2010. Distributed Database revenue increased 33 percent in 2011, led by strong performance from the Netezza offerings. Since acquiring Netezza in November 2010, the Software business has expanded the Netezza customer base by over 40 percent. The company's business analytics software offerings, most of which are part of Information Management, continued to outpace the market with double-digit revenue growth, year to year in 2011.

Lotus revenue increased 3.8 percent (flat adjusted for currency) in 2011 compared to 2010, with growth driven by the Social Business offerings.

Tivoli revenue increased 10.2 percent (7 percent adjusted for currency) in 2011 when compared to 2010 and gained share. Revenue growth was led by Storage software with growth of 25 percent (22 percent adjusted for currency). Security solutions software also delivered growth in 2011, with revenue up 9 percent (6 percent adjusted for currency).

Rational revenue increased 4.9 percent (2 percent adjusted for currency) in 2011 versus 2010 and gained share. Revenue growth was driven by Telelogic, which increased 11 percent (7 percent adjusted for currency) year to year.

Operating systems revenue increased 8.6 percent (6 percent adjusted for currency) in 2011 compared to 2010, driven primarily by growth in Power Systems.

Other software revenue increased 3.2 percent (flat adjusted for currency) with growth in software-related services partially offset by the divestiture of the PLM operations in the first quarter of 2010.

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent/ Margin Change
Software			
External gross profit	$22,065	$19,774	11.6%
External gross profit margin	88.5%	87.9%	0.5 pts.
Pre-tax income	$ 9,970	$ 9,466	5.3%
Pre-tax margin	35.3%	37.2%	(1.9) pts.
Pre-tax income-normalized*	$10,009	$ 8,972	11.6%
Pre-tax margin—normalized	35.5%	35.3%	0.2 pts.

*Excludes $39 million and $98 million of workforce rebalancing charges in the first quarter of 2011 and 2010, respectively, and $(591) million related to the PLM gain in the first quarter of 2010.

Software gross profit increased 11.6 percent to $22,065 million in 2011 driven primarily by the growth in revenue. Gross profit margin improved 0.5 points versus 2010. Software delivered segment pre-tax income of $9,970 million in 2011, an increase of 5.3 percent versus 2010. On a normalized basis, segment pre-tax income increased 11.6 percent and segment pre-tax margin improved 0.2 points to 35.5 percent in 2011. The Software segment delivered strong margin and profit growth in 2011 and contributed to the company's continued margin expansion and profit performance.

Systems and Technology

($ in millions)

For the year ended December 31:	2011*	2010*	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Systems and Technology external revenue	$18,985	$17,973	5.6%	3.2%
System z			0.3%	(2.1)%
Power Systems			12.0	9.5
System x			5.7	2.4
Storage			5.8	3.1
Total Systems excluding Retail Store Solutions			6.3	3.5
Microelectronics OEM			0.2	0.1
Total Systems and Technology excluding Retail Store Solutions			5.4	3.0
Retail Store Solutions (Divested in 2012)			11.6	9.4

*Reclassified to conform with 2012 presentation.

Systems and Technology revenue increased 5.6 percent (3 percent adjusted for currency) in 2011 versus 2010. Performance in 2011 was driven by the growth markets which increased 14.9 percent (12 percent adjusted for currency). The major markets increased 2.7 percent, but were essentially flat at constant currency versus the prior year period.

System z revenue increased 0.3 percent (down 2 percent adjusted for currency) in 2011 versus 2010. MIPS shipments increased 16 percent in 2011 versus 2010. The revenue performance and lower MIPS growth was a result of the strong prior-year performance and was consistent with prior mainframe product cycles, as the company successfully launched its zEnterprise 196 (z196) server in the third quarter of 2010. Since the z196 server began shipping, the company added over 115 new System z clients, with more than 33 percent in the growth markets through year-end 2011.

Power Systems revenue increased 12.0 percent (9 percent adjusted for currency) in 2011 versus 2010 with performance driven by strong growth in high-end systems. High-end systems revenue increased 31 percent (28 percent adjusted for currency) in 2011 compared to 2010. The company extended its market leadership in 2011, having posted 15 consecutive quarters of year-to-year share gains. In addition, this was the second consecutive year that the company had over 1,000 competitive displacements, which this year generated over $1 billion of business; approximately 50 percent of this business was from Hewlett Packard, with most of the balance from Oracle/Sun.

System x revenue increased 5.7 percent (2 percent adjusted for currency) in 2011 compared to 2010. High-end System x revenue increased 35 percent (31 percent adjusted for currency) in 2011 versus the prior year. System x revenue increased 22 percent (18 percent adjusted for currency) in the growth markets and closed the year with its ninth consecutive quarter with a double-digit increase in the growth markets.

Storage revenue increased 5.8 percent (3 percent adjusted for currency) in 2011 versus 2010. Total disk revenue increased 7 percent (4 percent adjusted for currency) in 2011 versus 2010, driven by growth in enterprise disk products. Tape revenue increased 3 percent (flat adjusted for currency) in 2011 versus 2010. When combined with storage software, total storage revenue increased 10 percent in 2011 compared to the prior year.

Retail Stores Solutions revenue increased 11.6 percent (9 percent adjusted for currency) in 2011 versus the prior year. The brand gained share in 2011 and contributed to the company's overall improved performance in the retail industry.

Microelectronics OEM revenue increased 0.2 percent (flat adjusted for currency) in 2011 versus 2010, as the company shifted its production to meet internal demand.

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent/ Margin Change
Systems and Technology			
External gross profit	$7,555	$6,856	10.2%
External gross profit margin	39.8%	38.1%	1.6 pts.
Pre-tax income	$1,633	$1,456	12.2%
Pre-tax margin	8.2%	7.8%	0.5 pts.
Pre-tax income—normalized*	$1,652	$1,513	9.2%
Pre-tax margin—normalized	8.3%	8.1%	0.3 pts.

*Excludes $19 million and $57 million of workforce rebalancing charges in the first quarter of 2011 and 2010, respectively.

The increase in external gross profit in 2011 versus 2010 was due to higher revenue and an improved overall gross profit margin.

Overall gross margin increased 1.6 points in 2011 versus the prior year. The increase was primarily driven by margin improvements in Power Systems (1.2 points), System z (0.4 points) and System x (0.6 points), partially offset by lower margins in Microelectronics (0.6 points) and Storage (0.2 points).

Systems and Technology's pre-tax income increased $177 million (12.2 percent) to $1,633 million in 2011 and on a normalized basis increased $139 million to $1,652 million in 2011, when compared to the prior year. Pre-tax margin increased 0.5 points, and on a normalized basis 0.3 points, versus the prior year.

Global Financing

See pages 63 through 67 for an analysis of Global Financing's segment results.

Geographic Revenue

In addition to the revenue presentation by reportable segment, the company also measures revenue performance on a geographic basis. The following geographic, regional and country-specific revenue performance excludes OEM revenue, which is discussed separately on page 51.

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent Change	Yr.-to-Yr. Percent Change Adjusted for Currency
Total revenue	$106,916	$99,870	7.1%	3.4%
Geographies	$104,170	$97,060	7.3%	3.6%
Americas	44,944	42,044	6.9	6.2
Europe/Middle East/Africa	33,952	31,866	6.5	1.6
Asia Pacific	25,273	23,150	9.2	1.7
Major markets			5.1%	1.6%
Growth markets			16.0%	11.4%
BRIC countries			18.6%	16.1%

Total geographic revenue increased 7.3 percent (4 percent adjusted for currency) to $104,170 million in 2011, led by strong performance in the growth markets.

The growth markets increased 16.0 percent (11 percent adjusted for currency) in 2011 and gained 4 points of market share. The growth markets strategy to expand into new markets, build out IT infrastructures and lead in specific industries has driven the strong performance and share gains. Revenue growth outpaced growth in the major markets by 10 points in 2011 on a constant currency basis. In the BRIC countries, revenue increased 18.6 percent (16 percent adjusted for currency) in 2011, with double-digit growth in each country. Overall in 2011, the company had double-digit constant currency revenue growth in nearly 40 growth market countries. These countries contributed nearly two-thirds of the company's 2011 constant currency revenue growth and represented 22 percent of total geographic revenue in 2011. To further drive market expansion, the company opened 92 new branches and added over 1,500 new sales resources in 2011.

Americas revenue increased 6.9 percent (6 percent adjusted for currency) in 2011. Within the major market countries, the U.S. increased 4.2 percent and Canada increased 14.3 percent (10 percent adjusted for currency). Revenue in the Latin America growth markets increased 16.9 percent (14 percent adjusted for currency) with growth in Brazil of 13.0 percent (9 percent adjusted for currency).

EMEA revenue increased 6.5 percent (2 percent adjusted for currency) in 2011 compared to 2010. In the major market countries, revenue growth was led by the UK up 9.4 percent (5 percent adjusted for currency), Spain up 11.2 percent (6 percent adjusted for currency), Germany up 5.8 percent (1 percent adjusted for currency) and France up 4.4 percent (flat adjusted for currency). Revenue in Italy decreased 0.6 percent (5 percent adjusted for currency). The EMEA growth markets increased 11.6 percent (10 percent adjusted for currency) in 2011, led by growth in Russia of 49.8 percent (49 percent adjusted for currency).

Asia Pacific revenue increased 9.2 percent (2 percent adjusted for currency) year over year. The Asia Pacific growth markets increased 16.8 percent (11 percent adjusted for currency), led by growth in China of 21.6 percent (18 percent adjusted for currency) and India of 10.9 percent (13 percent adjusted for currency). Japan revenue increased 2.0 percent (decreased 7 percent adjusted for currency).

OEM revenue of $2,746 million in 2011 decreased 2.3 percent (3 percent adjusted for currency) compared to 2010, driven by the Microelectronics OEM business.

Total Expense and Other Income

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent/ Margin Change
Total consolidated expense and other (income)	$29,135	$26,291	10.8%
Non-operating adjustments			
Amortization of acquired intangible assets	(289)	(253)	14.4
Acquisition-related charges	(45)	(46)	(1.8)
Non-operating retirement-related (costs)/income	74	210	(64.6)
Total operating (non-GAAP) expense and other (income)	$28,875	$26,202	10.2%
Total consolidated expense-to-revenue ratio	27.3%	26.3%	0.9 pts.
Operating (non-GAAP) expense-to-revenue ratio	27.0%	26.2%	0.8 pts.

Total expense and other (income) increased 10.8 percent in 2011 versus 2010. Total operating (non-GAAP) expense and other (income) increased 10.2 percent versus the prior year. The key drivers of the year-to-year change in total expense and other (income) for both expense presentations were approximately:

- Currency* 4 points
- Acquisitions** 3 points
- Base expense 3 points

*Reflects impacts of translation and hedging programs.

**Includes acquisitions completed in prior 12-month period.

For additional information regarding total expense and other income, see the following analyses by category.

Selling, General and Administrative

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent Change
Selling, general and administrative expense			
Selling, general and administrative—other	$20,287	$18,585	9.2%
Advertising and promotional expense	1,373	1,337	2.7
Workforce rebalancing charges	440	641	(31.3)
Retirement-related costs	603	494	22.1
Amortization of acquired intangible assets	289	253	14.4
Stock-based compensation	514	488	5.4
Bad debt expense	88	40	116.6
Total consolidated selling, general and administrative expense	$23,594	$21,837	8.0%
Non-operating adjustments			
Amortization of acquired intangible assets	(289)	(253)	14.4
Acquisition-related charges	(20)	(41)	(52.3)
Non-operating retirement-related (costs)/income	(13)	84	NM
Operating (non-GAAP) selling, general and administrative expense	$23,272	$21,628	7.6%

NM—Not meaningful

Total SG&A expense increased 8.0 percent (5 percent adjusted for currency) in 2011 versus 2010. Overall the increase was driven by currency impacts (3 points), acquisition-related spending (3 points) and base expense (2 points). Operating (non-GAAP) SG&A expense increased 7.6 percent (5 percent adjusted for currency) primarily driven by the same factors. Workforce rebalancing charges decreased $201 million due primarily to actions taken in the first quarter of 2010 ($558 million). Bad debt expense increased $47 million in 2011 primarily due to higher receivable balances and the economic environment in Europe. The accounts receivable provision coverage was 1.5 percent at December 31, 2011, a decrease of 30 basis points from year-end 2010.

Other (Income) and Expense

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent Change
Other (income) and expense			
Foreign currency transaction losses/(gains)	$513	$ 303	69.2%
(Gains)/losses on derivative instruments	(113)	(239)	(52.9)
Interest income	(136)	(92)	48.4
Net (gains)/losses from securities and investment assets	(227)	31	NM
Other	(58)	(790)	(92.7)
Total consolidated other (income) and expense	$ (20)	$(787)	(97.4)%
Non-operating adjustment			
Acquisition-related charges	(25)	(4)	NM
Operating (non-GAAP) other (income) and expense	$ (45)	$(791)	(94.3)%

NM—Not meaningful

Other (income) and expense was income of $20 million and $787 million for 2011 and 2010, respectively. The decrease in income in 2011 was primarily driven by the net gain ($591 million) from the PLM transaction recorded in the first quarter of 2010 and a net gain associated with the disposition of a joint venture in the third quarter of 2010 ($57 million) reflected in Other in the table above. In addition, foreign currency rate volatility drove higher foreign currency transaction losses ($210 million) and lower gains on derivative instruments ($126 million). These decreases in income were partially offset by higher net gains from securities and investment asset sales ($258 million), primarily in the first quarter of 2011.

Research, Development and Engineering

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent Change
Total consolidated research, development and engineering	$6,258	$6,026	3.8%
Non-operating adjustment			
Non-operating retirement-related (costs)/income	88	126	(30.4)
Operating (non-GAAP) research, development and engineering	$6,345	$6,152	3.1%

The company continues to invest in research and development, focusing its investments on high-value, high-growth opportunities and to extend its technology leadership. Total RD&E expense increased 3.8 percent in 2011 versus 2010, primarily driven by acquisitions (up 4 points) and currency impacts (up 2 points), partially offset by base expense (down 2 points). Operating (non-GAAP) RD&E expense increased 3.1 percent in 2011 compared to the prior year primarily driven by the same factors. RD&E investments represented 5.9 percent of revenue in 2011, compared to 6.0 percent in 2010.

Intellectual Property and Custom Development Income

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent Change
Sales and other transfers of intellectual property	$ 309	$ 203	52.3%
Licensing/royalty-based fees	211	312	(32.5)
Custom development income	588	638	(8.0)
Total	$1,108	$1,154	(4.0)%

The timing and amount of sales and other transfers of IP may vary significantly from period to period depending upon timing of divestitures, industry consolidation, economic conditions and the timing of new patents and know-how development. There were no significant individual IP transactions in 2011 or 2010.

Interest Expense

($ in millions)

For the year ended December 31:	2011	2010	Yr.-to-Yr. Percent Change
Interest expense			
Total	$411	$368	11.6%

The increase in interest expense in 2011 versus 2010 was primarily driven by higher average debt levels, partially offset by lower average interest rates. Interest expense is presented in cost of financing in the Consolidated Statement of Earnings only if the related external borrowings are to support the Global Financing external business. See pages 66 and 67 for additional information regarding Global Financing debt and interest expense. Overall interest expense (excluding capitalized interest) for 2011 was $964 million, an increase of $41 million year to year.

Income Taxes

The effective tax rate for 2011 was 24.5 percent compared with 24.8 percent in 2010. The operating (non-GAAP) tax rate for 2011 was 24.5 percent compared with 24.4 percent in 2010. The 0.3 point decrease in the as-reported effective tax rate was primarily driven by a more favorable geographic mix of pre-tax earnings (0.6 points), the lack of prior year impacts related to certain intercompany payments made by foreign subsidiaries (6.6 points) and a reduced impact associated with the intercompany licensing of certain intellectual property and acquisition integration costs (2.2 points). These benefits were offset by a decrease in the utilization of foreign tax credits (3.7 points) and a decrease in the benefits associated with the settlements of the U.S. federal income tax audit (5.5 points). The remaining items were individually insignificant.

Financial Position

Cash and cash equivalents at year end was $11,922 million, an increase of $271 million from the prior year-end position. During 2011, the company continued to manage its investment portfolio to meet its capital preservation and liquidity objectives, which resulted in a shift to higher rated institutions. At year end, a significant portion of the investment portfolio was invested in U.S. sovereign instruments with no holdings of European sovereign debt securities.

Total debt of $31,320 million increased $2,695 million from the prior year-end level. The commercial paper balance at December 31, 2011 was $2,300 million, an increase of $1,156 million from the prior year. Within total debt, $23,332 million is in support of the Global Financing business which is leveraged at a 7.2 to 1 ratio. The company continued to have substantial flexibility in the market. During 2011, the company completed bond issuances totaling $4,850 million, with terms ranging from three to 10 years and priced from 0.875 to 2.90 percent depending on the maturity. In addition, the company renewed its $10 billion global credit facility for five years, with 100 percent of the facility available on a same day basis.

Consistent with accounting standards the company remeasured the funded status of its retirement and postretirement plans at December 31. At December 31, 2011, the overall net underfunded position was $16,389 million, an increase of $2,654 million from December 31, 2010 as the increase in the benefit obligation due to the reduction in discount rates more than offset the returns on plan assets. At year end, the company's qualified defined benefit plans were well funded and its cash requirements related to these plans remained stable going forward. In 2011, the return on the U.S. Personal Pension Plan assets was 8.4 percent and the plan was 98 percent funded. Overall, global asset returns were 6.1 percent and the company's qualified defined benefit plans worldwide were 96 percent funded.

The company's qualified defined benefit plans do hold European sovereign debt securities in their trust funds. See note S, "Retirement-Related Benefits," on page 128 for additional information.

During 2011, the company generated $19,846 million in cash from operations, an increase of $298 million compared to 2010. In addition, the company generated $16,604 million in free cash flow in 2011, an increase of $305 million over the prior year. See pages 56 and 57 for additional information on free cash flow. The company returned $18,519 million to shareholders in 2011, with $15,046 million in gross share repurchases and $3,473 million in dividends. In 2011, the company repurchased approximately 89 million shares and had $8.7 billion remaining in share repurchase authorization at year end. The company has consistently generated strong cash from operations and strong free cash flow and this permits the company to invest and deploy capital to areas with the most attractive long-term opportunities.

GAAP Reconciliation

The tables below provide a reconciliation of the company's income statement results as reported under GAAP to its operating earnings presentation which is a non-GAAP measure. The company's calculation of operating earnings, as presented, may differ from similarly titled measures reported by other companies. Please refer to the "Operating (non-GAAP) Earnings" section on page 18 for the company's rationale for presenting operating earnings information.

($ in millions except per share amounts)

For the year ended December 31, 2011:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	Operating (non-GAAP)
Gross profit	$50,138	$ 341	$ 2	$50,481
Gross profit margin	46.9%	0.3 pts.	0.0 pts.	47.2%
SG&A	$23,594	$(309)	$ (13)	$23,272
RD&E	6,258	0	88	6,345
Other (income) and expense	(20)	(25)	0	(45)
Total expense and other (income)	29,135	(334)	74	28,875
Pre-tax income	21,003	675	(72)	21,605
Pre-tax income margin	19.6%	0.6 pts.	(0.1) pts.	20.2%
Provision for income taxes*	$ 5,148	$ 179	$ (40)	$ 5,287
Effective tax rate	24.5%	0.1 pts.	(0.1) pts.	24.5%
Net income	$15,855	$ 495	$ (32)	$16,318
Net income margin	14.8%	0.5 pts.	(0.0) pts.	15.3%
Diluted earnings per share	$ 13.06	$0.41	$(0.03)	$ 13.44

* The tax impact on operating (non-GAAP) pre-tax income is calculated under the same accounting principles applied to the GAAP pre-tax income which employs an annual effective tax rate method to the results.

($ in millions except per share amounts)

For the year ended December 31, 2010:	GAAP	Acquisition-Related Adjustments	Retirement-Related Adjustments	Operating (non-GAAP)
Gross profit	$46,014	$ 260	$ (204)	$46,070
Gross profit margin	46.1%	0.3 pts.	(0.2) pts.	46.1%
SG&A	$21,837	$(294)	$ 84	$21,628
RD&E	6,026	0	126	6,152
Other (income) and expense	(787)	(4)	0	(791)
Total expense and other (income)	26,291	(298)	210	26,202
Pre-tax income	19,723	558	(414)	19,867
Pre-tax income margin	19.7%	0.6 pts.	(0.4) pts.	19.9%
Provision for income taxes*	$ 4,890	$ 116	$ (162)	$ 4,844
Effective tax rate	24.8%	(0.1) pts.	(0.3) pts.	24.4%
Net income	$14,833	$ 443	$ (253)	$15,023
Net income margin	14.9%	0.4 pts.	(0.3) pts.	15.0%
Diluted earnings per share	$ 11.52	$0.34	$(0.20)	$ 11.67

* The tax impact on operating (non-GAAP) pre-tax income is calculated under the same accounting principles applied to the GAAP pre-tax income which employs an annual effective tax rate method to the results.

Other Information

Looking Forward

In 2012, the company delivered revenue of $104.5 billion, net income of $16.6 billion, up 4.7 percent and earnings per share of $14.37, an increase of 10.0 percent compared to 2011. Operating (non-GAAP) earnings per share was $15.25, an increase of 13.5 percent versus the prior year. The 2012 results put the company well on track to its 2015 operating earnings per share road map objective.

The company measures the success of its business model over the long term, not any individual quarter or year. The company's strategies, investments and actions are all taken with an objective of optimizing long-term performance.

In May 2010, the company met with investors and introduced a road map for earnings per share in 2015. The objective of the road map for growth is to achieve at least $20 of operating (non-GAAP) earnings per diluted share in 2015. The company has identified the major drivers of financial performance: revenue growth, margin expansion and common stock share repurchase. The revenue growth will come from a combination of base revenue growth, a shift to faster growing businesses and from acquisitions closed between 2010 and 2015. The contribution from margin expansion will be driven by the mix of higher margin businesses and enterprise productivity. The company will also continue to return value to its shareholders, with approximately $50 billion of gross share repurchases and $20 billion of dividends expected during the road map period.

Looking forward, the company expects to continue its transformation in 2013. The company will continue to acquire key capabilities, divest of certain businesses, rebalance its workforce and invest in innovation. The company continues to retool its skills and offerings to shift to higher value content and meet its clients' needs. The company's expectation for 2013 includes all these factors. In January 2013, the company disclosed that it is expecting GAAP earnings of at least $15.53 and operating (non-GAAP) earnings of at least $16.70 per diluted share for the full year 2013. The operating (non-GAAP) earnings per share expectation excludes acquisition-related charges of $0.48 per share and non-operating retirement-related costs of $0.69 per share. This expectation results in an increase year to year of 8 percent in GAAP earnings per share and an increase of 10 percent year to year in operating (non-GAAP) earnings per share which keeps the company on track to its 2015 objective. On an operating (non-GAAP) basis, the company expects the first half earnings per share growth rate to be slightly higher than the growth rate in the second half primarily driven by the new System z mainframe content and the resulting year-to-year product cycle impacts.

From a segment perspective, the Software business once again delivered strong results in 2012 and continued market leadership. The company expects the Software business to continue its momentum in 2013 and deliver revenue growth in the mid single-digits on a constant currency basis with strong profit contribution. Within Global Services, entering 2013, the company will continue to drive its key plays and shift toward higher value content. The company will continue to invest in the growth markets—which represent over 20 percent of services revenue and where the company sees the most opportunity for growth. The company will continue to transform the services portfolio to higher value content, and away from the more commoditizing labor-based content. Global Services profit and margin performance will continue to benefit from the work being done to infuse more IP content into its offerings. In addition, Global Services will continue to be the prime beneficiary of the focus on enterprise productivity. The company believes that Global Services has a good set of opportunities to continue to drive profit growth and margin expansion in 2013. As a result, the company expects the Global Services business to deliver profit growth in 2013, consistent with its business model expectations, with double-digit profit growth in the first quarter. In addition, with its backlog growth and the mix toward longer duration engagements, the company expects Global Business Services to return to revenue growth at constant currency in 2013. Within Systems and Technology, looking forward to 2013, performance in the first half of the year will be defined by the momentum related to the System z mainframe content. The company expects that momentum to drive double-digit profit growth in Systems and Technology in the first half of 2013.

The economy could impact the credit quality of the company's receivables, and therefore the allowance for credit losses. The company will continue to apply its rigorous credit policies and analysis, and will also continue to monitor the current economic environment, particularly in Europe. Total receivables in Portugal, Italy, Ireland, Greece and Spain were approximately $2.7 billion and $2.6 billion, net of allowances, and represented approximately 7 percent of total net trade and financing accounts receivables at December 31, 2012 and 2011, respectively. The company will continue to monitor potential exposures in these countries in conjunction with the application of its credit policies.

The company expects 2013 pre-tax retirement-related plan cost to be approximately $3.1 billion, an increase of approximately $700 million compared to 2012. This estimate reflects current pension plan assumptions at December 31, 2012. Within total retirement-related plan cost, operating retirement-related plan cost is expected to be approximately $1.9 billion, an increase of approximately $100 million versus 2012. Non-operating retirement-related plan cost is expected to be approximately $1.1 billion, an increase of approximately $600 million, compared to 2012. See note S, "Retirement-Related Benefits," on pages 120 to 134 for additional information.

The company expects in the normal course of business that its effective tax rate and operating (non-GAAP) tax rate will be approximately 25 percent in 2013. The rate will change year to year based on non-recurring events, such as the settlement of income tax audits and changes in tax laws, as well as recurring factors including the geographic mix of income before taxes, the timing and amount of foreign dividend repatriation, state and local taxes and the effects of various global income tax strategies.

Liquidity and Capital Resources

The company has consistently generated strong cash flow from operations, providing a source of funds ranging between $18.8 billion and $20.8 billion per year over the past five years. The company provides for additional liquidity through several sources: maintaining an adequate cash balance, access to global funding sources, a committed global credit facility and other committed and uncommitted lines of credit worldwide. The following table provides a summary of the major sources of liquidity for the years ended December 31, 2008 through 2012.

Cash Flow and Liquidity Trends

($ in billions)

	2012	2011	2010	2009	2008
Net cash from operating activities	$19.6	$19.8	$19.5	$20.8	$18.8
Cash and short-term marketable securities	$11.1	$11.9	$11.7	$14.0	$12.9
Committed global credit facility	$10.0	$10.0	$10.0	$10.0	$10.0

The major rating agencies' ratings on the company's debt securities at December 31, 2012 appear in the following table. The Standard and Poor's ratings reflect an upgrade on May 30, 2012. The other agency ratings remain unchanged from December 31, 2011. The company's debt securities do not contain any acceleration clauses which could change the scheduled maturities of the obligation. In addition, the company does not have "ratings trigger" provisions in its debt covenants or documentation, which would allow the holders to declare an event of default and seek to accelerate payments thereunder in the event of a change in credit rating. The company's contractual agreements governing derivative instruments contain standard market clauses which can trigger the termination of the agreement if the company's credit rating were to fall below investment grade. At December 31, 2012, the fair value of those instruments that were in a liability position was $503 million, before any applicable netting, and this position is subject to fluctuations in fair value period to period based on the level of the company's outstanding instruments and market conditions. The company has no other contractual arrangements that, in the event of a change in credit rating, would result in a material adverse effect on its financial position or liquidity.

	Standard & Poor's	Moody's Investors Service	Fitch Ratings
Senior long-term debt	AA-	Aa3	A+
Commercial paper	A-1+	Prime-1	F1

The company prepares its Consolidated Statement of Cash Flows in accordance with applicable accounting standards for cash flow presentation on page 73 and highlights causes and events underlying sources and uses of cash in that format on page 36. For the purpose of running its business, the company manages, monitors and analyzes cash flows in a different format.

Management uses a free cash flow measure to evaluate the company's operating results, plan share repurchase levels, evaluate strategic investments and assess the company's ability and need to incur and service debt. Free cash flow is not a defined term under GAAP and it should not be inferred that the entire free cash flow amount is available for discretionary expenditures. The company defines free cash flow as net cash from operating activities less the change in Global Financing receivables and net capital expenditures, including the investment in software. As discussed on page 24, a key objective of the Global Financing business is to generate strong returns on equity. Increasing receivables is the basis for growth in a financing business. Accordingly, management considers Global Financing receivables as a profit-generating investment, not as working capital that should be minimized for efficiency. After considering Global Financing receivables as an investment, the remaining net operational cash flow less net capital expenditures is viewed by the company as free cash flow.

Net cash from operating activities per GAAP was $19.6 billion in 2012, a decrease of $0.3 billion from the prior year. As discussed on page 36, a key driver was a decrease in cash provided by receivables, primarily Global Financing receivables, which increased $3.2 billion year to year. The increase in Global Financing receivables resulted from an increase in originations primarily driven by an improved participation rate. From the perspective of how management views cash flow, in 2012, free cash flow was $18.2 billion, an increase of $1.6 billion compared to 2011. The increase was primarily driven by the increase in net income and a reduction in income tax payments as a result of audit settlements in 2011. Within its strong free cash flow performance, the company increased its capital expenditures by $0.2 billion versus the prior year.

In 2012, the company continued to focus its cash utilization on returning value to shareholders including $3.8 billion in dividends and $10.5 billion in net stock transactions, including the common stock repurchase program. In addition, $3.7 billion was utilized to acquire 11 companies. For the full year, the company generated $18.2 billion in free cash flow and utilized $18.0 billion on acquisitions, net share repurchases and dividends.

Over the past five years, the company generated over $80 billion in free cash flow. During that period, the company invested nearly $19 billion in strategic acquisitions and returned over $61 billion to shareholders through dividends and net share repurchases. The amount of prospective returns to shareholders in the form of dividends and share repurchases will vary based upon several factors including each year's operating results, capital expenditure requirements, research and development investments and acquisitions, as well as the factors discussed on page 57.

The company's Board of Directors meets quarterly to consider the dividend payment. In the second quarter of 2012, the Board of Directors increased the company's quarterly common stock dividend from $0.75 to $0.85 per share.

The table below represents the way in which management reviews cash flow as described on page 56.

($ in billions)

For the year ended December 31:	2012	2011	2010	2009	2008
Net cash from operating activities per GAAP	$ 19.6	$ 19.8	$ 19.5	$20.8	$ 18.8
Less: the change in Global Financing receivables	(2.9)	(0.8)	(0.7)	1.9	(0.0)
Net cash from operating activities, excluding Global Financing receivables	22.5	20.7	20.3	18.9	18.8
Capital expenditures, net	(4.3)	(4.1)	(4.0)	(3.7)	(4.5)
Free cash flow	18.2	16.6	16.3	15.1	14.3
Acquisitions	(3.7)	(1.8)	(5.9)	(1.2)	(6.3)
Divestitures	0.6	0.0	0.1	0.4	0.1
Share repurchase	(12.0)	(15.0)	(15.4)	(7.4)	(10.6)
Dividends	(3.8)	(3.5)	(3.2)	(2.9)	(2.6)
Non-Global Financing debt	0.7	1.7	2.3	(4.7)	(3.2)
Other (includes Global Financing receivables and Global Financing debt)	(0.8)	2.3	3.5	1.7	5.0
Change in cash, cash equivalents and short-term marketable securities	$ (0.8)	$ 0.3	$ (2.3)	$ 1.1	$ (3.2)

Events that could temporarily change the historical cash flow dynamics discussed above include significant changes in operating results, material changes in geographic sources of cash, unexpected adverse impacts from litigation, future pension funding requirements during periods of severe downturn in the capital markets or the timing of tax payments. Whether any litigation has such an adverse impact will depend on a number of variables, which are more completely described in note M, "Contingencies and Commitments," on pages 110 through 112. With respect to pension funding, in 2012, the company contributed $617 million to its non-U.S. defined benefit plans versus $798 million in 2011. As highlighted in the Contractual Obligations table on page 58, the company expects to make legally mandated pension plan contributions to certain non-U.S. plans of approximately $4.0 billion in the next five years. The 2013 contributions are currently expected to be approximately $700 million. Financial market performance and/or further weakening in the European sovereign debt credit environment in 2013 could increase the legally mandated minimum contributions in certain non-U.S. countries that require more frequent remeasurement of the funded status. The company is not quantifying any further impact from pension funding because it is not possible to predict future movements in the capital markets or pension plan funding regulations.

The Pension Protection Act of 2006 was enacted into law in 2006, and, among other things, increases the funding requirements for certain U.S. defined benefit plans beginning after December 31, 2007. No mandatory contribution is required for the U.S. defined benefit plan in 2013 as of December 31, 2012.

The company's U.S. cash flows continue to be sufficient to fund its current domestic operations and obligations, including investing and financing activities such as dividends and debt service. The company's U.S. operations generate substantial cash flows, and, in those circumstances where the company has additional cash requirements in the U.S., the company has several liquidity options available. These options may include the ability to borrow additional funds at reasonable interest rates, utilizing its committed global credit facility, repatriating certain foreign earnings and utilizing intercompany loans with certain foreign subsidiaries.

The company does earn a significant amount of its pre-tax income outside the U.S. The company's policy is to indefinitely reinvest the undistributed earnings of its foreign subsidiaries, and accordingly, no provision for federal income taxes has been made on accumulated earnings of foreign subsidiaries. The company periodically repatriates a portion of these earnings to the extent that it does not incur an additional U.S. tax liability. Quantification of the deferred tax liability, if any, associated with indefinitely reinvested earnings is not practicable. While the company currently does not have a need to repatriate funds held by its foreign subsidiaries, if these funds are needed for operations and obligations in the U.S., the company could elect to repatriate these funds which could result in a reassessment of the company's policy and increased tax expense.

Contractual Obligations

($ in millions)

	Total Contractual Payment Stream	Payments Due In			
		2013	2014-15	2016-17	After 2017
Long-term debt obligations	$29,599	$ 5,548	$ 6,444	$ 7,570	$10,037
Interest on long-term debt obligations	9,842	1,014	1,617	1,410	5,800
Capital (finance) lease obligations	61	13	24	19	6
Operating lease obligations	5,806	1,466	2,312	1,281	747
Purchase obligations	1,383	559	618	139	68
Other long-term liabilities					
Minimum pension funding (mandated)*	4,000	700	1,600	1,700	—
Executive compensation	1,595	94	206	229	1,066
Long-term termination benefits	1,283	221	174	126	763
Tax reserves**	3,942	1,724	—	—	—
Other	1,107	60	91	81	876
Total	$58,619	$11,398	$13,086	$12,554	$19,363

*As funded status on plans will vary, obligations for mandated minimum pension payments after 2017 could not be reasonably estimated.

**These amounts represent the liability for unrecognized tax benefits. The company estimates that approximately $1,724 million of the liability is expected to be settled within the next 12 months. The settlement period for the noncurrent portion of the income tax liability cannot be reasonably estimated as the timing of the payments will depend on the progress of tax examinations with the various tax authorities; however, it is not expected to be due within the next 12 months.

Total contractual obligations are reported in the table above excluding the effects of time value and therefore, may not equal the amounts reported in the Consolidated Statement of Financial Position.

Purchase obligations include all commitments to purchase goods or services of either a fixed or minimum quantity that meet any of the following criteria: (1) they are noncancelable, (2) the company would incur a penalty if the agreement was canceled, or (3) the company must make specified minimum payments even if it does not take delivery of the contracted products or services (take-or-pay). If the obligation to purchase goods or services is noncancelable, the entire value of the contract is included in the table above. If the obligation is cancelable, but the company would incur a penalty if canceled, the dollar amount of the penalty is included as a purchase obligation. Contracted minimum amounts specified in take-or-pay contracts are also included in the table as they represent the portion of each contract that is a firm commitment.

In the ordinary course of business, the company enters into contracts that specify that the company will purchase all or a portion of its requirements of a specific product, commodity or service from a supplier or vendor. These contracts are generally entered into in order to secure pricing or other negotiated terms. They do not specify fixed or minimum quantities to be purchased and, therefore, the company does not consider them to be purchase obligations.

Interest on floating-rate debt obligations is calculated using the effective interest rate at December 31, 2012, plus the interest rate spread associated with that debt, if any.

Off-Balance Sheet Arrangements

From time to time, the company may enter into off-balance sheet arrangements as defined by the SEC Financial Reporting Release 67 (FRR-67), "Disclosure in Management's Discussion and Analysis about Off-Balance Sheet Arrangements and Aggregate Contractual Obligations."

At December 31, 2012, the company had no off-balance sheet arrangements that have, or are reasonably likely to have, a material current or future effect on financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources. See the table above for the company's contractual obligations, and note M, "Contingencies and Commitments," on page 113, for detailed information about the company's guarantees, financial commitments and indemnification arrangements. The company does not have retained interests in assets transferred to unconsolidated entities or other material off-balance sheet interests or instruments.

Critical Accounting Estimates

The application of GAAP requires the company to make estimates and assumptions about certain items and future events that directly affect its reported financial condition. The accounting estimates and assumptions discussed in this section are those that the company considers to be the most critical to its financial statements. An accounting estimate is considered critical if both (a) the nature of the estimate or assumption is material due to the levels of subjectivity and judgment involved, and (b) the impact within a reasonable range of outcomes of the estimate and assumption is material to the company's financial condition. Senior management has discussed the development, selection and disclosure of these estimates with the Audit Committee of the company's Board of Directors. The company's significant accounting policies are described in note A, "Significant Accounting Policies," on pages 76 to 86.

A quantitative sensitivity analysis is provided where that information is reasonably available, can be reliably estimated and provides material information to investors. The amounts used to assess sensitivity (e.g., 1 percent, 10 percent, etc.) are included to allow users of the Annual Report to understand a general direction cause and effect of changes in the estimates and do not represent management's predictions of variability. For all of these estimates, it should be noted that future events rarely develop exactly as forecasted, and estimates require regular review and adjustment.

Pension Assumptions

For the company's defined benefit pension plans, the measurement of the company's benefit obligation to employees and net periodic pension (income)/cost requires the use of certain assumptions, including, among others, estimates of discount rates and expected return on plan assets.

Changes in the discount rate assumptions will impact the (gain)/loss amortization and interest cost components of the net periodic pension (income)/cost calculation (see page 126 for information regarding the discount rate assumptions) and the projected benefit obligation (PBO). The company decreased the discount rate assumption for the IBM Personal Pension Plan (PPP), a U.S.-based defined benefit plan, by 60 basis points to 3.60 percent on December 31, 2012. This change will increase pre-tax cost and expense recognized in 2013 by an estimated $156 million. If the discount rate assumption for the PPP increased by 60 basis points on December 31, 2012, pre-tax cost and expense recognized in 2013 would have decreased by an estimated $200 million. Changes in the discount rate assumptions will impact the PBO which, in turn, may impact the company's funding decisions if the PBO exceeds plan assets. Each 25 basis point increase or decrease in the discount rate will cause a corresponding decrease or increase, respectively, in the PPP's PBO of an estimated $1.4 billion based upon December 31, 2012 data.

The expected long-term return on plan assets assumption is used in calculating the net periodic pension (income)/cost (see page 126 for information regarding the expected long-term return on plan assets assumption). Expected returns on plan assets are calculated based on the market-related value of plan assets, which recognizes changes in the fair value of plan assets systematically over a five-year period in the expected return on plan assets line in net periodic pension (income)/cost. The differences between the actual return on plan assets and the expected long-term return on plan assets are recognized over five years in the expected return on plan assets line in net periodic pension (income)/cost and also as a component of actuarial gains/losses, which are recognized over the service lives of the employees in the plan, provided such amounts exceed thresholds which are based upon the obligation or the value of plan assets, as provided by accounting standards.

To the extent the outlook for long-term returns changes such that management changes its expected long-term return on plan assets assumption, each 50 basis point increase or decrease in the expected long-term return on PPP plan assets assumption will have an estimated increase or decrease, respectively, of $249 million on the following year's pre-tax net periodic pension (income)/cost (based upon the PPP's plan assets at December 31, 2012 and assuming no contributions are made in 2013).

The company may voluntarily make contributions or be required, by law, to make contributions to its pension plans. Actual results that differ from the estimates may result in more or less future company funding into the pension plans than is planned by management. Impacts of these types of changes on the company's pension plans in other countries worldwide will vary depending upon the status of each respective plan.

Revenue Recognition

Application of the various accounting principles in GAAP related to the measurement and recognition of revenue requires the company to make judgments and estimates. Specifically, complex arrangements with nonstandard terms and conditions may require significant contract interpretation to determine the appropriate accounting, including whether the deliverables specified in a multiple element arrangement should be treated as separate units of accounting. Other significant judgments include determining whether IBM or a reseller is acting as the principal in a transaction and whether separate contracts are considered part of one arrangement.

Revenue recognition is also impacted by the company's ability to estimate sales incentives, expected returns and collectibility. The company considers various factors, including a review of specific transactions, the creditworthiness of the customers, historical experience and market and economic conditions when calculating these provisions and allowances. Evaluations are conducted each quarter to assess the adequacy of the estimates. If these estimates were changed by 10 percent in 2012, net income would have been impacted by $79 million (excluding Global Financing receivables discussed on page 65).

Costs to Complete Service Contracts

The company enters into numerous service contracts through its Global Services business. During the contractual period, revenue, cost and profits may be impacted by estimates of the ultimate profitability of each contract, especially contracts for which the company uses the percentage-of-completion (POC) method of accounting. If at any time these estimates indicate the POC contract will be unprofitable, the entire estimated loss for the remainder of the contract is recorded immediately in cost. The company performs ongoing profitability analyses of its services contracts in order to determine whether the latest estimates require updating. Key factors reviewed by the company to estimate the future costs to complete each contract are future labor costs, future product costs and expected productivity efficiencies. Contract loss provisions recorded as a component of other accrued expenses and liabilities were approximately $54 million and $52 million at December 31, 2012 and 2011, respectively.

Income Taxes

The company is subject to income taxes in the U.S. and numerous foreign jurisdictions. Significant judgments are required in determining the consolidated provision for income taxes.

During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. As a result, the company recognizes tax liabilities based on estimates of whether additional taxes and interest will be due. These tax liabilities are recognized when, despite the company's belief that its tax return positions are supportable, the company believes that certain positions may not be fully sustained upon review by tax authorities. The company believes that its accruals for tax liabilities are adequate for all open audit years based on its assessment of many factors, including past experience and interpretations of tax law. This assessment relies on estimates and assumptions, and may involve a series of complex judgments about future events. To the extent that new information becomes available which causes the company to change its judgment regarding the adequacy of existing tax liabilities, such changes to tax liabilities will impact income tax expense in the period in which such determination is made.

Significant judgment is also required in determining any valuation allowance recorded against deferred tax assets. In assessing the need for a valuation allowance, management considers all available evidence for each jurisdiction including past operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies. In the event that the company changes its determination as to the amount of deferred tax assets that can be realized, the company will adjust its valuation allowance with a corresponding impact to income tax expense in the period in which such determination is made.

The consolidated provision for income taxes will change period to period based on nonrecurring events, such as the settlement of income tax audits and changes in tax laws, as well as recurring factors including the geographic mix of income before taxes, the timing and amount of foreign dividend repatriation, state and local taxes and the effects of various global income tax strategies.

To the extent that the provision for income taxes increases/decreases by 1 percent of income before income taxes, consolidated net income would have decreased/improved by $219 million in 2012.

Valuation of Assets

The application of business combination and impairment accounting requires the use of significant estimates and assumptions. The acquisition method of accounting for business combinations requires the company to estimate the fair value of assets acquired, liabilities assumed, and any non-controlling interest in the acquiree to properly allocate purchase price consideration between assets that are depreciated and amortized from goodwill and indefinite-lived intangible assets. Impairment testing for assets, other than goodwill and indefinite-lived intangible assets, requires the allocation of cash flows to those assets or group of assets and if required, an estimate of fair value for the assets or group of assets. The company's estimates are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable. These valuations require the use of management's assumptions, which would not reflect unanticipated events and circumstances that may occur.

Valuation of Goodwill

The company reviews goodwill for impairment annually, in the fourth quarter, and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable.

The company assesses qualitative factors in each of its reporting units that carry goodwill. Among other relevant events and circumstances that affect the fair value of reporting units, the company assesses individual factors such as:

- A significant adverse change in legal factors or the business climate;
- An adverse action or assessment by a regulator;
- Unanticipated competition;
- A loss of key personnel; and
- A more likely than not expectation that a reporting unit or a significant portion of a reporting unit will be sold or otherwise disposed of.

The company assesses these qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. This quantitative test is required only if the company concludes that it is more likely than not that a reporting unit's fair value is less than its carrying amount. After performing the annual goodwill impairment qualitative analysis during the fourth quarter of 2012, the company determined it was not necessary to perform the two-step goodwill impairment test.

Loss Contingencies

The company is currently involved in various claims and legal proceedings. Quarterly, the company reviews the status of each significant matter and assesses its potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and the amount can be reasonably estimated, the company accrues a liability for the estimated loss. Significant judgment is required in both the determination of probability and the determination as to whether an exposure is reasonably estimable. Because

of uncertainties related to these matters, accruals are based only on the best information available at the time. As additional information becomes available, the company reassesses the potential liability related to its pending claims and litigation, and may revise its estimates. These revisions in the estimates of the potential liabilities could have a material impact on the company's results of operations and financial position.

Global Financing Receivables Allowance for Credit Losses
The Global Financing business reviews its financing receivables portfolio at least quarterly in order to assess collectibility. A description of the methods used by management to estimate the amount of uncollectible receivables is included in note A, "Significant Accounting Policies," on page 85. Factors that could result in actual receivable losses that are materially different from the estimated reserve include sharp changes in the economy, or a significant change in the economic health of a particular client that represents a concentration in Global Financing's receivables portfolio.

To the extent that actual collectibility differs from management's estimates currently provided for by 10 percent, Global Financing's segment pre-tax income and the company's consolidated income before income taxes would be higher or lower by an estimated $36 million (using 2012 data), depending upon whether the actual collectibility was better or worse, respectively, than the estimates.

Residual Value
Residual value represents the estimated fair value of equipment under lease as of the end of the lease. Residual value estimates impact the determination of whether a lease is classified as operating or capital. Global Financing estimates the future fair value of leased equipment by using historical models, analyzing the current market for new and used equipment, and obtaining forward-looking product information such as marketing plans and technological innovations. Residual value estimates are periodically reviewed and "other than temporary" declines in estimated future residual values are recognized upon identification. Anticipated increases in future residual values are not recognized until the equipment is remarketed. Factors that could cause actual results to materially differ from the estimates include significant changes in the used-equipment market brought on by unforeseen changes in technology innovations and any resulting changes in the useful lives of used equipment.

To the extent that actual residual value recovery is lower than management's estimates by 10 percent, Global Financing's segment pre-tax income and the company's consolidated income before income taxes for 2012 would have been lower by an estimated $105 million. If the actual residual value recovery is higher than management's estimates, the increase in income will be realized at the end of lease when the equipment is remarketed.

Currency Rate Fluctuations

Changes in the relative values of non-U.S. currencies to the U.S. dollar affect the company's financial results and financial position. At December 31, 2012, currency changes resulted in assets and liabilities denominated in local currencies being translated into fewer dollars than at year-end 2011. The company uses financial hedging instruments to limit specific currency risks related to financing transactions and other foreign currency-based transactions. Further discussion of currency and hedging appears in note D, "Financial Instruments," on pages 94 to 98.

Foreign currency fluctuations often drive operational responses that mitigate the simple mechanical translation of earnings. During periods of sustained movements in currency, the marketplace and competition adjust to the changing rates. For example, when pricing offerings in the marketplace, the company may use some of the advantage from a weakening U.S. dollar to improve its position competitively, and price more aggressively to win the business, essentially passing on a portion of the currency advantage to its customers. Competition will frequently take the same action. Consequently, the company believes that some of the currency-based changes in cost impact the prices charged to clients. The company also maintains currency hedging programs for cash management purposes which mitigate, but do not eliminate, the volatility of currency impacts on the company's financial results.

The company translates revenue, cost and expense in its non-U.S. operations at current exchange rates in the reported period. References to "adjusted for currency" or "constant currency" reflect adjustments based upon a simple constant currency mathematical translation of local currency results using the comparable prior period's currency conversion rate. However, this constant currency methodology that the company utilizes to disclose this information does not incorporate any operational actions that management may take in reaction to fluctuating currency rates. Based on the currency rate movements in 2012, total revenue decreased 2.3 percent as reported and was flat at constant currency versus 2011. On a pre-tax income basis, these translation impacts offset by the net impact of hedging activities resulted in a theoretical maximum (assuming no pricing or sourcing actions) decrease of approximately $100 million in 2012. The same mathematical exercise resulted in an increase of approximately $600 million in 2011. The company views these amounts as a theoretical maximum impact to its as-reported financial results. Considering the operational responses mentioned above, movements of exchange rates, and the nature and timing of hedging instruments, it is difficult to predict future currency impacts on any particular period, but the company believes it could be substantially less than the theoretical maximum given the competitive pressure in the marketplace.

For non-U.S. subsidiaries and branches that operate in U.S. dollars or whose economic environment is highly inflationary, translation adjustments are reflected in results of operations. Generally, the company manages currency risk in these entities by linking prices and contracts to U.S. dollars. The company continues to monitor the economic conditions in Venezuela. On December 30, 2010, the official rate for essential goods was eliminated, with no change to the SITME rate. The SITME rate remained constant throughout 2012 and 2011. In February 2013, the SITME rate was eliminated, and the official rate was set at 6.3 bolivars fuerte (BsF) to the U.S. dollar. This devaluation is not expected to have a material impact given the size of the company's operations in Venezuela (less than 1 percent of total 2011 and 2012 revenue, respectively).

Market Risk

In the normal course of business, the financial position of the company is routinely subject to a variety of risks. In addition to the market risk associated with interest rate and currency movements on outstanding debt and non-U.S. dollar denominated assets and liabilities, other examples of risk include collectibility of accounts receivable and recoverability of residual values on leased assets.

The company regularly assesses these risks and has established policies and business practices to protect against the adverse effects of these and other potential exposures. As a result, the company does not anticipate any material losses from these risks.

The company's debt, in support of the Global Financing business and the geographic breadth of the company's operations, contains an element of market risk from changes in interest and currency rates. The company manages this risk, in part, through the use of a variety of financial instruments including derivatives, as described in note D, "Financial Instruments," on pages 94 to 98.

To meet disclosure requirements, the company performs a sensitivity analysis to determine the effects that market risk exposures may have on the fair values of the company's debt and other financial instruments.

The financial instruments that are included in the sensitivity analysis comprise all of the company's cash and cash equivalents, marketable securities, short-term and long-term loans, commercial financing and installment payment receivables, investments, long-term and short-term debt and all derivative financial instruments. The company's derivative financial instruments generally include interest rate swaps, foreign currency swaps and forward contracts.

To perform the sensitivity analysis, the company assesses the risk of loss in fair values from the effect of hypothetical changes in interest rates and foreign currency exchange rates on market-sensitive instruments. The market values for interest and foreign currency exchange risk are computed based on the present value of future cash flows as affected by the changes in rates that are attributable to the market risk being measured. The discount rates used for the present value computations were selected based on market interest and foreign currency exchange rates in effect at December 31, 2012 and 2011. The differences in this comparison are the hypothetical gains or losses associated with each type of risk.

Information provided by the sensitivity analysis does not necessarily represent the actual changes in fair value that the company would incur under normal market conditions because, due to practical limitations, all variables other than the specific market risk factor are held constant. In addition, the results of the model are constrained by the fact that certain items are specifically excluded from the analysis, while the financial instruments relating to the financing or hedging of those items are included by definition. Excluded items include short-term and long-term receivables from sales-type and direct financing leases, forecasted foreign currency cash flows and the company's net investment in foreign operations. As a consequence, reported changes in the values of some of the financial instruments impacting the results of the sensitivity analysis are not matched with the offsetting changes in the values of the items that those instruments are designed to finance or hedge.

The results of the sensitivity analysis at December 31, 2012 and 2011, are as follows:

Interest Rate Risk

At December 31, 2012, a 10 percent decrease in the levels of interest rates with all other variables held constant would result in a decrease in the fair market value of the company's financial instruments of $192 million as compared with a decrease of $310 million at December 31, 2011. A 10 percent increase in the levels of interest rates with all other variables held constant would result in an increase in the fair value of the company's financial instruments of $181 million as compared to an increase of $290 million at December 31, 2011. Changes in the relative sensitivity of the fair value of the company's financial instrument portfolio for these theoretical changes in the level of interest rates are primarily driven by changes in the company's debt maturities, interest rate profile and amount.

Foreign Currency Exchange Rate Risk

At December 31, 2012, a 10 percent weaker U.S. dollar against foreign currencies, with all other variables held constant, would result in an increase in the fair value of the company's financial instruments of $1,203 million as compared with an increase of $1,303 million at December 31, 2011. Conversely, a 10 percent stronger U.S. dollar against foreign currencies, with all other variables held constant, would result in a decrease in the fair value of the company's financial instruments of $1,203 million compared with a decrease of $1,303 million at December 31, 2011. The change in impact from 2011 to 2012 was comprised of: assets ($84 million), debt ($216 million) and derivatives ($202 million).

Financing Risks

See the "Description of Business" on page 24 for a discussion of the financing risks associated with the Global Financing business and management's actions to mitigate such risks.

Cybersecurity

While neither a business unit nor a worldwide organization, the company's approach on cybersecurity demonstrates its ability to adapt to a changing environment, as well as the depth and breadth of its global capabilities. IBM has leveraged its extensive knowledge and experience on cybersecurity matters to help its customers. The company has a suite of software solutions that showcase IBM's broad capabilities in identity and access management, data security, application security, network security and endpoint security. IBM's software solutions include a security intelligence dashboard that can collect information on customer IT security events and provide detailed information to customers about potential threats and security posture. The company's services businesses offer professional solutions for security from assessment to deployment. In addition, the company offers managed and outsourced security solutions from multiple security operations centers around the world. Finally, security is embedded in a multitude of IBM offerings through secure engineering processes and by critical functions (encryption, access control, etc.) in servers, storage, software, services and other solutions.

From an enterprise perspective, IBM has implemented a multi-faceted approach involving people, tools, and processes to identify and address cybersecurity risks. The company has established policies and procedures that provide the foundation by which IBM's infrastructure and data are managed, which help protect IBM and client data. In addition, the company utilizes a combination of online education, Web articles and other awareness initiatives to enable its workforce to be knowledgeable about cybersecurity threats and their responsibilities to identify and mitigate these risks. IBM performs ongoing assessments regarding its technical controls and its methods for identifying emerging risks related to cybersecurity. The company uses a layered approach with overlapping controls to defend against cybersecurity attacks on networks, end-user devices, data centers, and applications.

Employees and Related Workforce

				Yr.-to-Yr. Change	
For the year ended December 31:	**2012**	2011	2010	2012-11	2011-10
IBM/wholly owned subsidiaries	434,246	433,362	426,751	0.2%	1.5%
Less-than-wholly owned subsidiaries	8,009	7,523	9,334	6.5	(19.4)
Complementary	24,740	25,500	27,784	(3.0)	(8.2)

As a globally integrated enterprise, the company operates in over 170 countries and is continuing to shift its business to the higher value segments of enterprise computing. The company continually assesses its resource needs with the objective of balancing its workforce globally to improve the company's global reach and competitiveness.

The complementary workforce is an approximation of equivalent full-time employees hired under temporary, part-time and limited-term employment arrangements to meet specific business needs in a flexible and cost-effective manner.

Global Financing

Global Financing is a reportable segment that is measured as a stand-alone entity.

In 2012, as the global economy continued to face a challenging credit environment, the Global Financing business remained focused on its core competencies—providing IT financing to the company's clients and business partners. For the year, Global Financing delivered external revenue of $2,013 million and total revenue of $4,073 million, and expanded gross and pre-tax margins. Total pre-tax income of $2,034 million increased 1.1 percent compared to 2011 and return on equity was 41.0 percent.

In addition to the overall health of the economy and its impact on corporate IT budgets, key drivers of Global Financing's results are interest rates and originations. Interest rates directly impact Global Financing's business by increasing or decreasing both financing revenue and the associated borrowing costs. Originations, which determine the asset base of Global Financing's annuity-like business, are impacted by IBM's non-Global Financing sales and services volumes and Global Financing's participation rates. Participation rates are the propensity of IBM's clients to finance their transactions through Global Financing in lieu of paying IBM up-front cash or financing through a third party.

Results of Operations

($ in millions)

For the year ended December 31:	**2012**	2011	2010
External revenue	$2,013	$2,102	$2,238
Internal revenue	2,060	2,092	1,842
Total revenue	4,073	4,195	4,080
Cost	1,400	1,467	1,474
Gross profit	$2,673	$2,728	$2,606
Gross profit margin	65.6%	65.0%	63.9%
Pre-tax income	$2,034	$2,011	$1,956
After-tax income*	$1,362	$1,338	$1,292
Return on equity*	41.0%	40.7%	41.1%

*See page 67 for the details of the after-tax income and return on equity calculation.

Total revenue in 2012 decreased $122 million versus 2011 as a result of:

- A decline in external revenue of 4.2 percent (1 percent adjusted for currency) driven by a decrease in financing revenue (down 8.7 percent to $1,471 million), partially offset by an increase in used equipment sales revenue (up 10.6 percent to $540 million); and
- A decline in internal revenue of 1.6 percent driven by a decrease in financing revenue (down 11.3 percent to $500 million), partially offset by an increase in used equipment sales revenue (up 2.0 percent to $1,559 million).

The decreases in external and internal financing revenue were due to lower asset yields and a decrease in remarketing lease revenue. Global Financing gross profit decreased 2.0 percent compared to 2011 due to a decrease in financing gross profit, partially offset by an increase in used equipment sales gross profit. The gross profit margin increased 0.6 points due to a higher financing margin, partially offset by a shift in mix toward lower margin used equipment sales and a lower used equipment sales margin.

Total revenue in 2011 increased $115 million versus 2010 as a result of:

- An increase in internal revenue of 13.6 percent primarily driven by an increase in used equipment sales revenue (up 19.7 percent to $1,528 million); partially offset by
- A decline in external revenue of 6.1 percent (9 percent adjusted for currency) driven by a decrease in used equipment sales revenue (down 25.5 percent to $490 million), partially offset by an increase in financing revenue (up 2.0 percent to $1,612 million).

The increase in external financing revenue was due to a higher average asset balance and an increase in remarketing lease revenue.

Global Financing gross profit in 2011 increased 4.7 percent compared to 2010 due to higher used equipment sales and financing gross profit. The gross profit margin increased 1.2 points primarily due to a higher used equipment sales margin.

Global Financing pre-tax income increased 1.1 percent in 2012 versus 2011, following an increase of 2.8 percent in 2011 versus 2010. The increase in 2012 was driven by decreases in SG&A expense ($61 million) and financing receivables provisions ($16 million), partially offset by the decrease in gross profit ($55 million). The increase in 2011 was driven by the increase in gross profit ($122 million), partially offset by increases in financing receivables provisions ($51 million) and SG&A expense ($13 million). The increase in financing receivables provisions in 2011 was due primarily to the economic environment in Europe. At December 31, 2012, the overall allowance for credit losses coverage rate was 1.2 percent, a decrease of 0.1 points versus 2011.

The increase in return on equity from 2011 to 2012 was driven by higher after-tax income, and the decrease in return on equity from 2010 to 2011 was driven by a higher average equity balance.

Financial Condition

Balance Sheet

($ in millions)

At December 31:	2012	2011
Cash and cash equivalents	$ 1,380	$ 1,308
Net investment in sales-type and direct financing leases	10,008	9,209
Equipment under operating leases		
External clients[a]	1,273	1,567
Internal clients[b][c]	25	219
Client loans	13,121	11,363
Total client financing assets	24,428	22,358
Commercial financing receivables	7,755	7,130
Intercompany financing receivables[b][c]	4,328	4,586
Other receivables	459	334
Other assets	533	712
Total assets	$38,882	$36,427
Intercompany payables[b]	$ 6,802	$ 6,213
Debt[c][d]	24,501	23,332
Other liabilities	4,084	3,633
Total liabilities	35,388	33,178
Total equity	3,494	3,249
Total liabilities and equity	$38,882	$36,427

[a] Includes intercompany mark-up, priced on an arm's-length basis, on products purchased from the company's product divisions, which is eliminated in IBM's consolidated results.

[b] Entire amount eliminated for purposes of IBM's consolidated results and therefore does not appear on page 72.

[c] These assets, along with all other financing assets in this table, are leveraged at the value in the table using Global Financing debt.

[d] Global Financing debt is comprised of intercompany loans and external debt. A portion of Global Financing debt is in support of the company's internal business, or related to intercompany mark-up embedded in the Global Financing assets. See table on page 67.

Sources and Uses of Funds

The primary use of funds in Global Financing is to originate client and commercial financing assets. Client financing assets for end users consist primarily of IBM systems, software and services, but also include non-IBM equipment, software and services to meet IBM clients' total solutions requirements. Client financing assets are primarily sales-type, direct financing and operating leases for systems products as well as loans for systems, software and services with terms generally from one to seven years. Global Financing's client loans are primarily for software and services and are unsecured. These loans are subjected to credit analysis to evaluate the associated risk and, when deemed necessary, actions are taken to mitigate risks in the loan agreements which include covenants to protect against credit deterioration during the life of the obligation. Client financing also includes internal activity as described on page 24.

Commercial financing receivables arise primarily from inventory and accounts receivable financing for dealers and remarketers of IBM and non-IBM products. Payment terms for inventory financing and accounts receivable financing generally range from 30 to 90 days. These short-term receivables are primarily unsecured and are also subjected to additional credit analysis in order to evaluate the associated risk.

In addition to the actions described above, in certain circumstances, the company may take mitigation actions to transfer credit risk to third parties.

At December 31, 2012, substantially all financing assets were IT related assets, and approximately 60 percent of the external portfolio was with investment grade clients with no direct exposure to consumers or mortgage assets.

Originations

The following are total financing originations.

($ in millions)

For the year ended December 31:	2012	2011	2010
Client financing	$16,277	$14,390	$12,748
Commercial financing	36,944	35,282	32,366
Total	$53,222	$49,673	$45,113

In 2012, new financing originations exceeded cash collections for both client and commercial financing. This resulted in a net increase in total financing assets from December 31, 2011. The increase in originations in both 2012 versus 2011 and 2011 versus 2010 was due to improving external volumes in both client and commercial financing. Internal loan financing with Global Services is executed under a loan facility and is not considered originations.

Cash generated by Global Financing in 2012 was primarily deployed to pay the intercompany payables and dividends to IBM.

Global Financing Receivables and Allowances

The following table presents external financing receivables excluding residual values, and the allowance for credit losses.

($ in millions)

At December 31:	2012	2011
Gross financing receivables	$30,621	$27,366
Specific allowance for credit losses	240	226
Unallocated allowance for credit losses	115	124
Total allowance for credit losses	355	350
Net financing receivables	$30,266	$27,016
Allowance for credit losses coverage	1.2%	1.3%

Roll Forward of Global Financing Receivables Allowance for Credit Losses

($ in millions)

January 1, 2012	Allowance Used*	Additions/ (Reductions)	Other**	December 31, 2012
$350	$(19)	$26	$(1)	$355

*Represents reserved receivables, net of recoveries, that were disposed of during the period.

**Primarily represents translation adjustments.

The percentage of Global Financing receivables reserved decreased from 1.3 percent at December 31, 2011 to 1.2 percent at December 31, 2012 primarily due to the disposition of receivables previously reserved, and the increase in gross financing receivables. Specific reserves increased 6.2 percent from $226 million at December 31, 2011 to $240 million at December 31, 2012. Unallocated reserves decreased 7.3 percent from $124 million at December 31, 2011, to $115 million at December 31, 2012. Global Financing's bad debt expense was an increase of $26 million for 2012, compared to an increase of $42 million for 2011. The higher bad debt expense in 2011 was attributed to the economic environment in Europe.

Residual Value

Residual value is a risk unique to the financing business and management of this risk is dependent upon the ability to accurately project future equipment values at lease inception. Global Financing has insight into product plans and cycles for the IBM products under lease. Based upon this product information, Global Financing continually monitors projections of future equipment values and compares them with the residual values reflected in the portfolio. See note A, "Significant Accounting Policies," on page 86 for the company's accounting policy for residual values.

Global Financing optimizes the recovery of residual values by selling assets sourced from end of lease, leasing used equipment to new clients, or extending lease arrangements with current clients. Sales of equipment, which are primarily sourced from equipment returned at the end of a lease, represented 51.6 percent of Global Financing's revenue in 2012 and 48.1 percent in 2011. The gross profit margins on these sales were 53.6 percent and 54.8 percent in 2012 and 2011, respectively. The decrease in gross margin was driven by a lower internal sales margin and a shift in mix toward lower margin external sales, partially offset by a higher external sales margin.

The table below presents the recorded amount of unguaranteed residual value for sales-type, direct financing and operating leases at December 31, 2011 and 2012. In addition, the table presents the residual value as a percentage of the related original amount financed and a run out of when the unguaranteed residual value assigned to equipment on leases at December 31, 2012 is expected to be returned to the company. In addition to the unguaranteed residual value, on a limited basis, Global Financing will obtain guarantees of the future value of the equipment to be returned at end of lease. While primarily focused on IBM products, guarantees are also obtained for certain OEM products. These third-party guarantees are included in minimum lease payments as provided for by accounting standards in the determination of lease classifications for the covered equipment and provide protection against risk of loss arising from declines in equipment values for these assets.

The residual value guarantee increases the minimum lease payments that are utilized in determining the classification of a lease as a sales-type lease, a direct financing lease or an operating lease. The aggregate asset values associated with the guarantees for sales-type leases were $776 million and $821 million for the financing transactions originated during the years ended December 31, 2012 and 2011, respectively. In 2012, the residual value guarantee program resulted in the company recognizing approximately $601 million of revenue that would otherwise have been recognized in future periods as operating lease revenue. If the company had chosen to not participate in a residual value guarantee program in 2012 and prior years, the 2012 impact would be substantially mitigated by the effect of prior year asset values being recognized as operating lease revenue in the current year. The aggregate asset values associated with the guarantees of direct financing leases were $199 million and $44 million for the financing transactions originated during the years ended December 31, 2012 and 2011, respectively. The associated aggregate guaranteed future values at the scheduled end of lease were $53 million and $43 million for the financing transactions originated during the years ended December 31, 2012 and 2011, respectively. The cost of guarantees was $5 million and $4 million for the year ended December 31, 2012 and 2011, respectively.

Unguaranteed Residual Value

($ in millions)

	Total		Estimated Run Out of 2012 Balance			
At December 31:	2011	2012	2013	2014	2015	2016 and Beyond
Sales-type and direct financing leases	$ 745	$ 794	$166	$255	$228	$144
Operating leases	296	259	120	75	48	16
Total unguaranteed residual value	$ 1,041	$ 1,053	$286	$330	$276	$160
Related original amount financed	$18,635	$18,744				
Percentage	5.6%	5.6%				

Debt

At December 31:	2012	2011
Debt-to-equity ratio	7.0x	7.2x

The company funds Global Financing through borrowings using a debt-to-equity ratio target of approximately 7 to 1. The debt used to fund Global Financing assets is composed of intercompany loans and external debt. The terms of the intercompany loans are set by the company to substantially match the term and currency underlying the financing receivable and are based on arm's-length pricing. Both assets and debt are presented in the Global Financing Balance Sheet on page 64.

Global Financing provides financing predominantly for the company's external client assets, as well as for assets under contract by other IBM units. As previously stated, the company measures Global Financing as a stand-alone entity, and accordingly, interest expense relating to debt supporting Global Financing's external client and internal business is included in the "Global Financing Results of Operations" on pages 63 and 64 and in note T, "Segment Information," on pages 134 to 138.

In the company's Consolidated Statement of Earnings on page 70, the external debt-related interest expense supporting Global Financing's internal financing to the company is reclassified from cost of financing to interest expense.

The following table provides additional information on total company debt. In this table, intercompany activity includes internal loans and leases at arm's-length pricing in support of Global Services' long-term contracts and other internal activity. The company believes these assets should be appropriately leveraged in line with the overall Global Financing business model.

($ in millions)

	December 31, 2012	December 31, 2011
Global Financing Segment	$24,501	$23,332
Debt to support external clients	$21,583	$20,051
Debt to support internal clients	2,919	3,281
Non-Global Financing Segments	8,767	7,987
Debt supporting operations	11,686	11,269
Intercompany activity	(2,919)	(3,281)
Total company debt	$33,269	$31,320

Liquidity and Capital Resources

Global Financing is a segment of the company, and therefore is supported by the company's overall liquidity position and access to capital markets. Cash generated by Global Financing was primarily deployed to pay intercompany payables and dividends to the company in order to maintain an appropriate debt-to-equity ratio.

Return on Equity

($ in millions)

At December 31:	2012	2011
Numerator		
Global Financing after-tax income[a]*	$1,362	$1,338
Denominator		
Average Global Financing equity[b]**	$3,322	$3,286
Global Financing return on equity[a] [b]	41.0%	40.7%

* Calculated based upon an estimated tax rate principally based on Global Financing's geographic mix of earnings as IBM's provision for income taxes is determined on a consolidated basis.

** Average of the ending equity for Global Financing for the last five quarters.

Looking Forward

Global Financing's financial position provides flexibility and funding capacity which enables the company to be well positioned in the current environment. Global Financing's assets and new financing volumes are primarily IBM products and services financed to the company's clients and business partners, and substantially all financing assets are IT related assets which provide a stable base of business for future growth. Global Financing's offerings are competitive and available to clients as a result of the company's borrowing cost and access to the capital markets. Overall, Global Financing's originations will be dependent upon the demand for IT products and services as well as client participation rates.

IBM continues to access both the short-term commercial paper market and the medium- and long-term debt markets. A protracted period where IBM could not access the capital markets would likely lead to a slowdown in originations.

Interest rates and the overall economy (including currency fluctuations) will have an effect on both revenue and gross profit. The company's interest rate risk management policy, however, combined with the Global Financing pricing strategy should mitigate gross margin erosion due to changes in interest rates.

The economy could impact the credit quality of the Global Financing receivables portfolio and therefore the level of provision for credit losses. Global Financing will continue to apply rigorous credit policies in both the origination of new business and the evaluation of the existing portfolio.

As discussed on pages 65 and 66, Global Financing has historically been able to manage residual value risk both through insight into the company's product cycles, as well as through its remarketing business.

Global Financing has policies in place to manage each of the key risks involved in financing. These policies, combined with product and client knowledge, should allow for the prudent management of the business going forward, even during periods of uncertainty with respect to the global economy.

Management Responsibility for Financial Information

Responsibility for the integrity and objectivity of the financial information presented in this Annual Report rests with IBM management. The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America, applying certain estimates and judgments as required.

IBM maintains an effective internal control structure. It consists, in part, of organizational arrangements with clearly defined lines of responsibility and delegation of authority, and comprehensive systems and control procedures. An important element of the control environment is an ongoing internal audit program. Our system also contains self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

To assure the effective administration of internal controls, we carefully select and train our employees, develop and disseminate written policies and procedures, provide appropriate communication channels and foster an environment conducive to the effective functioning of controls. We believe that it is essential for the company to conduct its business affairs in accordance with the highest ethical standards, as set forth in the IBM Business Conduct Guidelines. These guidelines, translated into numerous languages, are distributed to employees throughout the world, and reemphasized through internal programs to assure that they are understood and followed.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, is retained to audit IBM's Consolidated Financial Statements and the effectiveness of the internal control over financial reporting. Its accompanying report is based on audits conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States).

The Audit Committee of the Board of Directors is composed solely of independent, non-management directors, and is responsible for recommending to the Board the independent registered public accounting firm to be retained for the coming year, subject to stockholder ratification. The Audit Committee meets periodically and privately with the independent registered public accounting firm, with the company's internal auditors, as well as with IBM management, to review accounting, auditing, internal control structure and financial reporting matters.

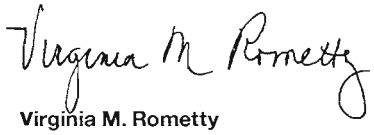
Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting of the company. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

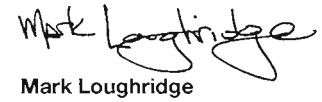
The company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of internal control over financial reporting based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management concluded that the company's internal control over financial reporting was effective as of December 31, 2012.



Virginia M. Rometty
Chairman, President and Chief Executive Officer
February 26, 2013



Mark Loughridge
Senior Vice President and Chief Financial Officer,
Finance and Enterprise Transformation
February 26, 2013

To the Stockholders and Board of Directors of International Business Machines Corporation:

In our opinion, the accompanying Consolidated Financial Statements appearing on pages 70 through 138 present fairly, in all material respects, the financial position of International Business Machines Corporation and its subsidiaries at December 31, 2012 and 2011 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2012 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting appearing on page 68. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
New York, New York
February 26, 2013

Consolidated Statement of Earnings

International Business Machines Corporation and Subsidiary Companies

($ in millions except per share amounts)

For the year ended December 31:	Notes	2012	2011	2010
Revenue				
Services		$ 59,453	$ 60,721	$56,868
Sales		43,014	44,063	40,736
Financing		2,040	2,132	2,267
Total revenue		104,507	106,916	99,870
Cost				
Services		39,166	40,740	38,383
Sales		13,956	14,973	14,374
Financing		1,087	1,065	1,100
Total cost		54,209	56,778	53,857
Gross profit		50,298	50,138	46,014
Expense and other income				
Selling, general and administrative		23,553	23,594	21,837
Research, development and engineering	O	6,302	6,258	6,026
Intellectual property and custom development income		(1,074)	(1,108)	(1,154)
Other (income) and expense		(843)	(20)	(787)
Interest expense	D&J	459	411	368
Total expense and other income		28,396	29,135	26,291
Income before income taxes		21,902	21,003	19,723
Provision for income taxes	N	5,298	5,148	4,890
Net income		$ 16,604	$ 15,855	$14,833
Earnings per share of common stock				
Assuming dilution	P	$ 14.37	$ 13.06	$ 11.52
Basic	P	$ 14.53	$ 13.25	$ 11.69
Weighted-average number of common shares outstanding				
Assuming dilution		1,155,449,317	1,213,767,985	1,287,355,388
Basic		1,142,508,521	1,196,951,006	1,268,789,202

Amounts may not add due to rounding.

The accompanying notes on pages 76 through 138 are an integral part of the financial statements.

Consolidated Statement of Comprehensive Income

International Business Machines Corporation and Subsidiary Companies

($ in millions)

For the year ended December 31:	Notes	2012	2011	2010
Net income		$16,604	$15,855	$14,833
Other comprehensive income/(loss), before tax				
Foreign currency translation adjustments	L	(44)	(693)	712
Net changes related to available-for-sale securities	L			
Unrealized gains/(losses) arising during the period		8	(14)	70
Reclassification of (gains)/losses to net income		(42)	(231)	0
Subsequent changes in previously impaired securities arising during the period		20	4	8
Total net changes related to available-for-sale securities		(14)	(241)	78
Unrealized gains/(losses) on cash flow hedges	L			
Unrealized gains/(losses) arising during the period		32	(266)	371
Reclassification of (gains)/losses to net income		(253)	511	203
Total unrealized gains/(losses) on cash flow hedges		(220)	245	573
Retirement-related benefit plans	L			
Prior service costs/(credits)		—	(28)	28
Net (losses)/gains arising during the period		(7,489)	(5,463)	(2,728)
Curtailments and settlements		(2)	11	10
Amortization of prior service (credits)/cost		(148)	(157)	(183)
Amortization of net (gains)/losses		2,457	1,847	1,249
Total retirement-related benefit plans		(5,182)	(3,790)	(1,624)
Other comprehensive income/(loss), before tax	L	(5,460)	(4,479)	(260)
Income tax (expense)/benefit related to items of other comprehensive income	L	1,587	1,339	348
Other comprehensive income/(loss)	L	(3,874)	(3,142)	87
Total comprehensive income		$12,731	$12,713	$14,920

Amounts may not add due to rounding.

The accompanying notes on pages 76 through 138 are an integral part of the financial statements.

Consolidated Statement of Financial Position

International Business Machines Corporation and Subsidiary Companies

($ in millions except per share amounts)

At December 31:	Notes	2012	2011
Assets			
Current assets			
Cash and cash equivalents		$ 10,412	$ 11,922
Marketable securities	D	717	0
Notes and accounts receivable—trade (net of allowances of $255 in 2012 and $256 in 2011)		10,667	11,179
Short-term financing receivables (net of allowances of $288 in 2012 and $311 in 2011)	F	18,038	16,901
Other accounts receivable (net of allowances of $17 in 2012 and $11 in 2011)		1,873	1,481
Inventories	E	2,287	2,595
Deferred taxes	N	1,415	1,601
Prepaid expenses and other current assets		4,024	5,249
Total current assets		49,433	50,928
Property, plant and equipment	G	40,501	40,124
Less: Accumulated depreciation	G	26,505	26,241
Property, plant and equipment—net	G	13,996	13,883
Long-term financing receivables (net of allowances of $66 in 2012 and $38 in 2011)	F	12,812	10,776
Prepaid pension assets	S	945	2,843
Deferred taxes	N	3,973	3,503
Goodwill	I	29,247	26,213
Intangible assets—net	I	3,787	3,392
Investments and sundry assets	H	5,021	4,895
Total assets		$ 119,213	$ 116,433
Liabilities and equity			
Current liabilities			
Taxes	N	$ 4,948	$ 3,313
Short-term debt	D&J	9,181	8,463
Accounts payable		7,952	8,517
Compensation and benefits		4,745	5,099
Deferred income		11,952	12,197
Other accrued expenses and liabilities		4,847	4,535
Total current liabilities		43,625	42,123
Long-term debt	D&J	24,088	22,857
Retirement and nonpension postretirement benefit obligations	S	20,418	18,374
Deferred income		4,491	3,847
Other liabilities	K	7,607	8,996
Total liabilities		100,229	96,197
Contingencies and commitments	M		
Equity	L		
IBM stockholders' equity			
Common stock, par value $.20 per share, and additional paid-in capital		50,110	48,129
Shares authorized: 4,687,500,000			
Shares issued (2012—2,197,561,159; 2011—2,182,469,838)			
Retained earnings		117,641	104,857
Treasury stock, at cost (shares: 2012—1,080,193,483; 2011—1,019,287,274)		(123,131)	(110,963)
Accumulated other comprehensive income/(loss)		(25,759)	(21,885)
Total IBM stockholders' equity		18,860	20,138
Noncontrolling interests	A	124	97
Total equity		18,984	20,236
Total liabilities and equity		$ 119,213	$ 116,433

Amounts may not add due to rounding.

The accompanying notes on pages 76 through 138 are an integral part of the financial statements.

($ in millions)

For the year ended December 31:	2012	2011	2010
Cash flows from operating activities			
Net income	$ 16,604	$ 15,855	$ 14,833
Adjustments to reconcile net income to cash provided by operating activities			
Depreciation	3,392	3,589	3,657
Amortization of intangibles	1,284	1,226	1,174
Stock-based compensation	688	697	629
Deferred taxes	797	1,212	1,294
Net (gain)/loss on asset sales and other	(729)	(342)	(801)
Change in operating assets and liabilities, net of acquisitions/divestitures			
Receivables (including financing receivables)	(2,230)	(1,279)	(489)
Retirement related	(1,008)	(1,371)	(1,963)
Inventories	280	(163)	92
Other assets/other liabilities	733	(28)	949
Accounts payable	(224)	451	174
Net cash provided by operating activities	19,586	19,846	19,549
Cash flows from investing activities			
Payments for property, plant and equipment	(4,082)	(4,108)	(4,185)
Proceeds from disposition of property, plant and equipment	410	608	770
Investment in software	(635)	(559)	(569)
Purchases of marketable securities and other investments	(4,109)	(1,594)	(6,129)
Proceeds from disposition of marketable securities and other investments	3,142	3,345	7,877
Non-operating finance receivables—net	(608)	(291)	(405)
Acquisition of businesses, net of cash acquired	(3,722)	(1,811)	(5,922)
Divestiture of businesses, net of cash transferred	599	14	55
Net cash used in investing activities	(9,004)	(4,396)	(8,507)
Cash flows from financing activities			
Proceeds from new debt	12,242	9,996	8,055
Payments to settle debt	(9,549)	(8,947)	(6,522)
Short-term borrowings/(repayments) less than 90 days—net	(441)	1,321	817
Common stock repurchases	(11,995)	(15,046)	(15,375)
Common stock transactions—other	1,540	2,453	3,774
Cash dividends paid	(3,773)	(3,473)	(3,177)
Net cash used in financing activities	(11,976)	(13,696)	(12,429)
Effect of exchange rate changes on cash and cash equivalents	(116)	(493)	(135)
Net change in cash and cash equivalents	(1,511)	1,262	(1,522)
Cash and cash equivalents at January 1	11,922	10,661	12,183
Cash and cash equivalents at December 31	$ 10,412	$ 11,922	$ 10,661
Supplemental data			
Income taxes paid—net of refunds received	$ 3,169	$ 4,168	$ 3,238
Interest paid on debt	$ 1,009	$ 956	$ 951
Capital lease obligations	$ 10	$ 39	$ 30

Amounts may not add due to rounding.

The accompanying notes on pages 76 through 138 are an integral part of the financial statements.

Consolidated Statement of Changes in Equity

International Business Machines Corporation and Subsidiary Companies

($ in millions)

	Common Stock and Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
2010							
Equity, January 1, 2010	$41,810	$80,900	$(81,243)	$(18,830)	$ 22,637	$118	$ 22,755
Net income plus other comprehensive income/(loss)							
Net income		14,833			14,833		14,833
Other comprehensive income/(loss)				87	87		87
Total comprehensive income/(loss)					$ 14,920		$ 14,920
Cash dividends declared—common stock		(3,177)			(3,177)		(3,177)
Common stock issued under employee plans (34,783,386 shares)	3,579				3,579		3,579
Purchases (2,334,932 shares) and sales (7,929,318 shares) of treasury stock under employee plans—net		(24)	501		477		477
Other treasury shares purchased, not retired (117,721,650 shares)			(15,419)		(15,419)		(15,419)
Changes in other equity	28				28		28
Changes in noncontrolling interests						8	8
Equity, December 31, 2010	**$45,418**	**$92,532**	**$(96,161)**	**$(18,743)**	**$ 23,046**	**$126**	**$ 23,172**

Amounts may not add due to rounding.

The accompanying notes on pages 76 through 138 are an integral part of the financial statements.

($ in millions)

	Common Stock and Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
2011							
Equity, January 1, 2011	$45,418	$ 92,532	$ (96,161)	$(18,743)	$ 23,046	$126	$ 23,172
Net income plus other comprehensive income/(loss)							
Net income		15,855			15,855		15,855
Other comprehensive income/(loss)				(3,142)	(3,142)		(3,142)
Total comprehensive income/(loss)					$ 12,713		$ 12,713
Cash dividends declared—common stock		(3,473)			(3,473)		(3,473)
Common stock issued under employee plans (20,669,785 shares)	2,394				2,394		2,394
Purchases (1,717,246 shares) and sales (4,920,198 shares) of treasury stock under employee plans—net		(56)	231		175		175
Other treasury shares purchased, not retired (88,683,716 shares)			(15,034)		(15,034)		(15,034)
Changes in other equity	317				317		317
Changes in noncontrolling interests						(29)	(29)
Equity, December 31, 2011	**$48,129**	**$104,857**	**$(110,963)**	**$(21,885)**	**$ 20,138**	**$ 97**	**$ 20,236**

Amounts may not add due to rounding.

The accompanying notes on pages 76 through 138 are an integral part of the financial statements.

($ in millions)

	Common Stock and Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income/(Loss)	Total IBM Stockholders' Equity	Non-Controlling Interests	Total Equity
2012							
Equity, January 1, 2012	$48,129	$104,857	$(110,963)	$(21,885)	$ 20,138	$ 97	$ 20,236
Net income plus other comprehensive income/(loss)							
Net income		16,604			16,604		16,604
Other comprehensive income/(loss)				(3,874)	(3,874)		(3,874)
Total comprehensive income/(loss)					$ 12,731		$ 12,731
Cash dividends declared—common stock		(3,773)			(3,773)		(3,773)
Common stock issued under employee plans (15,091,320 shares)	1,532				1,532		1,532
Purchases (2,406,007 shares) and sales (2,746,169 shares) of treasury stock under employee plans—net		(48)	(160)		(208)		(208)
Other treasury shares purchased, not retired (61,246,371 shares)			(12,008)		(12,008)		(12,008)
Changes in other equity	448				448		448
Changes in noncontrolling interests						27	27
Equity, December 31, 2012	$50,110	$117,641	$(123,131)	$(25,759)	$ 18,860	$124	$ 18,984

Amounts may not add due to rounding.

The accompanying notes on pages 76 through 138 are an integral part of the financial statements.

Note A.
Significant Accounting Policies

Basis of Presentation

The accompanying Consolidated Financial Statements and footnotes of the International Business Machines Corporation (IBM or the company) have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP).

Within the financial statements and tables presented, certain columns and rows may not add due to the use of rounded numbers for disclosure purposes. Percentages presented are calculated from the underlying whole-dollar amounts. Certain prior year amounts have been reclassified to conform to the current year presentation. This is annotated where applicable.

Noncontrolling interest amounts in income of $11 million, $6 million and $9 million, net of tax, for the years ended December 31, 2012, 2011 and 2010, respectively, are included in the Consolidated Statement of Earnings within the other (income) and expense line item.

Principles of Consolidation

The Consolidated Financial Statements include the accounts of IBM and its controlled subsidiaries, which are generally majority owned. Any noncontrolling interest in the equity of a subsidiary is reported in Equity in the Consolidated Statement of Financial Position. Net income and losses attributable to the noncontrolling interest is reported as described above in the Consolidated Statement of Earnings. The accounts of variable interest entities (VIEs) are included in the Consolidated Financial Statements, if required. Investments in business entities in which the company does not have control, but has the ability to exercise significant influence over operating and financial policies, are accounted for using the equity method and the company's proportionate share of income or loss is recorded in other (income) and expense. The accounting policy for other investments in equity securities is on pages 84 and 85 within "Marketable Securities." Equity investments in non-publicly traded entities are primarily accounted for using the cost method. All intercompany transactions and accounts have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts of assets, liabilities, revenue, costs, expenses and other comprehensive income/(loss) (OCI) that are reported in the Consolidated Financial Statements and accompanying disclosures. These estimates are based on management's best knowledge of current events, historical experience, actions that the company may undertake in the future and on various other assumptions that are believed to be reasonable under the circumstances. As a result, actual results may be different from these estimates. See "Critical Accounting Estimates" on pages 59 to 61 for a discussion of the company's critical accounting estimates.

Revenue

The company recognizes revenue when it is realized or realizable and earned. The company considers revenue realized or realizable and earned when it has persuasive evidence of an arrangement, delivery has occurred, the sales price is fixed or determinable and collectibility is reasonably assured. Delivery does not occur until products have been shipped or services have been provided to the client, risk of loss has transferred to the client, and either client acceptance has been obtained, client acceptance provisions have lapsed, or the company has objective evidence that the criteria specified in the client acceptance provisions have been satisfied. The sales price is not considered to be fixed or determinable until all contingencies related to the sale have been resolved.

The company recognizes revenue on sales to solution providers, resellers and distributors (herein referred to as "resellers") when the reseller has: economic substance apart from the company, credit risk, title and risk of loss to the inventory; and, the fee to the company is not contingent upon resale or payment by the end user, the company has no further obligations related to bringing about resale or delivery and all other revenue recognition criteria have been met.

The company reduces revenue for estimated client returns, stock rotation, price protection, rebates and other similar allowances. (See Schedule II, "Valuation and Qualifying Accounts and Reserves" included in the company's Annual Report on Form 10-K). Revenue is recognized only if these estimates can be reasonably and reliably determined. The company bases its estimates on historical results taking into consideration the type of client, the type of transaction and the specifics of each arrangement. Payments made under cooperative marketing programs are recognized as an expense only if the company receives from the client an identifiable benefit sufficiently separable from the product sale whose fair value can be reasonably and reliably estimated. If the company does not receive an identifiable benefit sufficiently separable from the product sale whose fair value can be reasonably estimated, such payments are recorded as a reduction of revenue.

Revenue from sales of third-party vendor products or services is recorded net of costs when the company is acting as an agent between the client and the vendor, and gross when the company is a principal to the transaction. Several factors are considered to determine whether the company is an agent or principal, most notably whether the company is the primary obligor to the client, or has inventory risk. Consideration is also given to whether the company adds meaningful value to the vendor's product or service, was involved in the selection of the vendor's product or service, has latitude in establishing the sales price or has credit risk.

The company reports revenue net of any revenue-based taxes assessed by governmental authorities that are imposed on and concurrent with specific revenue-producing transactions. In addition to the aforementioned general policies, the following are the specific revenue recognition policies for multiple-deliverable arrangements and for each major category of revenue.

Multiple-Deliverable Arrangements

The company enters into revenue arrangements that may consist of multiple deliverables of its products and services based on the needs of its clients. These arrangements may include any combination of services, software, hardware and/or financing. For example, a client may purchase a server that includes operating system software. In addition, the arrangement may include post-contract support for the software and a contract for post-warranty maintenance service for the hardware. These types of arrangements can also include financing provided by the company. These arrangements consist of multiple deliverables, with the hardware and software delivered in one reporting period and the software support and hardware maintenance services delivered across multiple reporting periods. In another example, a client may outsource the running of its datacenter operations to the company on a long-term, multiple-year basis and periodically purchase servers and/or software products from the company to upgrade or expand its facility. The outsourcing services are provided on a continuous basis across multiple reporting periods and the hardware and software products are delivered in one reporting period. To the extent that a deliverable in a multiple-deliverable arrangement is subject to specific accounting guidance that deliverable is accounted for in accordance with such specific guidance. Examples of such arrangements may include leased hardware which is subject to specific leasing guidance or software which is subject to specific software revenue recognition guidance on whether and/or how to separate multiple-deliverable arrangements into separate units of accounting (separability) and how to allocate the arrangement consideration among those separate units of accounting (allocation). For all other deliverables in multiple-deliverable arrangements, the guidance below is applied for separability and allocation. A multiple-deliverable arrangement is separated into more than one unit of accounting if the following criteria are met:

- The delivered item(s) has value to the client on a stand-alone basis; and
- If the arrangement includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in the control of the company.

If these criteria are not met, the arrangement is accounted for as one unit of accounting which would result in revenue being recognized ratably over the contract term or being deferred until the earlier of when such criteria are met or when the last undelivered element is delivered. If these criteria are met for each element and there is a relative selling price for all units of accounting in an arrangement, the arrangement consideration is allocated to the separate units of accounting based on each unit's relative selling price. The following revenue policies are then applied to each unit of accounting, as applicable.

Revenue from the company's business analytics, Smarter Planet and cloud offerings follow the specific revenue recognition policies for multiple deliverable arrangements and for each major category of revenue depending on the type of offering which can be comprised of services, hardware and/or software.

Services

The company's primary services offerings include information technology (IT) datacenter and business process outsourcing, application management services, consulting and systems integration, technology infrastructure and system maintenance, Web hosting and the design and development of complex IT systems to a client's specifications (design and build). These services are provided on a time-and-material basis, as a fixed-price contract or as a fixed-price per measure of output contract and the contract terms range from less than one year to over 10 years.

Revenue from IT datacenter and business process outsourcing contracts is recognized in the period the services are provided using either an objective measure of output or on a straight-line basis over the term of the contract. Under the output method, the amount of revenue recognized is based on the services delivered in the period.

Revenue from application management services, technology infrastructure and system maintenance and Web hosting contracts is recognized on a straight-line basis over the terms of the contracts. Revenue from time-and-material contracts is recognized as labor hours are delivered and direct expenses are incurred. Revenue related to extended warranty and product maintenance contracts is recognized on a straight-line basis over the delivery period.

Revenue from fixed-price design and build contracts is recognized under the percentage-of-completion (POC) method. Under the POC method, revenue is recognized based on the labor costs incurred to date as a percentage of the total estimated labor costs to fulfill the contract. If circumstances arise that change the original estimates of revenues, costs, or extent of progress toward completion, revisions to the estimates are made. These revisions may result in increases or decreases in estimated revenues or costs, and such revisions are reflected in income in the period in which the circumstances that gave rise to the revision become known by the company.

The company performs ongoing profitability analyses of its services contracts accounted for under the POC method in order to determine whether the latest estimates of revenues, costs and profits require updating. If at any time these estimates indicate that the contract will be unprofitable, the entire estimated loss for the remainder of the contract is recorded immediately. For non-POC method services contracts, any losses are recorded as incurred.

In some services contracts, the company bills the client prior to recognizing revenue from performing the services. Deferred income of $7,281 million and $7,363 million at December 31, 2012 and 2011, respectively, is included in the Consolidated Statement of Financial Position. In other services contracts, the company performs the services prior to billing the client. Unbilled accounts receivable of $1,998 million and $2,166 million at December 31, 2012 and 2011, respectively, is included in notes and accounts receivable-trade in the Consolidated Statement of Financial Position.

Billings usually occur in the month after the company performs the services or in accordance with specific contractual provisions. Unbilled receivables are expected to be billed within four months.

Hardware

The company's hardware offerings include the sale or lease of system servers, storage solutions, retail store systems and the sale of semiconductors. The company also offers installation services for its more complex products.

Revenue from hardware sales and sales-type leases is recognized when risk of loss has transferred to the client and there are no unfulfilled company obligations that affect the client's final acceptance of the arrangement. Any cost of standard warranties and remaining obligations that are inconsequential or perfunctory are accrued when the corresponding revenue is recognized. Revenue from rentals and operating leases is recognized on a straight-line basis over the term of the rental or lease.

Software

Revenue from perpetual (one-time charge) license software is recognized at the inception of the license term if all revenue recognition criteria have been met. Revenue from term (recurring license charge) license software is recognized on a straight-line basis over the period that the client is entitled to use the license. Revenue from post-contract support, which may include unspecified upgrades on a when-and-if-available basis, is recognized on a straight-line basis over the period such items are delivered. In multiple-deliverable arrangements that include software that is more than incidental to the products or services as a whole (software multiple-deliverable arrangements), software and software-related elements are accounted for in accordance with software revenue recognition guidance. Software-related elements include software products and services for which a software deliverable is essential to its functionality. Tangible products containing software components and non-software components that function together to deliver the tangible product's essential functionality are not within the scope of software revenue recognition guidance and are accounted for based on other applicable revenue recognition guidance.

A software multiple-deliverable arrangement is separated into more than one unit of accounting if all of the following criteria are met:

- The functionality of the delivered element(s) is not dependent on the undelivered element(s);
- There is vendor-specific objective evidence (VSOE) of fair value of the undelivered element(s). VSOE of fair value is based on the price charged when the deliverable is sold separately by the company on a regular basis and not as part of the multiple-deliverable arrangement; and
- Delivery of the delivered element(s) represents the culmination of the earnings process for that element(s).

If any one of these criteria is not met, the arrangement is accounted for as one unit of accounting which would result in revenue being recognized ratably over the contract term or being deferred until the earlier of when such criteria are met or when the last undelivered element is delivered. If these criteria are met for each element and there is VSOE of fair value for all units of accounting in an arrangement, the arrangement consideration is allocated to the separate units of accounting based on each unit's relative VSOE of fair value. There may be cases, however, in which there is VSOE of fair value of the undelivered item(s) but no such evidence for the delivered item(s). In these cases, the residual method is used to allocate the arrangement consideration. Under the residual method, the amount of consideration allocated to the delivered item(s) equals the total arrangement consideration less the aggregate VSOE of fair value of the undelivered elements.

The company's multiple-deliverable arrangements may have a stand-alone software deliverable that is subject to the existing software revenue recognition guidance. The revenue for these multiple-deliverable arrangements is allocated to the software deliverable and the non-software deliverables based on the relative selling prices of all of the deliverables in the arrangement using the hierarchy: VSOE, third-party evidence (TPE) or best estimate of selling price (BESP). In the limited circumstances where the company cannot determine VSOE or TPE of the selling price for all of the deliverables in the arrangement, including the software deliverable, BESP is used for the purpose of performing this allocation.

Financing

Financing income attributable to sales-type leases, direct financing leases and loans is recognized on the accrual basis using the effective interest method. Operating lease income is recognized on a straight-line basis over the term of the lease.

Best Estimate of Selling Price

In certain limited instances, the company is not able to establish VSOE for all elements in a multiple-deliverable arrangement. When VSOE cannot be established, the company attempts to establish the selling price of each element based on TPE. TPE is determined based on competitor prices for similar deliverables when sold separately.

When the company is unable to establish selling price using VSOE or TPE, the company uses BESP in its allocation of arrangement consideration. The objective of BESP is to determine the price at which the company would transact a sale if the product or service were sold on a stand-alone basis. Due to the fact that the company sells its products and services on a stand-alone basis, and therefore has established VSOE for its products and services offerings, the company uses BESP to determine the relative selling price for a product or service in a multiple-deliverable arrangement on an infrequent basis. An example of when BESP would be used is when the company sells a new product, for which VSOE and TPE does not yet exist, in a multiple-deliverable arrangement prior to selling the new product on a stand-alone basis.

The company determines BESP by considering multiple factors including, but not limited to, overall market conditions, including geographic or regional specific factors, competitive positioning, competitor actions, internal costs, profit objectives and pricing practices. The determination of BESP is a formal process that includes review and approval by the company's management. In addition, the company regularly reviews VSOE and TPE for its products and services, in addition to BESP.

Services Costs

Recurring operating costs for services contracts, including costs related to bid and proposal activities, are recognized as incurred. For fixed-price design and build contracts, the costs of external hardware and software accounted for under the POC method are deferred and recognized based on the labor costs incurred to date, as a percentage of the total estimated labor costs to fulfill the contract. Certain eligible, nonrecurring costs incurred in the initial phases of outsourcing contracts are deferred and subsequently amortized. These costs consist of transition and setup costs related to the installation of systems and processes and are amortized on a straight-line basis over the expected period of benefit, not to exceed the term of the contract. Additionally, fixed assets associated with outsourcing contracts are capitalized and depreciated on a straight-line basis over the expected useful life of the asset. If an asset is contract specific, then the depreciation period is the shorter of the useful life of the asset or the contract term. Amounts paid to clients in excess of the fair value of acquired assets used in outsourcing arrangements are deferred and amortized on a straight-line basis as a reduction of revenue over the expected period of benefit not to exceed the term of the contract. The company performs periodic reviews to assess the recoverability of deferred contract transition and setup costs. This review is done by comparing the estimated minimum remaining undiscounted cash flows of a contract to the unamortized contract costs. If such minimum undiscounted cash flows are not sufficient to recover the unamortized costs, an impairment loss is recognized.

Deferred services transition and setup costs were $2,424 million and $2,589 million at December 31, 2012 and 2011, respectively. Amortization of deferred services transition and setup costs was estimated at December 31, 2012 to be $819 million in 2013, $509 million in 2014, $430 million in 2015, $277 million in 2016 and $390 million thereafter.

Deferred amounts paid to clients in excess of the fair value of acquired assets used in outsourcing arrangements were $51 million and $65 million at December 31, 2012 and 2011, respectively. Amortization of deferred amounts paid to clients in excess of the fair value of acquired assets is recorded as an offset of revenue and was estimated at December 31, 2012 to be $22 million in 2013, $19 million in 2014, $9 million in 2015, $2 million in 2016 and less than $1 million thereafter. In situations in which an outsourcing contract is terminated, the terms of the contract may require the client to reimburse the company for the recovery of unbilled accounts receivable, unamortized deferred costs incurred to purchase specific assets utilized in the delivery of services and to pay any additional costs incurred by the company to transition the services.

Software Costs

Costs that are related to the conceptual formulation and design of licensed software programs are expensed as incurred to research, development and engineering expense; costs that are incurred to produce the finished product after technological feasibility has been established are capitalized as an intangible asset. Capitalized amounts are amortized on a straight-line basis over periods ranging up to three years and are recorded in software cost within cost of sales. The company performs periodic reviews to ensure that unamortized program costs remain recoverable from future revenue. Costs to support or service licensed programs are charged to software cost within cost of sales as incurred.

The company capitalizes certain costs that are incurred to purchase or to create and implement internal-use software programs, including software coding, installation, testing and certain data conversions. These capitalized costs are amortized on a straight-line basis over periods up to two years and are recorded in selling, general and administrative expense.

Product Warranties

The company offers warranties for its hardware products that generally range up to three years, with the majority being either one or three years. Estimated costs for warranty terms standard to the deliverable are recognized when revenue is recorded for the related deliverable. The company estimates its warranty costs standard to the deliverable based on historical warranty claim experience and estimates of future spending, and applies this estimate to the revenue stream for products under warranty. Estimated future costs for warranties applicable to revenue recognized in the current period are charged to cost of sales. The warranty liability is reviewed quarterly to verify that it properly reflects the remaining obligation based on the anticipated expenditures over the balance of the obligation period. Adjustments are made when actual warranty claim experience differs from estimates. Costs from fixed-price support or maintenance contracts, including extended warranty contracts, are recognized as incurred.

Revenue from separately priced extended warranty contracts is recorded as deferred income and subsequently recognized on a straight-line basis over the delivery period. Changes in deferred income for extended warranty contracts, and in the warranty liability for standard warranties, which are included in other accrued expenses and liabilities and other liabilities in the Consolidated Statement of Financial Position, are presented in the following tables:

Standard Warranty Liability

($ in millions)

	2012	2011
Balance at January 1	$ 407	$ 375
Current period accruals	394	435
Accrual adjustments to reflect actual experience	(15)	18
Charges incurred	(392)	(420)
Balance at December 31	$ 394	$ 407

Extended Warranty Liability (Deferred Income)

($ in millions)

	2012	2011
Balance at January 1	$ 636	$ 670
Revenue deferred for new extended warranty contracts	268	314
Amortization of deferred revenue	(301)	(330)
Other*	4	(19)
Balance at December 31	$ 606	$ 636
Current portion	$ 289	$ 301
Noncurrent portion	317	335
Balance at December 31	$ 606	$ 636

*Other consists primarily of foreign currency translation adjustments.

Shipping and Handling

Costs related to shipping and handling are recognized as incurred and included in cost in the Consolidated Statement of Earnings.

Expense and Other Income

Selling, General and Administrative

Selling, general and administrative (SG&A) expense is charged to income as incurred. Expenses of promoting and selling products and services are classified as selling expense and include such items as compensation, advertising, sales commissions and travel. General and administrative expense includes such items as compensation, legal costs, office supplies, non-income taxes, insurance and office rental. In addition, general and administrative expense includes other operating items such as an allowance for credit losses, workforce rebalancing accruals for contractually obligated payments to employees terminated in the ongoing course of business, acquisition costs related to business combinations, amortization of certain intangible assets and environmental remediation costs.

Advertising and Promotional Expense

The company expenses advertising and promotional costs as incurred. Cooperative advertising reimbursements from vendors are recorded net of advertising and promotional expense in the period in which the related advertising and promotional expense is incurred. Advertising and promotional expense, which includes media, agency and promotional expense, was $1,339 million, $1,373 million and $1,337 million in 2012, 2011 and 2010, respectively, and is recorded in SG&A expense in the Consolidated Statement of Earnings.

Research, Development and Engineering

Research, development and engineering (RD&E) costs are expensed as incurred. Software costs that are incurred to produce the finished product after technological feasibility has been established are capitalized as an intangible asset. See "Software Costs" on page 79.

Intellectual Property and Custom Development Income

The company licenses and sells the rights to certain of its intellectual property (IP) including internally developed patents, trade secrets and technological know-how. Certain IP transactions to third parties are licensing/royalty-based and others are transaction-based sales and other transfers. Licensing/royalty-based fees involve transfers in which the company earns the income over time, or the amount of income is not fixed or determinable until the licensee sells future related products (i.e., variable royalty, based upon licensee's revenue). Sales and other transfers typically include transfers of IP whereby the company has fulfilled its obligations and the fee received is fixed or determinable at the transfer date. The company also enters into cross-licensing arrangements of patents, and income from these arrangements is recorded when earned. In addition, the company earns income from certain custom development projects for strategic technology partners and specific clients. The company records the income from these projects when the fee is realized and earned, is not refundable and is not dependent upon the success of the project.

Other (Income) and Expense

Other (income) and expense includes interest income (other than from Global Financing external business transactions), gains and losses on certain derivative instruments, gains and losses from securities and other investments, gains and losses from certain real estate transactions, foreign currency transaction gains and losses, gains and losses from the sale of businesses and amounts related to accretion of asset retirement obligations.

Business Combinations and Intangible Assets Including Goodwill

The company accounts for business combinations using the acquisition method and accordingly, the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree are recorded at their acquisition date fair values. Goodwill represents the excess of the purchase price over the fair value of net assets, including the amount assigned to identifiable intangible assets. The primary drivers that generate goodwill are the value of synergies between the acquired entities and the company and the acquired assembled workforce, neither of which qualifies as an identifiable intangible asset. Goodwill recorded in an acquisition is assigned to applicable reporting units based on expected revenues. Identifiable intangible assets with finite lives are amortized over their useful lives. Amortization of completed technology is recorded in Cost, and amortization of all other intangible assets is recorded in SG&A expense. Acquisition-related costs, including advisory, legal, accounting, valuation and other costs, are expensed in the periods in which the costs are incurred. The results of operations of acquired businesses are included in the Consolidated Financial Statements from the acquisition date.

Impairment

Long-lived assets, other than goodwill and indefinite-lived intangible assets, are tested for impairment based on undiscounted cash flows and, if impaired, written down to fair value based on either discounted cash flows or appraised values. Goodwill and indefinite-lived intangible assets are tested annually, in the fourth quarter, for impairment and whenever changes in circumstances indicate an impairment may exist. Goodwill is tested at the reporting unit level which is the operating segment, or a business, which is one level below that operating segment (the "component" level) if discrete financial information is prepared and regularly reviewed by management at the segment level. Components are aggregated as a single reporting unit if they have similar economic characteristics.

Depreciation and Amortization

Property, plant and equipment are carried at cost and depreciated over their estimated useful lives using the straight-line method. The estimated useful lives of certain depreciable assets are as follows: buildings, 30 to 50 years; building equipment, 10 to 20 years; land improvements, 20 years; plant, laboratory and office equipment, 2 to 20 years; and computer equipment, 1.5 to 5 years. Leasehold improvements are amortized over the shorter of their estimated useful lives or the related lease term, rarely exceeding 25 years.

Capitalized software costs incurred or acquired after technological feasibility has been established are amortized over periods ranging up to 3 years. Capitalized costs for internal-use software are amortized on a straight-line basis over periods up to 2 years. Other intangible assets are amortized over periods between 1 and 7 years.

Environmental

The cost of internal environmental protection programs that are preventative in nature are expensed as incurred. When a cleanup program becomes likely, and it is probable that the company will incur cleanup costs and those costs can be reasonably estimated, the company accrues remediation costs for known environmental liabilities. The company's maximum exposure for all environmental liabilities cannot be estimated and no amounts are recorded for environmental liabilities that are not probable or estimable.

Asset Retirement Obligations

Asset retirement obligations (ARO) are legal obligations associated with the retirement of long-lived assets. These liabilities are initially recorded at fair value and the related asset retirement costs are capitalized by increasing the carrying amount of the related assets by the same amount as the liability. Asset retirement costs are subsequently depreciated over the useful lives of the related assets. Subsequent to initial recognition, the company records period-to-period changes in the ARO liability resulting from the passage of time in interest expense and revisions to either the timing or the amount of the original expected cash flows to the related assets.

Defined Benefit Pension and Nonpension Postretirement Benefit Plans

The funded status of the company's defined benefit pension plans and nonpension postretirement benefit plans (retirement-related benefit plans) is recognized in the Consolidated Statement of Financial Position. The funded status is measured as the difference between the fair value of plan assets and the benefit obligation at December 31, the measurement date. For defined benefit pension plans, the benefit obligation is the projected benefit obligation (PBO), which represents the actuarial present value of benefits expected to be paid upon retirement based on employee services already rendered and estimated future compensation levels. For the nonpension postretirement benefit plans, the benefit obligation is the accumulated postretirement benefit obligation (APBO), which represents the actuarial present value of postretirement benefits attributed to employee services already rendered. The fair value of plan assets represents the current market value of cumulative company and participant contributions made to an irrevocable trust fund, held for the sole benefit of participants, which are invested by the trust fund. Overfunded plans, with the fair value of plan assets exceeding the benefit obligation, are aggregated and recorded as a prepaid pension asset equal to this excess. Underfunded plans, with the benefit obligation exceeding the fair value of plan assets, are aggregated and recorded as a retirement and nonpension postretirement benefit obligation equal to this excess.

The current portion of the retirement and nonpension postretirement benefit obligations represents the actuarial present value of benefits payable in the next 12 months exceeding the fair value of plan assets, measured on a plan-by-plan basis. This obligation is recorded in compensation and benefits in the Consolidated Statement of Financial Position.

Net periodic pension and nonpension postretirement benefit cost/(income) is recorded in the Consolidated Statement of Earnings and includes service cost, interest cost, expected return on plan assets, amortization of prior service costs/(credits) and (gains)/losses previously recognized as a component of OCI and amortization of the net transition asset remaining in accumulated other comprehensive income/(loss) (AOCI). Service cost represents the actuarial present value of participant benefits earned in the current year. Interest cost represents the time value of money cost associated with the passage of time. Certain events, such as changes in the employee base, plan amendments and changes in actuarial assumptions, result in a change in the benefit obligation and the corresponding change in OCI. The result of these events is amortized as a component of net periodic cost/(income) over the service lives or life expectancy of the participants, depending on the plan, provided such amounts exceed thresholds which are based upon the benefit obligation or the value of plan assets. Net periodic cost/(income) is recorded in Cost, SG&A and RD&E in the Consolidated Statement of Earnings based on the employees' respective functions.

(Gains)/losses and prior service costs/(credits) not recognized as a component of net periodic cost/(income) in the Consolidated Statement of Earnings as they arise are recognized as a component of OCI in the Consolidated Statement of Comprehensive Income. Those (gains)/losses and prior service costs/(credits) are subsequently recognized as a component of net periodic cost/(income) pursuant to the recognition and amortization provisions of applicable accounting guidance. (Gains)/losses arise as a result of differences between actual experience and assumptions or as a result of changes in actuarial assumptions. Prior service costs/(credits) represent the cost of benefit changes attributable to prior service granted in plan amendments.

The measurement of benefit obligations and net periodic cost/(income) is based on estimates and assumptions approved by the company's management. These valuations reflect the terms of the plans and use participant-specific information such as compensation, age and years of service, as well as certain assumptions, including estimates of discount rates, expected return on plan assets, rate of compensation increases, interest crediting rates and mortality rates.

Defined Contribution Plans

The company's contribution for defined contribution plans is recorded when the employee renders service to the company. The charge is recorded in Cost, SG&A and RD&E in the Consolidated Statement of Earnings based on the employees' respective functions.

Stock-Based Compensation

Stock-based compensation represents the cost related to stock-based awards granted to employees. The company measures stock-based compensation cost at the grant date, based on the estimated fair value of the award and recognizes the cost on a straight-line basis (net of estimated forfeitures) over the employee requisite service period. The company estimates the fair value of stock options using a Black-Scholes valuation model. The company also grants its employees Restricted Stock Units (RSUs), including Retention Restricted Stock Units (RRSUs) and Performance Share Units (PSUs). RSUs are stock awards granted to employees that entitle the holder to shares of common stock as the award vests, typically over a one- to five-year period. The fair value of the awards is determined and fixed on the grant date based on the company's stock price, adjusted for the exclusion of dividend equivalents. All stock-based compensation cost is recorded in Cost, SG&A, and RD&E in the Consolidated Statement of Earnings based on the employees' respective functions.

The company records deferred tax assets for awards that result in deductions on the company's income tax returns, based on the amount of compensation cost recognized and the statutory tax rate in the jurisdiction in which it will receive a deduction. Differences between the deferred tax assets recognized for financial reporting purposes and the actual tax deduction reported on the income tax return are recorded in additional paid-in capital (if the tax deduction exceeds the deferred tax asset) or in the Consolidated Statement of Earnings (if the deferred tax asset exceeds the tax deduction and no additional paid-in capital exists from previous awards).

Income Taxes

Income tax expense is based on reported income before income taxes. Deferred income taxes reflect the tax effect of temporary differences between asset and liability amounts that are recognized for financial reporting purposes and the amounts that are recognized for income tax purposes. These deferred taxes are measured by applying currently enacted tax laws. Valuation allowances are recognized to reduce deferred tax assets to the amount that will more likely than not be realized. In assessing the need for a valuation allowance, management considers all available evidence for each jurisdiction including past operating results, estimates of future taxable income and the feasibility of ongoing tax planning strategies. When the company changes its determination as to the amount of deferred tax assets that can be realized, the valuation allowance is adjusted with a corresponding impact to income tax expense in the period in which such determination is made.

The company recognizes tax liabilities when, despite the company's belief that its tax return positions are supportable, the company believes that certain positions may not be fully sustained upon review by tax authorities. Benefits from tax positions are measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon settlement. The current portion of tax liabilities is included in taxes and the noncurrent portion of tax liabilities is included in other liabilities in the Consolidated Statement of Financial Position. To the extent that new information becomes available which causes the company to change its judgment regarding the adequacy of existing tax liabilities, such changes to tax liabilities will impact income tax expense in the period in which such determination is made. Interest and penalties, if any, related to accrued liabilities for potential tax assessments are included in income tax expense.

Translation of Non-U.S. Currency Amounts

Assets and liabilities of non-U.S. subsidiaries that have a local functional currency are translated to United States (U.S.) dollars at year-end exchange rates. Translation adjustments are recorded in OCI. Income and expense items are translated at weighted-average rates of exchange prevailing during the year.

Inventories, property, plant and equipment—net and other nonmonetary assets and liabilities of non-U.S. subsidiaries and branches that operate in U.S. dollars are translated at the approximate exchange rates prevailing when the company acquired the assets or liabilities. All other assets and liabilities denominated in a currency other than U.S. dollars are translated at year-end exchange rates with the transaction gain or loss recognized in other (income) and expense. Income and expense items are translated at the weighted-average rates of exchange prevailing during the year. These translation gains and losses are included in net income for the period in which exchange rates change.

Derivative Financial Instruments

All derivatives are recognized in the Consolidated Statement of Financial Position at fair value and are reported in prepaid expenses and other current assets, investments and sundry assets, other accrued expenses and liabilities or other liabilities. Classification of each derivative as current or noncurrent is based upon whether the maturity of the instrument is less than or greater than 12 months. To qualify for hedge accounting, the company requires that the instruments be effective in reducing the risk exposure that they are designated to hedge. For instruments that hedge cash flows, hedge designation criteria also require that it be probable that the underlying transaction will occur. Instruments that meet established accounting criteria are formally designated as hedges. These criteria demonstrate that the derivative is expected to be highly effective at offsetting changes in fair value or cash flows of the underlying exposure both at inception of the hedging relationship and on an ongoing basis. The method of assessing hedge effectiveness and measuring hedge ineffectiveness is formally documented at hedge inception. The company assesses hedge effectiveness and measures hedge ineffectiveness at least quarterly throughout the designated hedge period.

Where the company applies hedge accounting, the company designates each derivative as a hedge of: (1) the fair value of a recognized financial asset or liability, or of an unrecognized firm commitment (fair value hedge attributable to interest rate or foreign currency risk); (2) the variability of anticipated cash flows of a forecasted transaction, or the cash flows to be received or paid related to a recognized financial asset or liability (cash flow hedge attributable to interest rate or foreign currency risk); or (3) a hedge of a long-term investment (net investment hedge) in a foreign operation. In addition, the company may enter into derivative contracts that economically hedge certain of its risks, even though hedge accounting does not apply or the company elects not to apply hedge accounting. In these cases, there exists a natural hedging relationship in which changes in the fair value of the derivative, which are recognized currently in net income, act as an economic offset to changes in the fair value of the underlying hedged item(s).

Changes in the fair value of a derivative that is designated as a fair value hedge, along with offsetting changes in the fair value of the underlying hedged exposure, are recorded in earnings each period. For hedges of interest rate risk, the fair value adjustments are recorded as adjustments to interest expense and cost of financing in the Consolidated Statement of Earnings. For hedges of currency risk associated with recorded financial assets or liabilities, derivative fair value adjustments are recognized in other (income) and expense in the Consolidated Statement of Earnings. Changes in the fair value of a derivative that is designated as a cash flow hedge are recorded, net of applicable taxes, in OCI, in the Consolidated Statement of Comprehensive Income. When net income is affected by the variability of the underlying cash flow, the applicable offsetting amount of the gain or loss from the derivative that is deferred in AOCI is released to net income and reported in interest expense, cost, SG&A expense or other (income) and expense in the Consolidated Statement of Earnings based on the nature of the underlying cash flow hedged. Effectiveness for net investment hedging derivatives is measured on a spot-to-spot basis. The effective portion of changes in the fair value of net investment hedging derivatives and other non-derivative financial instruments designated as net investment hedges are recorded as foreign currency translation adjustments in OCI. Changes in the fair value of the portion of a net investment hedging derivative excluded from the effectiveness assessment are recorded in interest expense. If the underlying hedged item in a fair value hedge ceases to exist, all changes in the fair value of the derivative are included in net income each period until the instrument matures. When the derivative transaction ceases to exist, a hedged asset or liability is no longer adjusted for changes in its fair value except as required under other relevant accounting standards. Derivatives that are not designated as hedges, as well as changes in the fair value of derivatives that do not effectively offset changes in the fair value of the underlying hedged item throughout the designated hedge period (collectively, "ineffectiveness"), are recorded in net income each period and are reported in other (income) and expense. When a cash flow hedging relationship is discontinued, the net gain or loss in AOCI must generally remain in AOCI until the item that was hedged affects earnings. However, when it is probable that a forecasted transaction will not occur by the end of the originally specified time period or within an additional two-month period thereafter, the net gain or loss in AOCI must be reclassified into earnings immediately. The company reports cash flows arising from derivative financial instruments designated as fair value or cash flow hedges consistent with the classification of cash flows from the underlying hedged items that these derivatives are hedging. Accordingly, the cash flows associated with derivatives designated as fair value or cash flow hedges are classified in cash flows from operating activities in the Consolidated Statement of Cash Flows. Cash flows from derivatives designated as net investment hedges and derivatives that do not qualify as hedges are reported in cash flows from investing activities. For currency swaps designated as hedges of foreign currency denominated debt (included in the company's debt risk management program as addressed in note D, "Financial Instruments," on pages 94 to 98), cash flows directly associated with the settlement of the principal element of these swaps are reported in payments to settle debt in cash flows from financing activities in the Consolidated Statement of Cash Flows.

Financial Instruments

In determining the fair value of its financial instruments, the company uses a variety of methods and assumptions that are based on market conditions and risks existing at each balance sheet date. See note D, "Financial Instruments," on pages 92 to 94 for further information. All methods of assessing fair value result in a general approximation of value, and such value may never actually be realized.

Fair Value Measurement

Accounting guidance defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Under this guidance, the company is required to classify certain assets and liabilities based on the following fair value hierarchy:

- Level 1—Quoted prices (unadjusted) in active markets for identical assets or liabilities that can be accessed at the measurement date;
- Level 2—Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and
- Level 3—Unobservable inputs for the asset or liability.

The guidance requires the use of observable market data if such data is available without undue cost and effort.

When available, the company uses unadjusted quoted market prices in active markets to measure the fair value and classifies such items within Level 1. If quoted market prices are not available, fair value is based upon internally developed models that use current market-based or independently sourced market parameters such as interest rates and currency rates. Items valued using internally generated models are classified according to the lowest level input or value driver that is significant to the valuation.

The determination of fair value considers various factors including interest rate yield curves and time value underlying the financial instruments. For derivatives and debt securities, the company uses a discounted cash flow analysis using discount rates commensurate with the duration of the instrument.

In determining the fair value of financial instruments, the company considers certain market valuation adjustments to the "base valuations" calculated using the methodologies described below for several parameters that market participants would consider in determining fair value:

- Counterparty credit risk adjustments are applied to financial instruments, taking into account the actual credit risk of a counterparty as observed in the credit default swap market to determine the true fair value of such an instrument.
- Credit risk adjustments are applied to reflect the company's own credit risk when valuing all liabilities measured at fair value. The methodology is consistent with that applied in developing counterparty credit risk adjustments, but incorporates the company's own credit risk as observed in the credit default swap market.

As an example, the fair value of derivatives is derived utilizing a discounted cash flow model that uses observable market inputs such as known notional value amounts, yield curves, spot and forward exchange rates as well as discount rates. These inputs relate to liquid, heavily traded currencies with active markets which are available for the full term of the derivative.

Certain financial assets are measured at fair value on a nonrecurring basis. These assets include equity method investments that are recognized at fair value at the measurement date to the extent that they are deemed to be other-than-temporarily impaired. Certain assets that are measured at fair value on a recurring basis can be subject to nonrecurring fair value measurements. These assets include available-for-sale equity investments that are deemed to be other-than-temporarily impaired. In the event of an other-than-temporary impairment of a financial instrument, fair value is measured using a model described above.

Accounting guidance permits the measurement of eligible financial assets, financial liabilities and firm commitments at fair value, on an instrument-by-instrument basis, that are otherwise not permitted to be accounted for at fair value under other accounting standards. This election is irrevocable. The company does not apply the fair value option to any eligible assets or liabilities.

Cash Equivalents

All highly liquid investments with maturities of three months or less at the date of purchase are considered to be cash equivalents.

Marketable Securities

Debt securities included in current assets represent securities that are expected to be realized in cash within one year of the balance sheet date. Long-term debt securities that are not expected to be realized in cash within one year and alliance equity securities are included in investments and sundry assets. Debt and marketable equity securities are considered available for sale and are reported at fair value with unrealized gains and losses, net of applicable taxes, in OCI. The realized gains and losses for available-for-sale securities are included in other (income) and expense in the Consolidated Statement of Earnings. Realized gains and losses are calculated based on the specific identification method.

In determining whether an other-than-temporary decline in market value has occurred, the company considers the duration that, and extent to which, the fair value of the investment is below its cost, the financial condition and near-term prospects of the issuer or underlying collateral of a security; and the company's intent and ability to retain the security in order to allow for an anticipated recovery in fair value. Other-than-temporary declines in fair value from amortized cost for available-for-sale equity and debt securities that the company intends to sell or would more likely than not be required to sell before the expected recovery of the amortized cost basis are charged to other (income) and expense in the period in which the loss occurs. For debt securities that the company has no intent to sell and believes that it more likely than not will not be required to sell prior to recovery, only the credit loss component of the impairment is recognized in other (income) and expense, while the remaining loss is recognized in OCI. The credit loss component recognized in other (income) and expense is identified as the amount of the principal cash flows not expected to be received over the remaining term of the debt security as projected using the company's cash flow projections.

Inventories

Raw materials, work in process and finished goods are stated at the lower of average cost or market. Cash flows related to the sale of inventories are reflected in net cash provided by operating activities in the Consolidated Statement of Cash Flows.

Allowance for Credit Losses

Receivables are recorded concurrent with billing and shipment of a product and/or delivery of a service to customers. A reasonable estimate of probable net losses on the value of customer receivables is recognized by establishing an allowance for credit losses.

Notes and Accounts Receivable—Trade

An allowance for uncollectible trade receivables is estimated based on a combination of write-off history, aging analysis and any specific, known troubled accounts.

Financing Receivables

Financing receivables include sales-type leases, direct financing leases and loans. Leases are accounted for in accordance with lease accounting standards. Loan receivables are financial assets recorded at amortized cost which approximates fair value. The company determines its allowances for credit losses on financing receivables based on two portfolio segments: lease receivables and loan receivables. The company further segments the portfolio into two classes: major markets and growth markets.

When calculating the allowances, the company considers its ability to mitigate a potential loss by repossessing leased equipment and by considering the current fair market value of any other collateral. The value of the equipment is the net realizable value. The allowance for credit losses for capital leases, installment sales and customer loans includes an assessment of the entire balance of the capital lease or loan, including amounts not yet due. The methodologies that the company uses to calculate its receivables reserves, which are applied consistently to its different portfolios, are as follows:

Individually Evaluated—The company reviews all financing receivables considered at risk on a quarterly basis. The review primarily consists of an analysis based upon current information available about the client, such as financial statements, news reports, published credit ratings, current market-implied credit analysis, as well as the current economic environment, collateral net of repossession cost and prior collection history. For loans that are collateral dependent, impairment is measured using the fair value of the collateral when foreclosure is probable. Using this information, the company determines the expected cash flow for the receivable and calculates an estimate of the potential loss and the probability of loss. For those accounts in which the loss is probable, the company records a specific reserve.

Collectively Evaluated—The company records an unallocated reserve that is calculated by applying a reserve rate to its different portfolios, excluding accounts that have been specifically reserved. This reserve rate is based upon credit rating, probability of default, term, characteristics (lease/loan) and loss history. Factors that could result in actual receivable losses that are materially different from the estimated reserve include sharp changes in the economy, or a significant change in the economic health of a particular client that represents a concentration in the company's receivables portfolio.

Other Credit-Related Policies

Non-Accrual—Certain receivables for which the company has recorded a specific reserve may also be placed on non-accrual status. Non-accrual assets are those receivables (impaired loans or nonperforming leases) with specific reserves and other accounts for which it is likely that the company will be unable to collect all amounts due according to original terms of the lease or loan agreement. Income recognition is discontinued on these receivables. Cash collections are first applied as a reduction to principal outstanding. Any cash received in excess of principal payments outstanding is recognized as interest income. Receivables may be removed from non-accrual status, if appropriate, based upon changes in client circumstances.

Write Off—Receivable losses are charged against the allowance when management believes the uncollectibility of the receivable is confirmed. Subsequent recoveries, if any, are credited to the allowance.

Past Due—The company views receivables as past due when payment has not been received after 90 days, measured from the original billing date.

Impaired Loans—As stated above, the company evaluates all financing receivables considered at-risk, including loans, for impairment on a quarterly basis. The company considers any loan with an individually evaluated reserve as an impaired loan. Depending on the level of impairment, loans will also be placed on non-accrual status as appropriate. Client loans are primarily for software and services and are unsecured. These loans are subjected to credit analysis to evaluate the associated risk and, when deemed necessary, actions are taken to mitigate risks in the loan agreements which include covenants to protect against credit deterioration during the life of the obligation.

Estimated Residual Values of Lease Assets

The recorded residual values of lease assets are estimated at the inception of the lease to be the expected fair value of the assets at the end of the lease term. The company periodically reassesses the realizable value of its lease residual values. Any anticipated increases in specific future residual values are not recognized before realization through remarketing efforts. Anticipated decreases in specific future residual values that are considered to be other-than-temporary are recognized immediately upon identification and are recorded as an adjustment to the residual value estimate. For sales-type and direct-financing leases, this reduction lowers the recorded net investment and is recognized as a loss charged to financing income in the period in which the estimate is changed, as well as an adjustment to unearned income to reduce future-period financing income.

Common Stock

Common stock refers to the $.20 par value per share capital stock as designated in the company's Certificate of Incorporation. Treasury stock is accounted for using the cost method. When treasury stock is reissued, the value is computed and recorded using a weighted-average basis.

Earnings Per Share of Common Stock

Earnings per share (EPS) is computed using the two-class method. The two-class method determines EPS for each class of common stock and participating securities according to dividends and dividend equivalents and their respective participation rights in undistributed earnings. Basic EPS of common stock is computed by dividing net income by the weighted-average number of common shares outstanding for the period. Diluted EPS of common stock is computed on the basis of the weighted-average number of shares of common stock plus the effect of dilutive potential common shares outstanding during the period using the treasury stock method. Dilutive potential common shares include outstanding stock options, stock awards and convertible notes.

Note B.
Accounting Changes

Standards Implemented

In February 2013, the Financial Accounting Standards Board (FASB) issued additional guidance regarding reclassifications out of AOCI. The new guidance requires entities to report the effect of significant reclassifications out of AOCI on the respective line items in net income unless the amounts are not reclassified in their entirety to net income. For amounts that are not required to be reclassified in their entirety to net income in the same reporting period, entities are required to cross-reference other disclosures that provide additional detail about those amounts. For the company, the new guidance is effective prospectively for all interim and annual periods beginning January 1, 2013 with early adoption permitted. The company elected to early adopt the guidance. There was no impact in the consolidated financial results as the guidance related only to additional disclosures. See note L, "Equity Activity," on pages 107 to 110 for further information.

In July 2012, the FASB issued amended guidance that simplifies how entities test indefinite-lived intangible assets other than goodwill for impairment. After an assessment of certain qualitative factors, if it is determined to be more likely than not that an indefinite-lived intangible asset is impaired, entities must perform the quantitative impairment test. Otherwise, the quantitative test is optional. The amended guidance was effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012, with early adoption permitted. The company elected to adopt this guidance for its 2012 impairment testing of indefinite-lived intangible assets performed in the fourth quarter. There was no impact in the consolidated financial results.

In May 2011, the FASB issued amended guidance and disclosure requirements for fair value measurements. These changes were effective January 1, 2012 on a prospective basis. These amendments did not have a material impact in the consolidated financial results.

In September 2011, the FASB issued additional disclosure requirements for entities which participate in multi-employer pension plans. The purpose of the new disclosures was to provide financial statement users with information about an employer's level of participation in these plans and the financial health of significant plans. The new disclosures were effective beginning with the full year 2011 financial statements. The company does not participate in any material multi-employer plans. There was no impact in the consolidated financial results as the changes relate only to additional disclosures.

In September 2011, the FASB issued amended guidance that simplified how entities test goodwill for impairment. After an assessment of certain qualitative factors, if it is determined to be more likely than not that the fair value of a reporting unit is less than its carrying amount, entities must perform the quantitative analysis of the goodwill impairment test. Otherwise, the quantitative test(s) is optional. The guidance was effective January 1, 2012 with early adoption permitted. The company adopted this guidance for the 2011 goodwill impairment test. There was no impact in the consolidated financial results.

In June 2011, the FASB issued amended disclosure requirements for the presentation of OCI and AOCI. OCI is comprised of costs, expenses, gains and losses that are included in comprehensive income but excluded from net income, and AOCI comprises the aggregated balances of OCI in equity. The amended guidance eliminated the option to present period changes in OCI as part of the Statement of Changes in Equity. Under the amended guidance, all period changes in OCI are to be presented either in a single continuous statement of comprehensive income, or in two separate, but consecutive financial statements. Only summary totals are to be included in the AOCI section of the Statement of Changes in Equity. In December 2011, the FASB deferred the requirement to present reclassifications from AOCI on the face of the Consolidated Statement of Earnings. The changes were effective January 1, 2012 with early adoption permitted. The company adopted the two statement approach effective with its full year 2011 financial statements. There was no impact in the consolidated financial results as the amendments related only to changes in financial statement presentation.

In December 2010, the FASB issued amended guidance to clarify the acquisition date that should be used for reporting pro-forma financial information for business combinations. If comparative financial statements are presented, the pro-forma revenue and earnings of the combined entity for the comparable prior reporting period should be reported as though the acquisition date for all business combinations that occurred during the current year had been completed as of the beginning of the comparable prior annual reporting period. The amendments in this guidance were effective on a prospective basis for business combinations for which the acquisition date was on or after January 1, 2011. There was no impact in the consolidated financial results as the amendments relate only to additional disclosures. In addition, the company has had no acquisitions which required pro-forma financial information.

In December 2010, the FASB issued amendments to the guidance on goodwill impairment testing. The amendments modified step 1 of the goodwill impairment test for reporting units with zero or negative carrying amounts. For those reporting units, an entity is required to perform step 2 of the goodwill impairment test if it is more likely than not that a goodwill impairment exists. In making that determination, an entity should consider whether there are any adverse qualitative factors indicating that impairment may exist. The amendments were effective January 1, 2011 and did not have an impact in the consolidated financial results.

In July 2010, the FASB issued amendments to the disclosure requirements about the credit quality of financing receivables and the allowance for credit losses. The purpose of the additional disclosures was to enable users of financial statements to better understand the nature of credit risk inherent in an entity's portfolio of financing receivables and how that risk is analyzed. For end-of-period balances, the new disclosures were required to be made in all interim and annual periods ending on or after December 15, 2010. For activity during a reporting period, the disclosures were required to be included in all interim and annual periods after January 1, 2011. In January 2011, the FASB temporarily deferred the disclosures regarding troubled debt restructurings which were included in the requirements of this amendment. Subsequently, in April 2011, the FASB issued additional guidance and clarifications to help creditors in determining whether a creditor has granted a concession, and whether a debtor is experiencing financial difficulties for purposes of determining whether a restructuring constitutes a troubled debt restructuring. The new guidance and the previously deferred disclosures were effective July 1, 2011 applied retrospectively to January 1, 2011. Prospective application was required for any new impairments identified as a result of this guidance. These changes did not have a material impact in the consolidated financial results.

In January 2010, the FASB issued additional disclosure requirements for fair value measurements. According to the guidance, the fair value hierarchy disclosures should be disaggregated by class of assets and liabilities. A class is often a subset of assets or liabilities within a line item in the statement of financial position. In addition, significant transfers between Levels 1 and 2 of the fair value hierarchy are required to be disclosed. These additional requirements were effective January 1, 2010 for quarterly and annual reporting. These amendments did not have an impact in the consolidated financial results as this guidance relates only to additional disclosures. Certain disclosure requirements relating to fair value measurements using significant unobservable inputs (Level 3) were deferred until January 1, 2011. These additional requirements also did not have an impact in the consolidated financial results as they related only to additional disclosures.

Note C.
Acquisitions/Divestitures

Acquisitions

Purchase price consideration for all acquisitions, as reflected in the tables in this note, is paid primarily in cash. All acquisitions are reported in the Consolidated Statement of Cash Flows net of acquired cash and cash equivalents.

2012

In 2012, the company completed 11 acquisitions at an aggregate cost of $3,964 million.

Kenexa Corporation (Kenexa)—On December 3, 2012, the company completed the acquisition of 100 percent of Kenexa, a publicly held company, for cash consideration of $1,351 million. Kenexa, a leading provider of recruiting and talent management solutions, brings a unique combination of cloud-based technology and consulting services that integrates both people and processes, providing solutions to engage a smarter, more effective workforce across their most critical businesses functions. Goodwill of $1,014 million has been assigned to the Software ($771 million) and Global Technology Services (GTS) ($243 million) segments. As of the acquisition date, it is expected that approximately 10 percent of the goodwill will be deductible for tax purposes. The overall weighted-average useful life of the identified intangible assets acquired is 6.5 years.

Other Acquisitions—The Software segment also completed eight other acquisitions: in the first quarter, Green Hat Software Limited (Green Hat), Emptoris Inc. (Emptoris) and Worklight, Inc. (Worklight), all privately held companies, and DemandTec, Inc. (DemandTec), a publicly held company; in the second quarter, Varicent Software Inc. (Varicent), Vivisimo Inc. (Vivisimo) and Tealeaf Technology Inc. (Tealeaf), all privately held companies; and in the third quarter, Butterfly Software, Ltd. (Butterfly), a privately held company. Systems and Technology (STG) completed two acquisitions: in the first quarter, Platform Computing Corporation (Platform Computing), a privately held company; and in the third quarter, Texas Memory Systems (TMS), a privately held company. All acquisitions were for 100 percent of the acquired companies.

The table below reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2012.

2012 Acquisitions

($ in millions)

	Amortization Life (in Years)	Kenexa	Other Acquisitions
Current assets		$ 133	$ 278
Fixed assets/noncurrent assets		98	217
Intangible assets			
Goodwill	N/A	1,014	1,880
Completed technology	3 to 7	169	403
Client relationships	4 to 7	179	194
In-process R&D	N/A	—	11
Patents/trademarks	1 to 7	39	37
Total assets acquired		1,632	3,020
Current liabilities		(93)	(143)
Noncurrent liabilities		(188)	(264)
Total liabilities assumed		(281)	(407)
Total purchase price		$1,351	$2,613

N/A—Not applicable

Each acquisition further complemented and enhanced the company's portfolio of product and services offerings. Green Hat helps customers improve the quality of software applications by enabling developers to use cloud computing technologies to conduct testing of a software application prior to its delivery. Emptoris expands the company's cloud-based analytics offerings that provide supply chain intelligence leading to better inventory management and cost efficiencies. Worklight delivers mobile application management capabilities to clients across a wide range of industries. The acquisition enhances the company's comprehensive mobile portfolio, which is designed to help global corporations leverage the proliferation of all mobile devices—from laptops and smartphones to tablets. DemandTec delivers cloud-based analytics software to help organizations improve their price, promotion and product mix within the broad context of enterprise commerce. Varicent's software automates and analyzes data across sales, finance, human resources and IT departments to uncover trends and optimize sales performance and operations. Vivisimo software automates the discovery of big data, regardless of its format or where it resides, providing decision makers with a view of key business information necessary to drive new initiatives. Tealeaf provides a full suite of customer experience management software, which analyzes interactions on websites and mobile devices. Butterfly offers storage planning software and storage migration tools, helping companies save storage space, operational time, IT budget and power consumption. Platform Computing's focused technical and distributed computing management software helps clients create, integrate and manage shared computing environments that are used in compute-and-data intensive applications such as simulations, computer modeling and analytics. TMS designs and sells high-performance solid state storage solutions.

For the "Other Acquisitions," the overall weighted-average life of the identified amortizable intangible assets acquired is 6.6 years. These identified intangible assets will be amortized on a straight-line basis over their useful lives. Goodwill of $1,880 million has been assigned to the Software ($1,412 million), Global Business Services (GBS) ($5 million), GTS ($21 million) and STG ($443 million) segments. As of the acquisition dates, it is expected that approximately 15 percent of the goodwill will be deductible for tax purposes.

On February 1, 2013, the company announced that it had entered into a definitive agreement to acquire the software portfolio of Star Analytics Inc., a privately held business analytics company based in Redwood City, California. The combination of the company's and Star Analytics software will advance the company's business analytics initiatives. The acquisition is subject to customary closing conditions and is expected to be completed in the first quarter of 2013.

On February 7, 2013, the company completed the acquisition of StoredIQ Inc. (StoredIQ), a privately held company based in Austin, Texas. StoredIQ will advance the company's efforts to help clients derive value from big data and respond more efficiently to litigation and regulations, dispose of information that has outlived its purpose and lower data storage costs. At the date of issuance of the financial statements, the initial purchase accounting was not complete for this acquisition.

2011

In 2011, the company completed five acquisitions of privately held companies at an aggregate cost of $1,849 million.

These acquisitions were completed as follows: in the second quarter, TRIRIGA, Inc. (TRIRIGA); and in the fourth quarter, i2, Algorithmics, Inc. (Algorithmics), Q1 Labs and Curam Software Ltd. (Curam Software). TRIRIGA was integrated into the Software and GBS segments upon acquisition. All other acquisitions were integrated into the Software segment upon acquisition. All acquisitions reflected 100 percent ownership of the acquired companies.

TRIRIGA is a provider of facility and real estate management software solutions, which help clients make strategic decisions regarding space usage, evaluate alternative real estate initiatives, generate higher returns from capital projects and assess environmental impact investments. The acquisition added advanced real estate intelligence to the company's smarter buildings initiative. i2 expanded the company's Big Data analytics software for Smarter Cities by helping both public and private entities in government, law enforcement, retail, insurance and other industries access and analyze information they need to address crime, fraud and security threats. Algorithmics provides software and services for improved business insights at financial and insurance institutions to assess risk and address regulatory challenges. Q1 Labs is a provider of security intelligence software and accelerates efforts to help clients more intelligently secure their enterprises by applying analytics to correlate information from key security domains and creating security dashboards for their organizations. Curam Software is a provider of software and services which help governments improve the efficiency, effectiveness and accessibility of social programs for Smarter Cities.

The overall weighted-average life of the indentified intangible assets acquired was 6.9 years. These identified intangible assets will be amortized on a straight-line basis over their useful lives. Goodwill of $1,291 million was assigned to the Software ($1,277 million) and GBS ($14 million) segments. As of the acquisition dates, it was expected that approximately 25 percent of the goodwill would be deductible for tax purposes.

The table below reflects the purchase price related to these acquisitions and the resulting purchase price allocations as of December 31, 2011.

2011 Acquisitions

($ in millions)

	Amortization Life (in Years)	Total Acquisitions
Current assets		$ 251
Fixed assets/noncurrent assets		88
Intangible assets		
Goodwill	N/A	1,291
Completed technology	7	320
Client relationships	7	222
Patents/trademarks	1 to 7	17
Total assets acquired		2,190
Current liabilities		(191)
Noncurrent liabilities		(150)
Total liabilities assumed		(341)
Total purchase price		$1,849

N/A—Not applicable

2010

In 2010, the company completed 17 acquisitions at an aggregate cost of $6,538 million.

Netezza Corporation (Netezza)—On November 10, 2010, the company completed the acquisition of 100 percent of Netezza, for cash consideration of $1,847 million. Netezza expanded the company's business analytics initiatives to help clients gain faster insights into their business information, with increased performance at a lower cost of ownership. Netezza was integrated into the Software segment upon acquisition, and goodwill, as reflected in the table below, was entirely assigned to the Software segment. As of the acquisition date, it was expected that none of the goodwill would be deductible for tax purposes. The overall weighted-average useful life of the identified intangible assets acquired was 6.9 years.

Sterling Commerce—On August 27, 2010, the company completed the acquisition of 100 percent of Sterling Commerce, a wholly owned subsidiary of AT&T, Inc., for cash consideration of $1,415 million. Sterling Commerce expanded the company's ability to help clients accelerate their interactions with customers, partners and suppliers through dynamic business networks using either on-premise or cloud delivery models. Sterling Commerce was integrated into the Software segment upon acquisition, and goodwill, as reflected in the table below, was entirely assigned to the Software segment. As of the acquisition date, it was expected that none of the goodwill would be deductible for tax purposes. The overall weighted-average useful life of the identified intangible assets acquired was 6.9 years.

Other Acquisitions—The Software segment also completed acquisitions of 10 privately held companies and one publicly held company: in the first quarter, Lombardi Software, Inc. (Lombardi), Intelliden Inc. and Initiate Systems, Inc. (Initiate); in the second quarter, Cast Iron Systems; in the third quarter, BigFix, Inc., Coremetrics and Datacap; and in the fourth quarter, Unica Corporation (Unica), a publicly held company, PSS Systems, OpenPages, Inc. (OpenPages) and Clarity Systems. GTS completed an acquisition in the first quarter: the core operating assets of Wilshire Credit Corporation (Wilshire). GBS also completed an acquisition in the first quarter: National Interest Security Company, LLC, a privately held company. STG completed acquisitions of two privately held companies: in the third quarter, Storwize; and in the fourth quarter, BLADE Network Technologies (BLADE). All acquisitions were for 100 percent of the acquired companies.

Lombardi is a leading provider of business process management software and services, and became part of the company's application integration software portfolio. Intelliden Inc. is a leading provider of intelligent network automation software and extended the company's network management offerings. Initiate is a market leader in data integrity software for information sharing among healthcare and government organizations. Cast Iron Systems, a leading Software as a Service (SaaS) and cloud application integration provider, enhances the WebSphere business integration portfolio. BigFix, Inc. is a leading provider of high-performance enterprise systems and security management solutions that revolutionizes the way IT organizations manage and secure their computing infrastructure. Coremetrics, a leader in Web analytics software, expanded the company's business analytics capabilities by enabling organizations to use cloud computing services to develop faster, more targeted marketing campaigns. Datacap strengthens the company's ability to help organizations digitize, manage and automate their information assets.

2010 Acquisitions

($ in millions)

	Amortization Life (in Years)	Netezza	Sterling Commerce	Other Acquisitions
Current assets		$ 218	$ 196	$ 377
Fixed assets/noncurrent assets		73	106	209
Intangible assets				
Goodwill	N/A	1,410	1,032	2,312
Completed technology	3 to 7	202	218	497
Client relationships	2 to 7	52	244	293
In-process R&D	N/A	4	—	13
Patents/trademarks	1 to 7	16	14	27
Total assets acquired		1,975	1,810	3,728
Current liabilities		(9)	(129)	(161)
Noncurrent liabilities		(120)	(266)	(291)
Total liabilities assumed		(128)	(395)	(452)
Total purchase price		$1,847	$1,415	$3,277

N/A—Not applicable

Unica, a leading provider of software and services used to automate marketing processes, expanded the company's ability to help organizations analyze and predict customer preferences and develop more targeted marketing campaigns. PSS Systems is a leading provider of legal information governance and information management software. OpenPages is a leading provider of software that helps companies more easily identify and manage risk and compliance activities across the enterprise through a single management system. Clarity Systems delivers financial governance software that enables organizations to automate the process of collecting, preparing, certifying and controlling financial statements for electronic filing. Wilshire's mortgage servicing platform continues the strategic focus on the mortgage services industry and strengthens the commitment to deliver mortgage business process outsourcing solutions. National Interest Security Company strengthens the ability to deliver advanced analytics and IT solutions to the public sector. Storwize, a provider of in-line data compression appliance solutions, helps the company to make it more affordable for clients to analyze massive amounts of data in order to provide new insights and business outcomes. BLADE provides server and top-of-rack switches as well as software to virtualize and manage cloud computing and other workloads.

For the "Other Acquisitions," the overall weighted-average life of the identified intangible assets acquired was 6.4 years. These identified intangible assets will be amortized on a straight-line basis over their useful lives. Goodwill of $2,312 million was assigned to the Software ($1,653 million), GTS ($32 million), GBS ($252 million) and STG ($375 million) segments. As of the acquisition dates, it was expected that none of the goodwill would be deductible for tax purposes.

Divestitures

2012

On April 17, 2012, the company announced that it had signed a definitive agreement with Toshiba TEC for the sale of its Retail Store Solutions business to Toshiba TEC. As part of the transaction, Toshiba TEC and the company also signed a multi-year business partner agreement to integrate retail store solutions for Smarter Commerce. The transaction price was $850 millon, and the company will receive approximately $800 million in cash, net of closing date working capital adjustments.

Through December 31, 2012, the company completed the first three phases of the sale. For the completed phases, the company received net proceeds of $546 million, recorded a note receivable of $251 million and recognized a net pre-tax gain of $446 million. The gain was net of the fair value of certain contractual terms, certain transaction costs and the assets and liabilities sold. The gain was recorded in other (income) and expense in the Consolidated Statement of Earnings and the net proceeds are reflected within divestitures of businesses, net of cash transferred within cash flows from investing activities in the Consolidated Statement of Cash Flows. In addition, in the third quarter, the company acquired a 19.9 percent ownership interest for $161 million in Toshiba Global Commerce Solutions Holding Corporation, the new holding company that Toshiba TEC established for the business. The company will retain this ownership for a period of three years at which time Toshiba TEC will purchase the company's equity interest for the initial acquisition value. This investment was recorded in investments and sundry assets in the Consolidated Statement of Financial Position and the payment was reflected within purchases of marketable securities and other investments within cash flows from investing activities in the Consolidated Statement of Cash Flows.

The company expects to close the next phase of the divestiture in the first quarter of 2013 with subsequent closings expected in future periods. Overall, the company expects to recognize a total pre-tax gain on the sale of approximately $500 million.

2011

During the fourth quarter of 2011, the company completed the divestiture of the iCluster business to Rocket Software. iCluster, which was acquired in the Data Mirror acquisition in 2007, was part of the Software business. This transaction was not material to the Consolidated Financial Statements.

During the second quarter of 2011, the company completed two divestitures related to subsidiaries of IBM Japan. The impact of these transactions was not material to the Consolidated Financial Statements.

2010

On March 31, 2010, the company completed the sale of its activities associated with the sales and support of Dassault Systemes' (Dassault) product lifecycle management (PLM) software, including customer contracts and related assets to Dassault. The company received net proceeds of $459 million and recognized a net gain of $591 million on the transaction in the first quarter of 2010. The gain was net of the fair value of certain contractual terms, certain transaction costs and the assets and liabilities sold. The gain was recorded in other (income) and expense in the Consolidated Statement of Earnings and the net proceeds were reflected in proceeds from disposition of marketable securities and other investments within cash flow from investing activities in the Consolidated Statement of Cash Flows.

Note D.
Financial Instruments

Fair Value Measurements

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following tables present the company's financial assets and financial liabilities that are measured at fair value on a recurring basis at December 31, 2012 and 2011.

($ in millions)

At December 31, 2012:	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents[1]				
Time deposits and certificates of deposit	$ —	$3,694	$—	$3,694
Commercial paper	—	2,098	—	2,098
Money market funds	1,923	—	—	1,923
Other securities	—	30	—	30
Total	1,923	5,823	—	7,746[6]
Debt securities—current[2]	—	717	—	717[6]
Debt securities—noncurrent[3]	2	8	—	10
Available-for-sale equity investments[3]	34	—	—	34
Derivative assets[4]				
Interest rate contracts	—	604	—	604
Foreign exchange contracts	—	305	—	305
Equity contracts	—	9	—	9
Total	—	918	—	918[7]
Total assets	$1,959	$7,466	$—	$9,424[7]
Liabilities				
Derivative liabilities[5]				
Foreign exchange contracts	$ —	$ 496	$—	$ 496
Equity contracts	—	7	—	7
Total liabilities	$ —	$ 503	$—	$ 503[7]

[1] Included within cash and cash equivalents in the Consolidated Statement of Financial Position.

[2] Commercial paper and certificates of deposit reported as marketable securities in the Consolidated Statement of Financial Position.

[3] Included within investments and sundry assets in the Consolidated Statement of Financial Position.

[4] The gross balances of derivative assets contained within prepaid expenses and other current assets, and investments in sundry assets in the Consolidated Statement of Financial Position at December 31, 2012 are $333 million and $585 million, respectively.

[5] The gross balances of derivative liabilities contained within other accrued expenses and liabilities, and other liabilities in the Consolidated Statement of Financial Position at December 31, 2012 are $426 million and $78 million, respectively.

[6] Available-for-sale securities with carrying values that approximate fair value.

[7] If derivative exposures covered by a qualifying master netting agreement had been netted in the Consolidated Statement of Financial Position, the total derivative asset and liability positions would have been reduced by $262 million each.

($ in millions)

At December 31, 2011:	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents[1]				
Time deposits and certificates of deposit*	$ —	$1,931	$—	$1,931
Commercial paper *	—	777	—	777
Money market funds	1,886	—	—	1,886
U.S. government securities	—	2,750	—	2,750
Canada government securities*	—	983	—	983
Other securities	—	8	—	8
Total	1,886	6,449	—	8,335[5]
Debt securities—noncurrent[2]	1	7	—	8
Available-for-sale equity investments[2]	69	14	—	83
Derivative assets[3]				
Interest rate contracts	—	783	—	783
Foreign exchange contracts	—	510	—	510
Equity contracts	—	7	—	7
Total	—	1,300	—	1,300[6]
Total assets	$1,956	$7,770	$—	$9,726[6]
Liabilities				
Derivative liabilities[4]				
Foreign exchange contracts	$ —	$ 523	$—	$ 523
Equity contracts	—	8	—	8
Total liabilities	$ —	$ 531	$—	$ 531[6]

*Represents a change from the 2011 Annual Report to reflect Canada government securities of $983 million previously reported in Commercial paper, and a reduction of $151 million in Time deposits and certificates of deposit due to certain holdings which were out of the scope of this disclosure.

[1] Included within cash and cash equivalents in the Consolidated Statement of Financial Position.

[2] Included within investments and sundry assets in the Consolidated Statement of Financial Position.

[3] The gross balances of derivative assets contained within prepaid expenses and other current assets, and investments and sundry assets in the Consolidated Statement of Financial Position at December 31, 2011 are $546 million and $754 million, respectively.

[4] The gross balances of derivative liabilities contained within other accrued expenses and liabilities, and other liabilities in the Consolidated Statement of Financial Position at December 31, 2011 are $365 million and $166 million, respectively.

[5] Available-for-sale securities with carrying values that approximate fair value.

[6] If derivative exposures covered by a qualifying master netting agreement had been netted in the Consolidated Statement of Financial Position, the total derivative asset and liability positions would have been reduced by $324 million each.

There were no transfers between Levels 1 and 2 for the years ended December 31, 2012 and 2011.

Financial Assets and Liabilities Not Measured at Fair Value

Short-Term Receivables and Payables

Notes and other accounts receivable and other investments are financial assets with carrying values that approximate fair value. Accounts payable, other accrued expenses and short-term debt (excluding the current portion of long-term debt) are financial liabilities with carrying values that approximate fair value. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy.

Loans and Long-Term Receivables

Fair values are based on discounted future cash flows using current interest rates offered for similar loans to clients with similar credit ratings for the same remaining maturities. At December 31, 2012 and 2011, the difference between the carrying amount and estimated fair value for loans and long-term receivables was immaterial. If measured at fair value in the financial statements, these financial instruments would be classified as Level 3 in the fair value hierarchy.

Long-Term Debt

Fair value of publicly traded long-term debt is based on quoted market prices for the identical liability when traded as an asset in an active market. For other long-term debt for which a quoted market price is not available, an expected present value technique that uses rates currently available to the company for debt with similar terms and remaining maturities is used to estimate fair value. The carrying amount of long-term debt is $24,088 million and $22,857 million and the estimated fair value is $27,119 million and $27,383 million at December 31, 2012 and 2011, respectively. If measured at fair value in the financial statements, long-term debt (including the current portion) would be classified as Level 2 in the fair value hierarchy.

Debt and Marketable Equity Securities

The company's cash equivalents and current debt securities are considered available-for-sale and recorded at fair value, which is not materially different from carrying value, in the Consolidated Statement of Financial Position. The following tables summarize the company's noncurrent debt and marketable equity securities which are also considered available-for-sale and recorded at fair value in the Consolidated Statement of Financial Position.

($ in millions)

At December 31, 2012:	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities—noncurrent[1]	$ 8	$2	$—	$10
Available-for-sale equity investments[1]	$31	$4	$(1)	$34

[1] Included within investments and sundry assets in the Consolidated Statement of Financial Position.

($ in millions)

At December 31, 2011:	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities—noncurrent[1]	$ 7	$ 1	$—	$ 8
Available-for-sale equity investments[1]	$58	$27	$(2)	$83

[1] Included within investments and sundry assets in the Consolidated Statement of Financial Position.

Based on an evaluation of available evidence as of December 31, 2012, the company believes that unrealized losses on debt and available-for-sale equity securities are temporary and do not represent an other-than-temporary impairment.

Sales of debt and available-for-sale equity securities were as follows:

($ in millions)

For the year ended December 31:	2012	2011	2010
Proceeds	$112	$405	$16
Gross realized gains (before taxes)	45	232	6
Gross realized losses (before taxes)	(1)	(0)	(0)

The after-tax net unrealized gains/(losses) on available-for-sale debt and equity securities that have been included in other comprehensive income/(loss) and the after-tax net (gains)/losses reclassified from accumulated other comprehensive income/(loss) to net income were as follows:

($ in millions)

For the year ended December 31:	2012	2011
Net unrealized gains/(losses) arising during the period	$ 17	$ (7)
Net unrealized (gains)/losses reclassified to net income*	(25)	(143)

*Includes writedowns of $2.0 million and $0.3 million in 2012 and 2011, respectively.

The contractual maturities of substantially all available-for-sale debt securities were less than one year at December 31, 2012.

Derivative Financial Instruments

The company operates in multiple functional currencies and is a significant lender and borrower in the global markets. In the normal course of business, the company is exposed to the impact of interest rate changes and foreign currency fluctuations, and to a lesser extent equity and commodity price changes and client credit risk. The company limits these risks by following established risk management policies and procedures, including the use of derivatives, and, where cost effective, financing with debt in the currencies in which assets are denominated. For interest rate exposures, derivatives are used to better align rate movements between the interest rates associated with the company's lease and other financial assets and the interest rates associated with its financing debt. Derivatives are also used to manage the related cost of debt. For foreign currency exposures, derivatives are used to better manage the cash flow volatility arising from foreign exchange rate fluctuations.

As a result of the use of derivative instruments, the company is exposed to the risk that counterparties to derivative contracts will fail to meet their contractual obligations. To mitigate the counterparty credit risk, the company has a policy of only entering into contracts with carefully selected major financial institutions based upon their overall credit profile. The company's established policies and procedures for mitigating credit risk on principal transactions include reviewing and establishing limits for credit exposure and continually assessing the creditworthiness of counterparties. The right of set-off that exists under certain of these arrangements enables the legal entities of the company subject to the arrangement to net amounts due to and from the counterparty reducing the maximum loss from credit risk in the event of counterparty default.

The company is also a party to collateral security arrangements with most of its major counterparties. These arrangements require the company to hold or post collateral (cash or U.S. Treasury securities) when the derivative fair values exceed contractually established thresholds. Posting thresholds can be fixed or can vary based on credit default swap pricing or credit ratings received from the major credit agencies. The aggregate fair value of all derivative instruments under these collateralized arrangements that were in a liability position at December 31, 2012 and 2011 was $94 million and $131 million, respectively, for which no collateral was posted at December 31, 2012 and December 31, 2011. Full collateralization of these agreements would be required in the event that the company's credit rating falls below investment grade or if its credit default swap spread exceeds 250 basis points, as applicable, pursuant to the terms of the collateral security arrangements. The aggregate fair value of derivative instruments in net asset positions as of December 31, 2012 and 2011 was $918 million and $1,300 million, respectively. This amount represents the maximum exposure to loss at the reporting date as a result of the counterparties failing to perform as contracted. This exposure was reduced by $262 million and $324 million at December 31, 2012 and 2011, respectively, of liabilities included in master netting arrangements with those counterparties. Additionally, at December 31, 2012 and 2011, this exposure was reduced by $69 million and $466 million of cash collateral, respectively, received by the company. In addition to cash collateral, the company held $31 million in non-cash collateral, in U.S. Treasury securities at December 31, 2012. Per accounting guidance, non-cash collateral is not recorded on the Statement of Financial Position.

The company does not offset derivative assets against liabilities in master netting arrangements nor does it offset receivables or payables recognized upon payment or receipt of cash collateral against the fair values of the related derivative instruments. No amount was recognized in other receivables at December 31, 2012 and December 31, 2011 for the right to reclaim cash collateral. The amount recognized in accounts payable for the obligation to return cash collateral totaled $69 million and $466 million at December 31, 2012 and 2011, respectively. The company restricts the use of cash collateral received to rehypothecation, and therefore reports it in prepaid expenses and other current assets in the Consolidated Statement of Financial Position. No amount was rehypothecated at December 31, 2012 and December 31, 2011.

The company may employ derivative instruments to hedge the volatility in stockholders' equity resulting from changes in currency exchange rates of significant foreign subsidiaries of the company with respect to the U.S. dollar. These instruments, designated as net investment hedges, expose the company to liquidity risk as the derivatives have an immediate cash flow impact upon maturity which is not offset by a cash flow from the translation of the underlying hedged equity. The company monitors this cash loss potential on an ongoing basis, and may discontinue some of these hedging relationships by de-designating the derivative instrument in order to manage the liquidity risk. Although not designated as accounting hedges, the company may utilize derivatives to offset the changes in the fair value of the de-designated instruments from the date of de-designation until maturity.

In its hedging programs, the company uses forward contracts, futures contracts, interest-rate swaps and cross-currency swaps, depending upon the underlying exposure. The company is not a party to leveraged derivative instruments.

A brief description of the major hedging programs, categorized by underlying risk, follows.

Interest Rate Risk

Fixed and Variable Rate Borrowings

The company issues debt in the global capital markets, principally to fund its financing lease and loan portfolio. Access to cost-effective financing can result in interest rate mismatches with the underlying assets. To manage these mismatches and to reduce overall interest cost, the company uses interest rate swaps to convert specific fixed-rate debt issuances into variable-rate debt (i.e., fair value hedges) and to convert specific variable-rate debt issuances into fixed-rate debt (i.e., cash flow hedges). At December 31, 2012 and 2011, the total notional amount of the company's interest rate swaps was $4.3 billion and $5.9 billion, respectively. The weighted-average remaining maturity of these instruments at December 31, 2012 and December 31, 2011 was approximately 5.1 years and 5.5 years, respectively.

Forecasted Debt Issuance

The company is exposed to interest rate volatility on future debt issuances. To manage this risk, the company may use forward-starting interest rate swaps to lock in the rate on the interest payments related to the forecasted debt issuance. These swaps are accounted for as cash flow hedges. The company did not have any derivative instruments relating to this program outstanding at December 31, 2012 and 2011.

At December 31, 2012 and 2011, net gains of approximately $1 million and net losses of approximately $5 million (before taxes), respectively, were recorded in AOCI in connection with cash flow hedges of the company's borrowings. Within these amounts less than $1 million of gains and $6 million of losses, respectively, are expected to be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying transactions.

Foreign Exchange Risk

Long-Term Investments in Foreign Subsidiaries (Net Investment)

A large portion of the company's foreign currency denominated debt portfolio is designated as a hedge of net investment in foreign subsidiaries to reduce the volatility in stockholders' equity caused by changes in foreign currency exchange rates in the functional currency of major foreign subsidiaries with respect to the U.S. dollar. The company also uses cross-currency swaps and foreign exchange forward contracts for this risk management purpose. At December 31, 2012 and 2011, the total notional amount of derivative instruments designated as net investment hedges was $3.3 billion and $5.0 billion, respectively. The weighted-average remaining maturity of these instruments at December 31, 2012 and 2011 was approximately 0.4 years for both periods.

Anticipated Royalties and Cost Transactions

The company's operations generate significant nonfunctional currency, third-party vendor payments and intercompany payments for royalties and goods and services among the company's non-U.S. subsidiaries and with the parent company. In anticipation of these foreign currency cash flows and in view of the volatility of the currency markets, the company selectively employs foreign exchange forward contracts to manage its currency risk. These forward contracts are accounted for as cash flow hedges. The maximum length of time over which the company is hedging its exposure to the variability in future cash flows is four years. At December 31, 2012 and 2011, the total notional amount of forward contracts designated as cash flow hedges of forecasted royalty and cost transactions was $10.7 billion and $10.9 billion, respectively, with a weighted-average remaining maturity of 0.7 years at both year-end dates.

At December 31, 2012 and December 31, 2011, in connection with cash flow hedges of anticipated royalties and cost transactions, the company recorded net losses of $138 million and net gains of $88 million (before taxes), respectively, in AOCI. Within these amounts $79 million of losses and $191 million of gains, respectively, are expected to be reclassified to net income within the next 12 months, providing an offsetting economic impact against the underlying anticipated transactions.

Foreign Currency Denominated Borrowings

The company is exposed to exchange rate volatility on foreign currency denominated debt. To manage this risk, the company employs cross-currency swaps to convert fixed-rate foreign currency denominated debt to fixed-rate debt denominated in the functional currency of the borrowing entity. These swaps are accounted for as cash flow hedges. The maximum length of time over which the company hedges its exposure to the variability in future cash flows is approximately three years. At December 31, 2012 and December 31, 2011, no instruments relating to this program were outstanding.

Subsidiary Cash and Foreign Currency Asset/Liability Management

The company uses its Global Treasury Centers to manage the cash of its subsidiaries. These centers principally use currency swaps to convert cash flows in a cost-effective manner. In addition, the company uses foreign exchange forward contracts to economically hedge, on a net basis, the foreign currency exposure of a portion of the company's nonfunctional currency assets and liabilities. The terms of these forward and swap contracts are generally less than one year. The changes in the fair values of these contracts and of the underlying hedged exposures are generally offsetting and are recorded in other (income) and expense in the Consolidated Statement of Earnings. At December 31, 2012 and 2011, the total notional amount of derivative instruments in economic hedges of foreign currency exposure was $12.9 billion and $13.6 billion, respectively.

Equity Risk Management

The company is exposed to market price changes in certain broad market indices and in the company's own stock primarily related to certain obligations to employees. Changes in the overall value of these employee compensation obligations are recorded in SG&A expense in the Consolidated Statement of Earnings. Although not designated as accounting hedges, the company utilizes derivatives, including equity swaps and futures, to economically hedge the exposures related to its employee compensation obligations. The derivatives are linked to the total return on certain broad market indices or the total return on the company's common stock. They are recorded at fair value with gains or losses also reported in SG&A expense in the Consolidated Statement of Earnings. At December 31, 2012 and 2011, the total notional amount of derivative instruments in economic hedges of these compensation obligations was $1.2 billion and $1.0 billion, respectively.

Other Risks

The company may hold warrants to purchase shares of common stock in connection with various investments that are deemed derivatives because they contain net share or net cash settlement provisions. The company records the changes in the fair value of these warrants in other (income) and expense in the Consolidated Statement of Earnings. The company did not have any warrants qualifying as derivatives outstanding at December 31, 2012 and 2011.

The company is exposed to a potential loss if a client fails to pay amounts due under contractual terms. The company utilizes credit default swaps to economically hedge its credit exposures. These derivatives have terms of one year or less. The swaps are recorded at fair value with gains and losses reported in other (income) and expense in the Consolidated Statement of Earnings. The company did not have any derivative instruments relating to this program outstanding at December 31, 2012 and 2011.

The following tables provide a quantitative summary of the derivative and non-derivative instrument related risk management activity as of December 31, 2012 and 2011 as well as for the years ended December 31, 2012, 2011 and 2010, respectively.

Fair Values of Derivative Instruments in the Consolidated Statement of Financial Position

($ in millions)

	Fair Value of Derivative Assets			Fair Value of Derivative Liabilities		
At December 31:	Balance Sheet Classification	2012	2011	Balance Sheet Classification	2012	2011
Designated as hedging instruments						
Interest rate contracts	Prepaid expenses and other current assets	$ 47	$ 50	Other accrued expenses and liabilities	$ —	$ —
	Investments and sundry assets	557	733	Other liabilities	—	—
Foreign exchange contracts	Prepaid expenses and other current assets	135	407	Other accrued expenses and liabilities	267	273
	Investments and sundry assets	5	—	Other liabilities	78	155
	Fair value of derivative assets	$744	$1,190	**Fair value of derivative liabilities**	$ 345	$ 428
Not designated as hedging instruments						
Foreign exchange contracts	Prepaid expenses and other current assets	$142	$ 82	Other accrued expenses and liabilities	$ 152	$ 84
	Investments and sundry assets	23	21	Other liabilities	—	11
Equity contracts	Prepaid expenses and other current assets	9	7	Other accrued expenses and liabilities	7	8
	Fair value of derivative assets	$174	$ 110	**Fair value of derivative liabilities**	$ 159	$ 103
Total debt designated as hedging instruments						
Short-term debt		N/A	N/A		$ 578	$ —
Long-term debt		N/A	N/A		3,035	1,884
Total		$918	$1,300		$4,116	$2,415

N/A—Not applicable

The Effect of Derivative Instruments in the Consolidated Statement of Earnings

($ in millions)

		Gain/(Loss) Recognized in Earnings					
	Consolidated Statement of Earnings Line Item	Recognized on Derivatives[1]			Attributable to Risk Being Hedged[2]		
For the year ended December 31:		2012	2011	2010	2012	2011	2010
Derivative instruments in fair value hedges							
Interest rate contracts	Cost of financing	$ 65	$271	$241	$ 59	$(117)	$ (70)
	Interest expense	55	205	160	50	(89)	(46)
Derivative instruments not designated as hedging instruments[1]							
Foreign exchange contracts	Other (income) and expense	(311)	352	299	N/A	N/A	N/A
Equity contracts	SG&A expense	110	42	105	N/A	N/A	N/A
Warrants	Other (income) and expense	—	10	—	N/A	N/A	N/A
Total		$ (81)	$880	$805	$108	$(206)	$(116)

($ in millions)

	Gain/(Loss) Recognized in Earnings and Other Comprehensive Income								
	Effective Portion Recognized in OCI			Consolidated Statement of Earnings Line Item	Effective Portion Reclassified from AOCI			Ineffectiveness and Amounts Excluded from Effectiveness Testing[3]		
For the year ended December 31:	2012	2011	2010		2012	2011	2010	2012	2011	2010
Derivative instruments in cash flow hedges										
Interest rate contracts	$ —	$ —	$ —	Interest expense	$ (6)	$ (8)	$ (8)	$ —	$ —	$ —
Foreign exchange contracts	32	(266)	371	Other (income) and expense	237	(247)	(54)	3	(3)	(4)
				Cost of sales	7	(182)	(92)	—	—	—
				SG&A expense	16	(74)	(49)	—	—	—
Instruments in net investment hedges[4]										
Foreign exchange contracts	(26)	45	178	Interest expense	—	0	0	11	(9)	(3)
Total	$ 6	$(221)	$549		$253	$(511)	$(203)	$14	$(12)	$ (7)

[1] The amount includes changes in clean fair values of the derivative instruments in fair value hedging relationships and the periodic accrual for coupon payments required under these derivative contracts.

[2] The amount includes basis adjustments to the carrying value of the hedged item recorded during the period and amortization of basis adjustments recorded on de-designated hedging relationships during the period.

[3] The amount of gain/(loss) recognized in income represents ineffectiveness on hedge relationships.

[4] Instruments in net investment hedges include derivative and non-derivative instruments.

N/A—Not applicable

For the 12 months ending December 31, 2012, 2011 and 2010, there were no significant gains or losses recognized in earnings representing hedge ineffectiveness or excluded from the assessment of hedge effectiveness (for fair value hedges), or associated with an underlying exposure that did not or was not expected to occur (for cash flow hedges); nor are there any anticipated in the normal course of business.

Refer to note A, "Significant Accounting Policies," on page 83 for additional information on the company's use of derivative financial instruments.

Note E.
Inventories

($ in millions)

At December 31:	2012	2011
Finished goods	$ 475	$ 589
Work in process and raw materials	1,812	2,007
Total	$2,287	$2,595

Note F.
Financing Receivables

The following table presents financing receivables, net of allowances for credit losses, including residual values.

($ in millions)

At December 31:	2012	2011
Current		
Net investment in sales-type and direct financing leases	$ 3,862	$ 3,765
Commercial financing receivables	7,750	7,095
Client loan receivables	5,395	5,195
Installment payment receivables	1,031	846
Total	$18,038	$16,901
Noncurrent		
Net investment in sales-type and direct financing leases	$ 6,107	$ 5,406
Commercial financing receivables	5	34
Client loan receivables	5,966	4,925
Installment payment receivables	733	410
Total	$12,812	$10,776

Net investment in sales-type and direct financing leases relates principally to the company's systems products and are for terms ranging generally from two to six years. Net investment in sales-type and direct financing leases includes unguaranteed residual values of $794 million and $745 million at December 31, 2012 and 2011, respectively, and is reflected net of unearned income of $728 million and $733 million, and net of the allowance for credit losses of $114 million and $118 million at those dates, respectively. Scheduled maturities of minimum lease payments outstanding at December 31, 2012, expressed as a percentage of the total, are approximately: 2013, 42 percent; 2014, 29 percent; 2015, 18 percent; 2016, 9 percent; and 2017 and beyond, 3 percent.

Commercial financing receivables, net of allowance for credit losses of $46 million and $53 million at December 31, 2012 and 2011, respectively, relate primarily to inventory and accounts receivable financing for dealers and remarketers of IBM and non-IBM products. Payment terms for inventory and accounts receivable financing generally range from 30 to 90 days.

Client loan receivables, net of allowance for credit losses of $155 million and $126 million at December 31, 2012 and 2011, respectively, are loans that are provided primarily to clients to finance the purchase of software and services. Separate contractual relationships on these financing arrangements are for terms ranging generally from one to seven years.

Installment payment receivables, net of allowance for credit losses of $39 million and $51 million at December 31, 2012 and 2011, respectively, are loans that are provided primarily to clients to finance hardware, software and services ranging generally from one to three years.

Client loan receivables and installment payment receivables financing contracts are priced independently at competitive market rates. The company has a history of enforcing the terms of these separate financing agreements.

The company utilizes certain of its financing receivables as collateral for non-recourse borrowings. Financing receivables pledged as collateral for borrowings were $650 million and $410 million at December 31, 2012 and 2011, respectively. These borrowings are included in note J, "Borrowings," on pages 104 and 105.

The company did not have any financing receivables held for sale as of December 31, 2012 and 2011.

Financing Receivables by Portfolio Segment

The following tables present financing receivables on a gross basis, excluding the allowance for credit losses and residual value, by portfolio segment and by class, excluding current commercial financing receivables and other miscellaneous current financing receivables at December 31, 2012 and 2011. The company determines its allowance for credit losses based on two portfolio segments: lease receivables and loan receivables, and further segments the portfolio into two classes: major markets and growth markets.

($ in millions)

At December 31, 2012:	Major Markets	Growth Markets	Total
Financing receivables			
Lease receivables	$ 7,036	$2,138	$ 9,174
Loan receivables	9,666	3,670	13,336
Ending balance	$16,701	$5,808	$22,510
Collectively evaluated for impairment	$16,570	$5,684	$22,254
Individually evaluated for impairment	$ 131	$ 125	$ 256
Allowance for credit losses:			
Beginning balance at January 1, 2012			
Lease receivables	$ 79	$ 40	$ 118
Loan receivables	125	64	189
Total	$ 203	$ 104	$ 307
Write-offs	(14)	(1)	(15)
Provision	(9)	38	28
Other	0	(2)	(2)
Ending balance at December 31, 2012	$ 180	$ 138	$ 318
Lease receivables	$ 59	$ 55	$ 114
Loan receivables	$ 121	$ 84	$ 204
Collectively evaluated for impairment	$ 69	$ 29	$ 98
Individually evaluated for impairment	$ 111	$ 109	$ 220

($ in millions)

At December 31, 2011:	Major Markets	Growth Markets	Total
Financing receivables			
Lease receivables	$ 6,510	$1,921	$ 8,430
Loan receivables	9,077	2,552	11,629
Ending balance	$15,587	$4,472	$20,060
Collectively evaluated for impairment	$15,321	$4,370	$19,692
Individually evaluated for impairment	$ 266	$ 102	$ 368
Allowance for credit losses:			
Beginning balance at January 1, 2011			
Lease receivables	$ 84	$ 42	$ 126
Loan receivables	150	76	226
Total	$ 234	$ 119	$ 353
Write-offs	(68)	(16)	(84)
Provision	39	5	44
Other	(1)	(4)	(5)
Ending balance at December 31, 2011	$ 203	$ 104	$ 307
Lease receivables	$ 79	$ 40	$ 118
Loan receivables	$ 125	$ 64	$ 189
Collectively evaluated for impairment	$ 82	$ 15	$ 96
Individually evaluated for impairment	$ 122	$ 89	$ 211

When determining the allowances, financing receivables are evaluated either on an individual or a collective basis. For individually evaluated receivables, the company determines the expected cash flow for the receivable and calculates an estimate of the potential loss and the probability of loss. For those accounts in which the loss is probable, the company records a specific reserve. In addition, the company records an unallocated reserve that is calculated by applying a reserve rate to its different portfolios, excluding accounts that have been specifically reserved. This reserve rate is based upon credit rating, probability of default, term, characteristics (lease/loan) and loss history.

Financing Receivables on Non-Accrual Status

The following table presents the recorded investment in financing receivables which were on non-accrual status at December 31, 2012 and 2011.

($ in millions)

At December 31:	2012	2011
Major markets	$ 27	$ 46
Growth markets	21	20
Total lease receivables	$ 47	$ 66
Major markets	$ 67	$ 75
Growth markets	25	24
Total loan receivables	$ 92	$ 99
Total receivables	$139	$165

Impaired Loans

The company considers any loan with an individually evaluated reserve as an impaired loan. Depending on the level of impairment, loans will also be placed on a non-accrual status. The following tables present impaired client loan receivables at December 31, 2012 and 2011.

($ in millions)

At December 31, 2012:	Recorded Investment	Related Allowance
Major markets	$ 88	$ 77
Growth markets	72	65
Total	$160	$143

($ in millions)

At December 31, 2011:	Recorded Investment	Related Allowance
Major markets	$110	$ 70
Growth markets	62	53
Total	$172	$123

($ in millions)

For the year ended December 31, 2012:	Average Recorded Investment	Interest Income Recognized	Interest Income Recognized on Cash Basis
Major markets	$ 90	$0	$0
Growth markets	65	0	0
Total	$156	$0	$0

($ in millions)

For the year ended December 31, 2011:	Average Recorded Investment	Interest Income Recognized	Interest Income Recognized on Cash Basis
Major markets	$142	$2	$0
Growth markets	90	0	0
Total	$232	$3	$0

Credit Quality Indicators

The company's credit quality indicators are based on rating agency data, publicly available information and information provided by customers, and are reviewed periodically based on the relative level of risk. The resulting indicators are a numerical rating system that maps to Moody's Investors Service credit ratings as shown on the following page. Moody's does not provide credit ratings to the company on its customers.

The tables present the gross recorded investment for each class of receivables, by credit quality indicator, at December 31, 2012 and 2011. Receivables with a credit quality indicator ranging from Aaa to Baa3 are considered investment grade. All others are considered non-investment grade. The credit quality indicators do not reflect mitigation actions that the company may take to transfer credit risk to third parties.

Lease Receivables

($ in millions)

At December 31, 2012:	Major Markets	Growth Markets
Credit rating		
Aaa–Aa3	$ 646	$ 86
A1–A3	1,664	223
Baa1–Baa3	2,285	776
Ba1–Ba2	1,367	450
Ba3–B1	552	418
B2–B3	399	127
Caa–D	124	58
Total	$7,036	$2,138

Lease Receivables

($ in millions)

At December 31, 2011:	Major Markets	Growth Markets
Credit rating		
Aaa–Aa3	$ 697	$ 139
A1–A3	1,459	306
Baa1–Baa3	2,334	654
Ba1–Ba2	1,118	457
Ba3–B1	534	252
B2–B3	260	97
Caa–D	108	15
Total	$6,510	$1,921

Loan Receivables

($ in millions)

At December 31, 2012:	Major Markets	Growth Markets
Credit rating		
Aaa–Aa3	$ 887	$ 148
A1–A3	2,286	382
Baa1–Baa3	3,139	1,333
Ba1–Ba2	1,878	773
Ba3–B1	758	718
B2–B3	548	218
Caa–D	170	99
Total	$9,666	$3,670

Loan Receivables

($ in millions)

At December 31, 2011:	Major Markets	Growth Markets
Credit rating		
Aaa–Aa3	$ 971	$ 185
A1–A3	2,034	407
Baa1–Baa3	3,255	869
Ba1–Ba2	1,559	607
Ba3–B1	744	335
B2–B3	362	129
Caa–D	151	20
Total	$9,077	$2,552

At December 31, 2012, the industries which made up Global Financing's receivables portfolio consist of: Financial (38 percent), Government (16 percent), Manufacturing (14 percent), Retail (9 percent), Services (7 percent), Healthcare (6 percent), Communications (6 percent) and Other (4 percent).

At December 31, 2011, the industries which made up Global Financing's receivables portfolio consist of: Financial (39 percent), Government (15 percent), Manufacturing (13 percent), Retail (9 percent), Services (7 percent), Healthcare (6 percent), Communications (6 percent) and Other (5 percent).

Past Due Financing Receivables

($ in millions)

At December 31, 2012:	Total Past Due > 90 Days*	Current	Total Financing Receivables	Recorded Investment > 90 Days and Accruing
Major markets	$ 8	$ 7,028	$ 7,036	$ 5
Growth markets	11	2,127	2,138	8
Total lease receivables	$20	$ 9,154	$ 9,174	$13
Major markets	$27	$ 9,639	$ 9,666	$ 8
Growth markets	36	3,634	3,670	31
Total loan receivables	$63	$13,273	$13,336	$39
Total	$82	$22,428	$22,510	$52

* Does not include accounts that are fully reserved.

($ in millions)

At December 31, 2011:	Total Past Due > 90 Days*	Current	Total Financing Receivables	Recorded Investment > 90 Days and Accruing
Major markets	$ 6	$ 6,504	$ 6,510	$ 6
Growth markets	9	1,911	1,921	6
Total lease receivables	$16	$ 8,415	$ 8,430	$12
Major markets	$23	$ 9,054	$ 9,077	$ 7
Growth markets	22	2,530	2,552	19
Total loan receivables	$46	$11,584	$11,629	$26
Total	$62	$19,998	$20,060	$38

* Does not include accounts that are fully reserved.

Troubled Debt Restructurings

The company assessed all restructurings that occurred on or after January 1, 2011 and determined that there were no troubled debt restructurings for the years ended December 31, 2011 and 2012.

Note G.
Property, Plant and Equipment

($ in millions)

At December 31:	2012	2011
Land and land improvements	$ 747	$ 786
Buildings and building improvements	9,610	9,531
Plant, laboratory and office equipment	27,731	26,843
Plant and other property—gross	38,088	37,160
Less: Accumulated depreciation	25,234	24,703
Plant and other property—net	12,854	12,457
Rental machines	2,414	2,964
Less: Accumulated depreciation	1,271	1,538
Rental machines—net	1,142	1,426
Total—net	$13,996	$13,883

Note H.
Investments and Sundry Assets

($ in millions)

At December 31:	2012	2011
Deferred transition and setup costs and other deferred arrangements*	$1,630	$1,784
Derivatives—noncurrent**	585	753
Alliance investments		
Equity method	120	131
Non-equity method	226	127
Prepaid software	306	233
Long-term deposits	318	307
Other receivables	204	208
Employee benefit-related	439	493
Prepaid income taxes	459	261
Other assets	735	598
Total	$5,021	$4,895

*Deferred transition and setup costs and other deferred arrangements are related to Global Services client arrangements. See note A, "Significant Accounting Policies," on page 79 for additional information.

**See note D, "Financial Instruments," on pages 94 through 98 for the fair value of all derivatives reported in the Consolidated Statement of Financial Position.

Note I.
Intangible Assets Including Goodwill

Intangible Assets

The following table details the company's intangible asset balances by major asset class.

($ in millions)

At December 31, 2012:	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Intangible asset class			
Capitalized software	$1,527	$ (665)	$ 861
Client relationships	2,103	(961)	1,142
Completed technology	2,709	(1,112)	1,597
In-process R&D	28	—	28
Patents/trademarks	281	(127)	154
Other*	31	(27)	3
Total	$6,679	$(2,892)	$3,787

($ in millions)

At December 31, 2011:	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Intangible asset class			
Capitalized software	$1,478	$ (678)	$ 799
Client relationships	1,751	(715)	1,035
Completed technology	2,160	(746)	1,414
In-process R&D	18	—	18
Patents/trademarks	207	(88)	119
Other*	29	(22)	7
Total	$5,642	$(2,250)	$3,392

* Other intangibles are primarily acquired proprietary and nonproprietary business processes, methodologies and systems.

The net carrying amount of intangible assets increased $395 million during the year ended December 31, 2012, primarily due to intangible asset additions resulting from acquisitions, partially offset by amortization. There was no impairment of intangible assets recorded in 2012 and 2011.

Total amortization was $1,284 million and $1,226 million for the years ended December 31, 2012 and 2011, respectively. The aggregate amortization expense for acquired intangibles assets (excluding capitalized software) was $709 million and $634 million for the years ended December 31, 2012 and 2011, respectively. In addition, in 2012 the company retired $641 million of fully amortized intangible assets, impacting both the gross carrying amount and accumulated amortization by this amount.

The amortization expense for each of the five succeeding years relating to intangible assets currently recorded in the Consolidated Statement of Financial Position is estimated to be the following at December 31, 2012:

($ in millions)

	Capitalized Software	Acquired Intangibles	Total
2013	$501	$729	$1,230
2014	277	626	903
2015	83	498	581
2016	—	458	458
2017	—	340	340

Goodwill

The changes in the goodwill balances by reportable segment, for the years ended December 31, 2012 and 2011, are as follows:

($ in millions)

Segment	Balance January 1, 2012	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments	Balance December 31, 2012
Global Business Services	$ 4,313	$ 5	$ (0)	$ (2)	$ 42	$ 4,357
Global Technology Services	2,646	264	—	(0)	6	2,916
Software	18,121	2,182	(30)	(6)	137	20,405
Systems and Technology	1,133	443	(0)	(14)	6	1,568
Total	$26,213	$2,894	$(30)	$(22)	$192	$29,247

($ in millions)

Segment	Balance January 1, 2011	Goodwill Additions	Purchase Price Adjustments	Divestitures	Foreign Currency Translation and Other Adjustments	Balance December 31, 2011
Global Business Services	$ 4,329	$ 14	$ (0)	$(10)	$ (20)	$ 4,313
Global Technology Services	2,704	—	(1)	(2)	(55)	2,646
Software	16,963	1,277	10	(2)	(127)	18,121
Systems and Technology	1,139	—	(6)	—	(0)	1,133
Total	$25,136	$1,291	$ 2	$(13)	$(203)	$26,213

Purchase price adjustments recorded in 2012 and 2011 were related to acquisitions that were completed on or prior to December 31, 2011 or December 31, 2010, respectively, and were still subject to the measurement period that ends at the earlier of 12 months from the acquisition date or when information becomes available. There were no goodwill impairment losses recorded in 2012 or 2011, and the company has no accumulated goodwill impairment losses.

Note J.
Borrowings

Short-Term Debt

($ in millions)

At December 31:	2012	2011
Commercial paper	$1,800	$2,300
Short-term loans	1,789	1,859
Long-term debt—current maturities	5,593	4,306
Total	$9,181	$8,463

The weighted-average interest rate for commercial paper at December 31, 2012 and 2011 was 0.1 percent, respectively. The weighted-average interest rates for short-term loans was 1.8 percent and 1.2 percent at December 31, 2012 and 2011, respectively.

Long-Term Debt

Pre-Swap Borrowing

($ in millions)

At December 31:	Maturities	2012	2011
U.S. dollar notes and debentures (average interest rate at December 31, 2012):			
2.79%	2013–2014	$ 7,131	$ 8,615
1.46%	2015–2016	5,807	2,414
5.29%	2017–2021	7,457	8,600
1.88%	2022	1,000	500
7.00%	2025	600	600
6.22%	2027	469	469
6.50%	2028	313	313
5.875%	2032	600	600
8.00%	2038	83	187
5.60%	2039	745	1,545
4.00%	2042	1,107	—
7.00%	2045	27	27
7.125%	2096	316	322
		25,656	24,192
Other currencies (average interest rate at December 31, 2012, in parentheses):			
Euros (3.6%)	2013–2019	2,338	1,037
Japanese yen (0.7%)	2013–2014	878	1,123
Swiss francs (3.8%)	2015–2020	178	173
Canadian (2.2%)	2017	502	—
Other (4.6%)	2013–2017	107	177
		29,660	26,702
Less: net unamortized discount		865	533
Add: fair value adjustment*		886	994
		29,680	27,161
Less: current maturities		5,593	4,306
Total		$24,088	$22,857

* The portion of the company's fixed-rate debt obligations that is hedged is reflected in the Consolidated Statement of Financial Position as an amount equal to the sum of the debt's carrying value plus a fair value adjustment representing changes in the fair value of the hedged debt obligations attributable to movements in benchmark interest rates.

Post-Swap Borrowing (Long-Term Debt, Including Current Portion)

(in millions)

	2012		2011	
For the year ended December 31:	Amount	Average Rate	Amount	Average Rate
Fixed-rate debt	$24,049	3.43%	$18,547	4.38%
Floating-rate debt*	5,631	1.91%	8,614	1.54%
Total	$29,680		$27,161	

*Includes $4,252 million in 2012 and $5,898 million in 2011 of notional interest rate swaps that effectively convert the fixed-rate long-term debt into floating-rate debt. (See note D, "Financial Instruments," on pages 92 to 98.)

Pre-swap annual contractual maturities of long-term debt outstanding at December 31, 2012, are as follows:

($ in millions)

	Total
2013	$ 5,561
2014	3,791
2015	2,677
2016	3,058
2017	4,531
2018 and beyond	10,042
Total	$29,660

Debt Exchange

In the second quarter of 2012, the company completed an exchange of approximately $6 million of principal of its 7.125 percent debentures due 2096, $104 million of principal of its 8.00 percent notes due in 2038 and $800 million of principal of its 5.600 percent senior notes due in 2039 for approximately $1,107 million of 4.00 percent senior notes due in 2042 and cash of approximately $121 million. The exchange was completed to retire high coupon debt in the current favorable interest rate environment.

The debt exchange was accounted for as a non-revolving debt modification in accordance with accounting guidance, and therefore it did not result in any gain or loss recorded in the Consolidated Statement of Earnings. Cash payments will be amortized over the life of the new debt. Administrative fees with third parties in relation to the exchange were expensed as incurred.

Interest on Debt

($ in millions)

For the year ended December 31:	2012	2011	2010
Cost of financing	$ 545	$553	$555
Interest expense	470	402	365
Net investment derivative activity	(11)	9	3
Interest capitalized	18	9	5
Total interest paid and accrued	$1,022	$973	$928

Refer to the related discussion on page 136 in note T, "Segment Information," for total interest expense of the Global Financing segment. See note D, "Financial Instruments," on pages 92 to 98 for a discussion of the use of currency and interest rate swaps in the company's debt risk management program.

Lines of Credit

In 2011, the company renewed its five-year, $10 billion Credit Agreement (the "Credit Agreement"), which expires on November 10, 2016. In 2012, the company extended the term of the global credit facility by one year to November 10, 2017. The total expense recorded by the company related to this facility was $5.3 million in 2012, $5.0 million in 2011 and $6.2 million in 2010. The Credit Agreement permits the company and its Subsidiary Borrowers to borrow up to $10 billion on a revolving basis. Borrowings of the Subsidiary Borrowers will be unconditionally backed by the company. The company may also, upon the agreement of either existing lenders, or of the additional banks not currently party to the Credit Agreement, increase the commitments under the Credit Agreement up to an additional $2.0 billion. Subject to certain terms of the Credit Agreement, the company and Subsidiary Borrowers may borrow, prepay and reborrow amounts under the Credit Agreement at any time during the Credit Agreement. Interest rates on borrowings under the Credit Agreement will be based on prevailing market interest rates, as further described in the Credit Agreement. The Credit Agreement contains customary representations and warranties, covenants, events of default, and indemnification provisions. The company believes that circumstances that might give rise to breach of these covenants or an event of default, as specified in the Credit Agreement, are remote. As of December 31, 2012, there were no borrowings by the company, or its subsidiaries, under the Credit Agreement.

The company also has other committed lines of credit in some of the geographies which are not significant in the aggregate. Interest rates and other terms of borrowing under these lines of credit vary from country to country, depending on local market conditions.

Note K.
Other Liabilities

($ in millions)

At December 31:	2012	2011
Income tax reserves	$2,527	$3,989
Executive compensation accruals	1,542	1,388
Disability benefits	890	835
Derivative liabilities	78	166
Special actions	430	347
Workforce reductions	473	366
Deferred taxes	448	549
Environmental accruals	216	249
Noncurrent warranty accruals	167	163
Asset retirement obligations	127	166
Other	709	777
Total	$7,607	$8,996

In response to changing business needs, the company periodically takes workforce reduction actions to improve productivity, cost competitiveness and to rebalance skills. The noncurrent contractually obligated future payments associated with these activities are reflected in the workforce reductions caption in the previous table.

In addition, the company executed certain special actions as follows: (1) the second quarter of 2005 associated with Global Services, primarily in Europe, (2) the fourth quarter of 2002 associated with the acquisition of the PricewaterhouseCoopers consulting business, (3) the second quarter of 2002 associated with the Microelectronics Division and the rebalancing of the company's workforce and leased space resources, (4) the 2002 actions associated with the hard disk drive business for reductions in workforce, manufacturing capacity and space, (5) the actions taken in 1999, and (6) the actions that were executed prior to 1994.

The table below provides a roll forward of the current and noncurrent liabilities associated with these special actions. The current liabilities presented in the table are included in other accrued expenses and liabilities in the Consolidated Statement of Financial Position.

(in millions)

	Liability as of January 1, 2012	Payments	Other Adjustments*	Liability as of December 31, 2012
Current				
Workforce	$ 33	$(32)	$27	$ 28
Space	4	(4)	1	2
Total current	$ 38	$(36)	$28	$ 30
Noncurrent				
Workforce	$344	$ —	$85	$430
Space	3	—	(3)	0
Total noncurrent	$347	$ —	$83	$430

* The other adjustments column in the table above principally includes the reclassification of noncurrent to current, remeasurement of actuarial assumptions, foreign currency translation adjustments and interest accretion.

The workforce accruals primarily relate to terminated employees who are no longer working for the company who were granted annual payments to supplement their incomes in certain countries. Depending on the individual country's legal requirements, these required payments will continue until the former employee begins receiving pension benefits or passes away. The space accruals are for ongoing obligations to pay rent for vacant space that could not be sublet or space that was sublet at rates lower than the committed lease arrangement. The length of these obligations varies by lease with the longest extending through 2014.

The company employs extensive internal environmental protection programs that primarily are preventive in nature. The company also participates in environmental assessments and cleanups at a number of locations, including operating facilities, previously owned facilities and Superfund sites. The company's maximum exposure for all environmental liabilities cannot be estimated and no amounts have been recorded for non-ARO environmental liabilities that are not probable or estimable. The total amounts accrued for non-ARO environmental liabilities, including amounts classified as current in the Consolidated Statement of Financial Position, that do not reflect actual or anticipated insurance recoveries, were $229 million and $262 million at December 31, 2012 and 2011, respectively. Estimated environmental costs are not expected to materially affect the consolidated financial position or consolidated results of the company's operations in future periods. However, estimates of future costs are subject to change due to protracted cleanup periods and changing environmental remediation regulations.

As of December 31, 2012, the company was unable to estimate the range of settlement dates and the related probabilities for certain asbestos remediation AROs. These conditional AROs are primarily related to the encapsulated structural fireproofing that is not subject to abatement unless the buildings are demolished and non-encapsulated asbestos that the company would remediate only if it performed major renovations of certain existing buildings. Because these conditional

obligations have indeterminate settlement dates, the company could not develop a reasonable estimate of their fair values. The company will continue to assess its ability to estimate fair values at each future reporting date. The related liability will be recognized once sufficient additional information becomes available. The total amounts accrued for ARO liabilities, including amounts classified as current in the Consolidated Statement of Financial Position, were $171 million and $187 million at December 31, 2012 and 2011, respectively.

Note L.
Equity Activity

The authorized capital stock of IBM consists of 4,687,500,000 shares of common stock with a $.20 per share par value, of which 1,117,367,676 shares were outstanding at December 31, 2012 and 150,000,000 shares of preferred stock with a $.01 per share par value, none of which were outstanding at December 31, 2012.

Stock Repurchases

The Board of Directors authorizes the company to repurchase IBM common stock. The company repurchased 61,246,371 common shares at a cost of $12,008 million, 88,683,716 common shares at a cost of $15,034 million and 117,721,650 common shares at a cost of $15,419 million in 2012, 2011 and 2010, respectively. These amounts reflect transactions executed through December 31 of each year. Actual cash disbursements for repurchased shares may differ due to varying settlement dates for these transactions. At December 31, 2012, $8,652 million of Board common stock repurchase authorization was still available. The company plans to purchase shares on the open market or in private transactions from time to time, depending on market conditions.

Other Stock Transactions

The company issued the following shares of common stock as part of its stock-based compensation plans and employees stock purchase plan: 15,091,320 shares in 2012, 20,669,785 shares in 2011 and 34,783,386 shares in 2010.The company issued 2,746,169 treasury shares in 2012, 4,920,198 treasury shares in 2011 and 7,929,318 treasury shares in 2010, as a result of exercises of stock options by employees of certain acquired businesses and by non-U.S. employees. Also, as part of the company's stock-based compensation plans, 2,406,007 common shares at a cost of $468 million, 1,717,246 common shares at a cost of $289 million and 2,334,932 common shares at a cost of $297 million in 2012, 2011 and 2010, respectively, were remitted by employees to the company in order to satisfy minimum statutory tax withholding requirements. These amounts are included in the treasury stock balance in the Consolidated Statement of Financial Position and the Consolidated Statement of Changes in Equity.

Reclassifications and Taxes Related to Items of Other Comprehensive Income

($ in millions)

For the year ended December 31, 2012:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$ (44)	$ 10	$ (34)
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ 8	$ (4)	$ 4
Reclassification of (gains)/losses to other (income) and expense	(42)	17	(25)
Subsequent changes in previously impaired securities arising during the period	20	(8)	12
Total net changes related to available-for-sale securities	$ (14)	$ 5	$ (9)
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ 32	$ (27)	$ 5
Reclassification of (gains)/losses to:			
Cost of sales	(7)	(6)	(13)
SG&A expense	(16)	4	(12)
Other (income) and expense	(237)	91	(146)
Interest expense	6	(3)	3
Total unrealized gains/(losses) on cash flow hedges	$ (220)	$ 59	$ (161)
Retirement-related benefit plans[1]			
Net (losses)/gains arising during the period	$(7,489)	$2,327	$(5,162)
Curtailments and settlements	(2)	0	(2)
Amortization of prior service (credits)/cost	(148)	59	(89)
Amortization of net gains/(losses)	2,457	(874)	1,583
Total retirement-related benefit plans	$(5,182)	$1,513	$(3,669)
Other comprehensive income/(loss)	$(5,460)	$1,587	$(3,874)

[1] These AOCI components are included in the computation of net periodic pension cost. (See note S, "Retirement-Related Benefits," on pages 120 to 134 for additional information.)

($ in millions)

For the year ended December 31, 2011:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$ (693)	$ (18)	$ (711)
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ (14)	$ 5	$ (9)
Reclassification of (gains)/losses to other (income) and expense	(231)	88	(143)
Subsequent changes in previously impaired securities arising during the period	4	(1)	3
Total net changes related to available-for-sale securities	$ (241)	$ 91	$ (150)
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ (266)	$ 105	$ (162)
Reclassification of (gains)/losses to:			
Cost of sales	182	(61)	121
SG&A expense	75	(23)	52
Other (income) and expense	247	(3)	244
Interest expense	8	(95)	(88)
Total unrealized gains/(losses) on cash flow hedges	$ 245	$ (77)	$ 167
Retirement-related benefit plans[1]			
Prior service costs/(credits)	$ (28)	$ 7	$ (22)
Net (losses)/gains arising during the period	(5,463)	1,897	(3,566)
Curtailments and settlements	11	(3)	7
Amortization of prior service (credits)/cost	(157)	62	(94)
Amortization of net gains/(losses)	1,847	(619)	1,227
Total retirement-related benefit plans	$(3,790)	$1,343	$(2,448)
Other comprehensive income/(loss)	$(4,479)	$1,339	$(3,142)

[1] These AOCI components are included in the computation of net periodic pension cost. (See note S, "Retirement-Related Benefits," on pages 120 to 134 for additional information.)

($ in millions)

For the year ended December 31, 2010:	Before Tax Amount	Tax (Expense)/ Benefit	Net of Tax Amount
Other comprehensive income/(loss)			
Foreign currency translation adjustments	$ 712	$ (69)	$ 643
Net changes related to available-for-sale securities			
Unrealized gains/(losses) arising during the period	$ 70	$ (24)	$ 46
Reclassification of (gains)/losses to other (income) and expense	0	(0)	(0)
Subsequent changes in previously impaired securities arising during the period	8	(3)	5
Total net changes related to available-for-sale securities	$ 78	$ (27)	$ 51
Unrealized gains/(losses) on cash flow hedges			
Unrealized gains/(losses) arising during the period	$ 371	$ (120)	$ 251
Reclassification of (gains)/losses to:			
Cost of sales	92	(32)	60
SG&A expense	49	(17)	33
Other (income) and expense	54	(17)	37
Interest expense	8	(3)	5
Total unrealized gains/(losses) on cash flow hedges	$ 573	$ (188)	$ 385
Retirement-related benefit plans[1]			
Prior service costs/(credits)	$ 28	$ (8)	$ 20
Net (losses)/gains arising during the period	(2,728)	1,016	(1,712)
Curtailments and settlements	10	(3)	7
Amortization of prior service (credits)/cost	(183)	67	(116)
Amortization of net gains/(losses)	1,249	(441)	808
Total retirement-related benefit plans	$(1,624)	$ 632	$ (992)
Other comprehensive income/(loss)	$ (260)	$ 348	$ 87

[1] These AOCI components are included in the computation of net periodic pension cost. (See note S, "Retirement-Related Benefits," on pages 120 to 134 for additional information.)

Accumulated Other Comprehensive Income/(Loss) (net of tax)

($ in millions)

	Net Unrealized Gains/(Losses) on Cash Flow Hedges	Foreign Currency Translation Adjustments*	Net Change Retirement-Related Benefit Plans	Net Unrealized Gains/(Losses) on Available-For-Sale Securities	Accumulated Other Comprehensive Income/(Loss)
December 31, 2009	$(481)	$1,836	$(20,297)	$ 113	$(18,830)
Other comprehensive income before reclassifications	251	643	(1,684)	51	(739)
Amount reclassified from accumulated other comprehensive income	134	0	692	0	826
Total change for the period	385	643	(992)	51	87
December 31, 2010	(96)	2,478	(21,289)	164	(18,743)
Other comprehensive income before reclassifications	(162)	(711)	(3,581)	(7)	(4,461)
Amount reclassified from accumulated other comprehensive income	329	0	1,133	(143)	1,319
Total change for the period	167	(711)	(2,448)	(150)	(3,142)
December 31, 2011	71	1,767	(23,737)	13	(21,885)
Other comprehensive income before reclassifications	5	(34)	(5,164)	16	(5,177)
Amount reclassified from accumulated other comprehensive income	(167)	0	1,495	(25)	1,303
Total change for the period	(161)	(34)	(3,669)	(9)	(3,874)
December 31, 2012	$ (90)	$1,733	$(27,406)	$ 4	$(25,759)

*Foreign currency translation adjustments are presented gross except for any associated hedges which are presented net of tax.

Note M.
Contingencies and Commitments

Contingencies

As a company with a substantial employee population and with clients in more than 170 countries, IBM is involved, either as plaintiff or defendant, in a variety of ongoing claims, demands, suits, investigations, tax matters and proceedings that arise from time to time in the ordinary course of its business. The company is a leader in the information technology industry and, as such, has been and will continue to be subject to claims challenging its IP rights and associated products and offerings, including claims of copyright and patent infringement and violations of trade secrets and other IP rights. In addition, the company enforces its own IP against infringement, through license negotiations, lawsuits or otherwise. Also, as is typical for companies of IBM's scope and scale, the company is party to actions and proceedings in various jurisdictions involving a wide range of labor and employment issues (including matters related to contested employment decisions, country-specific labor and employment laws, and the company's pension, retirement and other benefit plans), as well as actions with respect to contracts, product liability, securities, foreign operations, competition law and environmental matters. These actions may be commenced by a number of different parties, including competitors, clients, current or former employees, government and regulatory agencies, stockholders and representatives of the locations in which the company does business. Some of the actions to which the company is party may involve particularly complex technical issues, and some actions may raise novel questions under the laws of the various jurisdictions in which these matters arise.

The company records a provision with respect to a claim, suit, investigation or proceeding when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Any recorded liabilities, including any changes to such liabilities for the years ended December 31, 2012, 2011 and 2010 were not material to the Consolidated Financial Statements.

In accordance with the relevant accounting guidance, the company provides disclosures of matters for which the likelihood of material loss is at least reasonably possible. In addition, the company also discloses matters based on its consideration of other matters and qualitative factors, including the experience of other companies in the industry, and investor, customer and employee relations considerations.

With respect to certain of the claims, suits, investigations and proceedings discussed herein, the company believes at this time that the likelihood of any material loss is remote, given, for example, the procedural status, court rulings, and/or the strength of the company's defenses in those matters. With respect to the remaining claims, suits, investigations and proceedings discussed in this note, the company is unable to provide estimates of reasonably possible losses or range of losses, including losses in excess of amounts accrued, if any, for the following reasons. Claims, suits, investigations and proceedings are inherently uncertain, and it is not possible to predict the ultimate outcome of these matters. It is the company's experience that damage amounts claimed in litigation against it are unreliable and unrelated to possible outcomes, and as such are not meaningful indicators of the company's potential liability. Further, the company is unable to provide such an estimate due to a number of other factors with respect to these claims, suits, investigations and proceedings, including considerations of the procedural status of

the matter in question, the presence of complex or novel legal theories, and/or the ongoing discovery and development of information important to the matters. The company reviews claims, suits, investigations and proceedings at least quarterly, and decisions are made with respect to recording or adjusting provisions and disclosing reasonably possible losses or range of losses (individually or in the aggregate), to reflect the impact and status of settlement discussions, discovery, procedural and substantive rulings, reviews by counsel and other information pertinent to a particular matter.

Whether any losses, damages or remedies finally determined in any claim, suit, investigation or proceeding could reasonably have a material effect on the company's business, financial condition, results of operations or cash flows will depend on a number of variables, including: the timing and amount of such losses or damages; the structure and type of any such remedies; the significance of the impact any such losses, damages or remedies may have in the Consolidated Financial Statements; and the unique facts and circumstances of the particular matter that may give rise to additional factors. While the company will continue to defend itself vigorously, it is possible that the company's business, financial condition, results of operations or cash flows could be affected in any particular period by the resolution of one or more of these matters.

The following is a summary of the more significant legal matters involving the company.

The company is a defendant in an action filed on March 6, 2003 in state court in Salt Lake City, Utah by the SCO Group (SCO v. IBM). The company removed the case to Federal Court in Utah. Plaintiff is an alleged successor in interest to some of AT&T's UNIX IP rights, and alleges copyright infringement, unfair competition, interference with contract and breach of contract with regard to the company's distribution of AIX and Dynix and contribution of code to Linux. The company has asserted counterclaims, including breach of contract, violation of the Lanham Act, unfair competition, intentional torts, unfair and deceptive trade practices, breach of the General Public License that governs open source distributions, promissory estoppel and copyright infringement. Motions for summary judgment were heard in March 2007, and the court has not yet issued its decision. On September 14, 2007, plaintiff filed for bankruptcy protection, and all proceedings in this case were stayed. On August 25, 2009, the U.S. Bankruptcy Court for the District of Delaware approved the appointment of a Trustee of SCO. The court in another suit, the SCO Group, Inc. v. Novell, Inc., held a trial in March 2010. The jury found that Novell is the owner of UNIX and UnixWare copyrights; the judge subsequently ruled that SCO is obligated to recognize Novell's waiver of SCO's claims against IBM and Sequent for breach of UNIX license agreements. On August 30, 2011, the Tenth Circuit Court of Appeals affirmed the district court's ruling and denied SCO's appeal of this matter. In November 2011, SCO filed a motion in Federal Court in Utah seeking to reopen the SCO v. IBM case.

On May 13, 2010, IBM and the State of Indiana (acting on behalf of the Indiana Family and Social Services Administration) sued one another in a dispute over a 2006 contract regarding the modernization of social service program processing in Indiana. The State terminated the contract, claiming that IBM was in breach, and the State is seeking damages. IBM believes the State's claims against it are without merit and is seeking payment of termination amounts specified in the contract. Trial began in late February 2012 in Marion County, Indiana Superior Court and concluded in early April. On July 18, 2012, the court rejected the State's claims in their entirety and awarded IBM $52 million plus interest and costs. In August 2012, the State of Indiana filed a notice of appeal. IBM also intends to appeal certain portions of the court's ruling.

The company was named as a co-defendant in numerous purported class actions filed on and after March 18, 2011 in federal and state courts in California in connection with an information technology outsourcing agreement between Health Net, Inc. and IBM. The matters were consolidated in the United States District Court for the Eastern District of California, and plaintiffs filed a consolidated complaint on July 15, 2011. The consolidated complaint alleges that the company violated the California Confidentiality of Medical Information Act in connection with hard drives that are unaccounted for at one of Health Net's data centers in California; plaintiffs have been notified by Health Net that certain of their personal information is believed to be contained on those hard drives. Plaintiffs seek damages, as well as injunctive and declaratory relief. IBM has also received a request for information regarding this matter from the California Attorney General. On January 12, 2012, the court granted IBM's motion to dismiss the complaint for lack of standing, and on February 22, 2012, the case against IBM was dismissed.

IBM United Kingdom Limited (IBM UK) initiated legal proceedings in May 2010 before the High Court in London against the IBM UK Pensions Trust (the UK Trust) and two representative beneficiaries of the UK Trust membership. IBM UK is seeking a declaration that it acted lawfully both in notifying the Trustee of the UK Trust that it was closing its UK defined benefit plans to future accruals for most participants and in implementing the company's new retirement policy. The trial in the High Court began in February 2013. In addition, IBM UK is a defendant in approximately 290 individual actions brought since early 2010 by participants of the defined benefits plans who left IBM UK. These actions, which allege constructive dismissal and age discrimination, are pending before the Employment Tribunal in Southampton UK and are currently stayed pending resolution of the above-referenced High Court proceedings.

In a separate but related proceeding, in March 2011, the Trustee of the IBM UK Trust was granted leave to initiate a claim before the High Court in London against IBM UK and one member of the UK Trust membership, seeking an order modifying certain documents and terms relating to retirement provisions in IBM UK's largest defined benefit plan (the C Plan) dating back to 1983. The trial of these proceedings began in May 2012 and finished in early June. On October 12, 2012, the High Court in London issued its ruling, holding that the 1983 Trust Deeds and Rules should be modified to allow certain categories of current IBM UK employees who are members of the C Plan to retire from the age of 60 (rather than from the age of 63) without actuarial reduction of their defined benefit pension. In a supplementary ruling on December 13, 2012, the Court declined to similarly modify the Trust Deeds and Rules for former employees who were C Plan members and who left the company prior to retirement. On February 7, 2013, the Court issued an order agreed to by all parties, under which there will be no appeals of the October 2012 and December 2012 judgments. As a result of the October 2012 ruling, IBM recorded an additional pre-tax retirement-related obligation of $162 million in the third quarter of 2012.

In March 2011, the company announced that it has agreed to settle a civil enforcement action with the Securities and Exchange Commission (SEC) relating to activities by employees of IBM Korea, LG IBM, IBM (China) Investment Company Limited and IBM Global Services (China) Co., Ltd., during the period from 1998 through 2009, allegedly in violation of the Foreign Corrupt Practices Act of 1977. As part of the settlement, IBM has consented to the entry of a judgment relating to the books and records and internal control provisions of the securities laws. IBM has also agreed to pay a total of $10 million, categorized by the SEC as follows: (i) $5.3 million, representing profits gained as a result of the conduct alleged in the SEC's complaint, (ii) prejudgment interest on that amount of $2.7 million, and (iii) a civil penalty of $2 million. The settlement is subject to court approval.

The company is a defendant in numerous actions filed after January 1, 2008 in the Supreme Court for the State of New York, county of Broome, on behalf of hundreds of plaintiffs. The complaints allege numerous and different causes of action, including for negligence and recklessness, private nuisance and trespass. Plaintiffs in these cases seek medical monitoring and claim damages in unspecified amounts for a variety of personal injuries and property damages allegedly arising out of the presence of groundwater contamination and vapor intrusion of groundwater contaminants into certain structures in which plaintiffs reside or resided, or conducted business, allegedly resulting from the release of chemicals into the environment by the company at its former manufacturing and development facility in Endicott. These complaints also seek punitive damages in an unspecified amount.

The company is party to, or otherwise involved in, proceedings brought by U.S. federal or state environmental agencies under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), known as "Superfund," or laws similar to CERCLA. Such statutes require potentially responsible parties to participate in remediation activities regardless of fault or ownership of sites. The company is also conducting environmental investigations, assessments or remediations at or in the vicinity of several current or former operating sites globally pursuant to permits, administrative orders or agreements with country, state or local environmental agencies, and is involved in lawsuits and claims concerning certain current or former operating sites.

The company is also subject to ongoing tax examinations and governmental assessments in various jurisdictions. Along with many other U.S. companies doing business in Brazil, the company is involved in various challenges with Brazilian authorities regarding non-income tax assessments and non-income tax litigation matters. These matters include claims for taxes on the importation of computer software. In November 2008, the company won a significant case in the Superior Chamber of the federal administrative tax court in Brazil, and in late July 2009, the company received written confirmation regarding this decision. The total potential amount related to the remaining matters for all applicable years is approximately $575 million. The company believes it will prevail on these matters and that this amount is not a meaningful indicator of liability.

Commitments

The company's extended lines of credit to third-party entities include unused amounts of $4,719 million and $4,040 million at December 31, 2012 and 2011, respectively. A portion of these amounts was available to the company's business partners to support their working capital needs. In addition, the company has committed to provide future financing to its clients in connection with client purchase agreements for approximately $1,513 million and $1,866 million at December 31, 2012 and 2011, respectively.

The company has applied the guidance requiring a guarantor to disclose certain types of guarantees, even if the likelihood of requiring the guarantor's performance is remote. The following is a description of arrangements in which the company is the guarantor.

The company is a party to a variety of agreements pursuant to which it may be obligated to indemnify the other party with respect to certain matters. Typically, these obligations arise in the context of contracts entered into by the company, under which the company customarily agrees to hold the other party harmless against losses arising from a breach of representations and covenants related to such matters as title to assets sold, certain IP rights, specified environmental matters, third-party performance of nonfinancial contractual obligations and certain income taxes. In each of these circumstances, payment by the company is conditioned on the other party making a claim pursuant to the procedures specified in the particular contract, the procedures of which typically allow the company to challenge the other party's claims. While typically indemnification provisions do not include a contractual maximum on the company's payment, the company's obligations under these agreements may be limited in terms of time and/or nature of claim, and in some instances, the company may have recourse against third parties for certain payments made by the company.

It is not possible to predict the maximum potential amount of future payments under these or similar agreements due to the conditional nature of the company's obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by the company under these agreements have not had a material effect on the company's business, financial condition or results of operations.

In addition, the company guarantees certain loans and financial commitments. The maximum potential future payment under these financial guarantees was $65 million and $56 million at December 31, 2012 and 2011, respectively. The fair value of the guarantees recognized in the Consolidated Statement of Financial Position is not material.

Note N.
Taxes

($ in millions)

For the year ended December 31:	2012	2011	2010
Income before income taxes			
U.S. operations	$ 9,668	$ 9,716	$ 9,140
Non-U.S. operations	12,234	11,287	10,583
Total income before income taxes	$21,902	$21,003	$19,723

The provision for income taxes by geographic operations is as follows:

($ in millions)

For the year ended December 31:	2012	2011	2010
U.S. operations	$2,582	$2,141	$2,000
Non-U.S. operations	2,716	3,007	2,890
Total provision for income taxes	$5,298	$5,148	$4,890

The components of the provision for income taxes by taxing jurisdiction are as follows:

($ in millions)

For the year ended December 31:	2012	2011	2010
U.S. federal			
Current	$1,361	$ 268	$ 190
Deferred	403	909	1,015
	1,764	1,177	1,205
U.S. state and local			
Current	134	429	279
Deferred	289	81	210
	423	510	489
Non-U.S.			
Current	3,006	3,239	3,127
Deferred	105	222	69
	3,111	3,461	3,196
Total provision for income taxes	5,298	5,148	4,890
Provision for social security, real estate, personal property and other taxes	4,331	4,289	4,018
Total taxes included in net income	$9,629	$9,437	$8,908

A reconciliation of the statutory U.S. federal tax rate to the company's effective tax rate is as follows:

For the year ended December 31:	2012	2011	2010
Statutory rate	35%	35%	35%
Foreign tax differential	(11)	(10)	(10)
State and local	1	2	2
Other	(1)	(2)	(2)
Effective rate	24%	25%	25%

The significant components reflected within the tax rate reconciliation above labeled "Foreign tax differential" include the effects of foreign subsidiaries' earnings taxed at rates other than the U.S. statutory rate, foreign export incentives, the U.S. tax impacts of non-U.S. earnings repatriation and any net impacts of intercompany transactions. These items also reflect audit settlements or changes in the amount of unrecognized tax benefits associated with each of these items.

In the fourth quarter of 2011, the IRS commenced its audit of the company's U.S. tax returns for the years 2008 through 2010. The company anticipates that this audit will be completed by the end of 2013.

The effect of tax law changes on deferred tax assets and liabilities did not have a material impact on the company's effective tax rate.

The significant components of deferred tax assets and liabilities that are recorded in the Consolidated Statement of Financial Position were as follows:

Deferred Tax Assets

($ in millions)

At December 31:	2012	2011*
Retirement benefits	$ 5,870	$ 5,169
Share-based and other compensation	1,666	1,598
Deferred income	1,018	834
Domestic tax loss/credit carryforwards	954	914
Foreign tax loss/credit carryforwards	681	752
Bad debt, inventory and warranty reserves	586	608
Depreciation	456	474
Other	1,384	1,479
Gross deferred tax assets	12,615	11,828
Less: valuation allowance	1,187	912
Net deferred tax assets	$11,428	$10,916

*Reclassed to conform with 2012 presentation.

Deferred Tax Liabilities

($ in millions)

At December 31:	2012	2011
Leases	$2,216	$2,149
Depreciation	1,378	1,421
Goodwill and intangible assets	957	796
Software development costs	542	466
Retirement benefits	257	551
Other	1,158	1,121
Gross deferred tax liabilities	$6,508	$6,504

For income tax return purposes, the company has foreign and domestic loss carryforwards, the tax effect of which is $706 million, as well as domestic and foreign credit carryforwards of $929 million. Substantially all of these carryforwards are available for at least two years or are available for 10 years or more.

The valuation allowance at December 31, 2012 principally applies to certain foreign, state and local loss carryforwards that, in the opinion of management, are more likely than not to expire unutilized. However, to the extent that tax benefits related to these carryforwards are realized in the future, the reduction in the valuation allowance will reduce income tax expense.

The amount of unrecognized tax benefits at December 31, 2012 increased by $97 million in 2012 to $5,672 million. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

($ in millions)

	2012	2011	2010
Balance at January 1	$5,575	$5,293	$ 4,790
Additions based on tax positions related to the current year	401	672	1,054
Additions for tax positions of prior years	215	379	1,768
Reductions for tax positions of prior years (including impacts due to a lapse in statute)	(425)	(538)	(1,659)
Settlements	(94)	(231)	(660)
Balance at December 31	$5,672	$5,575	$ 5,293

The additions to unrecognized tax benefits related to the current and prior years are primarily attributable to non-U.S. issues, certain tax incentives and credits, acquisition-related matters and state issues. The settlements and reductions to unrecognized tax benefits for tax positions of prior years are primarily attributable to the conclusion of the company's various U.S., state and non-U.S. income tax examinations and various non-U.S. matters, as well as impacts due to lapses in statutes of limitation.

In April 2010, the company appealed the determination of a non-U.S. taxing authority with respect to certain foreign tax losses. The tax benefit of these losses, approximately $1,475 million, had been included in unrecognized tax benefits within 2010 additions for tax positions of prior years. The tax benefit of these losses total $1,386 million as of December 31, 2012. The 2012 decrease was driven by currency and has been included in the 2012 reductions for tax positions of prior years. In April 2011, the company had received notification that the appeal was denied. In June 2011, the company filed a lawsuit challenging this decision. The next court hearing is scheduled for March 2013. No final determination has been reached on this matter.

The liability at December 31, 2012 of $5,672 million can be reduced by $573 million of offsetting tax benefits associated with the correlative effects of potential transfer pricing adjustments, state income taxes and timing adjustments. The net amount of $5,099 million, if recognized, would favorably affect the company's effective tax rate. The net amounts at December 31, 2011 and 2010 were $5,090 million and $4,849 million, respectively.

Interest and penalties related to income tax liabilities are included in income tax expense. During the year ended December 31, 2012, the company recognized $134 million in interest expense and penalties; in 2011, the company recognized $129 million in interest expense and penalties, and in 2010, the company recognized a $15 million benefit in interest expense and penalties. The company has $533 million for the payment of interest and penalties accrued at December 31, 2012, and had $461 million accrued at December 31, 2011.

Within the next 12 months, the company believes it is reasonably possible that the total amount of unrecognized tax benefits associated with certain positions may be significantly reduced. The potential decrease in the amount of unrecognized tax benefits is primarily associated with the anticipated resolution of the company's U.S. income tax audit for 2008 through 2010, as well as various non-U.S. audits. Specific positions that may be resolved, and may reduce the amount of unrecognized tax benefits, include transfer pricing matters, tax incentives and credits as well as various other foreign tax matters. The company estimates that the unrecognized tax benefits at December 31, 2012 could be reduced by approximately $1,700 million.

With limited exception, the company is no longer subject to U.S. federal, state and local or non-U.S. income tax audits by taxing authorities for years through 2007. The years subsequent to 2007 contain matters that could be subject to differing interpretations of applicable tax laws and regulations related to the amount and/or timing of income, deductions and tax credits. Although the outcome of tax audits is always uncertain, the company believes that adequate amounts of tax and interest have been provided for any adjustments that are expected to result for these years.

The company has not provided deferred taxes on $44.4 billion of undistributed earnings of non-U.S. subsidiaries at December 31, 2012, as it is the company's policy to indefinitely reinvest these earnings in non-U.S. operations. However, the company periodically repatriates a portion of these earnings to the extent that it does not incur an additional U.S. tax liability. Quantification of the deferred tax liability, if any, associated with indefinitely reinvested earnings is not practicable.

Note O.
Research, Development and Engineering

RD&E expense was $6,302 million in 2012, $6,258 million in 2011 and $6,026 million in 2010.

The company incurred expense of $6,034 million, $5,990 million and $5,720 million in 2012, 2011 and 2010, respectively, for scientific research and the application of scientific advances to the development of new and improved products and their uses, as well as services and their application. Within these amounts, software-related expense was $3,078 million, $3,097 million and $3,028 million in 2012, 2011 and 2010, respectively.

Expense for product-related engineering was $268 million, $267 million and $306 million in 2012, 2011 and 2010, respectively.

Note P.
Earnings Per Share of Common Stock

The following table presents the computation of basic and diluted earnings per share of common stock.

($ in millions except per share amounts)

For the year ended December 31:	2012	2011	2010
Weighted-average number of shares on which earnings per share calculations are based			
Basic	1,142,508,521	1,196,951,006	1,268,789,202
Add—incremental shares under stock-based compensation plans	10,868,426	14,241,131	16,189,053
Add—incremental shares associated with contingently issuable shares	2,072,370	2,575,848	2,377,133
Assuming dilution	1,155,449,317	1,213,767,985	1,287,355,388
Net income on which basic earnings per share is calculated	$16,604	$15,855	$14,833
Less—net income applicable to contingently issuable shares	(1)	0	0
Net income on which diluted earnings per share is calculated	$16,603	$15,855	$14,833
Earnings/(loss) per share of common stock			
Assuming dilution	$ 14.37	$ 13.06	$ 11.52
Basic	$ 14.53	$ 13.25	$ 11.69

There were no stock options outstanding in 2012, 2011 and 2010 that were considered antidilutive and not included in the diluted earnings per share calculation.

Note Q.
Rental Expense and Lease Commitments

Rental expense, including amounts charged to inventories and fixed assets, and excluding amounts previously reserved, was $1,767 million in 2012, $1,836 million in 2011 and $1,727 million in 2010. Rental expense in agreements with rent holidays and scheduled rent increases is recorded on a straight-line basis over the lease term. Contingent rentals are included in the determination of rental expense as accruable. The table below depicts gross minimum rental commitments under noncancelable leases, amounts related to vacant space associated with infrastructure reductions and special actions taken through 1994, and in 1999, 2002 and 2005 (previously reserved), sublease income commitments and capital lease commitments. These amounts reflect activities primarily related to office space, as well as manufacturing facilities.

($ in millions)

	2013	2014	2015	2016	2017	Beyond 2017
Operating lease commitments						
Gross minimum rental commitments (including vacant space below)	$1,466	$1,268	$1,044	$746	$535	$747
Vacant space	$ 21	$ 13	$ 7	$ 3	$ 1	$ 0
Sublease income commitments	$ 26	$ 16	$ 11	$ 9	$ 4	$ 1
Capital lease commitments	$ 13	$ 12	$ 11	$ 8	$ 10	$ 6

Note R.
Stock-Based Compensation

Stock-based compensation cost is measured at grant date, based on the fair value of the award, and is recognized over the employee requisite service period. See note A, "Significant Accounting Policies," on page 82 for additional information.

The following table presents total stock-based compensation cost included in the Consolidated Statement of Earnings.

($ in millions)

For the year ended December 31:	2012	2011	2010
Cost	$ 132	$ 120	$ 94
Selling, general and administrative	498	514	488
Research, development and engineering	59	62	48
Other (income) and expense	(1)	—	(1)
Pre-tax stock-based compensation cost	688	697	629
Income tax benefits	(240)	(246)	(240)
Total stock-based compensation cost	$ 448	$ 450	$ 389

Total unrecognized compensation cost related to non-vested awards at December 31, 2012 and 2011 was $1,101 million and $1,169 million, respectively, and is expected to be recognized over a weighted-average period of approximately three years.

There was no significant capitalized stock-based compensation cost at December 31, 2012, 2011 and 2010.

Incentive Awards

Stock-based incentive awards are provided to employees under the terms of the company's long-term performance plans (the "Plans"). The Plans are administered by the Executive Compensation and Management Resources Committee of the Board of Directors (the "Committee"). Awards available under the Plans principally include stock options, restricted stock units, performance share units or any combination thereof.

The amount of shares originally authorized to be issued under the company's existing Plans was 274.1 million at December 31, 2012. In addition, certain incentive awards granted under previous plans, if and when those awards were canceled, could be reissued under the company's existing Plans. As such, 66.2 million additional awards were considered authorized to be issued under the company's existing Plans as of December 31, 2012. There were 121.2 million unused shares available to be granted under the Plans as of December 31, 2012.

Under the company's long-standing practices and policies, all awards are approved prior to or on the date of grant. The awards approval process specifies the individual receiving the grant, the number of options or the value of the award, the exercise price or formula for determining the exercise price and the date of grant. All awards for senior management are approved by the Committee. All awards for employees other than senior management are approved by senior management pursuant to a series of delegations that were approved by the Committee, and the grants made pursuant to these delegations are reviewed periodically with the Committee. Awards that are given as part of annual total compensation for senior management and other employees are made on specific cycle dates scheduled in advance. With respect to awards given in connection with promotions or new hires, the company's policy requires approval of such awards prior to the grant date, which is typically the date of the promotion or the date of hire.

Stock Options

Stock options are awards which allow the employee to purchase shares of the company's stock at a fixed price. Stock options are granted at an exercise price equal to the company's average high and low stock price on the date of grant. These awards, which generally vest 25 percent per year, are fully vested four years from the date of grant and have a contractual term of 10 years.

The company estimates the fair value of stock options at the date of grant using the Black-Scholes valuation model. Key inputs and assumptions used to estimate the fair value of stock options include the grant price of the award, the expected option term, volatility of the company's stock, the risk-free rate and the company's dividend yield. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards, and subsequent events are not indicative of the reasonableness of the original estimates of fair value made by the company.

During the years ended December 31, 2012, 2011 and 2010, the company did not grant stock options.

The following table summarizes option activity under the Plans during the years ended December 31, 2012, 2011 and 2010.

	2012		2011		2010	
	Weighted-Average Exercise Price	Number of Shares Under Option	Weighted-Average Exercise Price	Number of Shares Under Option	Weighted-Average Exercise Price	Number of Shares Under Option
Balance at January 1	$ 90	20,662,322	$ 94	39,197,728	$ 98	73,210,457
Options exercised	86	(9,080,170)	98	(18,144,309)	101	(33,078,316)
Options canceled/expired	75	(192,431)	107	(391,097)	108	(934,413)
Balance at December 31	$ 94	11,389,721	$ 90	20,662,322	$ 94	39,197,728
Exercisable at December 31	$ 94	11,389,721	$ 90	20,662,322	$ 94	39,197,728

The shares under option at December 31, 2012 were in the following exercise price ranges:

	Options Outstanding and Exercisable			
Exercise Price Range	Weighted-Average Exercise Price	Number of Shares Under Option	Aggregate Intrinsic Value	Weighted-Average Remaining Contractual Life (in Years)
$85 and under	$ 83	3,222,177	$ 350,989,003	0.9
$86–$105	97	7,532,868	709,980,689	1.9
$106 and over	106	634,676	54,314,359	1.1
	$ 94	11,389,721	$1,115,284,051	1.6

In connection with various acquisition transactions, there was an additional 0.9 million stock-based awards, consisting of stock options and restricted stock units, outstanding at December 31, 2012, as a result of the company's assumption of stock-based awards previously granted by the acquired entities. The weighted-average exercise price of these awards was $68 per share.

Exercises of Employee Stock Options

The total intrinsic value of options exercised during the years ended December 31, 2012, 2011 and 2010 was $1,005 million, $1,269 million and $1,072 million, respectively. The total cash received from employees as a result of employee stock option exercises for the years ended December 31, 2012, 2011 and 2010 was approximately $785 million, $1,786 million and $3,347 million, respectively. In connection with these exercises, the tax benefits realized by the company for the years ended December 31, 2012, 2011 and 2010 were $341 million, $412 million and $351 million, respectively.

The company settles employee stock option exercises primarily with newly issued common shares and, occasionally, with treasury shares. Total treasury shares held at December 31, 2012 and 2011 were approximately 1,080 million and 1,019 million shares, respectively.

Stock Awards

In lieu of stock options, the company currently grants its employees stock awards. These awards are made in the form of Restricted Stock Units (RSUs), including Retention Restricted Stock Units (RRSUs), or Performance Share Units (PSUs).

The tables below summarize RSU and PSU activity under the Plans during the years ended December 31, 2012, 2011 and 2010.

RSUs

	2012		2011		2010	
	Weighted-Average Grant Price	Number of Units	Weighted-Average Grant Price	Number of Units	Weighted-Average Grant Price	Number of Units
Balance at January 1	$129	12,218,601	$110	11,196,446	$102	13,405,654
RSUs granted	184	2,635,772	154	5,196,802	122	3,459,303
RSUs released	117	(4,338,787)	106	(3,508,700)	98	(5,102,951)
RSUs canceled/forfeited	139	(674,125)	122	(665,947)	105	(565,560)
Balance at December 31	$148	9,841,461	$129	12,218,601	$110	11,196,446

PSUs

	2012		2011		2010	
	Weighted-Average Grant Price	Number of Units	Weighted-Average Grant Price	Number of Units	Weighted-Average Grant Price	Number of Units
Balance at January 1	$122	3,686,991	$111	3,649,288	$107	3,476,737
PSUs granted at target	185	1,004,003	154	1,055,687	117	1,239,468
Additional shares earned above target*	102	550,399	118	230,524	103	463,913
PSUs released	102	(1,998,746)	118	(1,189,765)	103	(1,486,484)
PSUs canceled/forfeited	131	(70,446)	118	(58,743)	108	(44,346)
Balance at December 31**	$151	3,172,201	$122	3,686,991	$111	3,649,288

* Represents additional shares issued to employees after vesting of PSUs because final performance metrics exceeded specified targets.

** Represents the number of shares expected to be issued based on achievement of grant date performance targets. The actual number of shares issued depends on the company's performance against specified targets over the vesting period.

RSUs are stock awards granted to employees that entitle the holder to shares of common stock as the award vests, typically over a one- to five-year period. For RSUs awarded on or after January 1, 2008, dividend equivalents are not paid. The fair value of such RSUs is determined and fixed on the grant date based on the company's stock price adjusted for the exclusion of dividend equivalents.

The remaining weighted-average contractual term of RSUs at December 31, 2012, 2011 and 2010 is the same as the period over which the remaining cost of the awards will be recognized, which is approximately three years. The fair value of RSUs granted during the years ended December 31, 2012, 2011 and 2010 was $486 million, $803 million and $421 million, respectively. The total fair value of RSUs vested and released during the years ended December 31, 2012, 2011 and 2010 was $509 million, $373 million and $503 million, respectively. As of December 31, 2012, 2011 and 2010, there was $938 million, $1,021 million and $865 million, respectively, of unrecognized compensation cost related to non-vested RSUs. The company received no cash from employees as a result of employee vesting and release of RSUs for the years ended December 31, 2012, 2011 and 2010. In the second quarter of 2011, the company granted equity awards valued at approximately $1 thousand each to about 400,000 non-executive employees. These awards were made under the Plans and vest in December 2015.

PSUs are stock awards where the number of shares ultimately received by the employee depends on the company's performance against specified targets and typically vest over a three-year period. For PSUs, dividend equivalents are not paid. The fair value of each PSU is determined on the grant date, based on the company's stock price, adjusted for the exclusion of dividend equivalents, and assumes that performance targets will be achieved. Over the performance period, the number of shares of stock that will be issued is adjusted upward or downward based upon the probability of achievement of performance targets. The ultimate number of shares issued and the related compensation cost recognized as expense will be based on a comparison of the final performance metrics to the specified targets. The fair value of PSUs granted at target during the years ended December 31, 2012, 2011 and 2010 was $186 million, $165 million and $145 million, respectively. Total fair value of PSUs vested and released during the years ended December 31, 2012, 2011 and 2010 was $203 million, $141 million and $153 million, respectively.

In connection with vesting and release of RSUs and PSUs, the tax benefits realized by the company for the years ended December 31, 2012, 2011 and 2010 were $454 million, $283 million and $293 million, respectively.

IBM Employees Stock Purchase Plan

The company maintains a non-compensatory Employees Stock Purchase Plan (ESPP). The ESPP enables eligible participants to purchase full or fractional shares of IBM common stock at a 5 percent discount off the average market price on the day of purchase through payroll deductions of up to 10 percent of eligible compensation. Eligible compensation includes any compensation received by the employee during the year. The ESPP provides for offering periods during which shares may be purchased and continues as long as shares remain available under the ESPP, unless terminated earlier at the discretion of the Board of Directors. Individual ESPP participants are restricted from purchasing more than $25,000 of common stock in one calendar year or 1,000 shares in an offering period.

Employees purchased 1.6 million, 1.9 million and 2.4 million shares under the ESPP during the years ended December 31, 2012, 2011 and 2010, respectively. Cash dividends declared and paid by the company on its common stock also include cash dividends on the company stock purchased through the ESPP. Dividends are paid on full and fractional shares and can be reinvested in the ESPP. The company stock purchased through the ESPP is considered outstanding and is included in the weighted-average outstanding shares for purposes of computing basic and diluted earnings per share.

Approximately 3.8 million, 5.4 million and 7.2 million shares were available for purchase under the ESPP at December 31, 2012, 2011 and 2010, respectively.

Note S.
Retirement-Related Benefits

Description of Plans

IBM sponsors defined benefit pension plans and defined contribution plans that cover substantially all regular employees, a supplemental retention plan that covers certain U.S. executives and nonpension postretirement benefit plans primarily consisting of retiree medical and dental benefits for eligible retirees and dependents.

U.S. Plans

Defined Benefit Pension Plans

IBM Personal Pension Plan

IBM provides U.S. regular, full-time and part-time employees hired prior to January 1, 2005 with noncontributory defined benefit pension benefits via the IBM Personal Pension Plan. Prior to 2008, the IBM Personal Pension Plan consisted of a tax qualified (qualified) plan and a non-tax qualified (nonqualified) plan. Effective January 1, 2008, the nonqualified plan was renamed the Excess Personal Pension Plan (Excess PPP) and the qualified plan is now referred to as the Qualified PPP. The combined plan is now referred to as the PPP. The Qualified PPP is funded by company contributions to an irrevocable trust fund, which is held for the sole benefit of participants and beneficiaries. The Excess PPP, which is unfunded, provides benefits in excess of IRS limitations for qualified plans.

Benefits provided to the PPP participants are calculated using benefit formulas that vary based on the participant. The first method uses a five-year, final pay formula that determines benefits based on salary, years of service, mortality and other participant-specific factors. The second method is a cash balance formula that calculates benefits using a percentage of employees' annual salary, as well as an interest crediting rate.

Benefit accruals under the IBM Personal Pension Plan ceased December 31, 2007 for all participants.

U.S. Supplemental Executive Retention Plan

The company also sponsors a nonqualified U.S. Supplemental Executive Retention Plan (Retention Plan). The Retention Plan, which is unfunded, provides benefits to eligible U.S. executives based on average earnings, years of service and age at termination of employment.

Benefit accruals under the Retention Plan ceased December 31, 2007 for all participants.

Defined Contribution Plans

IBM 401(k) Plus Plan

U.S. regular, full-time and part-time employees are eligible to participate in the IBM 401(k) Plus Plan, which is a qualified defined-contribution plan under section 401(k) of the Internal Revenue Code. Effective January 1, 2008, under the IBM 401(k) Plus Plan, eligible employees receive a dollar-for-dollar match of their contributions up to 6 percent of eligible compensation for those hired prior to January 1, 2005, and up to 5 percent of eligible compensation for those hired on or after January 1, 2005. In addition, eligible employees receive automatic contributions from the company equal to 1, 2 or 4 percent of eligible compensation based on their eligibility to participate in the PPP as of December 31, 2007. Employees receive automatic contributions and matching contributions after the completion of one year of service. Further, through June 30, 2009, IBM contributed transition credits to eligible participants' 401(k) Plus Plan accounts. The amount of the transition credits was based on a participant's age and service as of June 30, 1999.

The company's matching contributions vest immediately and participants are always fully vested in their own contributions. All contributions, including the company match, are made in cash and invested in accordance with participants' investment elections. There are no minimum amounts that must be invested in company stock, and there are no restrictions on transferring amounts out of company stock to another investment choice, other than excessive trading rules applicable to such investments. Effective January 1, 2013, matching and automatic contributions are made once annually at the end of the year. In order to receive such contributions each year, a participant must be employed on December 15 of the plan year. However, if a participant separates from service prior to December 15, and has completed certain service and/or age requirements, then the participant will be eligible to receive such matching and automatic contributions following separation from service.

IBM Excess 401(k) Plus Plan

Effective January 1, 2008, the company replaced the IBM Executive Deferred Compensation Plan, an unfunded, nonqualified, defined contribution plan, with the IBM Excess 401(k) Plus Plan (Excess 401(k)), an unfunded, nonqualified defined contribution plan. Employees who are eligible to participate in the 401(k) Plus Plan and whose eligible compensation is expected to exceed the IRS compensation limit for qualified plans are eligible to participate in the Excess 401(k). The purpose of the Excess 401(k) is to provide benefits that would be provided under the qualified IBM 401(k) Plus Plan if the compensation limits did not apply.

Amounts deferred into the Excess 401(k) are record-keeping (notional) accounts and are not held in trust for the participants. Participants in the Excess 401(k) may invest their notional accounts in investments which mirror the primary investment options available under the 401(k) Plus Plan. Participants in the Excess 401(k) are also eligible to receive company match and automatic contributions on eligible compensation deferred into the Excess 401(k) and on compensation earned in excess of the Internal Revenue Code pay limit once they have completed one year of service. Through June 30, 2009, eligible participants also received transition credits. Amounts deferred into the Excess 401(k), including company contributions are recorded as liabilities in the Consolidated Statement of Financial Position. Effective January 1, 2013, matching and automatic contributions are made once annually at the end of the year. In order to receive such contributions each year, a participant must be employed on December 15 of the plan year. However, if a participant separates from service prior to December 15, and has completed certain service and/or age requirements, then the participant will be eligible to receive such matching and automatic contributions following separation from service.

Nonpension Postretirement Benefit Plan

U.S. Nonpension Postretirement Plan

The company sponsors a defined benefit nonpension postretirement benefit plan that provides medical and dental benefits to eligible U.S. retirees and eligible dependents, as well as life insurance for eligible U.S. retirees. Effective July 1, 1999, the company established a Future Health Account (FHA) for employees who were more than five years from retirement eligibility. Employees who were within five years of retirement eligibility are covered under the company's prior retiree health benefits arrangements. Under either the FHA or the prior retiree health benefit arrangements, there is a maximum cost to the company for retiree health benefits.

Since January 1, 2004, new hires, as of that date or later, are not eligible for company subsidized nonpension postretirement benefits.

Non-U.S. Plans

Most subsidiaries and branches outside the United States sponsor defined benefit and/or defined contribution plans that cover substantially all regular employees. The company deposits funds under various fiduciary-type arrangements, purchases annuities under group contracts or provides reserves for these plans. Benefits under the defined benefit plans are typically based either on years of service and the employee's compensation (generally during a fixed number of years immediately before retirement) or on annual credits. The range of assumptions that are used for the non-U.S. defined benefit plans reflect the different economic environments within the various countries.

In addition, certain of the company's non-U.S. subsidiaries sponsor nonpension postretirement benefit plans that provide medical and dental benefits to eligible non-U.S. retirees and eligible dependents, as well as life insurance for certain eligible non-U.S. retirees. However, most non-U.S. retirees are covered by local government-sponsored and -administered programs.

Plan Financial Information

Summary of Financial Information

The following table presents a summary of the total retirement-related benefits net periodic (income)/cost recorded in the Consolidated Statement of Earnings.

($ in millions)

	U.S. Plans			Non-U.S. Plans			Total		
For the year ended December 31:	2012	2011	2010	2012	2011	2010	2012	2011	2010
Defined benefit pension plans	$(526)	$(774)	$(949)	$1,040	$ 734	$ 541	$ 515	$ (40)	$ (408)
Retention Plan	18	15	14	—	—	—	18	15	14
Total defined benefit pension plans (income)/cost	$(507)	$(759)	$(935)	$1,040	$ 734	$ 541	$ 533	$ (25)	$ (394)
IBM 401(k) Plus Plan and Non-U.S. plans	$ 857	$ 875	$ 882	$ 621	$ 608	$ 527	$1,478	$1,483	$1,409
Excess 401(k)	29	30	20	—	—	—	29	30	20
Total defined contribution plans cost	$ 885	$ 905	$ 902	$ 621	$ 608	$ 527	$1,506	$1,513	$1,430
Nonpension postretirement benefit plans cost	$ 268	$ 269	$ 281	$ 82	$ 76	$ 66	$ 350	$ 345	$ 347
Total retirement-related benefits net periodic cost	$ 646	$ 415	$ 248	$1,743	$1,418	$1,134	$2,389	$1,832	$1,382

The following table presents a summary of the total PBO for defined benefit pension plans, APBO for nonpension postretirement benefit plans, fair value of plan assets and the associated funded status recorded in the Consolidated Statement of Financial Position.

($ in millions)

	Benefit Obligations		Fair Value of Plan Assets		Funded Status*	
At December 31:	2012	2011	2012	2011	2012	2011
U.S. Plans						
Underfunded plans						
Qualified PPP	$ 54,907	$52,318	$53,630	$51,218	$ (1,277)	$ (1,100)
Excess PPP	1,576	1,462	—	—	(1,576)	(1,462)
Retention Plan	327	305	—	—	(327)	(305)
Nonpension postretirement benefit plan	5,282	5,273	433	38	(4,849)	(5,235)
Total underfunded U.S. plans	$ 62,092	$59,358	$54,063	$51,256	$ (8,029)	$ (8,102)
Non-U.S. Plans						
Overfunded plans						
Qualified defined benefit pension plans	$ 6,944	$13,169	$ 7,889	$16,011	$ 945	$ 2,843
Nonpension postretirement benefit plans	12	7	12	7	0	0
Total overfunded non-U.S. plans	$ 6,956	$13,175	$ 7,901	$16,018	$ 945	$ 2,843
Underfunded plans						
Qualified defined benefit pension plans	$ 35,956	$24,659	$30,169	$19,351	$ (5,788)	$ (5,308)
Nonqualified defined benefit pension plans	6,418	5,033	—	—	(6,418)	(5,033)
Nonpension postretirement benefit plans	1,007	894	107	105	(900)	(789)
Total underfunded non-U.S. plans	$ 43,381	$30,587	$30,276	$19,456	$(13,106)	$(11,131)
Total overfunded plans	$ 6,956	$13,175	$ 7,901	$16,018	$ 945	$ 2,843
Total underfunded plans	$105,473	$89,944	$84,338	$70,712	$(21,134)	$(19,232)

*Funded status is recognized in the Consolidated Statement of Financial Position as follows: Asset amounts as prepaid pension assets; (Liability) amounts as compensation and benefits (current liability) and retirement and nonpension postretirement benefit obligations (noncurrent liability).

At December 31, 2012, the company's qualified defined benefit pension plans worldwide were 94 percent funded compared to the benefit obligations, with the U.S. qualified PPP 98 percent funded. Overall, including nonqualifed plans, the company's defined benefit pension plans were 86 percent funded.

Defined Benefit Pension and Nonpension Postretirement Benefit Plan Financial Information

The following tables through page 125 represent financial information for the company's retirement-related benefit plans, excluding defined contribution plans. The defined benefit pension plans under U.S. Plans consists of the Qualified PPP, the Excess PPP and the Retention Plan. The defined benefit pension plans and the nonpension postretirement benefit plans under Non-U.S. Plans consists of all plans sponsored by the company's subsidiaries. The nonpension postretirement benefit plan under U.S. Plan consists of only the U.S. Nonpension Postretirement Benefit Plan.

The tables below present the components of net periodic (income)/cost of the retirement-related benefit plans recognized in the Consolidated Statement of Earnings, excluding defined contribution plans.

($ in millions)

	Defined Benefit Pension Plans					
	U.S. Plans			Non-U.S. Plans		
For the year ended December 31:	2012	2011	2010	2012	2011	2010
Service cost	$ —	$ —	$ —	$ 443	$ 505	$ 508
Interest cost	2,196	2,456	2,601	1,779	1,843	1,841
Expected return on plan assets	(4,043)	(4,043)	(4,017)	(2,303)	(2,521)	(2,461)
Amortization of transition assets	—	—	—	(0)	(0)	(0)
Amortization of prior service costs/(credits)	10	10	10	(154)	(162)	(174)
Recognized actuarial losses	1,331	818	471	1,027	957	712
Curtailments and settlements	—	—	1	0	1	27
Multi-employer plans/other costs*	—	—	—	247	111	89
Total net periodic (income)/cost	$ (507)	$ (759)	$ (935)	$ 1,040	$ 734	$ 541

($ in millions)

	Nonpension Postretirement Benefit Plans					
	U.S. Plan			Non-U.S. Plans		
For the year ended December 31:	2012	2011	2010	2012	2011	2010
Service cost	$ 36	$ 33	$ 33	$14	$ 11	$ 9
Interest cost	200	236	262	64	67	59
Expected return on plan assets	—	—	—	(9)	(10)	(9)
Amortization of transition assets	—	—	—	0	0	0
Amortization of prior service costs/(credits)	—	—	(14)	(4)	(4)	(5)
Recognized actuarial losses	32	—	—	17	13	12
Curtailments and settlements	—	—	—	0	—	—
Total net periodic cost	$268	$269	$281	$82	$ 76	$66

*The 2012 Non-U.S. plans amount includes $162 million related to the IBM UK pension litigation. See page 125 for additional information.

The following table presents the changes in benefit obligations and plan assets of the company's retirement-related benefit plans, excluding defined contribution plans.

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2012	2011	2012	2011	2012	2011	2012	2011
Change in benefit obligation								
Benefit obligation at January 1	$54,085	$51,293	$ 42,861	$42,584	$ 5,273	$ 5,123	$ 901	$ 872
Service cost	—	—	443	505	36	33	14	11
Interest cost	2,196	2,456	1,779	1,843	200	236	64	67
Plan participants' contributions	—	—	47	53	200	228	—	—
Acquisitions/divestitures, net	0	(0)	26	(48)	2	(0)	0	(1)
Actuarial losses/(gains)	3,810	3,551	6,365	812	104	244	76	47
Benefits paid from trust	(3,184)	(3,121)	(1,987)	(1,995)	(551)	(623)	(6)	(7)
Direct benefit payments	(97)	(95)	(454)	(462)	(35)	(32)	(27)	(27)
Foreign exchange impact	—	—	77	(423)	—	—	(24)	(60)
Medicare/Government subsidies	—	—	—	—	53	65	—	—
Amendments/curtailments/settlements/other	—	—	161	(8)	—	—	21	—
Benefit obligation at December 31	$56,810	$54,085	$ 49,319	$42,861	$ 5,282	$ 5,273	$1,019	$ 901
Change in plan assets								
Fair value of plan assets at January 1	$51,218	$50,259	$ 35,362	$35,722	$ 38	$ 35	$ 112	$ 120
Actual return on plan assets	5,596	4,080	3,742	1,052	0	0	10	13
Employer contributions	—	—	557	728	746	397	1	0
Acquisitions/divestitures, net	—	—	40	(27)	—	—	—	(0)
Plan participants' contributions	—	—	47	53	200	228	—	—
Benefits paid from trust	(3,184)	(3,121)	(1,987)	(1,995)	(551)	(623)	(6)	(7)
Foreign exchange impact	—	—	305	(537)	—	—	(8)	(15)
Amendments/curtailments/settlements/other	—	—	(8)	367*	—	—	10	—
Fair value of plan assets at December 31	$53,630	$51,218	$ 38,058	$35,362	$ 433	$ 38	$ 119	$ 112
Funded status at December 31	$ (3,180)	$ (2,866)	$(11,261)	$ (7,499)	$(4,849)	$(5,235)	$ (900)	$(789)
Accumulated benefit obligation**	$56,810	$54,085	$ 48,369	$42,063	N/A	N/A	N/A	N/A

* Includes the reinstatement of certain plan assets in Brazil due to a 2011 government ruling allowing certain previously restricted plan assets to be returned to IBM. Beginning June 2011, the assets will be returned to IBM monthly over a three year period, with approximately $200 million returned during 2012. The remaining surplus in Brazil at December 31, 2012 remains excluded from total plan assets due to continued restrictions imposed by the government on the use of those plan assets.

** Represents the benefit obligation assuming no future participant compensation increases.

N/A—Not applicable

The following table presents the net funded status recognized in the Consolidated Statement of Financial Position.

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
At December 31:	2012	2011	2012	2011	2012	2011	2012	2011
Prepaid pension assets	$ 0	$ 0	$ 944	$ 2,843	$ 0	$ 0	$ 0	$ 0
Current liabilities—compensation and benefits	(102)	(96)	(356)	(304)	(239)	(437)	(20)	(22)
Noncurrent liabilities—retirement and nonpension postretirement benefit obligations	(3,078)	(2,770)	(11,849)	(10,038)	(4,610)	(4,798)	(880)	(768)
Funded status—net	$(3,180)	$(2,866)	$(11,261)	$ (7,499)	$(4,849)	$(5,235)	$(900)	$(789)

The following table presents the pre-tax net loss and prior service costs/(credits) and transition (assets)/liabilities recognized in OCI and the changes in the pre-tax net loss, prior service costs/(credits) and transition (assets)/liabilities recognized in AOCI for the retirement-related benefit plans.

($ in millions)

	Defined Benefit Pension Plans				Nonpension Postretirement Benefit Plans			
	U.S. Plans		Non-U.S. Plans		U.S. Plan		Non-U.S. Plans	
	2012	2011	2012	2011	2012	2011	2012	2011
Net loss at January 1	$18,561	$15,865	$18,309	$17,580	$734	$492	$211	$180
Current period loss/(gain)	2,258	3,514	4,905	1,696	104	241	75	45
Curtailments and settlements	—	—	2	(11)	—	—	—	—
Amortization of net loss included in net periodic (income)/cost	(1,331)	(818)	(1,027)	(957)	(32)	—	(17)	(13)
Net loss at December 31	$19,488	$18,561	$22,188	$18,309	$806	$734	$269	$211
Prior service costs/(credits) at January 1	$ 139	$ 149	$ (768)	$ (958)	$ —	$ —	$ (10)	$ (14)
Current period prior service costs/(credits)	—	—	—	28	—	—	(0)	(0)
Amortization of prior service (costs)/credits included in net periodic (income)/cost	(10)	(10)	154	162	—	—	4	4
Prior service costs/(credits) at December 31	$ 130	$ 139	$ (614)	$ (768)	$ —	$ —	$ (6)	$ (10)
Transition (assets)/liabilities at January 1	$ —	$ —	$ (0)	$ (0)	$ —	$ —	$ 0	$ 1
Amortization of transition assets/(liabilities) included in net periodic (income)/cost	—	—	0	0	—	—	(0)	(0)
Transition (assets)/liabilities at December 31	$ —	$ —	$ (0)	$ (0)	$ —	$ —	$ 0	$ 0
Total loss recognized in accumulated other comprehensive income/(loss)*	$19,618	$18,701	$21,574	$17,541	$806	$734	$263	$202

*See note L, "Equity Activity," on pages 107 to 110 for the total change in AOCI, and the Consolidated Statement of Comprehensive Income for the components of net periodic (income)/cost, including the related tax effects, recognized in OCI for the retirement-related benefit plans.

The following table presents the pre-tax estimated net loss, estimated prior service costs/(credits) and estimated transition (assets)/liabilities of the retirement-related benefit plans that will be amortized from AOCI into net periodic (income)/cost in 2013.

($ in millions)

	Defined Benefit Pension Plans		Nonpension Postretirement Benefit Plans	
	U.S. Plans	Non-U.S. Plans	U.S. Plan	Non-U.S. Plans
Net loss	$1,804	$1,693	$33	$26
Prior service costs/(credits)	9	(132)	—	(4)
Transition (assets)/liabilities	0	(0)	—	0

During the years ended December 31, 2012, 2011 and 2010, the company paid $22 million, $16 million and $22 million, respectively, for mandatory pension insolvency insurance coverage premiums in certain non-U.S. countries (Germany, Canada, Luxembourg and the UK).

No significant amendments of retirement-related benefit plans occurred during the years ended December 31, 2012 and 2011 that had a material effect in the Consolidated Statement of Earnings.

On October 12, 2012, the High Court in London issued a ruling against IBM United Kingdom Limited and IBM United Kingdom Holdings Limited, both wholly-owned subsidiaries of the company, in litigation involving one of IBM UK's defined benefit plans. As a result of the ruling, the company recorded an additional pre-tax retirement-related obligation of $162 million in the third quarter of 2012 in selling, general and administrative expense in the Consolidated Statement of Earnings. See note M, "Contingencies and Commitments," on pages 111 and 112 for additional information.

Assumptions Used to Determine Plan Financial Information

Underlying both the measurement of benefit obligations and net periodic (income)/cost are actuarial valuations. These valuations use participant-specific information such as salary, age and years of service, as well as certain assumptions, the most significant of which include estimates of discount rates, expected return on plan assets, rate of compensation increases, interest crediting rates and mortality rates. The company evaluates these assumptions, at a minimum, annually, and makes changes as necessary.

The table below presents the assumptions used to measure the net periodic (income)/cost and the year-end benefit obligations for retirement-related benefit plans.

	Defined Benefit Pension Plans					
	U.S. Plans			Non-U.S. Plans		
	2012	2011	2010	2012	2011	2010
Weighted-average assumptions used to measure net periodic (income)/cost for the year ended December 31						
Discount rate	4.20%	5.00%	5.60%	4.28%	4.33%	4.84%
Expected long-term returns on plan assets	8.00%	8.00%	8.00%	6.26%	6.41%	6.56%
Rate of compensation increase*	N/A	N/A	N/A	2.43%	2.37%	2.92%
Weighted-average assumptions used to measure benefit obligations at December 31						
Discount rate	3.60%	4.20%	5.00%	3.23%	4.28%	4.33%
Rate of compensation increase*	N/A	N/A	N/A	2.51%	2.43%	2.37%

*Rate of compensation increase is not applicable to the U.S. defined benefit pension plans as benefit accruals ceased December 31, 2007 for all participants.
N/A—Not applicable

	Nonpension Postretirement Benefit Plans					
	U.S. Plan			Non-U.S. Plans		
	2012	2011	2010	2012	2011	2010
Weighted-average assumptions used to measure net periodic cost for the year ended December 31						
Discount rate	3.90%	4.80%	5.40%	7.37%	7.75%	7.92%
Expected long-term returns on plan assets	N/A	N/A	N/A	9.01%	9.07%	9.16%
Weighted-average assumptions used to measure benefit obligations at December 31						
Discount rate	3.30%	3.90%	4.80%	6.43%	7.37%	7.75%

N/A—Not applicable

Discount Rate

The discount rate assumptions used for retirement-related benefit plans accounting reflect the yields available on high-quality, fixed income debt instruments at the measurement date. For the U.S. and certain non-U.S. countries, a portfolio of high-quality corporate bonds is used to construct a yield curve. The cash flows from the company's expected benefit obligation payments are then matched to the yield curve to derive the discount rates. In other non-U.S. countries, where the markets for high-quality long-term bonds are not generally as well developed, a portfolio of long-term government bonds is used as a base, to which a credit spread is added to simulate corporate bond yields at these maturities in the jurisdiction of each plan, as the benchmark for developing the respective discount rates.

For the U.S. defined benefit pension plans, the changes in the discount rate assumptions impacted the net periodic (income)/cost and the PBO. The changes in the discount rate assumptions resulted in a decrease in 2012 net periodic income of $258 million, a decrease in 2011 net periodic income of $171 million and a decrease in 2010 net periodic income of $40 million. The changes in the discount rate assumptions resulted in an increase in the PBO of $3,414 million and $4,216 million at December 31, 2012 and 2011, respectively.

For the nonpension postretirement benefit plans, the changes in the discount rate assumptions had no material impact on net periodic cost for the years ended December 31, 2012, 2011 and 2010 and resulted in an increase in the APBO of $252 million and $359 million at December 31, 2012 and 2011, respectively.

Expected Long-Term Returns on Plan Assets

Expected returns on plan assets, a component of net periodic (income)/cost, represent the expected long-term returns on plan assets based on the calculated market-related value of plan assets. Expected long-term returns on plan assets take into account long-term expectations for future returns and the investment policies and strategies as described on page 128. These rates of return are developed by the company and are tested for reasonableness against historical returns. The use of expected long-term returns on plan assets may result in recognized pension income that is greater or less than the actual returns of those plan assets in any given year. Over time, however, the expected long-term returns are designed to approximate the actual long-term returns, and therefore result in a pattern of income and cost recognition that more closely matches the pattern of the services provided by the employees. Differences between actual and expected returns are recognized as a component of net loss or gain in AOCI, which is amortized as a component of net periodic (income)/cost over the service lives or life expectancy of the plan participants, depending on the plan, provided such amounts exceed certain thresholds provided by accounting standards. The market-related value of plan assets recognizes changes in the fair value of plan assets systematically over a five-year period in the expected return on plan assets line in net periodic (income)/cost.

For the U.S. defined benefit pension plan, the Qualified PPP, the expected long-term rate of return on plan assets of 8.00 percent remained constant for the years ended December 31, 2012, 2011 and 2010 and, consequently, had no incremental impact on net periodic (income)/cost.

For the nonpension postretirement benefit plans, the company maintains a highly liquid trust fund balance to ensure timely payments are made. As a result, for the years ended December 31, 2012, 2011 and 2010, the expected long-term return on plan assets and the actual return on those assets were not material.

Rate of Compensation Increases and Mortality Rate

The rate of compensation increases is determined by the company, based upon its long-term plans for such increases. The rate of compensation increase is not applicable to the U.S. defined benefit pension plans as benefit accruals ceased December 31, 2007 for all participants. Mortality rate assumptions are based on life expectancy and death rates for different types of participants. Mortality rates are periodically updated based on actual experience.

Interest Crediting Rate

Benefits for certain participants in the PPP are calculated using a cash balance formula. An assumption underlying this formula is an interest crediting rate, which impacts both net periodic (income)/cost and the PBO. This assumption provides a basis for projecting the expected interest rate that participants will earn on the benefits that they are expected to receive in the following year and is based on the average from August to October of the one-year U.S. Treasury Constant Maturity yield plus one percent.

For the PPP, the change in the interest crediting rate to 1.1 percent for the year ended December 31, 2012, from 1.3 percent for the year ended December 31, 2011, resulted in an increase in 2012 net periodic income of $10 million. The change in the interest crediting rate to 1.3 percent for the year ended December 31, 2011, from 1.4 percent for the year ended December 31, 2010, resulted in an increase in 2011 net periodic income of $4 million. The change in the interest crediting rate to 1.4 percent for the year ended December 31, 2010, from 2.8 percent for the year ended December 31, 2009, resulted in an increase in 2010 net periodic income of $62 million.

Healthcare Cost Trend Rate

For nonpension postretirement benefit plan accounting, the company reviews external data and its own historical trends for healthcare costs to determine the healthcare cost trend rates. However, the healthcare cost trend rate has an insignificant effect on plan costs and obligations as a result of the terms of the plan which limit the company's obligation to the participants. The company assumes that the healthcare cost trend rate for 2013 will be 7.0 percent. In addition, the company assumes that the same trend rate will decrease to 5 percent over the next four years. A one percentage point increase or decrease in the assumed healthcare cost trend rate would not have had a material effect on 2012, 2011 and 2010 net periodic cost or the benefit obligations as of December 31, 2012 and 2011.

Healthcare Legislation

The expected effects of the U.S. healthcare reform legislation enacted in March 2010 were incorporated into the remeasurements of the U.S. nonpension postretirement benefit plan at December 31, 2012 and 2011. The impact was insignificant as a result of the terms of the plan which limit the company's obligation to the participants.

Plan Assets

Retirement-related benefit plan assets are recognized and measured at fair value as described in note A, "Significant Accounting Policies," on page 84. Because of the inherent uncertainty of valuations, these fair value measurements may not necessarily reflect the amounts the company could realize in current market transactions.

Investment Policies and Strategies

The investment objectives of the Qualified PPP portfolio are designed to generate returns that will enable the plan to meet its future obligations. The precise amount for which these obligations will be settled depends on future events, including the retirement dates and life expectancy of the plans' participants. The obligations are estimated using actuarial assumptions, based on the current economic environment and other pertinent factors described on pages 125 to 127. The Qualified PPP portfolio's investment strategy balances the requirement to generate returns, using potentially higher yielding assets such as equity securities, with the need to control risk in the portfolio with less volatile assets, such as fixed income securities. Risks include, among others, inflation, volatility in equity values and changes in interest rates that could cause the plan to become underfunded, thereby increasing its dependence on contributions from the company. To mitigate any potential concentration risk, careful consideration is given to balancing the portfolio among industry sectors, companies and geographies, taking into account interest rate sensitivity, dependence on economic growth, currency and other factors that affect investment returns. As a result, the Qualified PPP portfolio's target allocation is 43 percent equity securities, 47 percent fixed income securities, 5 percent real estate and 5 percent other investments, which is consistent with the allocation decisions made by the company's management and is similar to the prior year target allocation. The table on page 129 details the actual equity, fixed income, real estate and other types of investments in the Qualified PPP portfolio.

The assets are managed by professional investment firms and investment professionals who are employees of the company. They are bound by investment mandates determined by the company's management and are measured against specific benchmarks. Among these managers, consideration is given, but not limited to, balancing security concentration, issuer concentration, investment style and reliance on particular active and passive investment strategies.

Market liquidity risks are tightly controlled, with $6,946 million of the Qualified PPP portfolio invested in private market assets consisting of private equities and private real estate investments, which are less liquid than publicly traded securities. As of December 31, 2012, the Qualified PPP portfolio had $2,509 million in commitments for future investments in private markets to be made over a number of years. These commitments are expected to be funded from plan assets.

Derivatives are used as an effective means to achieve investment objectives and/or as a component of the plan's risk management strategy. The primary reasons for the use of derivatives are fixed income management, including duration, interest rate management and credit exposure, cash equitization and to manage currency and commodity strategies.

Outside the U.S., the investment objectives are similar to those described above, subject to local regulations. The weighted-average target allocation for the non-U.S. plans is 35 percent equity securities, 54 percent fixed income securities, 2 percent real estate and 9 percent other investments, which is consistent with the allocation decisions made by the company's management. The table on page 129 details the actual equity, fixed income, real estate and other types of investments for non-U.S. plans. In some countries, a higher percentage allocation to fixed income is required to manage solvency and funding risks. In others, the responsibility for managing the investments typically lies with a board that may include up to 50 percent of members elected by employees and retirees. This can result in slight differences compared with the strategies previously described. Generally, these non-U.S. plans do not invest in illiquid assets and their use of derivatives is consistent with the U.S. plan and mainly for currency hedging, interest rate risk management, credit exposure and alternative investment strategies.

The company's defined benefit pension plans include investments in certain European government securities. At December 31, 2012, the U.S. plan held $847 million and the non-U.S. plans held approximately $11 billion in European sovereign debt investments, primarily in AAA-rated securities. Investments in government debt securities in Italy, Spain and Ireland were de minimis in the U.S. plan and represented less than 1 percent of total non-U.S. plan assets. The plans hold no direct investments in government debt securities of Greece and Portugal.

The company's nonpension postretirement benefit plans are underfunded or unfunded. For some plans, the company maintains a nominal, highly liquid trust fund balance to ensure timely benefit payments.

Defined Benefit Pension Plan assets

The following table presents the company's defined benefit pension plans' asset classes and their associated fair value at December 31, 2012. The U.S. Plan consists of the Qualified PPP and the Non-U.S. Plans consist of all plans sponsored by the company's subsidiaries.

($ in millions)

	U.S. Plan				Non-U.S. Plans			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Equity								
Equity securities [a]	$15,161	$ 1	$ —	$15,163	$6,395	$ —	$ —	$ 6,395
Equity commingled/mutual funds [b][c]	96	2,556	—	2,652	138	7,641	—	7,779
Fixed income								
Government and related [d]	—	12,945	6	12,951	—	8,978	76	9,054
Corporate bonds [e]	—	8,499	11	8,510	—	1,878	5	1,883
Mortgage and asset-backed securities	—	922	45	968	—	9	—	9
Fixed income commingled/mutual funds [b][f]	155	804	267	1,226	78	8,018	—	8,096
Insurance contracts	—	—	—	—	—	1,019	—	1,019
Cash and short-term investments [g]	244	3,198	—	3,442	134	373	—	507
Hedge funds	—	1,402	756	2,159	—	646	—	646
Private equity [h]	—	—	4,085	4,085	—	—	353	353
Private real estate [h]	—	—	2,861	2,861	—	—	609	609
Derivatives [i]	(6)	62	—	56	0	856	—	857
Other commingled/mutual funds [b][j]	—	—	—	—	12	907	—	919
Subtotal	15,650	30,390	8,032	54,072	6,757	30,325	1,042	38,124
Other [k]	—	—	—	(442)	—	—	—	(66)
Fair value of plan assets	$15,650	$30,390	$8,032	$53,630	$6,757	$30,325	$1,042	$38,058

[a] Represents U.S. and international securities. The U.S. Plan includes IBM common stock of $113 million, representing 0.2 percent of the U.S. Plan assets. Non-U.S. Plans include IBM common stock of $40 million, representing 0.1 percent of the non-U.S. Plans assets.

[b] Commingled funds represent pooled institutional investments.

[c] Invests in predominantly equity securities.

[d] Includes debt issued by national, state and local governments and agencies.

[e] The U.S. Plan includes IBM corporate bonds of $6 million, representing 0.01 percent of the U.S. Plan assets. Non-U.S. plans include IBM corporate bonds of $2 million representing 0.004 percent of the non-U.S. Plan assets.

[f] Invests in predominantly fixed income securities.

[g] Includes cash and cash equivalents and short-term marketable securities.

[h] Includes limited partnerships and venture capital partnerships.

[i] Primarily includes interest rate derivatives and, to a lesser extent, forwards, exchange traded and other over-the-counter derivatives.

[j] Invests in both equity and fixed income securities.

[k] Represents net unsettled transactions, relating primarily to purchases and sales of plan assets.

The U.S. nonpension postretirement benefit plan assets of $433 million were invested in cash, categorized as Level 1 in the fair value hierarchy. The non-U.S. nonpension postretirement benefit plan assets of $119 million, primarily in Brazil, and, to a lesser extent, in Mexico and South Africa, were invested primarily in government and related fixed income securities and corporate bonds, categorized as Level 2 in the fair value hierarchy.

The following table presents the company's defined benefit pension plans' asset classes and their associated fair value at December 31, 2011. The U.S. Plan consists of the Qualified PPP and the Non-U.S. Plans consist of all plans sponsored by the company's subsidiaries.

($ in millions)

	U.S. Plan				Non-U.S. Plans			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Equity								
Equity securities[a][b]	$13,618	$ 11	$ —	$13,629	$6,426	$ —	$ —	$ 6,427
Equity commingled/mutual funds[b][c]	32	1,877	—	1,909	240	7,751	—	7,991
Fixed income								
Government and related[d]	—	15,105	29	15,134	—	8,479	96	8,575
Corporate bonds[e]	—	7,387	12	7,398	—	1,409	39	1,447
Mortgage and asset-backed securities	—	838	45	883	—	36	—	36
Fixed income commingled/mutual funds[b][f]	262	715	246	1,223	72	7,136	—	7,209
Insurance contracts	—	—	—	—	—	988	—	988
Cash and short-term investments[g]	286	2,390	—	2,675	145	361	—	506
Hedge funds	—	1,140	713	1,853	—	417	—	417
Private equity[h]	0	—	4,098	4,098	—	—	262	262
Private real estate[h]	—	—	2,790	2,790	—	—	580	580
Derivatives[i]	10	(15)	—	(6)	(2)	866	—	864
Other commingled/mutual funds[b][j]	—	—	—	—	9	114	—	123
Subtotal	14,207	29,446	7,932	51,586	6,890	27,557	977	35,425
Other[k]	—	—	—	(368)	—	—	—	(62)
Fair value of plan assets	$14,207	$29,446	$7,932	$51,218	$6,890	$27,557	$977	$35,362

[a] Represents U.S. and international securities. The U.S. Plan includes IBM common stock of $132 million, representing 0.3 percent of the U.S. Plan assets. Non-U.S. Plans include IBM common stock of $35 million, representing 0.1 percent of the non-U.S. Plans assets.

[b] Commingled funds represent pooled institutional investments.

[c] Invests in predominantly equity securities.

[d] Includes debt issued by national, state and local governments and agencies.

[e] The U.S. Plan includes IBM corporate bonds of $13 million, representing 0.03 percent of the U.S. Plan assets.

[f] Invests in predominantly fixed income securities.

[g] Includes cash and cash equivalents and short-term marketable securities.

[h] Includes limited partnerships and venture capital partnerships.

[i] Primarily includes interest rate derivatives and, to a lesser extent, forwards, exchange traded and other over-the-counter derivatives.

[j] Invests in both equity and fixed income securities.

[k] Represents net unsettled transactions, relating primarily to purchases and sales of plan assets.

The U.S. nonpension postretirement benefit plan assets of $38 million were invested in cash, categorized as Level 1 in the fair value hierarchy. The non-U.S. nonpension postretirement benefit plan assets of $112 million, primarily in Brazil, and, to a lesser extent, in Mexico and South Africa, were invested primarily in government and related fixed income securities and corporate bonds, categorized as Level 2 in the fair value hierarchy.

The following tables present the reconciliation of the beginning and ending balances of Level 3 assets for the years ended December 31, 2012 and 2011 for the U.S. Plan.

($ in millions)

	Government and Related	Corporate Bonds	Mortgage and Asset-Backed Securities	Fixed Income Commingled/ Mutual Funds	Hedge Funds	Private Equity	Private Real Estate	Total
Balance at January 1, 2012	$ 29	$12	$45	$246	$713	$4,096	$2,790	$7,932
Return on assets held at end of year	0	0	1	21	56	855	202	1,135
Return on assets sold during the year	0	2	1	—	14	(334)	(41)	(359)
Purchases, sales and settlements, net	(1)	(2)	(9)	—	(26)	(533)	(90)	(660)
Transfers, net	(22)	(1)	8	—	—	—	—	(15)
Balance at December 31, 2012	$ 6	$11	$45	$267	$756	$4,085	$2,861	$8,032

($ in millions)

	Government and Related	Corporate Bonds	Mortgage and Asset-Backed Securities	Fixed Income Commingled/ Mutual Funds	Hedge Funds	Private Equity	Private Real Estate	Total
Balance at January 1, 2011	$ —	$ —	$ 56	$221	$624	$4,251	$2,634	$7,786
Return on assets held at end of year	(0)	0	(1)	25	(35)	348	131	468
Return on assets sold during the year	0	(0)	(0)	—	5	(30)	39	14
Purchases, sales and settlements, net	12	5	(16)	—	(7)	(471)	(14)	(492)
Transfers, net	17	7	6	—	127*	—	—	157
Balance at December 31, 2011	$29	$12	$ 45	$246	$713	$4,098	$2,790	$7,932

*Due to an increase in the redemption term during 2011, the asset was transferred from Level 2 to Level 3.

The following tables present the reconciliation of the beginning and ending balances of Level 3 assets for the years ended December 31, 2012 and 2011 for the non-U.S. Plans.

($ in millions)

	Government and Related	Corporate Bonds	Private Equity	Private Real Estate	Total
Balance at January 1, 2012	$ 96	$ 39	$262	$580	$ 977
Return on assets held at end of year	3	(1)	9	(5)	6
Return on assets sold during the year	3	1	9	0	14
Purchases, sales and settlements, net	(26)	(29)	62	14	21
Transfers, net	(2)	(5)	(0)	(3)	(10)
Foreign exchange impact	1	(0)	11	23	34
Balance at December 31, 2012	$ 76	$ 5	$353	$609	$1,042

($ in millions)

	Government and Related	Corporate Bonds	Private Equity	Private Real Estate	Total
Balance at January 1, 2011	$ —	$11	$176	$533	$720
Return on assets held at end of year	3	2	30	11	46
Return on assets sold during the year	(0)	(0)	(2)	(3)	(5)
Purchases, sales and settlements, net	100	28	65	44	237
Transfers, net	—	—	(0)	0	0
Foreign exchange impact	(7)	(2)	(7)	(6)	(22)
Balance at December 31, 2011	$ 96	$39	$262	$580	$977

Valuation Techniques

The following is a description of the valuation techniques used to measure plan assets at fair value. There were no changes in valuation techniques during 2012 and 2011.

Equity securities are valued at the closing price reported on the stock exchange on which the individual securities are traded. IBM common stock is valued at the closing price reported on the New York Stock Exchange. Equity commingled/mutual funds are typically valued using the net asset value (NAV) provided by the administrator of the fund and reviewed by the company. The NAV is based on the value of the underlying assets owned by the fund, minus liabilities and divided by the number of shares or units outstanding. These assets are classified as Level 1, Level 2 or Level 3 depending on availability of quoted market prices.

The fair value of fixed income securities is typically estimated using pricing models, quoted prices of securities with similar characteristics or discounted cash flows and are generally classified as Level 2. If available, they are valued using the closing price reported on the major market on which the individual securities are traded.

Cash includes money market accounts that are valued at their cost plus interest on a daily basis, which approximates fair value. Short-term investments represent securities with original maturities of one year or less. These assets are classified as Level 1 or Level 2.

Private equity and private real estate partnership valuations require significant judgment due to the absence of quoted market prices, the inherent lack of liquidity and the long-term nature of such assets. These assets are initially valued at cost and are reviewed periodically utilizing available and relevant market data to determine if the carrying value of these assets should be adjusted. These investments are classified as Level 3. The valuation methodology is applied consistently from period to period.

Exchange traded derivatives are valued at the closing price reported on the exchange on which the individual securities are traded, while forward contracts are valued using a mid-close price. Over-the-counter derivatives are typically valued using pricing models. The models require a variety of inputs, including, for example, yield curves, credit curves, measures of volatility and foreign exchange rates. These assets are classified as Level 1 or Level 2 depending on availability of quoted market prices.

Expected Contributions

Defined Benefit Pension Plans

It is the company's general practice to fund amounts for pensions sufficient to meet the minimum requirements set forth in applicable employee benefits laws and local tax laws. From time to time, the company contributes additional amounts as it deems appropriate.

The company contributed $557 million and $728 million in cash to non-U.S. defined benefit pension plans and $60 million and $70 million in cash to non-U.S. multi-employer plans during the years ended December 31, 2012 and 2011, respectively. The cash contributions to multi-employer plans represent the annual cost included in net periodic (income)/cost recognized in the Consolidated Statement of Earnings. The company has no liability for participants in multi-employer plans other than its own employees. As a result, the company's participation in multi-employer plans has no material impact on the company's financial statements.

In 2013, the company is not legally required to make any contributions to the U.S. defined benefit pension plans. However, depending on market conditions, or other factors, the company may elect to make discretionary contributions to the Qualified PPP during the year.

The Pension Protection Act of 2006 (the Act), enacted into law in 2006, is a comprehensive reform package that, among other provisions, increases pension funding requirements for certain U.S. defined benefit plans, provides guidelines for measuring pension plan assets and pension obligations for funding purposes and raises tax deduction limits for contributions to retirement-related benefit plans. The additional funding requirements by the Act apply to plan years beginning after December 31, 2007. The Act was updated by the Worker, Retiree and Employer Recovery Act of 2008, which revised the funding requirements in the Act by clarifying that pension plans may smooth the value of pension plans over 24 months. At December 31, 2012, no mandatory contribution was required for 2013.

In 2013, the company estimates contributions to its non-U.S. defined benefit and multi-employer plans to be approximately $700 million, which will be mainly contributed to defined benefit pension plans in Japan, the UK and Switzerland. This amount represents the legally mandated minimum contributions. Financial market performance in 2013 could increase the legally mandated minimum contribution in certain countries which require monthly or daily remeasurement of the funded status. The company could also elect to contribute more than the legally mandated amount based on market conditions or other factors.

Nonpension Postretirement Benefit Plans

The company contributed $693 million and $362 million to the nonpension postretirement benefit plans during the years ended December 31, 2012 and 2011, respectively. These contribution amounts exclude the Medicare-related subsidy discussed on page 133. The 2012 amount includes a $400 million voluntary cash contribution to the U.S. non-pension postretirement benefit plan. This advanced funding will be utilized to fund post-2012 benefit payments for Medicare-eligible prescription drugs.

Expected Benefit Payments

Defined Benefit Pension Plan Expected Payments

The following table presents the total expected benefit payments to defined benefit pension plan participants. These payments have been estimated based on the same assumptions used to measure the plans' PBO at December 31, 2012 and include benefits attributable to estimated future compensation increases, where applicable.

($ in millions)

	Qualified U.S. Plan Payments	Nonqualified U.S. Plans Payments	Qualified Non-U.S. Plans Payments	Nonqualified Non-U.S. Plans Payments	Total Expected Benefit Payments
2013	$ 3,303	$104	$ 1,993	$ 378	$ 5,778
2014	3,342	106	2,040	373	5,861
2015	3,407	108	2,011	382	5,908
2016	3,438	112	2,049	389	5,988
2017	3,418	113	2,073	400	6,004
2018–2022	17,436	597	11,071	2,252	31,356

The 2013 expected benefit payments to defined benefit pension plan participants not covered by the respective plan assets (underfunded plans) represent a component of compensation and benefits, within current liabilities, in the Consolidated Statement of Financial Position.

Nonpension Postretirement Benefit Plan Expected Payments

The following table reflects the total expected benefit payments to nonpension postretirement benefit plan participants, as well as the expected receipt of the company's share of the Medicare subsidy described below. These payments have been estimated based on the same assumptions used to measure the plan's APBO at December 31, 2012.

($ in millions)

	U.S. Plan Payments	Less: IBM Share of Expected Medicare Subsidy	Net Expected U.S. Plan Payments	Qualified Non-U.S. Plans Payments	Nonqualified Non-U.S. Plans Payments	Total Expected Benefit Payments
2013	$ 462	$(24)	$ 438	$ 8	$ 34	$ 480
2014	447	(26)	421	8	38	467
2015	446	(26)	420	8	41	470
2016	437	(25)	412	9	44	465
2017	429	(24)	405	10	48	463
2018–2022	1,979	(21)	1,958	55	305	2,318

The 2013 expected benefit payments to nonpension postretirement benefit plan participants not covered by the respective plan assets represent a component of compensation and benefits, within current liabilities, in the Consolidated Statement of Financial Position.

Medicare Prescription Drug Act

In connection with the Medicare Prescription Drug Improvement and Modernization Act of 2003, the company is expected to continue to receive a federal subsidy of approximately $298 million to subsidize the prescription drug coverage provided by the U.S. nonpension postretirement benefit plan, which is expected to extend until 2018. Approximately $147 million of the subsidy will be used by the company to reduce its obligation and cost related to the U.S. nonpension postretirement benefit plan. The company will contribute the remaining subsidy of $151 million to the plan in order to reduce contributions required by the participants. The company received total subsidies of $53 million and $36 million for prescription drug-related coverage during the years ended December 31, 2012 and 2011, respectively, which were utilized to reduce the company contributions to the U.S. nonpension postretirement benefit plan.

The company has included the impact of its portion of the subsidy in the determination of net periodic cost and APBO for the U.S. nonpension postretirement benefit plan at and for the years ended December 31, 2012, 2011 and 2010. The impact of the subsidy resulted in a reduction in APBO of $134 million and $93 million at December 31, 2012 and 2011, respectively. The impact of the subsidy resulted in a reduction in 2012, 2011 and 2010 net periodic cost of $35 million, $37 million and $19 million, respectively.

Other Plan Information

The following table presents information for defined benefit pension plans with accumulated benefit obligations (ABO) in excess of plan assets. For a more detailed presentation of the funded status of the company's defined benefit pension plans, see the table on page 124.

($ in millions)

	2012		2011	
At December 31:	Benefit Obligation	Plan Assets	Benefit Obligation	Plan Assets
Plans with PBO in excess of plan assets	$99,184	$83,799	$83,777	$70,570
Plans with ABO in excess of plan assets	98,263	83,677	83,184	70,512
Plans with assets in excess of PBO	6,944	7,889	13,169	16,011

Note T.
Segment Information

The company's major operations consist of five business segments: Global Technology Services, Global Business Services, Software, Systems and Technology and Global Financing. The segments represent components of the company for which separate financial information is available that is utilized on a regular basis by the chief executive officer in determining how to allocate resources and evaluate performance. The segments are determined based on several factors, including client base, homogeneity of products, technology, delivery channels and similar economic characteristics.

Information about each segment's business and the products and services that generate each segment's revenue is located in the "Description of Business" section on pages 23 and 24, and in "Segment Details," on pages 26 through 31 in the Management Discussion.

Segment revenue and pre-tax income include transactions between the segments that are intended to reflect an arm's-length, market-based transfer price. Systems and software that are used by Global Technology Services in outsourcing engagements are primarily sourced internally from Systems and Technology and Software. For providing IT services that are used internally, Global Technology Services and Global Business Services recover cost, as well as a reasonable fee, that is intended to reflect the arm's-length value of providing the services. The Global Services segments enter into arm's-length loans at prices equivalent to market rates with Global Financing to facilitate the acquisition of equipment used in services engagements. All internal transaction prices are reviewed annually, and reset if appropriate.

The company utilizes globally integrated support organizations to realize economies of scale and efficient use of resources. As a result, a considerable amount of expense is shared by all of the segments. This shared expense includes sales coverage, certain marketing functions and support functions such as Accounting, Treasury, Procurement, Legal, Human Resources, and Billing and Collections. Where practical, shared expenses are allocated based on measurable drivers of expense, e.g., head count. When a clear and measurable driver cannot be identified, shared expenses are allocated on a financial basis that is consistent with the company's management system, e.g., advertising expense is allocated based on the gross profits of the segments. A portion of the shared expenses, which are recorded in net income, are not allocated to the segments. These expenses are associated with the elimination of internal transactions and other miscellaneous items.

The following tables reflect the results of operations of the company's segments consistent with the management and measurement system utilized within the company. Performance measurement is based on pre-tax income. These results are used, in part, by senior management, both in evaluating the performance of, and in allocating resources to, each of the segments.

Management System Segment View

($ in millions)

	Global Services Segments					
For the year ended December 31:	Global Technology Services	Global Business Services	Software	Systems and Technology	Global Financing	Total Segments
2012						
External revenue	$40,236	$18,566	$25,448	$17,667	$2,013	$103,930
Internal revenue	1,166	719	3,274	676	2,060	7,896
Total revenue	$41,402	$19,286	$28,722	$18,343	$4,073	$111,826
Pre-tax income	$ 6,961	$ 2,983	$10,810	$ 1,227	$2,034	$ 24,015
Revenue year-to-year change	(1.7)%	(4.0)%	1.8%	(7.5)%	(2.9)%	(2.3)%
Pre-tax income year-to-year change	10.8%	(0.8)%	8.4%	(24.9)%	1.1%	4.8%
Pre-tax income margin	16.8%	15.5%	37.6%	6.7%	49.9%	21.5%
2011						
External revenue	$40,879	$19,284	$24,944	$18,985	$2,102	$106,194
Internal revenue	1,242	797	3,276	838	2,092	8,246
Total revenue	$42,121	$20,081	$28,219	$19,823	$4,195	$114,440
Pre-tax income	$ 6,284	$ 3,006	$ 9,970	$ 1,633	$2,011	$ 22,904
Revenue year-to-year change	6.6%	5.6%	10.9%	5.6%	2.8%	7.1%
Pre-tax income year-to-year change	14.3%	18.1%	5.3%	12.2%	2.8%	9.5%
Pre-tax income margin	14.9%	15.0%	35.3%	8.2%	47.9%	20.0%
2010						
External revenue	$38,201	$18,223	$22,485	$17,973	$2,238	$ 99,120
Internal revenue	1,313	798	2,950	804	1,842	7,707
Total revenue	$39,514	$19,021	$25,436	$18,777	$4,080	$106,827
Pre-tax income	$ 5,499	$ 2,546	$ 9,466	$ 1,456	$1,956	$ 20,923
Revenue year-to-year change	2.0%	2.6%	5.7%	9.8%	0.1%	4.2%
Pre-tax income year-to-year change	0.3%	1.8%	13.8%	12.1%	13.5%	8.3%
Pre-tax income margin	13.9%	13.4%	37.2%	7.8%	48.0%	19.6%

Reconciliations of IBM as Reported

($ in millions)

For the year ended December 31:	2012	2011	2010
Revenue			
Total reportable segments	$111,826	$114,440	$106,827
Other revenue and adjustments	577	722	750
Elimination of internal transactions	(7,896)	(8,246)	(7,707)
Total IBM consolidated revenue	$104,507	$106,916	$ 99,870

($ in millions)

For the year ended December 31:	2012	2011	2010
Pre-tax income			
Total reportable segments	$24,015	$22,904	$20,923
Amortization of acquired intangible assets	(703)	(629)	(512)
Acquisition-related charges	(36)	(46)	(46)
Non-operating retirement-related (costs)/income	(538)	72	414
Elimination of internal transactions	(1,197)	(1,243)	(957)
Unallocated corporate amounts*	361	(56)	(98)
Total IBM consolidated pre-tax income	$21,902	$21,003	$19,723

* The 2012 amount includes the gain related to the Retail Store Solutions divestiture. The 2011 amount includes gains related to the sale of Lenovo common stock.

Immaterial Items

Investment in Equity Alliances and Equity Alliances Gains/(Losses)

The investments in equity alliances and the resulting gains and (losses) from these investments that are attributable to the segments did not have a material effect on the financial position or the financial results of the segments.

Segment Assets and Other Items

Global Technology Services assets are primarily plant, property and equipment including the assets associated with the outsourcing business, accounts receivable, goodwill, acquired intangible assets, deferred services arrangement transition costs and maintenance parts inventory. Global Business Services assets are primarily goodwill and accounts receivable. Software assets are mainly goodwill, acquired intangible assets and accounts receivable. Systems and Technology assets are primarily plant, property and equipment, goodwill, manufacturing inventory and accounts receivable. Global Financing assets are primarily financing receivables and fixed assets under operating leases.

To ensure the efficient use of the company's space and equipment, several segments may share plant, property and equipment assets. Where assets are shared, landlord ownership of the assets is assigned to one segment and is not allocated to each user segment. This is consistent with the company's management system and is reflected accordingly in the table on page 137. In those cases, there will not be a precise correlation between segment pre-tax income and segment assets.

Similarly, the depreciation amounts reported by each segment are based on the assigned landlord ownership and may not be consistent with the amounts that are included in the segments' pre-tax income. The amounts that are included in pre-tax income reflect occupancy charges from the landlord segment and are not specifically identified by the management reporting system. Capital expenditures that are reported by each segment also are consistent with the landlord ownership basis of asset assignment.

Global Financing amounts for interest income and interest expense reflect the interest income and interest expense associated with the Global Financing business, including the intercompany financing activities discussed on page 24, as well as the income from investment in cash and marketable securities. The explanation of the difference between cost of financing and interest expense for segment presentation versus presentation in the Consolidated Statement of Earnings is included on page 66 of the Management Discussion.

Management System Segment View

($ in millions)

For the year ended December 31:	Global Services Segments: Global Technology Services	Global Business Services	Software	Systems and Technology	Global Financing	Total Segments
2012						
Assets	$15,884	$8,022	$26,291	$8,232	$38,882	$97,310
Depreciation/amortization of intangibles*	1,597	75	1,157	786	853	4,470
Capital expenditures/investments in intangibles	1,760	42	618	1,106	708	4,233
Interest income	—	—	—	—	1,942	1,942
Interest expense	—	—	—	—	410	410
2011						
Assets	$15,475	$8,078	$23,926	$7,649	$36,427	$91,557
Depreciation/amortization of intangibles*	1,713	83	1,062	737	1,145	4,739
Capital expenditures/investments in intangibles	1,838	56	469	1,032	930	4,325
Interest income	—	—	—	—	2,139	2,139
Interest expense	—	—	—	—	538	538
2010						
Assets	$15,560	$8,007	$22,625	$7,287	$35,813	$89,292
Depreciation/amortization of intangibles*	1,632	75	992	784	1,417	4,900
Capital expenditures/investments in intangibles	1,511	52	463	1,163	1,246	4,434
Interest income	—	—	—	—	2,116	2,116
Interest expense	—	—	—	—	548	548

*Segment pre-tax income does not include the amortization of intangible assets.

Reconciliations of IBM as Reported

($ in millions)

At December 31:	2012	2011	2010
Assets			
Total reportable segments	$ 97,310	$ 91,557	$ 89,292
Elimination of internal transactions	(4,943)	(5,407)	(5,515)
Unallocated amounts			
Cash and marketable securities	9,779	10,575	10,113
Notes and accounts receivable	3,769	3,526	3,762
Deferred tax assets	5,194	4,865	4,494
Plant, other property and equipment	2,555	2,918	3,067
Pension assets	945	2,837	3,060
Other	4,604	5,562	5,178
Total IBM consolidated assets	$119,213	$116,433	$113,452

Major Clients

No single client represented 10 percent or more of the company's total revenue in 2012, 2011 or 2010.

Geographic Information

The following provides information for those countries that are 10 percent or more of the specific category.

Revenue*

($ in millions)

For the year ended December 31:	2012	2011	2010
United States	$ 36,270	$ 37,041	$35,581
Japan	10,697	10,968	10,701
Other countries	57,540	58,906	53,589
Total IBM consolidated revenue	$104,507	$106,916	$99,870

*Revenues are attributed to countries based on the location of the client.

Plant and Other Property-Net

($ in millions)

At December 31:	2012	2011	2010
United States	$ 6,555	$ 6,271	$ 6,134
Other countries	6,299	6,186	6,298
Total	$12,854	$12,457	$12,432

Revenue by Classes of Similar Products or Services

The following table presents external revenue for similar classes of products or services within the company's reportable segments. Within Global Technology Services and Global Business Services, client solutions often include IBM software and systems and other suppliers' products if the client solution requires it. Within Software, product license charges and ongoing subscription and support are reported as Software, and software as a service, consulting, education, training and other product-related services are reported as Services. Within Systems and Technology, Microelectronics original equipment manufacturer (OEM) revenue is primarily from the sale of semiconductors. Microelectronics Services revenue includes circuit and component design services and technology and manufacturing consulting services. See "Description of the Business," beginning on page 21 for additional information.

($ in millions)

For the year ended December 31:	2012	2011	2010
Global Technology Services			
Services	$31,161	$31,746	$29,367
Maintenance	7,343	7,515	7,250
Systems	1,574	1,478	1,409
Software	159	140	175
Global Business Services			
Services	$18,216	$18,956	$17,858
Software	208	211	236
Systems	142	118	129
Software			
Software	$23,144	$22,921	$20,882
Services	2,304	2,022	1,603
Systems and Technology			
Servers	$11,980	$12,362	$11,619
Storage	3,411	3,619	3,420
Microelectronics OEM	1,572	1,975	1,938
Retail Store Solutions	357	753	674
Microelectronics Services	346	277	321
Global Financing			
Financing	$ 1,471	$ 1,612	$ 1,580
Used equipment sales	542	490	659

Note U.
Subsequent Events

On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law extending several business tax provisions through 2013. Certain of these provisions were reinstated retroactively to January 1, 2012. Accounting guidance requires that the effects of new legislation be recognized upon enactment. Accordingly, the 2012 retroactive impact of the legislation, which is a tax benefit of approximately $135 million, will be included in the company's first-quarter 2013 tax provision.

On January 29, 2013, the company announced that the Board of Directors approved a quarterly dividend of $0.85 per common share. The dividend is payable March 9, 2013 to shareholders of record on February 8, 2013.

On February 5, 2013, the company issued $1 billion of 5-year fixed-rate bonds with a 1.25 percent coupon, and $1 billion of 2-year floating-rate bonds priced at three month London Interbank Offered Rate (LIBOR) minus two basis points.

($ in millions except per share amounts)

For the year ended December 31:	2012	2011	2010	2009	2008
Revenue	$104,507	$106,916	$ 99,870	$ 95,758	$103,630
Net income	$ 16,604	$ 15,855	$ 14,833	$ 13,425	$ 12,334
Operating (non-GAAP) earnings*	$ 17,627	$ 16,318	$ 15,023	$ 13,452	$ 12,293
Earnings per share of common stock					
Assuming dilution	$ 14.37	$ 13.06	$ 11.52	$ 10.01	$ 8.89
Basic	$ 14.53	$ 13.25	$ 11.69	$ 10.12	$ 9.02
Diluted operating (non-GAAP)*	$ 15.25	$ 13.44	$ 11.67	$ 10.03	$ 8.86
Cash dividends paid on common stock	$ 3,773	$ 3,473	$ 3,177	$ 2,860	$ 2,585
Per share of common stock	3.30	2.90	2.50	2.15	1.90
Investment in property, plant and equipment	$ 4,082	$ 4,108	$ 4,185	$ 3,447	$ 4,171
Return on IBM stockholders' equity	81.6%	71.2%	66.8%	80.4%	48.7%

At December 31:	2012	2011	2010	2009	2008
Total assets	$119,213	$116,433	$113,452	$109,022	$109,524
Net investment in property, plant and equipment	13,996	13,883	14,096	14,165	14,305
Working capital	5,807	8,805	7,554	12,933	6,568
Total debt	33,269	31,320	28,624	26,099	33,926
Total equity	18,984	20,236	23,172	22,755	13,584

*Refer to page 62 of the company's first-quarter 2011 Form 10-Q filed on April 26, 2011 for the reconciliation of non-GAAP financial information for the years 2008 through 2010. Also see "GAAP Reconciliation," on page 38 for the reconciliation of non-GAAP financial information for 2012 and 2011.

($ in millions except per share amounts and stock prices)

2012	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
Revenue	$24,673	$25,783	$24,747	$29,304	$104,507
Gross profit	$11,118	$12,281	$11,732	$15,167	$ 50,298
Net income	$ 3,066	$ 3,881	$ 3,824	$ 5,833	$ 16,604
Operating (non-GAAP) earnings*	$ 3,265	$ 4,077	$ 4,155	$ 6,129	$ 17,627
Earnings per share of common stock					
Assuming dilution	$ 2.61	$ 3.34	$ 3.33	$ 5.13	$ 14.37**
Basic	$ 2.65	$ 3.38	$ 3.36	$ 5.19	$ 14.53**
Diluted operating (non-GAAP)*	$ 2.78	$ 3.51	$ 3.62	$ 5.39	$ 15.25**
Dividends per share of common stock	$ 0.75	$ 0.85	$ 0.85	$ 0.85	$ 3.30
Stock prices*					
High	$209.12	$210.69	$208.32	$211.79	
Low	177.34	187.00	181.85	184.78	

($ in millions except per share amounts and stock prices)

2011	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
Revenue	$24,607	$26,666	$26,157	$29,486	$106,916
Gross profit	$10,858	$12,385	$12,173	$14,722	$ 50,138
Net income	$ 2,863	$ 3,664	$ 3,839	$ 5,490	$ 15,855
Operating (non-GAAP) earnings*	$ 2,990	$ 3,777	$ 3,954	$ 5,597	$ 16,318
Earnings per share of common stock					
Assuming dilution	$ 2.31	$ 3.00	$ 3.19	$ 4.62	$ 13.06**
Basic	$ 2.34	$ 3.04	$ 3.23	$ 4.68	$ 13.25**
Diluted operating (non-GAAP)*	$ 2.41	$ 3.09	$ 3.28	$ 4.71	$ 13.44**
Dividends per share of common stock	$ 0.65	$ 0.75	$ 0.75	$ 0.75	$ 2.90
Stock prices*					
High	$166.05	$172.87	$185.21	$194.56	
Low	147.05	162.33	157.54	173.29	

*Refer to page 61 of the company's first-quarter 2012 Form 10-Q filed on April 24, 2012, pages 75 and 76 of the company's second-quarter 2012 Form 10-Q filed on July 31, 2012, pages 75 and 76 of the company's third-quarter 2012 Form 10-Q filed on October 30, 2012 and page 43 under the heading "GAAP Reconciliation," for the reconciliation of non-GAAP information for the quarterly periods of 2012 and 2011. Also see "GAAP Reconciliation," on page 38 for the reconciliation of non-GAAP financial information for full-year 2012 and 2011.

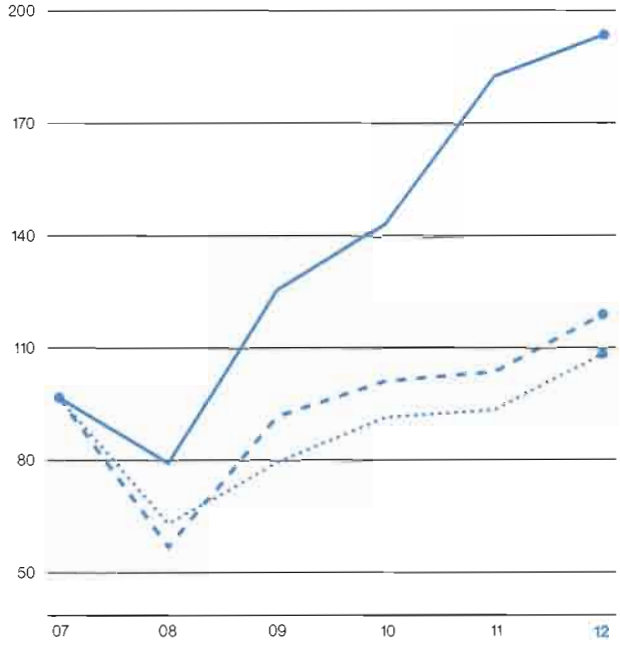
**Earnings Per Share (EPS) in each quarter is computed using the weighted-average number of shares outstanding during that quarter while EPS for the full year is computed using the weighted-average number of shares outstanding during the year. Thus, the sum of the four quarters' EPS does not equal the full-year EPS.

* The stock prices reflect the high and low prices for IBM's common stock on the New York Stock Exchange composite tape for the periods presented.

Comparison of Five-Year Cumulative Total Return for IBM, S&P 500 Stock Index and S&P Information Technology Index

The adjacent graph compares the five-year cumulative total returns for IBM common stock with the comparable cumulative return of certain Standard & Poor's (S&P) indices. Due to the fact that IBM is a company included in the S&P 500 Stock Index, the SEC's rules require the use of that index. Under those rules, the second index used for comparison may be a published industry or line-of-business index. The S&P Information Technology Index is such an index. IBM is also included in this index.

The graph assumes $100 invested on December 31 (of the initial year shown in the graph) in IBM common stock and $100 invested on the same date in each of the S&P indices. The comparisons assume that all dividends are reinvested.



(U.S. Dollar)	2007	2008	2009	2010	2011	2012
IBM Common Stock	$100.00	$79.24	$125.67	$143.62	$183.01	$193.87
S&P 500 Index	100.00	63.00	79.67	91.67	93.61	108.59
S&P Information Technology Index	100.00	56.86	91.96	101.32	103.77	119.15

Board of Directors

Alain J.P. Belda
Managing Director
Warburg Pincus LLC

William R. Brody
President
Salk Institute for Biological Studies

Kenneth I. Chenault
Chairman and Chief Executive Officer
American Express Company

Michael L. Eskew
Retired Chairman and
Chief Executive Officer
United Parcel Service, Inc.

David N. Farr
Chairman and Chief Executive Officer
Emerson Electric Co.

Shirley Ann Jackson
President
Rensselaer Polytechnic Institute

Andrew N. Liveris
Chairman, President and
Chief Executive Officer
The Dow Chemical Company

W. James McNerney, Jr.
Chairman, President and
Chief Executive Officer
The Boeing Company

James W. Owens
Retired Chairman and
Chief Executive Officer
Caterpillar Inc.

Virginia M. Rometty
Chairman, President and
Chief Executive Officer
IBM

Joan E. Spero
Adjunct Senior Research Scholar
Columbia University School of International and Public Affairs

Sidney Taurel
Senior Advisor
Capital Royalty L.P.

Lorenzo H. Zambrano
Chairman and
Chief Executive Officer
CEMEX, S.A.B. de C.V.

Senior Leadership

Rodney C. Adkins
Senior Vice President
Systems and Technology Group

Colleen F. Arnold
Senior Vice President
Application Management Services

James P. Bramante
Senior Vice President
Growth Markets

Michelle H. Browdy
Vice President, Assistant
General Counsel and Secretary

Erich Clementi
Senior Vice President
Global Technology Services

Michael E. Daniels
Senior Vice President

Robert F. Del Bene
Vice President and Treasurer

Bruno V. Di Leo Allen
Senior Vice President
Sales and Distribution

Jon C. Iwata
Senior Vice President
Marketing and Communications

James J. Kavanaugh
Vice President and Controller

John E. Kelly III
Senior Vice President and Director
Research

Robert J. LeBlanc
Senior Vice President
Middleware Software Group

Mark Loughridge
Senior Vice President and
Chief Financial Officer
Finance and Enterprise Transformation

J. Randall MacDonald
Senior Vice President
Human Resources

Steven A. Mills
Senior Vice President
and Group Executive
Software and Systems

Michael D. Rhodin
Senior Vice President
Software Solutions Group

Virginia M. Rometty
Chairman, President and
Chief Executive Officer

Linda S. Sanford
Senior Vice President
Enterprise Transformation

Timothy S. Shaughnessy
Senior Vice President
GTS Services Delivery

Bridget A. van Kralingen
Senior Vice President
Global Business Services

Robert C. Weber
Senior Vice President
Legal and Regulatory Affairs, and General Counsel

IBM Stockholder Services

Stockholders with questions about their accounts should contact:

Computershare Trust Company, N.A., P.O. Box 43078, Providence, Rhode Island 02940-3078 (888) IBM-6700

Investors residing outside the United States, Canada and Puerto Rico should call (781) 575-2727

Stockholders can also reach Computershare Trust Company, N.A. by e-mail at: ibm@computershare.com

Hearing-impaired stockholders with access to a telecommunications device (TDD) can communicate directly with Computershare Trust Company, N.A., by calling (800) 490-1493. Stockholders residing outside the United States, Canada and Puerto Rico should call (781) 575-2694.

IBM on the Internet

Topics featured in this Annual Report can be found on the IBM home page on the Internet (www.ibm.com). Financial results, news on IBM products, services and other activities can also be found at that address.

IBM files reports with the Securities and Exchange Commission (SEC), including the annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any other filings required by the SEC.

IBM's website (www.ibm.com) contains a significant amount of information about IBM, including the company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC (www.ibm.com/investor). These materials are available free of charge on or through our website.

The public may read and copy any materials the company files with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains an Internet site (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

IBM Investor Services Program

The Investor Services Program brochure outlines a number of services provided for IBM stockholders and potential IBM investors, including the reinvestment of dividends, direct purchase and the deposit of IBM stock certificates for safekeeping. Call (888) IBM-6700 for a copy of the brochure. Investors residing outside the United States, Canada and Puerto Rico should call (781) 575-2727.

Investors with other requests may write to: IBM Stockholder Relations, 1 New Orchard Road, Armonk, New York 10504

IBM Stock

IBM common stock is listed on the New York Stock Exchange, the Chicago Stock Exchange, and outside the United States.

Stockholder Communications

Stockholders can get quarterly financial results, a summary of the Annual Meeting remarks, and voting results from the meeting by calling (914) 499-7777, by sending an e-mail to infoibm@us.ibm.com, or by writing to International Business Machines Corporation, 1 New Orchard Road, M/D 325, Armonk, New York 10504.

Annual Meeting

The IBM Annual Meeting of Stockholders will be held on Tuesday, April 30, 2013, at 10 a.m. in the Von Braun Center, 700 Monroe Street SW, Huntsville, Alabama.

Literature for IBM Stockholders

The literature mentioned below on IBM is available without charge from:

Computershare Trust Company, N.A., P.O. Box 43078, Providence, Rhode Island 02940-3078 (888) IBM-6700

Investors residing outside the United States, Canada and Puerto Rico should call (781) 575-2727

The company's annual report on Form 10-K and the quarterly reports on Form 10-Q provide additional information on IBM's business. The 10-K report is released by the end of February; 10-Q reports are released by early May, August and November.

An audio recording of the 2012 Annual Report will be available for sight-impaired stockholders in June 2013.

The IBM Corporate Responsibility Report highlights IBM's values and its integrated approach to corporate responsibility, including its innovative strategies for transforming communities through global citizenship. The Report Summary is available in printed form and downloadable at www.ibm.com/responsibility. The full Corporate Responsibility Report is online with downloadable sections at www.ibm.com/responsibility.

General Information

Stockholders of record can receive online account information and answers to frequently asked questions regarding stockholder accounts on the Internet (www.ibm.com/investor). Stockholders of record can also consent to receive future IBM Annual Reports and Proxy Statements online through the Internet at this site.

For answers to general questions about IBM from within the continental United States, call (800) IBM-4YOU. From outside the United States, Canada and Puerto Rico, call (914) 499-1900.

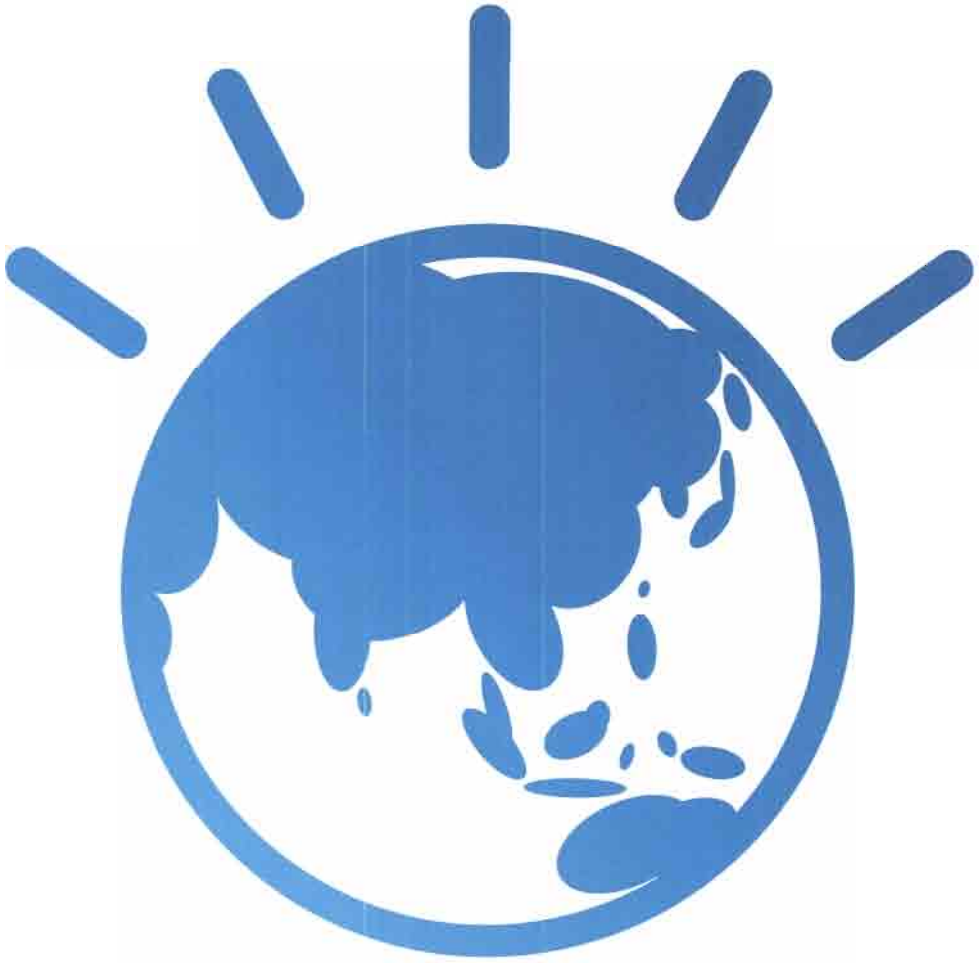


International Business Machines Corporation
1 New Orchard Road, Armonk, New York 10504
(914) 499-1900

AIX, Algorithmics, BigFix, Cast Iron, Coremetrics, DemandTec, Emptoris, i2, IBM, IBM SmartCloud, iCluster, Initiate Systems, Jazz, Lombardi, Lotus, Netezza, OpenPages, Power, POWER7+, Power Systems, PureSystems, Rational, Smarter Analytics, Smarter Cities, Smarter Commerce, Smarter Planet, Sterling Commerce, Storwize, System x, System z, Tealeaf, Tivoli, TRIRIGA, Unica, Vivisimo, Watson, WebSphere, Worklight, XIV and zEnterprise are trademarks or registered trademarks of International Business Machines Corporation or its wholly owned subsidiaries. *Jeopardy!* is a registered trademark of Jeopardy Productions, Inc. Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both. Oracle is a registered trademark of Oracle Corporation. UNIX is a registered trademark of the Open Group in the United States and other countries. Other company, product and service names may be trademarks or service marks of others.

Printed in the U.S.A. COL03002-USEN-03

Design: VSA Partners, Inc. Illustration: The Design Surgery Photography: Jens Umbach Printing: RR Donnelley



IBM

3. SAMPLE TRAINING COURSE MAP AND SYLLABUSES

Page Left Intentionally Blank

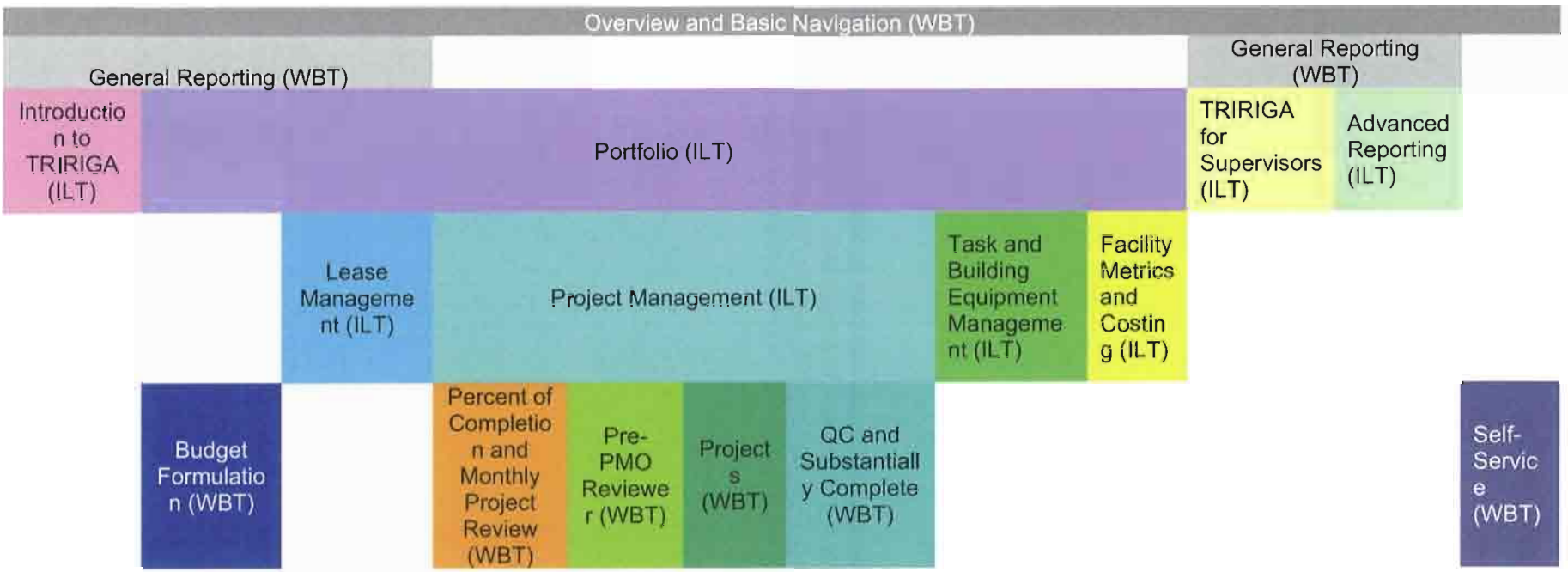
TRIRIGA Training Course Map and Syllabuses

TRIRIGA Training Courses

Pictured below is the list of instructor-led and web-based courses that compose the TRIRIGA training as well as a course map.

General Web-based Courses	Instructor-Led Courses	Web-based Courses
▪ Overview and Basic Navigation ▪ General Reporting	▪ Introduction to TRIRIGA ▪ Portfolio ▪ Lease Management ▪ Project Management ▪ Task and Building Equipment Management ▪ Facility Metrics and Costing ▪ TRIRIGA for Supervisors ▪ Advanced Reporting	▪ Budget Formulation ▪ Percent of Completion and Monthly Project Review ▪ Pre-PMO Reviewer ▪ Projects ▪ QC and Substantially Complete ▪ Self-Service

TRIRIGA Training Course Map



Overview and Navigation (WBT)

Description:
The Overview and Navigation web-based training course covers navigating through the TRIRIGA system and highlights most of the system's basic user interface features, forms, fields, naming conventions and icons.

Duration:
2 hours

Audience:
All TRIRIGA users

Prerequisites:
None

General Reporting (WBT)

Description:
The General Reporting web-based training course covers how to navigate, run and edit base product and customized reports. Users will learn how to navigate to, and filter through, the available base product and customized TRIRIGA reports, how to run and export reports, how to copy frequently used reports into their My Reports tab, and how to edit copied reports.

Duration:
2 hours

Audience:
All TRIRIGA users

Prerequisites:
Overview and Basic Navigation (WBT)

Introduction to TRIRIGA (ILT)

Description:
The Introduction to TRIRIGA course provides end-users with an overview of TRIRIGA and the key functionalities of the application as utilized by the organization and an introduction to business processes that govern the use of TRIRIGA. Specific course topics include Application Features, Portfolio Management, Contract Administration, Entering Work Into TRIRIGA, Work Requests and Work Tasks, Maintenance and Sustainability, Project Management, TRIRIGA Quality Control, Reporting, and TRIRIGA Support and Resources.

Duration:
4 hours

Audience:
All TRIRIGA Users

Prerequisites:
- Overview and Basic Navigation (WBT)
- General Reporting (WBT)

Portfolio (ILT)

Description:
In the Portfolio course, users receive an overview of the primary components of the TRIRIGA application to include facilities, real estate, projects, and operations. Users learn how to create and revise Location data including property, building, land, structure and floors. Instruction is provided on how to access and use the Organization, People and Location data of TRIRIGA. Users also learn how to submit portfolio records for approval and how to process returned records.

Duration:
1 day

Audience:
Users responsible for creating, approving, or retiring any records within the TRIRIGA system (Most users should complete this course.)

Prerequisites:
- Overview and Basic Navigation (WBT)
- General Reporting (WBT)

Lease Management (ILT)

Description:
In the Lease Management course, users learn how to create and manage real estate lease obligations with TRIRIGA giving emphasis on storing contract documentation, conditions, clauses, options, and financial transactions in one comprehensive repository. Users learn to set up automated notifications and alerts about upcoming critical dates including lease expirations, required actions, and contract options to avoid overpayment, late fees, and missed opportunities. Users also learn how to create, revise, expire and terminate leases and the associated clauses, and the Rent Reconciliation process is explained.

Duration:
1 day

Audience:
Users responsible for capturing lease related information for all non-owned facilities

Prerequisites:
- Overview and Basic Navigation (WBT)
- Portfolio

Project Management (ILT)

Description:
The Project Management course teaches users how to create capital and non-capital projects, submit the projects for Quality Control, create schedules, import and export schedules, create potential change orders, and create change orders and risks. Users also learn how to submit percent of completion for capital projects, complete Substantially Complete Forms and complete non-capital projects.

Duration:
2 days

Audience:
Individuals within the organization that create, manage, approve, and/or complete capital and/or non-capital projects

Prerequisites:
- Overview and Basic Navigation (WBT)
- Portfolio (ILT)

Task and Building Equipment Management (ILT)

Description:
In this course, users are introduced to functionality in TRIRIGA necessary to manage all aspects of the operations and maintenance of building equipment and the real property portfolio. Users learn about the portfolio objects like Specifications, Assets and Work Procedures necessary in managing maintenance operations. They also learn how to create building equipment assets together with any warrantees or permits. The other main areas covered in depth are demand maintenance, including work requests and tasks (work orders) and planned (preventive) maintenance.

Duration:
1 day

Audience:
This course is recommended for all project managers, environmental specialists and any individuals within any PMOs or Offices that manage deficiencies/opportunities, execute maintenance, and/or perform environmental mitigation measures.

Prerequisites:
- Overview and Basic Navigation (WBT)
- Portfolio (ILT)

Facility Metrics and Costing (ILT)

Description:
In this course users are introduced to the concepts and functionality in TRIRIGA necessary to manage critical information needed to track and provide a quantifiable index to understand the condition of the real property portfolio. Specifically they learn about the importance of Facility Condition Assessments and the Facility Condition Index. They will also learn to create Building System Items and enter the values necessary to drive the condition and risk indices. The users will also create and manage opportunities together with the associated opportunity costing functions and run analysis based on the data input. Finally they will learn the reports that can be generated to determine the condition of a building, property or the entire portfolio.

Duration:
1 day

Audience:
Project Managers
Environmental Users
Energy Audit Users

Prerequisites:
- Overview and Basic Navigation (WBT)
- Portfolio (ILT)

TRIRIGA for Supervisors (ILT)

Description:
In this course, supervisors are given an overview of TRIRIGA and the tools for monitoring projects and overseeing Real Property records. Particular emphasis is placed on the areas of TRIRIGA that can aid supervisors in their roles as stewards of the organization's resources and leaders responsible for carrying out the organization's mission. Specific course topics include the supervisory tools on the Home Portal, Portfolio hierarchies, locating and viewing contracts (including Leases, Warranties/Permits, Space Use Agreements, Service Agreements, Blanket Purchase Orders), viewing project information, finding sustainability and energy data, viewing maintenance actions, identifying and assigning tasks, the quality assurance process and general reports.

Duration:
1 day

Audience:
Facility Managers

Prerequisites:
- Overview and Basic Navigation (WBT)
- General Reporting (WBT)

Advanced Reporting (ILT)

Description:
In this course, users move beyond the basics of running reports in TRIRIGA and explore several advanced reporting capabilities. Users learn how to run and edit reports from the base product, and how to create and run customized reports. Users will also learn how to export reports, and how to copy frequently used reports to their My Reports tab and then edit them for their specific needs.

Please Note: Advanced Reporting is a technical course and requires that attendees have a solid foundation in the various areas of TRIRIGA.

Duration:
1 day

Audience:
Report Writers

Prerequisites:
- Overview and Basic Navigation (WBT)
- General Reporting (WBT)

Budget Formulation (WBT)

Description:
The Budget Formulation WBT teaches users how to; create formulation projects, associate active facility projects to a formulation project, associate one formulation requirement to another formulation requirement and how to run the Budget Formulation Report. Users also gain an understanding of how the budget formulation process works in TRIRIGA.

Duration:
2 hours

Audience:
Individuals within organization's PMOs/Offices that create budget formulation records and individuals within the organization's Budget Office.

Prerequisites:
- Overview and Basic Navigation (WBT)
- Portfolio (ILT)

Percent of Completion and Monthly Project Review (WBT)

Description:
The Percent of Completion/Monthly Project Review WBT covers how to review, modify, approve, and return technical percent of completion submissions as well as processing monthly capital project reviews.

Duration:
2 hours

Audience:
Individuals who review and modify submitted technical percent of completions for active capital projects and/or participate in the Monthly Capital Project Review to ensure that planned end dates are correct.

Prerequisites:
- Overview and Basic Navigation (WBT)
- Portfolio (ILT)
- Project Management (ILT)

Pre-PMO Reviewer (WBT)

Description:
The Pre-PMO Reviewer WBT covers how to technically review, approve and/or return requests to activate location and lease records, as well as tips and best practices to ensure data integrity and validity. In order for locations (property, building, floor, structure, land) and leases to be activated in TRIRIGA to go to SAP, they must be approved by a PMO Pre-Reviewer. A PMO Pre-Reviewer document is used to facilitate the lesson.

Duration:
2 hours

Audience:
Pre-PMO Reviewers

Prerequisites:
- Overview and Basic Navigation (WBT)
- Portfolio (ILT)
- Project Management (ILT)

Projects (WBT)

Description:
The Projects WBT provides instructions for creating a project, applying a cost code template and submitting the project for quality control. Participants will learn how to update the Plan End Date, submit a technical percent of completion and submit a Substantially Complete Form for capital projects. This is a condensed version of the instructor-led project course and provides the essentials for creating, managing and completing a project in TRIRIGA.

Duration:
2 hours

Audience:
Individuals within the organization that create, manage, approve, and/or complete capital and/or non-capital projects.

Prerequisites:
- Overview and Basic Navigation (WBT)
- Portfolio (ILT)
- Project Management (ILT)

QC and Substantially Complete (WBT)

Description:
The Quality Control WBT covers how to review, approve and return requests to quality control projects as well as how to review, approve and return Substantially Complete Forms. In order for projects in TRIRIGA to go to SAP they must be quality controlled. If projects are not in SAP, purchase requisitions and purchase orders cannot be entered into SAP. A Quality Control Guidance document will be used to facilitate the Quality Control lesson.

Duration:
2 hours

Audience:
Individuals who conduct quality control reviews of projects and/or review and process Substantially Complete Forms.

Prerequisites:
- Overview and Basic Navigation (WBT)
- Portfolio (ILT)
- Project Management (ILT)

Self-Service (WBT)

Description:
In this course, users are introduced to the TRIRIGA Self Service User's Home Portal for creating, managing and viewing requests, and to the TRIRIGA Portfolio module for viewing geographies, locations, organizations, people, and building equipment assets. Users then learn how to create a facilities request for maintenance, repairs, operations or environmental issues for themselves or behalf of another requestor or location. The user also learns how to revise or update a request and how to add attachments such as a photo of the problem or an estimate for repair.

Duration:
2 hours

Audience:
Self-Service Requestors

Prerequisites:
- Overview and Basic Navigation (WBT)

4. SAMPLE DOCUMENTATION

Page Left Intentionally Blank

IBM Cúram Social Program Management



Cúram Medical Assistance with Spend Down Guide

Version 6.0.5

IBM Cúram Social Program Management



Cúram Medical Assistance with Spend Down Guide

Version 6.0.5

Cúram Medical Assistance With Spend Down Guide

REMOVED DUE TO COPYRIGHT

5. Date Warehouse and DataMart Entity Relationship Diagrams (ERD's)

Page Left Intentionally Blank

Date Warehouse and DataMart Entity Relationship Diagrams (ERD's)

REMOVED DUE TO COPYRIGHT



Printed in USA



Proposal to Provide Nebraska Medicaid Eligibility and Enrollment Solution

Prepared for:

State of Nebraska Administrative Services
Material Division Purchasing Bureau

Submitted in Response to RFP: 4544Z1
January 21, 2014

Prepared by: Wipro LLC

– ORIGINAL –

Technical Proposal Volume 3 of 3
(APPENDIX – B, C, D)

WIPRO
Applying Thought

Appendix B

The Functional Requirements Traceability Matrix (RTM) is used to document and track the project requirements from the proposal through to testing to verify that the requirement has been completely fulfilled. The Contractor will be responsible for maintaining the set of Baseline Requirements directly related to the configuration of the EES. Additions, modifications, and deletions to these requirements will be added and modified throughout the project so it is imperative that a current version of the matrix be maintained at all times.

Bidders must provide an initial RTM as part of its proposal. The RTM shall follow the instructions below. The Bidder must state requirements exactly as they are provided in this RFP. The Bidder must indicate how it will achieve full compliance (i.e., requirement fulfilled 100%). Any requirements that the Bidder cannot attest to full compliance must be documented as outlined in Appendix D: Gap Analysis.

Bidders are required to provide a response, using the appropriate codes provided in the tables below, for each requirements listed in the Functional Requirements Response Matrix. Scoring for each requirement will directly relate to the Ability Code indicated by the Bidder.

Ability Code	Condition	Description
S	Standard Function	The proposed EES fully satisfies the requirement as stated. The Bidder must describe how the requirement is satisfied by the EES.
W	Workflow or System Configuration Required	Current functionality of the proposed EES exists in the EES and can be modified by a system administrator to meet this requirement. The Bidder must describe how the requirement will be satisfied.
M	Modification Required	The proposed EES requires a modification to existing functionality to meet this requirement which requires a source code modification. The EES will be modified to satisfy the requirements as stated or in a different format. The Bidder must describe the modifications. If the modification requires 1000 or more hours the Bidder must also complete Appendix D Gap Analysis.
F	Planned for Future Release	This functionality is planned for a future release. The Bidder must describe how the requirement will be satisfied by the EES and when the release will be available.
C	Custom Design and Development	The proposed EES requires new functionality to meet this requirement which requires a source code addition. The Bidder must describe the feature and its value. If the custom design and development requires 1000 or more hours the Bidder must also complete Appendix D Gap Analysis.
N	Cannot Meet Requirement	The proposed EES will not satisfy the requirement. The Bidder must explain why the requirement cannot be satisfied. The Bidder must complete Appendix D Gap Analysis.
O	Other Software	If the requirement is to be satisfied through the use of a separate software package(s), the Bidder must identify those package(s) and describe how the functionality is integrated into the base system.

General Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 001	The EES shall be branded using official State of Nebraska and Nebraska Department of Health and Human Services logos, images, etc.	W	Cúram is an ADA compliant web based solution using Web 2.0 technologies. For look and feel Cúram uses Cascading Style Sheets (CSS) which separate presentation from content. By configuring the out-of-the-box CSS files, the SmartPro MedEE portals will be branded using State of Nebraska and Nebraska DHHS logos and images.
GEN 002	The EES shall provide customized local office information, through public-facing front-end (i.e. physical location of nearest local office, driving directions and name, email and phone number).	S	Cúram provides the Department with a public-facing portal, pre-integrated with the wider SmartPro MedEE. This public-facing portal provides the user with local office information, searched by zip code, including contact information (address, phone, etc.), which can further be used to obtain driving directions and locale information.
GEN 003	The EES shall ensure alignment with HIPAA security, privacy and transaction standards	S	The SmartPro MedEE solution supports applicable industry standards for eligibility and enrollment, including HIPAA security, privacy and transaction standards. The SmartPro MedEE solution involves numerous processes involving the transmission of personal information. Privacy and security are major concern while transmitting the personal data of the consumer regarding their eligibility and enrollment. The SmartPro MedEE solution includes role-based security, enabling strict compliance with HIPAA standards.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 004	The EES shall implement and support functionality to meet the requirements of the Affordable Care Act (ACA) and achieve compliance deadlines.	S	IBM Cúram for Medical Assistance is an established COTS solution for State Medicaid and CHIP Systems that has evolved in line with the ACA. Among the functionality available, new Medicaid categories (expanded Medicaid) have been introduced, existing categories collapsed, the streamlined application process has been introduced, prebuilt integration with the Federal Hub for verification purposes, introduction of the simplified Modified Adjusted Gross Income (MAGI) standard, and the calculation of Advanced Premium Tax Credits (APTC)/Cost Sharing Reductions (CSR). This prebuilt and pre-integrated solution is a key reason that a Cúram based solution will support the State in achieving the required compliance deadlines.
GEN 005	The EES shall assure that all processes, user interfaces and documents produced by the system meet applicable State and federal accessibility standards for the life of the contract.	S	The SmartPro MedEE solution, based on Cúram's ADA compliant web based solution, meets applicable State and Federal accessibility standards for all processes, user interfaces and documents produced by the system. Cúram-based portals are designed to be accessible so that persons with disabilities can use these portals effectively. Cúram-based portals conform to both the US Federal Section 508 requirements for accessibility for persons with disabilities and the Americans with Disabilities Act (ADA). Accessibility testing is an important element of the continual testing of the Cúram solution. A dedicated team focused only on accessibility testing using the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines 2.0 (WCAG 2.0). As part of the Cúram product development process, new features are continually evaluated and tested using WCAG. These guidelines are an integral part of the Cúram product development process and provide a basis for designing accessible software solutions.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 006	The EES shall separate business rules from the application logic. Business rules will be contained in a COTS rules engine.	S	The SmartPro MedEE solution includes the Cúram Expressive Rules (CER) COTS rules engine. CER rules, ultimately saved as XML, are saved and maintained separate from the main application. The web based CER Rules Editor enables dynamic creation and maintenance of CER logic in the runtime application. IBM Cúram for Medical Assistance comes with prebuilt CER eligibility rules for all supported Medicaid categories, including MAGI rules and APTC and CSR calculation rules.
GEN 007	The EES shall provide a scalable solution to allow for the incorporation of shared eligibility determination rules to support the State's phased approach.	S	The phased/incremental deployment of functionality enables the Department to support an increasing number of programs over time, on the single SmartPro MedEE. An important part of achieving this is the ability to deploy and reuse common eligibility and entitlement calculation rules. CER rules support the sharing of rules through the creation and use of common rules within and across programs. 'Common' rules can be referenced or called from higher level rules. CER XML rules enable the definition of common rules once, and then the calling of these common rules from many locations.
GEN 008	The EES will facilitate a "no wrong door" approach to insurance coverage as required in the ACA. The EES will accept account/application transfers to/from the Exchange to seamlessly facilitate eligibility determination for all Insurance Affordability Programs.	S	The SmartPro MedEE solution supports a No Wrong Door approach to insurance coverage by providing a web based portal for clients through which they can apply for State-based and Exchange-based Insurance programs, a web based portal for agency workers and call center workers to enable State workers to assist clients in obtaining insurance coverage, and the necessary web services to enable account/application transfers between the Federally Facilitated Marketplace (FFM) and SmartPro MedEE. All 'doors' connect back to the SmartPro MedEE application which is the system of record for all eligibility and entitlement decisions.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 009	The EES will allow applications and renewals via all ACA required media. E.G. Paper, online, phone, fax, in person and other commonly available electronic means.	M	The SmartPro MedEE solution supports application and renewals through all ACA required channels. 1) Paper applications received in person, through the post for via fax will be scanned and OCR'ed. The electronic image will be saved in the Document Management System. The OCR process will trigger a workflow which will attempt to process the application automatically and without agency worker intervention. Where agency worker intervention is required, due to missing data, or inability to validate the data, the workflow will notify one or more agency workers that the application needs attention. The agency worker will examine the attached OCR data and image, make the necessary updates, and submit the application for further automatic processing. This process will repeat until the application is successfully processed, and eligibility is determined. 2) Applications received online will be processed in a similar manner, with the exception that the consumer themselves will be notified of missing data or missing validations, thus putting the responsibility on the consumer to complete the application to the required level and removing this work from agency workers. 3) Applications received over the phone will be accepted and entered by the call center worker. These applications will be processed as above, with the call center worker entering the application data. Workflow configuration and integration effort will be required to connect the scanning solution to the Cúram workflow solution through the ESB, to trigger the above straight through processing.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 010	The EES shall leverage existing systems (where appropriate) and is built on system architecture that is scalable, flexible, modular and dynamic.	S	The SmartPro MedEE solution is built on a system architecture that is scalable, flexible, modular and dynamic. Scalability and flexibility are inherent in the SmartPro MedEE in support of the gradual introduction of multiple programs; Cúram has been designed from the ground up to support multiple programs, over time, on a single instance. Beyond this, scalability and flexibility are fundamental capabilities of the overall infrastructure, platform and hardware proposed.
GEN 011	The EES shall leverage connections to the federal data hub to access and verify data from participating agencies such as the IRS, federal DHHS, the Department and others. Hub – Required State - Required Financial Institutions- Future	M	A unique feature of IBM Cúram for Medical Assistance is prebuilt integration with the Federal Hub and prebuilt hooks to enable integration with other systems, such as State systems, for the verification of application data. Once the required State system interfaces are available, they will be connected to SmartPro MedEE through the ESB to these prebuilt hooks.
GEN 012	The EES shall achieve the necessary degree of interoperability between technology components to determine eligibility for Medicaid or CHIP or if the customer is not eligible for Medicaid a transfer to the FFM.	S	The SmartPro MedEE solution consists of technology components that together support the required determination of eligibility for expanded Medicaid, CHIP and Insurance Assistance Programs. Where a customer is eligible for Insurance Assistance their account and application data is transferred to the FFM.
GEN 013	The EES shall support a timed release schedule.	S	As part of our standard project initiation activities, the Wipro IBM team will work with the Department to develop acceptable release schedules, starting with the original implementation, and continuing throughout the Operations & Maintenance period. Time-boxing of non-critical changes is crucial to minimizing both risk and disruption.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 014	The EES shall support all Nebraska DHHS Medicaid programs.	W	SmartPro MedEE will support eligibility determination for all of the Department's Medicaid programs (MAGI and non-MAGI). Configuration will be required to support Nebraska non-MAGI specific programs not provided out-of-the-box with IBM Cúram for Medical Assistance and to introduce State limits and rules to those programs that are provided out-of-the-box with IBM Cúram for Medical Assistance. This gap is documented in the contained worksheet "NE Medicaid Programs". Refer to ELG 031.
GEN 015	The EES shall allow business users, as determined by the Department, to easily read/modify the eligibility determination rules.	S	The Cúram Express Rules (CER) editor enables business users to view rules diagrams which present the rules logic in graphical form. Business users can also use this editor to create new rules and enhance/modify existing rules.
GEN 016	The EES shall support client facing services and documents in English and Spanish languages.	S	The SmartPro MedEE user interface is provided by Cúram portals. The Cúram user interface supports multiple languages, including English and Spanish. Document templates will be available in English and Spanish.
GEN 017	The EES shall screen for language needs (LEP) at first point of contact	S	The Plain Writing Act of 2010 requires agencies to write clear communication that the public can understand and use. IBM Cúram Universal Access provides a SmartPro MedEE public-facing portal based on a sixth grade reading level. This public-facing portal can be further tailored to meet the specific language proficiency levels desired by the State. IBM Cúram Universal Access includes an extensive help function that provides detailed explanations of new and non-basic terminology.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 018	The EES shall provide functionality to interface with Multi-channel Workforce Management software, such as Verint.	M	In general, the Cúram application and its underlying ESB capability provide the framework to implement interfaces with minimal effort. However, actual interfaces require requirements and technical specification to fully determine scope, time, and cost.
GEN 019	The EES shall have the ability to schedule staff performing call center functions, back office functions, local office appointments, and be integrated with task manager.	M	A worker can input and maintain activities on users' calendars in support of a scheduling function. Modification effort required to integrate with SmartPro MedEE Workflow (i.e. task manager).
GEN 020	The EES shall have the ability to interface with the quality management system.	M	This requirement will be fulfilled through linkage via SmartPro MedEE's ESB, IBM's Integration Bus.
GEN 021	The EES shall have the ability to interface with the LINKS Performance Management and Training System.	S	Training courses developed for SmartPro MedEE will interface with the State's LINKS LMS using industry standard LMS protocols.
GEN 022	The EES should have the ability to measure case review and customer service contact review. It should utilize a scorecard or similar tool to provide feedback down to staff level.	W	Customer Satisfaction Surveys will be managed using Survey Monkey Enterprise Edition, allowing unlimited surveys, and PHI/HIPAA compliant protection. See PRT 014.
GEN 023	The EES shall have the ability to interface with the NE Financial and Accounting system.	W	Cúram will integrate with other systems, through its ESB. For financial and accounting systems, it will interface at the Financial Instruction Line Item (ILI) level.
GEN 024	The EES shall accommodate phone application voice signature mechanism.	M	The SmartPro MedEE will support the capture of voice signature (phone). Modification effort required to expose integration points with required devices. Effort for Cúram web service against GEN026. Also see ELG036.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 025	The EES shall validate and return address information errors as entered in the system.	M	All addresses entered in SmartPro MedEE are first checked for data format consistency such as field length and regular expression compliance. Addresses are subsequently validated for accuracy and dynamic correction using Pitney-Bowes Spectrum Universal Addressing Module.
GEN 026	The EES shall provide functionality to allow applicants to provide a signature via all ACA required modes of application.	M	The SmartPro MedEE will support the capture of voice signature (phone), signature pad signing (office), and web based acceptance (the user will select a checkbox when logged in). Modification effort required to expose integration points with required devices. Related to requirements GEN024, ELG034, ELG035, and ELG036.
GEN 027	The EES shall provide free-form narrative notes capabilities with no character limit, wrap-around text, sortable and searchable.	S	SmartPro MedEE supports free-form rich-text narrative notes with no character limits. When notes text is entered beyond the width of the input field, the text automatically wraps around onto the next line. Notes can be associated with new applications, ongoing cases, individuals and households. Notes are sortable by subject, date, status, user and priority. Browser search capability supports word search for a displayed note or notes.
GEN 028	The EES shall auto-populate notes based on predefined business rules.	S	Notes can be pre-populated and auto-created. Workflow logic can determine when to auto-populate a note and what text should be included.
GEN 029	The EES shall provide templates for notes entry.	M	SmartPro MedEE supports free-form rich-text narrative notes with no character limits. Enforcing template rules will require a modification.
GEN 030	The EES shall provide mechanism to spell-check notes.	W	Spell checking of notes is supported through browser capabilities such as iespell or Firefox spell checker. Configuration is required to enable spell checking on notes.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 031	The EES shall provide mechanism to associate notes to multiple beneficiary/households without retyping.	S	Notes can be associated with multiple beneficiaries indirectly as notes entered on a case containing a household of people will be related to everyone in the household. Support is also provided to copy and paste notes between beneficiaries and cases.
GEN 032	The EES shall provide a mechanism to automatically date/time stamp all notes.	S	All creation of notes, and updates to existing notes, are date/time stamped.
GEN 033	The EES shall provide a mechanism for eligibility workers to edit their own notes with appropriate audit trails.	S	Updates to existing notes create an audit trail containing the original note plus all date/time stamped updates to that note.
GEN 034	The EES shall provide a mechanism for all system events, including system, user and administrative actions to be auditable.	S	SmartPro MedEE supports configurable audit events. An administrator can decide what events whether user, system or admin initiated should be audited.
GEN 035	The EES shall provide a mechanism to restrict notes from being edited after the initial entry.	S	Notes, once entered, will not be updated in place. Updates to existing notes create an audit trail containing the original note plus all date/time stamped updates.
GEN 036	The EES shall allow for any data element to be exported into an industry standard format.	M	Most data can be directly exported into common industry standard formats; however, some elements will require customization to expose the data from the application. Using BI functionality (Cognos), DataMart elements can also be exported. See IER 029

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 037	The EES shall allow applicant/beneficiaries to self-report changes in their personal information online, notify the appropriate eligibility worker based on parameters described by the Department when changes are made	W	Life Events (e.g. change in address, change in marital status) enable consumers to self-report changes in personal information online. A Life Event consists of a configurable script of questions. Once complete the answers are associated with any ongoing eligibility cases for that consumer. SmartPro MedEE can be configured to automatically accept life event data submitted through the on-line portal, re-run eligibility rules and have a direct and immediate impact on eligibility. A case worker can be notified of what has occurred. Alternatively SmartPro MedEE can be configured to link the incoming data to the eligibility case and inform a user, group of users, or work queue that this data has been submitted. A user can then examine the incoming data and decide to accept or reject the changes. If changes are accepted, the eligibility rules are re-run and the eligibility status is updated. Some configuration will be required to cater for all required Nebraska change types.
GEN 038	The EES shall re-determine eligibility when a Change of Circumstance is received electronically or entered by a worker.	S	When a Change of Circumstance is received, SmartPro MedEE logic will first calculate what time period is affected by the new data received (which could be past, current or future), it will then load the eligibility rules and rates that apply for that period of time (could be multiple effective dated instances) and any other data needed that was valid during the time period. SmartPro MedEE will then re-run all eligibility rules that apply over the calculated time period, resulting in new eligibility determinations for all programs impacted.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 039	The EES shall provide the capability to view the new determination of eligibility after the change in information.	S	SmartPro MedEE maintains a history of all eligibility determinations made on a case. The newest eligibility determination for a period of time will be made immediately available to the user. If there are previous eligibility determinations for that period of time, the user will be able to access all previous determinations as needed. An eligibility determination presents a detailed and organized description of the main facts that the eligibility rules determined.
GEN 040	The EES shall place an individual from one program into another, based on a Change of Circumstance or eligibility rules, without affecting other individuals in that household.	S	When eligibility rules are initially run due to a new application for assistance, or when they are re-run due to a change in circumstance (or due to a rules change), SmartPro MedEE will always place individuals into the correct (optimal) programs. If due to a change in circumstance (e.g. Income change) the eligibility determination for the individual or for the entire household, changes, SmartPro MedEE will place the household members into the correct program(s), from an eligibility point of view. In other words if income decreases, it would be more beneficial for the consumer to be considered under Medicaid than under a subsidized insurance assistance program. Over time a history of program eligibility is maintained for all beneficiaries.
GEN 041	The EES shall provide the capability to track and record any changes to an individual's information.	S	SmartPro MedEE maintains all individual data in an effective dated manner. Changes to individual data will never overwrite existing data. Rather the new data will join a timeline of data that SmartPro MedEE maintains for the individual.
GEN 042	The EES shall provide a mass change capability by a non-technical user to affect all or part of the Department caseload for any or all programs.	S	A non-technical user can be authorized to make changes such as eligibility rules changes, or rates changes that can affect all or a large proportion of program eligibility cases. To ensure that such mass changes happen in a controlled manner without impacting online performance, these requests are designed to either run in batch, or if preferred, asynchronously on-line on separate dedicated hardware.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 043	The EES shall allow authorized users to update, add persons, and relationships to an existing household and maintain a history thereof.	S	SmartPro MedEE, based on IBM Cúram for Medical Assistance, maintains individual and household information. The SmartPro MedEE user can add new people to a household, maintain or remove existing people in a household, and also maintain a list of relationships between all individuals in a household. Any modifications made to a household are done in an effective dated manner, thus maintaining a history of all changes made. Related to requirement GEN 086.
GEN 044	The EES shall close eligibility to a program without closing other programs associated with that household or individuals in the household.	S	When eligibility rules are re-run due to a change in circumstance, SmartPro MedEE will always assign individuals to the correct (optimal) programs. Moving an individual from one program to another, due to a change in circumstances, will result in ending (or closing) eligibility for the first program and starting eligibility on another. Only the eligibility for affected household members is updated. The eligibility for non-affected household members will remain the same.
GEN 045	The EES shall change the status of any individual in a household without terminating eligible household members.	S	When eligibility rules are re-run due to a change in circumstance, SmartPro MedEE will always assign individuals to the correct (optimal) programs. If a change in circumstances results in one or more individuals being no longer eligible for any insurance assistance (Medicaid, subsidy, etc.), only the eligibility situation for those affected individuals is impacted. Other eligibility household members will be unaffected.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 046	The EES shall provide web-based functionality to allow the applicant to renew and initially apply for eligibility online.	M	The SmartPro MedEE solution will enable the consumer to apply for eligibility online. "Cúram for Medical Assistance" provides online application functionality out-of-the-box. SmartPro MedEE will also support applicant renewal online. Modification is required to allow the beneficiary to renew online. The renewal process will reuse a significant portion of the initial application process, pre-populating the application script with data already in the system.
GEN 047	The EES shall allow for renewals via all ACA required modalities.	M	Modification is required to enable the consumer to renew online. The renewal process will reuse a significant portion of the initial application process, pre-populating the application script with data already in the system. Renewal through other channels (phone, face-to-face, post, and fax) is supported through the out-of-the-box agency worker renewal functionality.
GEN 048	The EES shall accept a renewal prior to the 12 month renewal date. The renewal period may vary by case/household/individual and program.	S	The SmartPro MedEE solution will not restrict when a renewal can be submitted. Any future dated updates received will be maintained on SmartPro MedEE and will only take affect from the date indicated. Different renewal periods are supported across case, household, individual and program.
GEN 049	The EES shall track and allow beneficiaries who did not return the pre-populated renewal form or the required documentation and are terminated on that basis a reconsideration period, as defined the Department, when the Department would reconsider eligibility without a new application and renew eligibility if necessary information is provided.	W	The SmartPro MedEE solution allows for cases that are closed to be reopened, and for program eligibility to be renewed. No limit is enforced out-of-the-box. Ensuring that a time limit can be enforced will require rules configuration changes.
GEN 050	The EES shall allow an individual who regains coverage during the reconsideration period, retroactive coverage back to date of termination.	S	When eligibility is renewed in the reconsideration period, eligibility will be retroactive back to the date of eligibility termination.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 051	The EES shall automate the renewal process if all information remains the same or if verified information remains within applicable limits.	M	SmartPro MedEE will automate the renewal process where data does not change or remains within applicable limits. Effort required to support 'applicable limits'.
GEN 052	The EES shall integrate with various systems within the State for the purpose of data sharing, eligibility determination and data verification (i.e. incarceration, Unemployment Insurance benefits, child support income, State wage information)	M	SmartPro MedEE supports integration with other systems, through its underlying ESB capability. Specific interfaces require minimal amounts of code and configuration work.
GEN 053	The EES shall adjust eligibility determination resulting from appeal.	S	When an Appeal results in a change in the prior eligibility determination results, a new eligibility determination will be calculated and applied. A history of all eligibility determinations is maintained.
GEN 054	The EES shall notify the applicant/beneficiary, electronically and via paper, of adjusted eligibility within 30 days of the adjustment, regardless of the reason for the eligibility adjustment.	M	The SmartPro MedEE shall trigger a notification when eligibility changes. This can be done on the same day that the new eligibility determination is calculated. Effort required to support a Nebraska 'adjusted eligibility' notification. Similar to requirements: ELG 037, ELG 070, APP 042, NOT 017.
GEN 055	The EES shall track timeframes and deadlines of the appeal process and alert a worker or management of overdue status.	S	Configured Milestones are used to track timeframes and deadlines in SmartPro MedEE. Workflow logic associated with these milestones will alert users, groups of users or work queues of approaching and past deadlines.
GEN 056	The EES shall allow a worker to view appeal progress/status to report back to the applicant/beneficiary.	S	The SmartPro MedEE tracks appeal progress/status. Authorized workers can view a history of progress on the appeal, including the current appeal status, at any time.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 057	The EES shall support an integrated and customizable applicant complaint and grievance process, with reporting capabilities.	S	The SmartPro MedEE solution, based on IBM Cúram for Medical Assistance, supports an integrated and customizable complaint and grievance process. A complaint or grievance will be tracked in SmartPro MedEE as an 'Issue' case. An Issue case tracks one or more complaints or grievances, a history of all actions taken related to the complaint or grievance, related data in support of the complaint or grievance, and the outcome of the complaint or grievance. Reporting on complaints and grievances is supported by the SmartPro MedEE reporting component.
GEN 058	The EES shall be scalable and flexible enough to accommodate and adapt to changes required by State and/or federal statute, regulation, mandate, decision, or policy without significant changes to the architecture and without impacting the scalability or response times of the system.	S	Scalability and flexibility are supported at the platform level (all proposed hardware and software is highly flexible and scalable) and at the application level. The SmartPro MedEE application is highly extensible both through configuration and modification. A majority of changes required in support of State and/or federal statute, regulation, mandate, decision, or policy, will be catered for through CER rules and Cúram Workflow configuration. Where such changes cannot be satisfied thru configuration, SmartPro MedEE can be extended through modification.
GEN 059	The EES shall incorporate the policy choices and priorities of the Nebraska policymakers.	S	The SmartPro MedEE solution shall incorporate the policy choices and priorities of the Department's policymakers. Due to the flexibility of the IBM Cúram product upon which SmartPro MedEE will be based, required policy choices and priorities will be catered for through out-of-the-box capabilities, configuration or modification. The Cúram product has been designed from the ground up to be extensible through configuration and modification, in such a way that ongoing upgrades to the base product are possible.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 060	The EES shall meet the requirements of the RFP and be compliant with MITA 3.0 standards.	S	Cúram is based on a modular Service-Orientated Architecture (SOA) and is compliant with MITA 3.0 standards. Its architecture is compatible with the MITA 3.0 business, technical, and data architecture framework, its business maturity model, and its process and planning guidelines. For example: • Service-oriented Architecture • Open Technology and Standards • Platform Independence • Security and Privacy • Common Interoperability and Access • Adaptability and Extensibility • Performance Metrics • Cloud Computing Moreover, Cúram provides prebuilt, domain -specific, outcome-focused business processes built on a unified data model. Cúram enables social enterprise agencies, such as the Department, to achieve higher levels of efficiency, and more importantly, effectiveness in their efforts to improve the lives of their citizens.
GEN 061	The EES shall be based on an orientation of business processes, business rules and data and metadata management that allows modular componentized design approach that enhances interoperability across service modules and with external applications and data sources.	S	The SmartPro MedEE SOA based architecture supports a modular and componentized design approach that promotes interoperability with external applications and data sources.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 062	The EES shall identify individuals who are dual eligible (Medicare plus federal Medicaid) and determine eligibility for dual-eligibles, as well as for those who are eligible for other Medicare savings programs.	S	SmartPro MedEE, based on IBM Cúram for Medical Assistance, shall identify and determine eligibility for individuals who are dual eligible. SmartPro MedEE will also identify and determine eligibility for individuals who are eligible under the following out-of-the-box Medicare savings programs - Qualified Medicare Beneficiary (QMB), Specified Low-Income Medicare Beneficiary (SLMB), Qualifying Individual (QI), and Qualified Disabled and Working Individuals (QDWI). Support for other Medicare savings programs will be supported through configuration, if required.
GEN 063	The EES shall support secure messaging between the Department and the federal data hub and/or the Connector via federally defined interfaces and Business Service Descriptions.	S	IBM Cúram for Medical Assistance provides prebuilt integration with the Federal Data Services Hub for all services related to 'eligibility', including FFM account transfer interfaces.
GEN 064	The EES shall include workflow management based on whether an applicant is MAGI-based and/or MAGI-excepted households.	S	IBM Cúram for Medical Assistance provides out-of-the-box capabilities that support fit for purpose application capture functionality, data verification functionality and eligibility determination rules for both MAGI-based (adults, parents, children, pregnant women) and MAGI-Excepted (Aged, Blind Disabled, SSI, Long-term care, Medically Needy, etc.) households. Once the applicant and household are identified, SmartPro MedEE will present the correct application(s) based on whether the household members are considered MAGI-based or MAGI-excepted. Once the application is captured and data verified, SmartPro MedEE will execute the correct eligibility determination rules.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 065	The EES shall allow individuals in a household to be eligible under different categories and receive different benefits based upon individual information.	S	IBM Cúram for Medical Assistance supports a household whose members are eligible under different categories. For example, a single household could have members that are eligible under Medicaid, under CHIP and under subsidized Insurance Assistance through the FFM, at one point in time. SmartPro MedEE will track what category each person in the household is eligible under.
GEN 066	The EES shall provide the capability to defined and stored DDHS specific data. The ability to use the data to drive workflow or pre-populate forms.	S	Due to the flexibility of the IBM Cúram product upon which SmartPro MedEE will be based, any Department data that is not supported out-of-the-box, can be added to SmartPro MedEE and used for typical system processing such as driving workflow, seeding eligibility decisions, and notifications generation. The IBM Cúram product has been designed from the ground up to be extensible through configuration and modification, including extending the data model, in such a way that ongoing upgrades to the base product are possible.
GEN 067	The EES shall be scalable so that it can identify those applicants that are potentially eligible for express lane eligibility should the Department choose to adopt Express Lane Eligibility Program.	S	Due to the flexibility of the IBM Cúram product upon which SmartPro MedEE will be based, SmartPro MedEE can be enhanced and scaled to support express lane eligibility functionality, should the Department choose to adopt it. ELE functionality will primarily be supported through configuration of the Medicaid eligibility rules.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 068	The EES shall provide the capability for presumptive eligibility as defined by the Department and include provider web access for application purposes.	M	The SmartPro MedEE solution will support a presumptive eligibility website for providers to enable provider users to submit medical assistance applications online and to assume eligibility for a period of time. Back office functionality such as presumptive eligibility determination processing, and the necessary workflow logic to track and respond accordingly to deadlines for presumptive eligibility will be included in SmartPro MedEE. Effort will be required for the provider website (to extend Cúram provider capabilities) and to enhance out-of-the-box processing in support of presumptive eligibility.
GEN 069	The EES shall provide a mechanism to define required and optional fields, including default data values as applicable, based on program rules.	S	In the SmartPro MedEE solution, data fields can be specified as mandatory or optional. Data fields can optionally be associated with default data values.
GEN 070	The EES shall provide an alert system to notify workers when action items are assigned, have been completed, or are past due.	S	In the SmartPro MedEE solution, action items are known as Tasks. A task can be assigned to a user, group of users, or work queues. When a workflow process requires a user to perform an action item (the completion of which will progress the workflow), the user will see the task in their inbox, and the user will receive an alert that there is a task awaiting their attention. An alert can take two forms: a notification in the user's list of notifications which is displayed on the user's home page, and/or an email. If a user has a specific interest in an action item, they will receive alerts as and when the action item is completed or past due.
GEN 071	The EES shall manually/automatically assign priority to alerts.	S	In SmartPro MedEE, a task (i.e. an action item) has a priority. SmartPro MedEE can automatically assign a priority to a task. A SmartPro MedEE user can manually set a task priority. The priority of the alert is driven by the priority of the task.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 072	The EES shall automatically escalate an alert if not addressed within the time limits.	S	Configured Milestones are used to create and maintain time limits (i.e. deadlines) in SmartPro MedEE. Workflow logic associated with these milestones will alert users, groups of users or work queues of approaching and past deadlines.
GEN 073	The EES shall provide mechanism for supervisors to be able to view alerts for any individual or group.	S	A supervisor can view alerts and tasks for individual users, groups of users and work queues.
GEN 074	The EES shall provide a mechanism to associate and tie alerts to household or applicant/beneficiary and have alerts accessible when household is reviewed.	S	In SmartPro MedEE a task/alert can be associated with an individual or a household case. When the Individual or household is viewed, the user can see a list of associated tasks/alerts.
GEN 075	The EES shall automatically delete alerts when action is taken.	S	When a required action is completed, the related alert/task is automatically logically deleted (its status is set to 'closed'). This removes the item from the SmartPro MedEE user's inbox.
GEN 076	The EES shall manually create, assign, update, change, and delete alerts.	S	SmartPro MedEE enables users to manually create, assign, update, change and delete alerts and tasks.
GEN 077	The EES shall automatically or manually archive alerts when the required action is completed.	S	When a required action is completed, the related alert/task is automatically logically archived (its status is set to 'closed'). This removes the item from the SmartPro MedEE user's inbox.
GEN 078	The EES shall provide a sortable and searchable history of alerts that display all actions taken in regards to that alert.	S	SmartPro MedEE users are provided with sortable lists of alerts (reminders) and tasks (to do items), and the ability to search for tasks of interest. Alerts and tasks are associated with a history of all actions taken in regards to that alert or task.
GEN 079	The EES shall provide a mechanism to indicate that a beneficiary/household is under review.	S	Case Review functionality enables SmartPro MedEE to indicate that a Beneficiary/Household case is under review. Special Caution functionality can also be used to enable SmartPro MedEE to indicate that a specific individual (independent of any application or ongoing case) is under special review.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 080	The EES shall provide a mechanism to alert management that pending applications have exceeded specified time limits.	S	Milestones on pending applications track time limits. Workflow logic associated with these milestones will alert management users when these time limits are approaching and have been exceeded.
GEN 081	The EES shall create an alert of approaching deadlines.	S	Configured Milestones are used to create and maintain deadlines in SmartPro MedEE. Workflow logic associated with these milestones will alert users, groups of users or work queues of approaching deadlines.
GEN 082	The EES shall create and assign alerts associated with pending tasks.	S	All workflow tasks have associated 'escalation logic' that determines what should happen when certain periods of inactivity elapse. This can result in notifying a user or group of users, notifying a work queue, or it can result in the triggering of automatic logic defined in Rules or in code.
GEN 083	The EES shall alert specified work units when specific beneficiary/household changes are made based on program rules (e.g. customer/beneficiary/eligibility worker changes the address, certain demographic information, etc.	W	SmartPro MedEE triggers internal events when specified actions occur. When specific data is created or modified a relevant internal event will be fired. A configured workflow will be enacted by one of these events, to notify a user, group of users, or work queue that an action of interest has occurred. Related to requirement GEN 085.
GEN 084	The EES shall not allow any duplication or potential duplication of services to the beneficiary.	S	The SmartPro MedEE shall ensure that a beneficiary and all household members are only eligible for those programs and program categories that they should be eligible for at any one point in time. The CER rules ensure that there is no duplication of eligibility across programs.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 085	The EES shall provide the capability to alert eligibility worker of multiple households at same physical and/or mailing address.	M	The SmartPro MedEE triggers internal events when specified actions occur. When an address is created or when an address is modified, one of these internal events will be fired. A workflow will be triggered when either of these events is fired. The first activity in the workflow will compare the created or modified address with other addresses in the system. If a match is found with an existing address, and if this existing address is linked to a different household or to an individual outside of the current household, a second activity will notify relevant eligibility workers. The notification will link directly to the two addresses in question. Modification effort required around the address comparison logic. Workflow configuration effort is catered for by requirement GEN 083.
GEN 086	The EES shall maintain individual and household information.	S	The SmartPro MedEE solution, based on IBM Cúram for Medical Assistance, maintains individual and household information. Individual information includes identification data, demographic data, income data, resource data, expense data and all other data required for determining eligibility and entitlement for included programs. Household information includes two-way relationship information between members of the household (inverse relationships are automatically calculated from the provided relationship) information on disabilities, pregnancy, military status, etc. of all members of the household.

Reporting Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 001	The EES shall make available all business data elements for use with the business intelligence tool.	W	A copy of the SmartPro MedEE operational database shall be made on a regular basis to feed the analytical data warehouse with all business data elements. Apart from the Cúram Reports, Wipro proposes IBM Cognos as the Business Intelligence Tool for generation of operational and analytical reports and all relevant data elements from Cúram, DWH, and DataMarts will be made available for BI queries using Cognos.
RPT 002	The EES shall generate graphical representation of report data (e.g. pie charts, graphs, histograms, line plots, scatter plots)	S	Cognos supports a variety of graphical representation, for e.g. (but not limited not) Map, chart, line and bar graphs, Gauge, Pie chart, Side-by-side bar charts, Single and multiple line charts, Tree graphs, Probability plots, Trend lines, 3 dimensional graphs, Parallel coordinates, Control limits, Histograms etc. Wipro has an advanced visualization library and best practices guidelines which recommend what kind of graphical representation suits what kind of data representation and will leverage this to finalize the reporting design documents.
RPT 003	The EES shall generate all required Department and federal reports, in the format, media and schedule specified by the Department.	W	Wipro has an advanced visualization library and best practices guidelines which recommends what kind of graphical representation suits what kind of data representation and will leverage this to finalize the reporting design documents keeping in consideration the format, media and schedule specified. Depending on format and media same report might have 2 instances with different representation for different formats.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 004	The EES shall create 'canned' reports to be run on a scheduled basis. The schedule for each report should be easily changed through the system user interface by a non-IT worker.	M	Cognos has its own report scheduling mechanism. The canned reports will be scheduled by Wipro as per business requirements and Wipro will provide documentation for non-technical users demonstrating how they can schedule new reports or re-schedule existing reports.
RPT 005	The EES shall retain report results in a manner that complies with Nebraska and applicable federal data retention policies, based on data type and program rules. The time period for which the reports are retained shall be mutually determined and shall be aligned with ongoing capacity planning exercise.	S	Noted and will be taken into consideration during requirements finalization and design phase.
RPT 006	The EES shall store all reports in such a manner as to allow online access to and retrieval of both current and historical reports via a user-friendly parameter and/or menu-driven access to reports, based on user permissions, as defined by the Department.	M	Cognos has its own report and data level security (authentication and authorizations) and all current and existing reports will be made available based on the security design and user permission finalized during BI design phase. Cognos/BI will be incorporated into the SSO/Portal implementation, using the State's Microsoft AD for user authentication.
RPT 007	The EES shall provide a mechanism to view online, save and print ad-hoc reports, based on user roles and program rules.	W	Acknowledged and taken into account in solution consideration and design. Basic mechanisms are configurable, and will be integrated with the overall SSO solution.
RPT 008	The EES shall tabulate data by worker, county, region, etc.	W	Acknowledged and will be taken into consideration during requirements finalization and design phase.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 009	The EES shall provide a mechanism to perform a QC sampling by maintaining the current functionality for sampling methodology (regions, clusters, random, and stratification), including designating sampling size for random, designating month and year of a sample, designating regions and/or clusters (counties) of a sample.	W	SmartPro MedEE, through Cúram Case Audit, supports configurable QC sampling, that enables the Department to sample by region or other grouping construct, perform random sampling, perform stratification sampling, and to sample by a wide variety of other criteria. Cúram Case Audit ultimately enables a user to configure an SQL statement, through a configurable field, which can select a list of cases using any filtering clause possible in SQL. Sample size, month or year of sample can be used as filters through the above mechanism. the current sampling methodology will be studied by Wipro's BI and Domain experts, who will provide recommendations on the best sampling techniques.
RPT 010	The EES shall provide a mechanism to create the universe from which the system pulls the samples.	S	The universe will be the complete list of eligibility cases in the system. The sampling logic described above will return a sample list of case IDs.
RPT 011	The EES shall provide a mechanism to manually eliminate a case from a sample and replace it with a replacement sample based on user roles. The EES shall capture a reason for eliminating/ replacing a case.	S	SmartPro MedEE, through Cúram Case Audit, supports a user role known as an "Audit Coordinator". An authorized audit coordinator can manually add cases to or remove cases from the sample. Comments can be provided to explain why changes are being made to the sample.
RPT 012	The EES shall create, maintain and store QC review results for different program types, by office, sample month and year, sample ID.	M	A history of case audits completed is maintained in SmartPro MedEE. Modification will be required to support the result categorizations listed here.
RPT 013	The EES shall define, implement, collect, and report using a set of business process-related performance metrics that conform to MITA defined performance metrics such as tracking changes in programs and policies and evaluating corresponding changes in health outcomes.	C	Acknowledged and will be taken into consideration during requirements finalization and design phase.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 014	The EES shall create case load reports such as active case list, active person list, pending application, review lists by manager, location, region and statewide.	C	Supervisor Workspace provides multiple views of active cases, tasks including pending applications and reviews, based on the position of the supervisor within the organization structure (location, region, statewide)
RPT 015	The EES shall provide multiple reports to include, but not limited to, fraud hearings, number and type of appeals decisions.	C	Acknowledged and will be taken into consideration during requirements finalization and design phase. Wipro's SMEs and functional consultants will leverage Wipro's Fraud and Abuse Management Framework to improve identification and follow ups on such hearings and appeals. Hearing and Appeals data is maintained within Cúram.
RPT 016	The EES shall provide a dashboard summary view of the status of households across units for managers as for example, active, critical, error, quality assurance corrective action, QC reviews, pending reviews, etc.	C	Supervisor Workspace provides supervisors and managers with dashboards to manage the cases (including households which are Integrated Cases) within their span of control that includes cases with issues. Cases for review will appear in their task list.
RPT 017	The EES shall provide a comprehensive reporting solution that will generate standard operating, pre-defined or operational reports without an adverse effect on system performance or response time.	C	Apart from the Cúram Reports, Wipro proposes IBM Cognos as the Business Intelligence Tool for generation of standard operating, pre-defined and operational reports. Ample care has been taken to propose HW to meet performance expectations without any adverse effect on system performance. Moreover, as these reports will be generated on top of DWH / DataMarts, Cúram's operational performance will not be impacted by BI activity.
RPT 018	The EES shall generate standardized or ad-hoc reports without affecting worker response times.	S	Standardized and ad-hoc reports are created in the BI environment, which is implemented on its own set of dedicated Virtual Machines, backed by physical resources dedicated to BI. Worker response times will not be affected by the BI environment.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 019	The EES shall store all reports in such a manner to allow online access to and retrieval of report information via a user-friendly parameter and/or menu-driven access to reports.	S	IBM Cognos has powerful business self-service reporting in a unified workspace that allows business users to create and consume reports in one UI without IT assistance. Business users can easily assemble, personalize and interact with reports and report objects to create personalized dashboard content in a unified, web-based BI workspace.
RPT 020	The EES shall identify the date and time on all reports when it was generated and allow the worker to save the report multiple industry standard formats.	S	This is a standard Cognos (proposed BI platform) feature. A user can choose from the following formats, among others: • HTML • HTML fragment • XHTML • XML • PDF • Excel 2000 • Excel 2000 single sheet • Excel 2002 • Excel 2007 • delimited text (CSV) format
RPT 021	The EES shall allow authorized workers to access, generate, and print reports.	S	This is a standard Cognos (proposed BI platform) feature. For example, IBM® Cognos® BI administrators can set up folders in which reports are stored. They can then secure those folders so that only authorized users can view, change, or perform other tasks using the reports in the folder.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 022	The EES shall save reports or raw data in multiple outputs formats (e.g. CSV, tab delimited, text, HTML, XML, XLS) in conformance to security standards and shall provide reports to be exported to an electronic file, PDF, Excel, Text, or Word format depending on the type of report.	S	This is a standard Cognos (proposed BI platform) feature. A user can choose from the following formats, among others: • HTML • HTML fragment • XHTML • XML • PDF • Excel 2000 • Excel 2000 single sheet • Excel 2002 • Excel 2007 • delimited text (CSV) format
RPT 023	The EES shall maintain a history of documents and reports received, track these items and make them accessible in the electronic case file, so that information can be shared across programs and agencies using a HIPAA compliant method.	M	The Cúram document management interface will associate all documents and reports received with the appropriate case or case participant (person) so that they can accessed directly from the case file and be shared across programs and agencies with anyone with appropriate authority to view the case file.
RPT 024	The EES shall have standard reports to measure progress against the Department goals, initiatives, and policy changes, including, but not limited to, policy initiatives, budget initiatives, Affordable Care Act requirements, and grant opportunities.	M	Apart from the Cúram Standard reports (customized for the State of Nebraska), if there are any additional reports which the State requires to internally measure progress, they will be generated using Cognos BI.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 025	The EES shall generate ad-hoc and standard reports in real-time as well as historical.	S	This is a standard Cognos (proposed BI platform) feature. Cognos Query Studio enables you to build custom ad-hoc reports that you may share with other Cognos users. Also, IBM® Cognos® Real-time Monitoring is an operational business intelligence solution designed to provide easy access to consistent data so you can react quickly to revenue and cost-saving opportunities. Cognos Real-time Monitoring features self-service, interactive dashboards with operational key performance indicator (KPI) measures for frontline business users, executives, managers and analysts. Cognos Real-time Monitoring features include: • **Seif-service query, reporting and analysis** from virtually any data source • **Business-defined alerts** about sudden issues that need attention • **Patented memory-based data store** for continuous data integration • **Real-time data navigation** that can help you investigate the root cause of an issue • **Drag-and-drop dashboard environment** that enables you to add real-time, formatted information to your historical business intelligence
RPT 026	The EES shall provide summary tables of reports.	S	IBM Cognos can provide filters summaries, and calculations to compare and analyze data and provides drill up and drill down capabilities to view related detail information.
RPT 027	The EES shall ensure that the reports are print-ready, visually acceptable to the user and provide the ability to format, set headers, labels.	S	This is a standard Cognos (proposed BI platform) feature. A user can use combinations of text, data items, and report expressions in titles, headers and footers.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 028	The EES shall be scalable to produce ad hoc reports on request without impacting system response times.	S	This is a standard Cognos (proposed BI platform) feature. Using the Framework Manager, a semantic layer will be created which will enable users to produce ad-hoc reports themselves or through IT staff. The general BI subsystem is isolated from impacting the operational performance of Cúram by separating it onto its own set of Virtual Machines backed by dedicated physical resource operating against a Data Warehouse / DataMart structure.
RPT 029	The EES shall create reports using all current data elements available at the point of creation.	S	Cognos Business Designer can be used to create reports using any data elements available within the BI environment.
RPT 030	The EES shall produce control and error reports from mass change processing.	C	Mass change processing is performed via Cúram batch jobs that produce control and error reports as part of their standard processing.
RPT 031	The EES shall have the capability to import data from other data sources.	S	The DataMarts will be scalable to allow data from other sources to be integrated to meet additional reporting requirements.
RPT 032	The EES shall support the ability to run online queries at the worker level.	W	IBM Cúram uses the BIRT (Business Intelligence and Reporting Tools) Report Designer which allows developers to create custom BI reports which can then be imported into the Cúram application. This provides workers with the ability to run queries that can be displayed in Cúram application pages when required, as text or graphs.
RPT 033	The EES shall produce reports on frequencies specified by the Department with the ability to change those frequencies at any time with minimal IT support.	W	Reports will be generated on frequencies as per business requirements and Wipro will provide a user manual explaining to non-IT users how they can schedule new reports or re-schedule existing reports.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 034	The EES shall allow users to sort, search, filter and drill down on any parameter of a standard report.	S	This is a standard Cognos (proposed BI platform) feature. You can create a drill-through path in a source report in Report Studio, or using Drill-through Definitions in IBM® Cognos® Connection. A drill-through path is the definition of the path that is taken when moving from one report to another, including how the data values are passed between the reports. When you drill through, the values that you pass are usually, but not always, used to filter the report.
RPT 035	The EES shall include version control for all reports.	S	This is a standard Cognos (proposed BI platform) feature.
RPT 036	The EES shall generate data and reports needed to comply with federal audit and oversight requirements.	W	SmartPro MedEE will comply with this requirement. The reporting requirements will be finalized during the Requirements Analysis phase and these reports will be implemented by configuring Cognos reports.
RPT 037	The EES shall generate data and reports needed to apply for and demonstrate appropriate use of federal grant funding sources.	W	SmartPro MedEE will comply with this requirement. The reporting requirements will be finalized during the Requirements Analysis phase and these reports will be implemented by configuring Cognos reports.
RPT 038	The EES shall document the appropriate benefit programs, projects or other categories impacted by system or human actions to support claims for federal matching funds.	W	SmartPro MedEE will comply with this requirement. The reporting requirements will be finalized during the Requirements Analysis phase and these reports will be implemented by configuring Cognos reports.
RPT 039	The EES shall provide reports or data to support the cost allocation strategies (e.g., numbers and types of applications processed etc.).	W	SmartPro MedEE will comply with this requirement. The reporting requirements will be finalized during the Requirements Analysis phase and these reports will be implemented by configuring Cognos reports.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 040	The EES shall differentiate funding source based on Department -specified criteria.	C	SmartPro MedEE will comply with this requirement. The reporting requirements will be finalized during the Requirements Analysis phase and the reports will be implemented by configuring Cognos reports based on criteria driven by the organizational structure.
RPT 041	The EES shall automate reports to support accurate forecasting of program costs.	W	SmartPro MedEE will comply with this requirement. The reporting requirements will be finalized during the Requirements Analysis phase and the reports will be implemented by configuring Cognos reports and schedules.
RPT 042	The EES shall automate reports to support evaluation of cost-containment and quality improvement initiatives	W	SmartPro MedEE will comply with this requirement. The reporting requirements will be finalized during the Requirements Analysis phase and the reports will be implemented by configuring Cognos reports and schedules.
RPT 043	The EES shall create standard reports defined by the Department to compare program expenses to budgeted expenses for the State and federal fiscal year-to-date, prior State and federal fiscal year, and projected through the remainder of the State and federal fiscal year.	W	SmartPro MedEE will comply with this requirement. The reporting requirements will be finalized during the Requirements Analysis phase and the reports will be implemented by configuring Cognos reports.
RPT 044	The EES shall generate an inventory of current and available reports.	S	This is a standard Cognos (proposed BI platform) feature. There are standard auditing features and also there is an IBM Cognos SDK application that provides additional auditing, including Role Auditing, folders, reports, queries, etc.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 045	The EES shall support the ability to produce formatted reports based on online queries.	S	This is a standard Cognos (proposed BI platform) feature. IBM® Cognos® Query Studio is the reporting tool for creating simple queries and reports in IBM Cognos Business Intelligence. In Query Studio, you can • view data Connect to a data source to view data in a tree hierarchy. Expand the query subjects to see query item details. • create reports Use the data source to create reports, which you can save and reuse. You can also create a new report by opening an existing report, changing it, and saving it using another name. • change the appearance of reports Improve the layout of your report. For example, you can create a chart, add a title, specify text and border styles, or reorder columns for easy comparison. • work with data in a report Use filters, summaries, and calculations to compare and analyze data. Drill up and drill down to view related information. IBM Cognos Report Studio is the professional reporting tool for IBM Cognos Business Intelligence. Report Studio offers greater flexibility in calculating and formatting results. A user can use Report Studio to make more extensive changes, such as adding borders and modifying object properties.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 046	The EES shall provide access to Query builder application.	S	This is a standard Cognos (proposed BI platform) feature. A user can use the Query Builder to create custom Microsoft SQL data queries and retrieve the results into a report. The query can be then inserted into an Excel object. The Query Builder is designed to retrieve data via SELECT statements. However, it supports other query commands against the database, as permitted by SQL Server.
RPT 047	The EES shall support the preparation of a branch report, i.e., standard template with pre-populated data.	S	This is a standard Cognos (proposed BI platform) feature. A user can create new template to provide report authors with a layout that they can use to create reports or they can apply to existing reports. IBM Cognos Query Studio and IBM Cognos Analysis Studio users can also use these templates. You can also use the template in Query Studio to define a layout for prompt pages.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 001	The EES shall create easy, efficient, and accurate interfaces with other systems, including the federal data hub, state and other data sources to verify application information	C	SmartPro MedEE uses Cúram and an ESB (IBM Integration Bus), along with communication facilitation tools such as Sterling Direct:Connect to facilitate connections to outside sources of information – both classic batch and transactional real-time. These interfaces are secure, reliable, efficient, and straight-forward to implement in almost all cases. Cúram directly supports connectivity with the federal data hub out-of-the-box. Individual interfaces, as named in the RFP, will be addressed in detail during requirements specification. The proposed schedule accommodates the time and effort to implement all named interfaces.
OPS 002	The EES shall support integrated eligibility system and/or reduce errors associated with processing eligibility for more complex populations	S	SmartPro MedEE, based on IBM Cúram for Medical Assistance, is an integrated eligibility system. It will be initially deployed to support eligibility for Medical Assistance programs, such as Medicaid, CHIP and subsidized health care as provided through the Affordable Care Act. It is extensible to support eligibility for other programs in the future. It supports the capture of a single application for a complex household, with all household data being saved and verified centrally. It supports an advanced workflow capability for ensuring that work is completed on time and by the people that should be completing it. It supports an eligibility rules engine for calculating eligibility for all supported programs. It provides a modern, intuitive web-based user interface.
OPS 003	The EES shall support workers to improve workflow and reduce errors including:	S	SmartPro MedEE will support workers to improve workflow and reduce errors.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 004	• Computerized case files and online case histories	S	At its heart, SmartPro MedEE is an electronic case management system. All household data will be captured and verified within the context of an application case, and when disposed, will be transferred to an ongoing integrated case for ongoing case management. All cases will maintain a detailed case history. All case types support common case management functionality such as case notes, case calendar, linked case documents and attachments, case reviews, complaints and grievances, appeals, milestones, and case owners.
OPS 005	• Automated assignments of case files to workers according to their expertise and availability	W	Cúram has the concept of a Case Owner. A Case Owner can be a user, a group of users and even a work queue. Case Owner logic can reference any combination of relevant data such as user expertise, new application complexity, language preference, and location, for example. Some configuration effort will be necessary to provide the Department with their required assignment logic.
OPS 006	• Logic flags	S	SmartPro MedEE provides flags such as 'number of data items awaiting verification'; number of days remaining to a milestone, if a milestone has passed, if an individual has any special cautions.
OPS 007	• Online policy and procedure manuals	S	SmartPro MedEE will provide links to online policy and procedure manuals.
OPS 008	• Integrated document imaging	C	We propose implementing a real-time (Web Services based) interface with the State's Hyland OnBase Imaging and Document Management solution. Mediated by SmartPro MedEE's ESB (IIB), we will link Cúram's Case Management capability with Hyland's imaging capabilities to meet the State's requirements. See IMG003

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 009	The EES shall contain the business rules and technical capability to determine online, real-time eligibility for Medicaid MAGI and non-MAGI based eligibility	W	See IMG 002, based on IBM Cúram for Medical Assistance, supports online, real-time eligibility determination for MAGI (e.g. Adults and Parents) and non-MAGI (e.g. ABD) categories, and batch eligibility where mass change processing is required. The out-of-the-box solution will support a significant portion of Nebraska medical assistance categories. Those categories that are not provided out-of-the-box will be supported through configuration of rules, workflow and program data.
OPS 010	The EES shall automate eligibility verification including electronic acceptance of verification documents; validation of applicant data through electronic data exchanges with valid sources	W	A unique feature of IBM Cúram for Medical Assistance is prebuilt integration with the Federal Hub and prebuilt hooks to enable integration with other systems, such as State systems, for the verification of application data. Once the required State system interfaces are available, they will be connected to See IMG 002. Through the ESB to these prebuilt hooks. Where data cannot be automatically verified through an interface with a valid source, a worker can upload verification documents provided by the consumer. These documents will be saved in the Document Management System.
OPS 011	The EES shall centralize User Account Management, Authentication and Authorization	M	SmartPro MedEE will use its Portal implementation to link to the State's Microsoft Active Directory to authenticate State (Internal) users. Once authenticated, Role-Based Authorization will be used, combined with Single-Sign On to the SmartPro MedEE components, to control authorization. External Users will be authenticated against Cúram's user database; once authenticated, the same RBAC and SSO capability controls their access to system functionality. See IDT 001, RSR 085, RSR 107 and MDM 031.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 012	The EES shall display and print stored or imaged forms	C	SmartPro MedEE will be interfaced to the State's Hyland OnBase Document Management system, which will be the repository of truth for images. SmartPro MedEE will retrieve images from OnBase, and display and print them as needed. See the DOC and IMG requirement sections.
OPS 013	The EES shall allow documents to be scanned into and associated with the electronic application/renewal individual, and/or household.	W	Paper documents received in person, through the post for via fax will be scanned and saved in the Document Management System. Upon completion of scanning, a Cúram workflow will be triggered which will attempt to link the document image in the Document Management System to the correct case and individual in Cúram using scanned meta data. The workflow will attempt to do this automatically and without agency worker intervention. Where agency worker intervention is required the workflow will notify one or more agency workers that the document image needs attention. The agency worker will examine the attached image, and attempt to manually link the document image to a relevant case or individual. If it is not possible to link to an existing case, manual examination of the paper document may be required. Workflow and configuration effort will be required to connect the scanning solution to the Cúram workflow solution through the ESB, to trigger the above straight through processing. This requirement is related to GEN 009.
OPS 014	The EES shall upload attachments to correspondence records.	S	SmartPro MedEE users have the ability to upload digital attachments, such as correspondence, to cases and individuals.
OPS 015	The EES shall link scanned images to correspondence and records to provide one view of all related material (images, letters, or contacts with staff), with multiple links.	S	Documents and images, whether manually uploaded through the worker portal or attached automatically via the scanning solution, are organized by individual and case. All documents and images related to a specific case or a specific individual will be listed alongside the individual or case.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 016	The EES shall provide the ability to view related correspondence records from a single correspondence record.	S	Documents and images are organized by individual and case. All documents and images related to a specific case or a specific individual will be listed alongside the individual or case.
OPS 017	The EES shall meet federal and State records retention and purging standards	M	SmartPro MedEE will modify Cúram to provide records purging (and restoration) capability compliant with Federal and State standards.
OPS 018	The EES shall provide a searchable library, with highly flexible search criteria to enable a user to quickly find needed information in policy manuals, policy memos, training material, implementation memos and all help functions without affecting work in progress.	W	SmartPro MedEE implements LifeRay Portal, which provides full library/document management capability, along with wiki, blog, and other forms of dynamic / social communication. The portal implements full Web Content Management (WCM) and comprehensive search technology out-of-the-box.
OPS 019	The EES shall support both task-based, individual-based, and household-based operations.	S	SmartPro MedEE supports all three types of work organization. Workflow tasks inform a worker that they need to perform some work by a particular time period and that this work is part of a larger process, possibly involving multiple workers. Tasks are presented to the worked in their inbox. Tasks are also presented to the worker as items of work outstanding for a specific individual or household. When the worker is focused on an individual or household, they can access a list of outstanding work items for that individual or household, regardless of whether they are responsible for completing the related tasks.
OPS 020	The EES shall forward finished tasks to the next responsible party or parties, when multiple levels of effort are required for resolution.	S	When the work associated with a task is completed, the workflow that issued this task will automatically close the task and resume workflow processing. When the next step in the configured workflow process involves another responsible party or parties, they will then receive a new task in their inbox. They can directly access the work they need to complete from this new task.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 021	The EES shall save work in progress, exit the workflow, access work at a later point with all of the information still populated from the previous worker's actions so previous work will not need to be repeated and the worker can enter the workflow where they left off.	S	Data entered in the SmartPro MedEE is saved directly to the SmartPro MedEE database. If a worker is entering data across multiple web pages, the data is saved as the worker moves from page to page. If the worker logs out, or shuts down their browser, SmartPro MedEE will remember all data that was previously entered (as it is saved in the SmartPro MedEE database) and enable the worker to continue where they left off. SmartPro MedEE also remembers what individuals and households the worker was maintaining such that when the worker logs in again, they are presented with those individuals and households they were working on before.
OPS 022	The EES shall track, monitor, and display work done/ in queue to supervisors.	S	A supervisor can monitor workload for those workers that they are responsible for.
OPS 023	The EES shall create and maintain eligibility worker availability information at the local office level.	S	Worker calendars are used to track worker availability. An authorized worker at the local office level can search for users and maintain the user calendar. Related to requirement IER031
OPS 024	The EES shall monitor caseload size in real time and support an automated workload assignment process.	M	SmartPro MedEE will support workload assignment processing. Some modification effort will be required to provide the Department workload assignment algorithms.
OPS 025	The EES shall weigh caseloads and provide recommended distribution.	M	As above, modification effort will be required to provide Department-specific workload assignment algorithms.
OPS 026	The EES shall establish a flexible assigned workload management hierarchy that identifies the responsible organizational unit.	S	Location and User grouping capabilities are hierarchical in nature. Department-specific workload assignment algorithms (see OPS 024 and OPS 025) will use these hierarchical structures as part of their workload assignment logic.
OPS 027	The EES shall provide an automated and manual benefit card generation capability.	M	Support for creating and tracking Benefit Cards requires modification.
OPS 028	The EES shall provide a mechanism to override automatic mailing of benefit card.	W	Suppression of auto mailing of benefit card included in logic in requirement OPS 027.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 029	The EES shall provide a mechanism to indicate a replacement benefit card is needed.	W	Support for replacement of benefit cards logic in requirement OPS 027.
OPS 030	The EES shall assign work using flexible criteria; for example, assign work by worker or the type of work.	S	Cúram Task allocation capabilities enable flexible work assignment. Actual algorithms catered for in requirements OPS 024 and OPS 025.
OPS 031	The EES shall transfer a single case, or a collection of cases in mass, including all electronic supporting documentation to and from any organizational unit.	S	Single case transfer is provided in both the worker portal and the supervisor portal. Mass case transfer is provided in the supervisor portal. When a case is transferred, all linked data such as supporting documentation is also transferred. A case can be transferred to a user, group of users, or to a work queue.
OPS 032	The EES shall automatically create a notification of a case transfer.	S	The from and to users are notified on case transfer. If the from user is the user initiating the transfer, they will not be notified.
OPS 033	The EES shall allow a worker to manually create a notification of case transfer.	S	A SmartPro MedEE user can manually create a notification task related to a case transfer.
OPS 034	The EES shall evaluate a case prior to a transfer, prompt user if established transfer criteria are not met and not allow transfer until criteria is met.	M	The Case transfer workflow will be configured to trigger new case evaluation logic and react accordingly.
OPS 035	The EES shall allow user to override assignment rules and process a transfer when defined criteria are not met based on security rule and audit trail.	M	Extensions to logic for OPS 034. If the user is prevented from transferring a case, and if that user is authorized to override the case transfer logic, the user will be asked if they would like to override the prevention of case transfer. An audit record will be written to the audit log to track the override.
OPS 036	The EES shall have the flexibility to assign a Single Point of Contact (SPOC) to a case or use a universal assignment.	S	The Case Owner, which can be a user or group of users, is the Single Point of Contact. The Case Owner can change over time.
OPS 037	The EES shall identify if and when a SPOC is assigned to a case so all communications go through the SPOC.	S	All alerts and tasks go to the Case Owner.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 038	The EES shall update case and/or household members' information, based on user roles and business functions.	S	Role Based Access Control limits the screens that a user can visit and the actions they can perform.
OPS 039	The EES shall have a real time, comprehensive listing of workers per customer and/or case.	S	A list of named workers can be associated with a case or individual.
OPS 040	The EES shall sort and display the type and number of cases assigned to a specific caseload.	S	A case worker has the ability to view, sort, search, and filter their own case load. A case worker can also create custom case lists based on a dynamic case query, or manually due to having an interest in specific cases. A supervisor can view, sort, search, and filter the case load for all workers they supervise.
OPS 041	The EES shall add, subtract or modify the number of caseloads supported within the system.	S	The number of caseloads will increase and decrease dynamically based on the volume of work, based on the workload allocation logic, and based on the number of case workers available. Caseloads can be organized by worker, group of workers or work queues.
OPS 042	The EES shall assign a unique identifier to each caseload.	S	A caseload will be associated with a user, group of users or a work queue. The caseload will be directly associated with username, group name or work queue name.
OPS 043	The EES shall recommend transfer of cases from one caseload to another.	M	Modification will be required to support automatic case transfer recommendations. The recommendation algorithm will be unique to the Department.
OPS 044	The EES shall identify when a referral is required and automatically generate and track a referral.	M	The assumption here that there will be logic required that will recognize, based on application data received, when a referral to a specialized work unit should be triggered. This will result in the triggering of configured workflow. Use the Cúram Evidence Broker to trigger referral workflow.
OPS 045	The EES shall allow and track manually generated referrals.	S	A referral workflow can be manually enacted in the SmartPro MedEE.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 046	The EES shall track status of referrals to monitor for required or expected action by the receiving entity.	S	All workflows, including referral workflows, are tracked and monitored in SmartPro MedEE. If work items are not completed in a timely manner escalation logic will automatically be triggered.
OPS 047	The EES shall provide the ability to differentiate types of referrals within programs. (e.g. Child only CSE referrals, ERU spousal elective share, TPL lead vs. change, HIPPS, subrogation)	M	When certain types of data are captured a referral workflow will be triggered for the attention of a specialized work unit. The referral type and target will depend on the type of data captured. Refer to requirement OPS 044.
OPS 048	The EES shall identify when a Change referral is necessary (e.g. employment changes, household changes, entering or leaving foster care, etc.) and send the referral.	S	The assumption here that this requirement relates to informing a user or group of users when certain types of change in circumstances occur. Refer to requirement OPS044
OPS 049	The EES shall associate a consumer notice related to the specific Cost Avoidance and Recovery area (CSE, TPL, HIPPS, ERU, and Medical Subrogation).	M	The assumption here that the consumer will be notified, via generated notice, when certain actions occur related to Cost Avoidance and Recovery.
OPS 050	The EES shall identify, generate and send potential resource situations to work unit as specified. (e.g., Annuities, Trust like Devices, Spousal Elective Shares, Personal Injury cases, Workers Comp, etc.)	W	SmartPro MedEE will support referring cases with specific resource situations to specialized work units. Configuration of workflow required to recognize specific resource situations and trigger the referral required.
OPS 051	The EES shall display a summary of case information by user role (e.g. head of household, members, relationships, addresses, date of birth, caseworker or process queue, office location, case status, recertification date, simplified report date, current benefit amount, sanction status, etc.).	S	Case information is organized and displayed across a set of tabbed panels. A case context panel is always displayed, above the tabs, to show high level summary data about the case regardless of what part of the case the case worker is focused on.
OPS 052	The EES shall provide a mechanism to provide custom views of case summary information, based on user roles, program rules, and office procedure.	M	Modifications will be required to support multiple different case summary views.
OPS 053	The EES shall match and merge duplicate case information, based on user role and program rules.	S	A case worker can manually merge duplicate case information, depending on assigned user role.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 054	The EES shall automatically update case information received through electronic access.	W	Case information received through the client portal or received through external interfaces will be processed by the Cúram Evidence Broker. Based on the data type, the Evidence Broker can be configured to automatically apply the data to the case (and eligibility will be automatically re-determined) or to put the data into a holding area, inform a case worker, and enable the case worker to review and accept or reject the data. Some configuration will be necessary to ensure that all data types are dealt with correctly.
OPS 055	The EES shall update and track reported changes which do not affect eligibility and do not require verification that are submitted electronically (e.g. phone number, cell number, e-mail address, change in income which remains below program threshold, etc.)	S	All changes that are submitted electronically will be captured and maintained in SmartPro MedEE, regardless of whether they impact eligibility.
OPS 056	The EES shall have the ability to close or deny a Category of Eligibility when business rules dictate.	S	When eligibility rules are re-run due to a change in circumstance, SmartPro MedEE will assign individuals to the correct (optimal) category of eligibility. Moving an individual from one category to another, due to a change in circumstances, will result in ending (or closing) eligibility for the first category and starting eligibility on another.
OPS 057	The EES shall close a Category of Eligibility without closing other active Category of Eligibility s associated with that case.	S	When eligibility rules are re-run due to a change in circumstance, only the eligibility for affected household members is updated. The eligibility for non-affected household members will remain the same. Related to requirement OPS 056.
OPS 058	The EES shall close any individual other than the program case name in a Category of Eligibility without closing the entire Category of Eligibility that has other active members.	S	When eligibility rules are re-run due to a change in circumstance, only the eligibility for affected household members is updated. The eligibility for non-affected household members will remain the same.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 059	The EES shall provide a mechanism for authorized users to manually override a category of eligibility and/or allow opt-in/opt-out functionality within an active Category of Eligibility.	M	SmartPro MedEE will support manual selection of eligibility by authorized users. Modification required. Manual selection of eligibility requires changes to benefit data captured (override indicator data required) and rules. When manual override is selected, an audit trail will be created.
OPS 060	The EES shall provide a mechanism to automatically change Category of Eligibility within an active program.	S	SmartPro MedEE supports automatic changing of categories of eligibility. Eligibility rules determine category of eligibility.
OPS 061	The EES shall assign a new eligibility begin date for a new Category of Eligibility and automatically assign eligibility end date for a Category of Eligibility being closed.	S	Eligibility determinations are start and end dated. When a change in circumstances occurs, previous determinations are end dated and new determinations are start dated.
OPS 062	The EES shall provide a mechanism to release the hold after final disposition by the secondary reviewer.	W	SmartPro MedEE supports a disposition workflow. The out-of-the-box workflow supports a first reviewer. The workflow will be enhanced to support a second reviewer.
OPS 063	The EES shall share common data elements across multiple programs for selected fields.	S	SmartPro MedEE shares common data elements, captured and maintained once, across multiple programs. Data such as household data, income data, expense data and resource data is captured and maintained once but shared for eligibility purposes across multiple programs.
OPS 064	The EES shall have the capability to automatically reassign categories according to business rules.	S	SmartPro MedEE supports automatic reassigning of categories of eligibility. Eligibility rules determine category of eligibility.
OPS 065	The EES shall apply specific eligibility rules during renewal, a reported change or processing simplified reporting for a program(s).	W	SmartPro MedEE will support targeted rules for targeted processes. This will require configuration enhancements to out-of-the-box eligibility rules.
OPS 066	The EES shall provide a mechanism to collect all information required to auto-populate all necessary Procuring Agency case processing forms, based on program rules.	M	SmartPro MedEE captures a wide selection of data for eligibility purposes. This data is organized into Household data, Income data, Expense data and Resource data. Assumption here that further data needs to be captured to support sufficient auto-population of all necessary Procuring Agency case processing forms.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 001	The EES shall support eligibility determination in keeping with federal "timeliness" guidelines and State performance standards.	W	SmartPro MedEE, based on IBM Cúram for Medical Assistance, provides configured milestones and related workflow that support federal timeliness guidelines. State timeliness guidelines will require configuration to introduce State-specific milestones and workflow.
ELG 002	The EES shall support electronic verification of application data, using State or federal sources, where possible, and support post-enrollment verification where electronic data cannot be obtained.	W	A unique feature of IBM Cúram for Medical Assistance is prebuilt integration with the Federal Hub and prebuilt hooks to enable integration with other systems, such as State systems, for the verification of application data. Once the required State system interfaces are available, they will be connected to SmartPro MedEE through the ESB to these prebuilt hooks. Where data cannot be automatically verified through an interface with a valid source, a worker can upload verification documents provided by the consumer.
ELG 003	The EES shall use the CMS Single Streamlined Application or a modified version of the Single Streamlined Application.	S	IBM Cúram for Medical Assistance provides the streamlined application out-of-the-box.
ELG 004	The EES shall support the use of supplemental application for initial eligibility determinations, renewals or changes to existing Medicaid clients.	W	IBM Cúram for Medical Assistance provides a full Medicaid application out-of-the-box. Supplemental applications will require configuration.
ELG 005	The EES shall electronically capture and store all data elements on the CMS Single Streamlined Application, even if the data elements are not needed for Medicaid eligibility determination.	S	SmartPro MedEE, based on IBM Cúram for Medical Assistance, captures and stores all data elements on the streamlined application.

ELG 006	The EES shall support the use of alternative applications such as shorten form for non-MAGI, and assessment of resources.	W	Non-MAGI application is provided out-of-the-box by IBM Cúram for Medical Assistance. Alternative applications will require configuration. Refer to requirement ELG 004.
ELG 007	The EES shall support multiple non-MAGI specific programs, such as spousal impoverishment, Medicare buy-in program; etc.	S	SmartPro MedEE, based on IBM Cúram for Medical Assistance, supports multiple non-MAGI specific programs including Spousal Impoverishment and Medicare buy-in (specifically Qualified Medicare Beneficiaries (QMB), Specified Low Income Medicare Beneficiary (SLMB), and Qualified Individuals (QI).)
ELG 008	The EES shall maintain beneficiary eligibility data and information on each beneficiary's benefits.	S	SmartPro MedEE maintains beneficiary eligibility data for all members of the provided household. Other benefit data is captured and maintained as part of this eligibility data.
ELG 009	Where an existing case (account) exists, the EES shall reuse relevant information and/or selections	S	Existing Participant and Case data can be reused for eligibility purposes.
ELG 010	The EES shall ensure seamless transfer of customers between the EES and the FFM as appropriate.	S	IBM Cúram for Medical Assistance provides prebuilt capabilities for inbound and outbound account transfer with the FFM,
ELG 011	The EES shall provide beneficiaries with periodic notifications by mail, e-mail, text, telephone and/or other format according to their stated preference for receiving such communications. The EES shall follow-up electronic notifications with paper notifications where required by federal rules or desired by State operations.	M	SmartPro MedEE will notify consumers using their preferred communication format. Messages will also be delivered to the consumers account inbox, to support secure messaging. Some effort will be required to support all listed formats and to implement workflow in support of telephone users. Refer to requirement CSE 020.
ELG 012	The EES shall provide the capability to determine eligibility, and make changes to eligibility, on a retroactive basis as allowed by federal and State statuses and regulations	S	SmartPro MedEE provides eligibility determination, change in circumstance processing, and where a change occurs for a period in the past, retroactive eligibility determination.
ELG 013	The EES shall provide beneficiaries with clearly stated details as to rights and opportunity for appeal and grievance processes	W	Beneficiary users will be presented with rights and responsibilities text. Out-of-the-box, Cúram provides rights and responsibilities text for a new application. This text will be configured to match the Department's required wording. Refer to requirement NOT 002.

ELG 014	The EES shall provide beneficiaries with clear information about privacy and confidentiality protections in the application process	W	Beneficiary users will be presented with privacy and confidentiality text. Out-of-the-box, Cúram provides privacy and confidentiality text for a new application. This text will be configured to match the Department's required wording. Refer to requirement NOT 002.
ELG 015	The EES shall provide beneficiaries with clear information about the Department's protocols in case of an information breach	W	Beneficiary users will be presented with information breach text. This text will be configured to match the Department's required wording. Refer to requirement NOT 002.
ELG 016	The EES shall integrate with the existing or replace a self-assessment tool to be used by external partners and customers to evaluate potential eligibility.	W	The Cúram screening tool will be deployed to support customers in completing a self-assessment. This screening tool provides a pre-configured question script and preconfigured screening rules for determining potential eligibility. Configuration will be required to ensure that specific Departmental requirements are supported.
ELG 017	The EES shall integrate with the existing or replace pre-application screening without entering any personal identifying information.	M	The pre-application screening calculator enables the user to understand potential medical assistance eligibility using summarized household data. Some configuration will be required to satisfy Nebraska specific limits and rules. Refer to requirement ELG 019.
ELG 018	The EES shall allow a customer to securely access an electronic account containing application information, notices and appeals information and Fair Hearing information.	M	The IBM Cúram Universal Access 'My Account' functionality enables beneficiaries to manage their interactions with the SmartPro MedEE. The beneficiary account supports secure messaging, access to submitted applications, ability to submit change in circumstances and access to appeals information. Some modification required to expose appeals data through the beneficiary account.
ELG 019	The EES shall use summarized household data for the pre-application process. (e.g., two adults with two children and estimated income).	S	The pre-application screening calculator enables the user to understand potential medical assistance eligibility using summarized household data.

ELG 020	The EES shall apply eligibility rules to identify and flag potential financial and non-financial eligibility.	W	SmartPro MedEE will use eligibility rules to determine financial and non-financial eligibility. Financial and non-financial rules are available out-of-the-box with IBM Cúram for Medical Assistance. Some configuration will be required to satisfy Nebraska-specific limits and rules.
ELG 021	The EES shall provide the customer information on eligibility and general verification requirements for Medicaid eligibility and timelines for applications and verification processes.	M	Configuration is required for paper/PDF notification template. Configuration of workflow Is required for telephone notification (a worker needs to be informed to phone the applicant). Maintenance is required to extract the required data for the notification template. Similar to requirements: GEN 054, ELG 037, ELG 070, APP 042, NOT 017.
ELG 022	The EES shall access educational materials on functions of Medicaid and on other state programs.	W	SmartPro MedEE will link to education materials. Configuration in the Client Portal.
ELG 023	The EES shall provide informational fact sheets on programs for which the customer is potentially eligible.	W	SmartPro MedEE will link to program fact sheets. Configuration in the Client Portal.
ELG 024	The EES shall populate the online application with data entered in the pre-application screening tool, if a customer chooses to apply in the same session, where data elements are compatible.	S	The Client Portal application script is pre-populated with data entered into the screening tool, where data elements are compatible.
ELG 025	The EES shall track applications that originate from pre-application screening.	S	SmartPro MedEE will track new applications that originate with pre-screening.
ELG 026	The EES shall identify and flag expedited benefit cases, with user configurable triggers for expedited cases	S	SmartPro MedEE will flag expedited cases. Based on configurable questions presented to the user, the application determines if it should be considered for expedited processing. If an application is expedited, the worker will see this fact when viewing the submitted application.

ELG 027	The EES shall use existing information on a known customer to preview the impact of potential changes via a new self-assessment.	M	The pre-application screening calculator will be enhanced to support pre-population of summary data (number of household members, total income) calculated from actual data. The customer can use this simple calculator to modify the summary data and so get a preview the impact of changes in household size, income, or both, has on their household's eligibility.
ELG 028	The EES shall assure consistency in eligibility determination processing when applicants attempt to access services through different entry points.	S	SmartPro MedEE supports a No Wrong Door to insurance coverage by providing a web-based portal for clients through which they can apply for State-based and Exchange-based Insurance programs, a web-based portal for agency workers and call center workers to enable State workers to assist clients in obtaining insurance coverage, and the necessary web services to enable account/application transfers between the Federally Facilitated Marketplace (FFM) and SmartPro MedEE. All 'doors' connect back to the SmartPro MedEE application which is the system of record for all eligibility and entitlement decisions.
ELG 029	The EES shall accept complete applications from the Marketplace electronically and make Medicaid eligibility determination without requiring additional information from the applicant consistent with the policies set in the State Plan Amendment.	S	IBM Cúram for Medical Assistance provides prebuilt capabilities for inbound and outbound account transfer with the FFM. Assuming the inbound application is complete; SmartPro MedEE will make the required eligibility determination without the need for additional application data.
ELG 030	The EES shall specify beginning coverage date for those who know their existing employer coverage will be ending.	W	SmartPro MedEE will enable a beginning coverage date to be set by the worker. Configuration of new application question script is required.

ELG 031	The EES shall determine eligibility for all Medical Assistance programs.	W	SmartPro MedEE will support eligibility determination for all Departmental Medicaid programs (MAGI and non-MAGI). Configuration will be required to support Nebraska non-MAGI specific programs not provided out-of-the-box with IBM Cúram for Medical Assistance and to introduce State limits and rules to those programs that are provided out-of-the-box with IBM Cúram for Medical Assistance. This gap is documented in the contained worksheet "NE Medicaid Programs" Refer to GEN 014.
ELG 032	The EES shall validate all data fields for valid format (e.g. valid text, numbers, currency, dates, special characters allowed etc.)	S	All input fields are validated automatically for format (e.g., dates, numbers, currency, etc.). Regular expressions (regex) can be configured for special detailed formatting requirements.
ELG 033	The EES shall upload, store, and index verification documents such that they are tied to the appropriate case and searchable.	M	All verification documents captured through scanning, or directly uploaded will be stored in the Document Management System and linked to the relevant application, case, individual and/or household. Refer to requirement GEN 009.
ELG 034	The EES shall provide electronic signature capabilities for customers applying in a local office using an electronic signature pad.	M	SmartPro MedEE will support electronic signature capture. Modification will be required to integrate the signature pad with the SmartPro MedEE application. The signature graphic will be uploaded and attached to the application.
ELG 035	The EES shall provide an electronic signature for an application	S	SmartPro MedEE supports the electronic signing of applications submitted by an authenticated customer through the Client Portal. Once the new application is complete, a disclaimer is displayed asking the user to sign the new application. The customer must click a number of check boxes confirming that all the information they have provided is accurate.
ELG 036	The EES shall record and store a telephonic signature for an application	M	SmartPro MedEE will integrate with the State's IVR/telephony solution via its ESB to capture telephonic signatures, which will then be stored in Cúram Case information.

ELG 037	The EES shall provide the customer with a notification of approval or denial.	M	Modification is required to populate the paper/PDF Notification template. Configuration of workflow is required for telephone notification (a worker needs to be informed to phone the applicant). Similar to requirements: GEN 054, ELG 021, ELG 068, APP 042, NOT 017.
ELG 038	The EES shall confirm for customers or workers that submitted applications are complete.	S	SmartPro MedEE will confirm for the user when an application is complete.
ELG 039	The EES shall maintain data privacy and security requirements consistent with applicable laws.	S	SmartPro MedEE will maintain data privacy and security for all captured application data. Role-based access control ensures that only authenticated workers with sufficient authorization, and the consumer or selected assistor, can access captured application data. Refer to requirements RSR 001 - RSR 035.
ELG 040	The EES shall retain completed applications with various retention schedules. All application data will be easily searchable and retrievable.	S	All applications will be retained for an agreed period of time. In SmartPro MedEE when an application is complete and accepted, it remains on SmartPro MedEE and is linked to the ongoing eligibility case. This ensures that the original application is always available for query.
ELG 041	The EES shall allow the customers to track their status via online or telephone during the application process.	S	Customers can track their application status online through their online account. A customer can phone the call center to inquire about their application status. The call center worker will log into SmartPro MedEE and search for the application using the customer provided application reference number. Where this reference number is not available, the call center worker can search for the customer record, using any customer data provided. Once located, the worker can access the customer record and view the application.

ELG 042	The EES shall store a version of the completed application form and allow the customer to retrieve it.	W	When an application is received and complete, SmartPro MedEE generates a PDF version of the application using the application data provided. Out-of-the-box, Cúram uses a plain, non-branded, PDF document. Some configuration effort will be required to prepare the Nebraska application PDF form to allow application data be used to prepopulate the form where possible.
ELG 043	The EES shall save and print a version of a completed application form that was saved online.	S	The authorized users can open the saved PDF document and print it.
ELG 044	The EES shall auto-populate known data within the system between modules, functions and applications within the life of the household.	S	The SmartPro MedEE will pre-populate data fields with available data.
ELG 045	The EES shall process household with more than one applicant	S	The SmartPro MedEE will support single and multi-person households.
ELG 046	The EES shall refer cases with potentially fraudulent activity to appropriate agency	W	To identify potentially fraudulent applications, PCR (Priority, Complexity and Risk) rules will be configured. The Risk rules will identify potentially fraudulent applications. A workflow will be configured to refer identified case to an appropriate working unit.
ELG 047	The EES shall identify applications which are pending HUB Citizenship etc. verification	S	Applications that are pending hub citizenship verification are tracked in SmartPro MedEE.
ELG 048	The EES shall establish an eligibility base period from one to twelve months.	W	Eligibility base periods are determined based on case circumstances and established based on program-specific policy. Updates to base period calculation logic for Nebraska-specific programs will be configured.
ELG 049	The EES shall determine the correct eligibility base period automatically and manually.	S	Eligibility base periods are set by SmartPro MedEE based on case circumstances and established based on program-specific policy. Eligibility based periods can also be set or updated manually.
ELG 050	The EES shall retain a viewable history of changes to the eligibility base period.	S	A history of changes to the start and end dates for eligibility periods is maintained and is viewable in SmartPro MedEE.

ELG 051	The EES shall place cases in a pending status if eligibility cannot be determined in real time due to system unavailability. The case will be flagged for follow up and verification of the required information	S	If eligibility cannot be determined in real time due to SmartPro MedEE system unavailability, any impacted applications will be picked up by a nightly catch-all batch job. This batch job will be run regularly to automate eligibility determination for those complete applications that were not processed online, during the day, regardless of the reason.
ELG 052	The EES shall place cases in a pending status if eligibility cannot be determined in real time due to data inconsistencies in accordance with 155.315(f). The case will be flagged for follow up and verification of the required information	S	If eligibility cannot be determined in real time due to data inconsistencies, the case owner(s) will be notified.
ELG 053	The EES shall support multiple budgeting methodologies (e.g. perform multiple tests on a single household when family beneficiaries may be eligible for multiple programs).	S	SmartPro MedEE will perform multiple eligibility tests on a single household to determine the correct combination of assistance for all members of the family. This can result in different family members being eligible for different programs (e.g. father on insurance assistance, pregnant mom on Medicaid, and children on CHIP).
ELG 054	The EES shall identify all types of incomes (e.g. countable or exempt statuses of incomes, and resources by program or individual).	S	SmartPro MedEE, based on IBM Cúram for Medical Assistance, supports a wide range of income types, out-of-the-box.
ELG 055	The EES shall document case notes of actions which have occurred on case	S	Case notes are linked to Individuals and Cases. Authorized users can input case notes.
ELG 056	The EES shall calculate start and end dates of presumptive eligibility periods based on user configurable rules	M	Presumptive eligibility will be supported in SmartPro MedEE through Modification. Refer to requirement GEN 068.
ELG 057	The EES shall create automatic and manual alerts to internal and external users upon the occurrence of specified events.	S	SmartPro MedEE will create automatic and manual alerts according to the specified events in these requirements. An alert can be issued as an EES notification (available through the user inbox) or as an eMail.

ELG 058	The EES shall automatically re-determine eligibility for customers based on specified events (e.g. cost-of-living adjustment, changes in insurance premium amounts).	S	A non-technical user can be authorized to make changes such as Cost of Living Allowance (COLA) rate adjustments or insurance premium adjustments. Given that the two examples provided here could impact the eligibility profile of a large number of cases; this would be considered a mass change. Refer to requirement GEN 042. To ensure that such mass changes happen in a controlled manner without impacting online performance, eligibility re-determination will either run in batch, or asynchronously on-line on separate dedicated hardware.
ELG 059	The EES shall calculate customer responsibility/cost sharing for Long Term Care or Home and Community Based waiver programs.	S	SmartPro MedEE, based on IBM Cúram for Medical Assistance, supports eligibility for Long Term Care Programs: Long Term Care (Special Income Level) and Medically Needy Long Term Care. Calculation of customer responsibility/cost share for Long Term Care or Home and Community Based waiver programs supported out-of-the-box.
ELG 060	The EES shall determine applicant eligibility for specific non-independent living Long Term Care or waiver programs. (e.g. Institutional Living).	W	SmartPro MedEE, based on IBM Cúram for Medical Assistance, supports eligibility for Long Term Care Programs: Long Term Care (Special Income Level) and Medically Needy Long Term Care.
ELG 061	The EES shall set a period of ineligibility for a Long Term Care or waiver customer who commits a prohibited transfer of resources.	S	Available as part of IBM Cúram for Medical Assistance.
ELG 062	The EES shall track movement from one facility to another to re-determine insurance eligibility, and cost sharing based on regulations. (e.g. hospitalization, nursing home, independent living).	M	Living Arrangement details are captured as part of the standard non-MAGI application. Eligibility Rules will consider if the type of facility impacts eligibility or cost sharing. Some modification effort is required around 'cost sharing' for Long Term Care (LTC). . Refer to requirement ELG 057.
ELG 063	The EES shall identify resources excluded due to Long Term Care insurance.	W	SmartPro MedEE will identify resources that are excluded due to LTC insurance. Some simple rates table configuration work is required for specific resource exclusion.

ELG 064	The EES shall complete and retain a resource assessment.	S	Resource details are captured in the application. Rules are provided, out-of-the-box, to calculate eligibility based on a resource test, for appropriate programs.
ELG 065	The EES shall support the process of reviewing program eligibility.	S	Any user with the sufficient authorization can review eligibility determination details by person, by program. Workflow will notify the reviewing user that their attention is required.
ELG 066	The EES shall display the basis of the eligibility budget calculations.	S	SmartPro MedEE will display budget calculations as part of the overall eligibility determination.
ELG 067	The EES shall support varying methods of reviewing program eligibility (e.g. paper process where a review form is generated with pre-populated information).	M	SmartPro MedEE will enable a reviewer to examine all details of an application, change in circumstance, or as part of, the associated eligibility determination online. Some modification will be required to trigger and pre-populate a paper review form.
ELG 068	The EES shall trigger redetermination on cases with a fixed schedule of timed intervals.	S	An eligibility batch job in SmartPro MedEE will be run on a regular basis. This will support redetermination of cases, on a fixed schedule.
ELG 069	The EES shall track eligibility determinations separately. (e.g., income used to determine eligibility for Program 1 may be different than the income used to determine eligibility for Program2, etc.)	S	Different rules for different programs consider the same application data (e.g. income) differently, according to the eligibility rules. For example one set of eligibility rules might consider gross income whereas another considers net income. While program eligibility rules can vary from one program to another, shared rule sets are also supported where common eligibility rules exist across programs.
ELG 070	The EES shall send notification of eligibility determination.	W	Modifications will be required to support the notification of eligibility template and population of. Refer to requirement ELG 011. Similar to requirements: GEN 054, ELG 021, ELG 035, APP 042, NOT 017.
ELG 071	The EES shall use the available interfaces to process redetermination for the MAGI qualifying population.	S	All interfaces used as part of the initial eligibility determination process will be available for use as part of eligibility redetermination.

ELG 072	The EES shall provide the capability to create and maintain an electronic household file of all applicants and families requesting services from the time that they first make an entry to the system.	S	Household details are fundamental to SmartPro MedEE eligibility determination. Throughout the life of an eligibility case, a history of all household details is maintained.
ELG 073	The EES shall support a range of disposition action triggers including event-based triggers (e.g., creation date, closing date, date of last review).	W	Automatic and Manual disposition triggers are provided out-of-the-box by IBM Cúram for Medical Assistance. Configuration effort is required to support extra disposition triggers.
ELG 074	The EES shall allow authorized users to review disposition actions prior to their execution.	S	Authorized users can review application data and eligibility determinations before disposing of an application.
ELG 075	The EES shall allow users to apply disposition action holds on records.	S	Application disposition can result in the reviewer not accepting the eligibility determination decision and putting the related case on hold for further investigation/review.
ELG 076	The EES shall have the flexibility to process individuals in the newly created categories.	S	SmartPro MedEE, based on IBM Cúram for Medical Assistance, will provide support for all new categories introduced as part of the ACA. This includes support for the new category covering single adults with no dependents. Refer to requirement GEN 004.
ELG 077	The EES shall provide a mechanism to generate a list of received and pending verifications including eligibility worker entered comments.	S	The applicant is notified of all outstanding verifications as part of submitting the application online. Furthermore a list of all received and outstanding verifications are tracked against the application. A worker can view this list plus any worker comments entered at any time.
ELG 078	The EES shall provide the ability to allow applicants to view, confirm, dispute and submit corrections to verification results.	M	Cúram enables the worker to view, confirm and submit corrections to verification results. The worker can also register a dispute on behalf of the applicant. Exposing this functionality online to enable the applicant to view confirm, dispute and submit corrections to verification results will require modifications to the base system.

ELG 079	The EES shall provide applicants the ability to address inconsistencies reported by external entities (i.e. income, citizenship, etc.) within a timeframe defined by the Department.	W	SmartPro Med EE, through Cúram Life Event processing, will enable an applicant to submit changes to address any inconsistencies to data reported by external entities. Workflow and milestone configuration will be required to notify the applicant when external entities provide data and to track the allowable timeframe to address inconsistencies.
ELG 080	The EES shall update the applicant's record with the verification results as appropriate.	S	Verification details are tracked against the applicant's data in SmartPro MedEE.
ELG 081	The EES shall utilize master indexes to avoid duplicates.	M	SmartPro MedEE utilizes IBM's advanced InfoSphere MDM tool to implement matching and duplicate resolution. Please refer to the MDM requirements for more detail.
ELG 082	The EES shall search and match the existing client data before assigning new unique number (e.g., for example, search/match criteria could be the following, including but not limited to, "Fuzzy search", first name, last name, DOB, unique id, SSN, address, aliases, case number, etc.).	S	SmartPro MedEE enables a worker to search and match new client data against the database of existing clients before registering the new client record.
ELG 083	The EES shall have the capability to reconcile duplicate records.	S	Where multiple records are created for the same client, a worker can merge the client records into a single record.
ELG 084	The EES shall provide the data reports or file extracts to reconcile data between the EES and other systems.	C	We will finalize specifications of the required extracts and reports as part of our Reporting / Business Intelligence work; in order to meet the State's reconciled requirements.
ELG 085	The EES shall capture alias information.	S	SmartPro MedEE captures alias data for clients. Multiple aliases can be captured.
ELG 086	The EES shall search account by multiple criteria (e.g., name, ID#, phone number, date of birth, county, assigned worker, etc.).	M	SmartPro MedEE provides a client search function that enables the worker to search for a client using multiple criteria. Modification required to support a 'county' criteria is required.
ELG 087	The EES shall perform compound searches (e.g., names of married couple, names of parent and child, name of siblings, etc.).	M	This is a new search, not supported in Cúram out-of-the-box. Modification to the base application is required.

ELG 088	The EES shall easily modify list criteria while searching.	S	The worker can input further search criteria in order to filter the list of search results. The worker can also sort the list of search results alphabetically by clicking the search result field heading.
ELG 089	The EES shall perform responsible person searches.	S	SmartPro MedEE client search will search across all clients in the system in order to find the relevant responsible person data.
ELG 090	The EES shall automatically identify a customer currently known to the system (e.g. applicant pending determination, past member not currently enrolled, etc.)	S	Client records are organized into prospect clients and registered clients. Prospect clients are associated with a new, unverified application. Both prospect and registered clients will be returned and easily identified in the search results. Further details regarding the application or eligibility status of the client can be viewed by accessing the full client record.
ELG 091	The EES shall electronically or manually assign a customer to a case.	S	An individual will be assigned automatically to a case by SmartPro MedEE. An individual can also be assigned manually to a case by an authorized user.
ELG 092	The EES shall conduct a manual case registration by a worker.	S	SmartPro MedEE will support auto and manual registration of cases. A worker can manually register a case. This process will be used to cater to walk-ins.
ELG 093	The EES shall create a case by grouping associated customers together.	S	SmartPro MedEE a case will group a household of customers together.
ELG 094	The EES shall allow a worker to manually create a case.	S	SmartPro MedEE will support the manual creation of cases. A worker can manually create a case. This process will be used to cater to walk-ins.
ELG 095	The EES shall use an existing case number per policy.	S	If a case number exists, this can be added to a case in SmartPro MedEE. SmartPro MedEE can support multiple different case numbers per case, if required. This will be useful to maintain a legacy case number and a new case number, if different, on a single case.
ELG 096	The EES shall assign a unique case number to a case.	S	SmartPro MedEE will assign a unique, generated, case identifier to a new case.

ELG 097	The EES shall allow a customer to be associated to multiple cases at the same time. (e.g. customer may receive insurance products on one case number and be the case name for a different case number on which their child is receiving insurance products, etc.)	S	A single customer can be involved in and associated with multiple cases at the same time. This customer record is saved independent of can case, and is linked to all associated cases.
ELG 098	The EES shall associate multiple cases to each other. (e.g. cases that share customers).	S	A case can be related to one or more cases.
ELG 199	The EES shall allow manually associate multiple cases to each other. (e.g. cases that share customers).	S	A worker can manually create a case relationship.
ELG 100	The EES shall close beneficiaries/households/categories based on applicable eligibility rules resulting from changes in information and track closure reasons.	S	The determine eligibility process will automatically and accurately track the eligibility status of all beneficiaries, households and program categories, as new applications and change in circumstances are received. As individuals/households move out of eligibility for program categories, the relevant eligibility records are end dated, rather than closing the client or household record. Beneficiaries, household and categories can also be closed, though closing a record in Cúram, means it is no long active in the system. Worker comments are captured on closure.
ELG 101	The EES shall provide a process to override system closures.	S	A worker can reopen a closed record.
ELG 102	The EES shall provide functionality to manually close beneficiaries/households/categories based on applicable eligibility rules resulting from changes in information and track closure reasons.	S	A worker can manually close beneficiary, household, and category-based relationships.
ELG 103	The EES shall allow the user to manually associate customers to each other.	S	A worker can manually relate two customers. When the relationship is initiated (e.g. Parent), the inverse relationship is automatically calculated (e.g. Child) and captured.

ELG 104	The EES shall create multiple cases based on regulations. (e.g. Disabled parent with a child).	S	SmartPro MedEE will perform multiple eligibility tests on a single household to determine the correct combination of assistance for all members of the family. This can result in different family members being eligible for different programs (e.g., disabled parent, child on CHIP). Multiple eligibility cases will be created to represent this eligibility situation. However these eligibility cases are contained within a higher level integrated case that links all eligibility cases to the original application and application data.
ELG 105	The EES shall manually separate cases per regulations.	S	A worker can manually cancel a case relationship.
ELG 106	The EES shall automatically create a task for updates in the eligibility determination of insurance products/other public assistance programs (e.g., child turning 18, 21 or an adult turning 65, etc.).	S	Time based events are recognized when the related entity (e.g. an individual) is associated with a case. An eligibility determination that extends beyond one of these time based events will be called to initiate the event. This can result in a change in eligibility decision for one or more household members, depending on the eligibility rules.
ELG 107	The EES shall provide Medicaid enrollment roster to Marketplace at stipulated frequency.	M	Some modification will be required to provide the FFM with Medicaid enrollment data on a regular basis. The modification will involve the creation of a new batch job to extract Medicaid enrollment details from the SmartPro MedEE database to a file. The file will be sent to the FFM via the ESB. This batch job will be run at the stipulated frequency.
ELG 108	The EES shall display or capture prior insurance requests.	S	The EES maintains and displays a history of all applications submitted, including application data entered, data verifications applied and eligibility determinations made.
ELG 109	The EES shall set 'special situation' indicators based on rules maintained in the system. (e.g. language, confidentiality situations).	S	SmartPro MedEE will identify and track 'special situation' aspects of applications and ongoing eligibility cases. These include language preference, sensitive cases, applicant special cautions (e.g. violent, history of fraud, etc.), and expedited applications.
ELG 110	The EES shall allow manually override all automatically set 'special situation' indicators.	M	The ability to manually override 'all' special situation indicators will require some modification effort.

ELG 111	The EES shall provide the customer with a paper receipt of the documentation (e.g. paystub or birth certificate) that has been turned in to a worker.	M	Enhancement to out-of-the-box Verifications functionality is required. For example an enhancement is required to generate a paper receipt. Another enhancement is related to the ability to store and link the receipt with the received verification item.
ELG 112	The EES shall have the capability for the Department to notify Marketplace of Medicaid Determination	M	SmartPro MedEE will have the capability to notify the FFM of a Medicaid Determination. This will typically happen in the following scenario: The FFM may first assess a consumer as eligible for Medicaid. The FFM will transfer the account to SmartPro MedEE. SmartPro MedEE then runs its own determination for Medicaid. If the consumer is now determined as ineligible by the SmartPro MedEE (i.e., the FFM assessment was incorrect) then SmartPro MedEE sends the account back to the FFM to enable the consumer to shop for qualified health plans in the FFM.
ELG 113	The EES shall provide a mechanism to manually extend verification timeframes.	S	A worker can manually extend Verification deadlines.
ELG 114	The EES shall point out missing data, errors and inconsistencies as they progress through the application, performing verification in real time where possible	S	As the user is entering data, SmartPro MedEE will check for missing data, badly formatted data, inconsistent data and data that fail business validation rules (e.g. end date cannot be before start date). The user will be informed of any data issues on screen. Real-time verification of application data, e.g., a call to the Federal Data Hub, will provide the user with verification feedback online.
ELG 115	The EES shall provide a mechanism to have a "same as" selection to enter repetitive data.	S	When entering data, such as address data (e.g., contact address and mailing address); the user can take advantage of "same as" capabilities.
ELG 116	The EES shall allow a worker to jump back to sections previously completed without losing data entered.	S	The user is presented with a guided script of questions to simplify new application data entry (note that workers also have an option to enter application data in a non-guided manner, if preferred). At any time, the user can jump back to any section previously completed.

ELG 117	The EES shall provide a mechanism to manually navigate/skip to any screens that the worker is authorized to access.	S	The worker can manually navigate to any application screen that they are authorized to access. This enables the worker to complete a new application in an order that suits their situation.
ELG 118	The EES shall identify and display verifications required for the applicant based on program rules.	S	SmartPro MedEE will track and display all data verifications required for a new application, or for a change in circumstance.
ELG 119	The EES shall produce a customized listing of verification documents for an eligibility criteria required to complete eligibility determination.	S	SmartPro MedEE will list all received and outstanding verifications required for an eligibility determination.
ELG 120	The EES shall allow a worker to upload and attach source documents to support eligibility determination.	S	A worker can upload documents in support of eligibility determination. These documents will be saved in the Hyland OnBase and directly linked to the new application or the ongoing eligibility case.
ELG 121	The EES shall present worker with a summary view of the information entered prior to submission.	S	When data in support of eligibility determination is entered, it is done so in a 'holding area'. This gives the worker the opportunity to complete and verify a set of data, without impacting eligibility, until the worker is satisfied that that the data is complete, correct and verified. When the worker is ready, the verified set of data is then released from the holding area and eligibility determination is triggered. This capability enables a worker to view a summary set of related data (e.g. a full application, or one or more change in circumstances) before deciding to submit it.
ELG 122	The EES shall provide applicants the ability to submit alternative verification via multiple avenues (e.g., email, mail, phone, fax, walk- in).	S	Verification documents can be submitted through all supported channels. Any paper documentation submitted will be scanned, saved in Hyland OnBase and linked to the related application.
ELG 123	The EES shall assign a unique identifier as specified by the Department to be for each person entered.	S	SmartPro MedEE will support a Department-unique identifier for each person in the system. Note that SmartPro MedEE will also support multiple unique identifiers per person (e.g., legacy DHHS identifier, passport number, for example.)

ELG 124	The EES shall allow an applicant or applicant's authorized representative to review the current application before and after formal submission with the appropriate safeguards and security measures.	S	The applicant and the applicant's authorized representative can view the application before and after submission. The authorized representative will also have to log in to the system, in order to view all applications that they are the authorized representative for.
ELG 125	The EES shall not allow an applicant and applicant's authorized representative to submit more than one application within 30 days from the initial submission unless the application was denied.	W	SmartPro MedEE will prevent the applicant from submitting more than one (non-denied) application within 30 days. Some configuration necessary in order to modify the existing submission workflow to implement this logic.
ELG 126	The EES shall allow an applicant or applicant's representative to amend an application as long as a determination has not been made.	S	An application can be amended up to the point that a determination is made. If a change is submitted after the determination is made, then this change is treated as a Change in Circumstance, and a re-determination will be carried out.
ELG 127	The EES shall allow the applicant or applicant's authorized representative to save and amend the application or renewal for up to 30 days in order to gather additional information prior to submittal.	M	Modifications are required to implement logic that will prevent further amendments to an application or renewal after 30 days.
ELG 128	The EES shall allow and record an applicant's request to withdraw an application.	S	A submitted application can be withdrawn by the applicant.
ELG 129	The EES shall only collect applicant/household information once and share across Department designated fields.	S	Applicant and household information will only be collected once. This data will be available for sharing through SmartPro MedEE's ESB, IBM Integration Bus.
ELG 130	The EES shall provide an automated or guided application process to enable the worker to easily enter required information.	S	The user is presented with a guided script of questions to simplify new application data entry and change in circumstance data entry. At any time, the user can jump back to any section previously completed.
ELG 131	The EES shall capture and track from which organization an application was submitted.	S	SmartPro MedEE will capture and track the source organization responsible for submitting an application, and provide a report on this information..

ELG 132	The EES shall monitor the number of applications submitted and abandoned and the number of applicants who requested assistance via chat, telephonic, etc.	M	SmartPro MedEE will track the number of submitted and abandoned applications, and the channels by which applicants request assistance, and provide a report on this information.
ELG 133	The EES shall monitor and report on number of applications received and the method by which they were submitted.	M	SmartPro MedEE will track the number of applications received, and their method of submission, and will provide a report on this information.
ELG 134	The EES shall capture interview dates.	S	SmartPro MedEE enables the applicant to request an interview and select interview dates. The interview request is linked to the new application and can be viewed and maintained by a worker.
ELG 135	The EES shall provide system-generated date and time stamp for receipt of electronic applications to be used in monitoring standards of promptness by program.	S	The date and time of an electronic application is captured in SmartPro MedEE.
ELG 136	The EES shall provide system-generated date and time stamp for registration of paper applications.	S	The date and time of a paper application registration is captured in SmartPro MedEE.
ELG 137	The EES shall provide a mechanism to begin benefits on a date different than the application date and system-generated date.	S	The benefits start date can be different to the application date.
ELG 138	The EES shall capture and display date that a disposition was made on an application/renewal.	S	The date that the application/renewal is disposed is tracked and displayed in SmartPro MedEE.
ELG 139	The EES shall check each incoming applicant against existing eligibility database to determine if the incoming applicant is new to the system, reopening a prior category, or adding applicants to existing household.	S	SmartPro MedEE supports a person match function by identifying a new applicant to existing participants registered in the system.
ELG 140	The EES shall allow continuance of the application process for applicants without an SSN and assign pseudo-number and ensure pseudo number allows match to get correct SSN.	S	SmartPro MedEE will accept an application where SSNs are not provided for all members of the household. When this occurs, SmartPro MedEE will generate a unique identifier for these members.
ELG 141	The EES shall provide a mechanism to match and replace the pseudo-SSN with the actual SSN.	S	SmartPro MedEE will enable a worker to add the SSN to the member record, and set the SSN as the primary reference number for the member. The auto-generated unique identifier will remain on the member record. The member can be searched for using either reference number.

ELG 142	The EES shall route applications to the appropriate staff, based on business rules.	W	Applications are routed to a central work queue, by default. Workflow configuration logic will be required to route applications according to the Department's specifications.
ELG 143	The EES shall display to the applicant discrepant information between the new application and information stored in the existing household.	M	Some modification will be required to highlight discrepant information.
ELG 144	The EES shall provide a mechanism through which an applicant could check the applicant's status.	S	The applicant can check their application status by logging in to the client portal
ELG 145	The EES shall provide the ability to allow applicants to submit paper applications, whether through walk-in, fax or mail-in.	S	Paper applications received in person, through the mail, or by fax will be scanned and OCR'ed. The electronic image will be saved in the Hyland OnBase. The OCR process will trigger a workflow which will attempt to process the application automatically and without agency worker intervention. Refer to requirement GEN 009 and OPS 013.
ELG 146	The EES shall provide capability to track incomplete, new, add-on, and pending applications.	S	SmartPro MedEE will track the status of all applications.
ELG 147	The EES shall allow for a manual verification process when the Marketplace hub verification service is not available.	S	A worker can upload documents in support of manual verification. These documents will be to Hyland OnBase and be directly linked to the new application or the ongoing eligibility case.
ELG 148	The EES shall provide a mechanism to indicate which verification documents have already been provided.	S	SmartPro MedEE maintains a list of received and outstanding verifications outstanding for an application.
ELG 149	The EES shall send notification of alternative verification options to the applicant when electronic verification is not available.	M	Modifications are required to notify the applicant of alternative verification options if data cannot be verified electronically. Refer to requirement ELG 011.

ELG 150	The EES shall provide the capability to determine and correct eligibility for current and prior months.	S	Eligibility determination can process prior, current and future periods of time. Where an existing determination exists for a period of time, and where data, rules or rates change during that period of time, eligibility can be re-run resulting in a new eligibility decision for that period of time, superseding the previous decision. A history of all eligibility decisions (superseded and current) is maintained.
ELG 151	The EES shall determine eligibility without worker intervention, as allowed by policy (e.g., exceeds the Medical Assistance income limit).	S	Eligibility determination can be triggered at any time manually or automatically. SmartPro MedEE will support no-touch claims. A no-touch claim can be submitted through the client portal or via scanning and OCR of a paper application or fax. Once captured, the data can be auto-verified against the Federal data hub, and if no verifications are outstanding, the application will be auto-disposed, and an eligibility determination created. This overall process will be orchestrated by a workflow. At any time, if a problem is encountered, the workflow will raise a task for the attention of a user, group of users or work queue, to examine the application and fix the problem. Once such a problem has been fixed, no-touch processing can resume.
ELG 152	The EES shall allow designated users to override eligibility determinations.	M	SmartPro MedEE will support manual override of eligibility by authorized users as such a modification is required. Manual override of eligibility requires changes to benefit data captured (override indicator data required) and rules. When manual override is selected, an audit trail will be created.
ELG 153	The EES shall send eligibility determinations to the MMIS enrollment system on a real-time basis to support plan enrollment and claims processing functions.	M	SmartPro MedEE will integrate Cúram with the MMIS system using its ESB capability to support the necessary real-time interface. Refer to requirement IER 010 for related modification effort.
ELG 154	The EES shall generate reports related to eligibility decisions.	C	SmartPro MedEE will generate the required reports relating to Eligibility decisions.

ELG 155	The EES shall be flexible enough to add additional Medical Assistance programs.	S	SmartPro MedEE application is highly extensible both through configuration and modification. A majority of changes required in support of additional Medical Assistance programs will be catered for through CER rules and Cúram Workflow configuration. Where such changes cannot be satisfied thru configuration, SmartPro MedEE can be extended through modification.
ELG 156	The EES shall display the eligibility results in a manner that is comprehensive and easy to understand.	S	Eligibility results are displayed in a format that is both intuitive and comprehensive. An eligibility determination covers a period of time. It can contain multiple eligibility decisions during that period of time, if rules, rates or eligibility data changed during that period. A single eligibility decision is displayed across a set of tabbed panels. The initial panel contains a summary of the eligibility decision. Subsequent panels display a breakdown of this eligibility decision. Depending on the program, these will include household eligibility results, income eligibility results, and resource eligibility results.
ELG 157	The EES shall have spenddown capability, including automating a spenddown of resources and income calculation.	S	SmartPro MedEE will support spenddown capability including the automation of spenddown of resources and income calculation.
ELG 158	The EES shall allow the Department to set enrollment limits and provide a mechanism to manage applications for programs that are at whose enrollment is capped.	M	SmartPro MedEE will support enrollment limits. out-of-the-box wait list capability will be used to manage applications for programs for which the enrollment limit has already been reached. Modifications are required to enforce enrollment limits (program level maintenance of enrollment limits, rules to check if enrollment max has been reached, processing of items on wait list), and to issue wait list notifications (added to and removed from wait list).
ELG 159	The EES shall provide the capability for certain programs, as identified by the Department, to be flagged according to funding source.	M	SmartPro MedEE will support linking programs to funding sources. Using Cúram's Codetable of funds and screens will associate a program type with a fund.

ELG 160	The EES shall evaluate the resource/asset eligibility of an applicant when determining eligibility for those programs requiring a resource / asset test.	S	SmartPro MedEE eligibility rules evaluate resource and asset eligibility using program specific eligibility rules and limits.
ELG 161	The EES shall allow authorized users to search online household files using key fields such as name, SSN, ID, date of birth, etc.	S	SmartPro MedEE provides a client search function that enables the worker to search for all clients across all household using multiple search criteria. For each client returned the household(s) that this client is part of are directly accessible.
ELG 162	The EES shall provide a mechanism for authorized users to access beneficiary/household summary from any screen.	S	Case information is organized and displayed across a set of tabbed panels. A case context panel is always displayed, above these tabs, to show high level summary data about the case regardless of what part of the case the case worker is focused on. Beneficiary and household summary data are included on this case context panel and are always visible within a case.
ELG 163	The EES shall provide the capability to re-open a category that is closed in the status it was before the closure.	S	A history of all status changes is maintained in SmartPro MedEE. This history supports reverting to a previous status.
ELG 164	The EES shall provide a mechanism to indicate relationships between all members of a household.	S	When a new application is created, household relationships are requested and captured for all members of the household. Inverse relationships are automatically created.
ELG 165	The EES shall provide a mechanism to automatically create the inverse family relationships (e.g., parent - child, child - parent, etc.).	S	When a relationship is created between two clients, an inverse relationship is automatically calculated and captured.
ELG 166	The EES shall provide the capability to perform mass terminations due to changes in status as well as program changes.	S	A non-technical user can be authorized to make changes such as eligibility rules changes, or rates changes that can result in mass termination, affecting a large number of program eligibility cases. To ensure that such mass changes happen in a controlled manner without impacting online performance, these requests are designed to either run in batch, or if preferred, asynchronously on-line using separate dedicated hardware.

ELG 167	The EES shall provide household-based activity checklists (to-do lists) to assist in prompting the workers in the completion of required household activities	S	A list of work item tasks will be associated with an application or case. This list will enable a worker to view outstanding and completed work items related to a case.
ELG 168	The EES shall allow for interview scheduling and tracking of completed interviews. Send client notification of interview is not completed.	M	SmartPro MedEE enables the applicant to request an interview. The interview request is linked to the new application and can be viewed and maintained by a worker. Some modification required around tracking attendance and issuing no-show notices.
ELG 169	The EES shall include workflow management based on whether an applicant is MAGI-based and/or MAGI-excepted households.	S	SmartPro MedEE will react accordingly based on whether the applicant is MAGI based or MAGI excepted. Both categories of population are supported out-of-the-box in IBM Cúram for Medical Assistance.
ELG 170	The EES shall identify all types of incomes (e.g. countable or exempt statuses of incomes, and resources by program or individual).	S	IBM Cúram for Medical Assistance" supports a wide range of income types, out-of-the-box.
ELG 171	The EES shall provide the capability at an individual level to be able to rework a prior case that is closed even if an open case exists.	S	A worker can rework a closed case, even if another case is currently open.
ELG 172	The EES shall track program requirements for individuals, e.g., those who are penalized due to transfer of assets.	S	Program requirements, such as the need to capture transfer of assets details for LTC clients, are captured in SmartPro MedEE. Program specific eligibility rules reference this data to determine eligibility.
ELG 173	The EES shall provide an automated screening tool to determine potential eligibility status using predefined rules and to route to the next step in the process.	W	The Cúram screening tool enables customers to screen for potential eligibility. This screening tool provides a pre-configured question script and preconfigured screening rules for determining potential eligibility. Configuration will be required to ensure that Department-specific requirements are supported.

Appeals Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 001	The EES shall support an electronic appeals process, which includes transmission of data to the federal Hub, interfacing with document imaging, and a client web accessibility	S	SmartPro MedEE will support electronic Appeals processing. SmartPro MedEE will support interfacing with the federal hub, interfacing with document imaging and enabling applicants to interact with EES over a web client portal.
APP 002	If an Appeals decision is in favor of The Department, the EES shall automate the recovery of premiums or medical services that were paid and auto-generate form to Finance Office for recovery.	M	If an appeal decision is made that is in favor of the Department, and covers a period of time during which financial payments were made on behalf of a client that should not have been paid, SmartPro MedEE will automatically create an over payment record. This over payment record will track the total amount that should be recovered from the client. Modification is required to support the auto generation of a form for the Finance Office, containing details of the over payment calculated.
APP 003	The EES shall capture and track the disposition of appeals (including status, assignments, and relevant household notes).	S	An Appeal case will capture and track relevant appeal data including status, user assignments, attachments, and appeal notes. An Appeal case will be linked directly to the item under appeal.
APP 004	The EES shall record the detailed results and supporting documentation that result from or support an appeals decision.	S	An Appeal case will capture and maintain the appeal results. Supporting attachments and documents can be linked to an appeal case.
APP 005	The EES shall have the ability to be notified of results of Appeals	S	SmartPro MedEE will support the entry of appeal results as part of an appeal case.
APP 006	The EES shall automatically capture, retain, and display receipt of eligibility appeals.	S	When an eligibility appeal is raised by a client or a worker, an appeals case will automatically be created.
APP 007	The EES shall allow manually entered eligibility appeals.	S	SmartPro MedEE will support the manual creation of an appeal case.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 008	The EES shall record the reporter/source (name, address, associated agency of person expressing the eligibility appeals, etc.), if applicable.	S	SmartPro MedEE will link to the client or entity raising the appeal, and if not already registered in the system, will record the required details on that client or entity.
APP 009	The EES shall provide a mechanism to generate a list of received and pending verifications including eligibility worker entered comments.	S	The applicant is notified of all outstanding verifications as part of submitting the application online. Furthermore a list of all received and outstanding verifications are tracked against the application. A worker can view this list plus any worker comments entered at any time. Refer to requirement ELG 080.
APP 010	The EES shall assign a unique tracking number to the eligibility appeals.	S	When an appeal case is created it is assigned an auto generated unique tracking number.
APP 011	The EES shall assign a worker, or group of workers, to manage eligibility appeals.	S	A worker or group of workers can be assigned as owner of the appeal case.
APP 012	The EES shall update/change manager assigned to a eligibility appeal.	S	A manager can be assigned to the appeal case. An existing assignment can be updated. A history of all assignments will be maintained.
APP 013	The EES shall identify and assign the priority of eligibility appeals.	S	In SmartPro MedEE, an appeal case supports a priority level.
APP 014	The EES shall cross reference common eligibility appeals (e.g. receiving 100 fair appeals requests from a single customer on a single policy change).	S	In SmartPro MedEE it will be possible to associate multiple appeals with a single customer and cross reference these appeals with an appeal reason.
APP 015	The EES shall track when a request for reconsideration becomes an appeal request.	S	In SmartPro MedEE, a request for reconsideration will become an appeal request when an appeal case is created. The creation date of the appeal case will represent the start date of the appeal request.
APP 016	The EES shall provide the facility to export and print case histories and case notes for the purposes of appeals.	M	Modification effort will be required to export and print case details and case notes in support of the appeals process.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 017	The EES shall support the appeals process for customer exemption decision.	S	In SmartPro MedEE, the customer can raise an appeal for an exemption decision.
APP 018	The EES shall accept and adjudicate customers appeals regarding eligibility determinations and exemptions from the customer responsibility requirement.	S	SmartPro MedEE will accept and support the adjudication of appeals regarding eligibility determinations and exemptions from the customer responsibility requirement.
APP 019	The EES shall associate the eligibility appeals to a case(s) and /or a customer(s).	S	An appeal case will be linked to the relevant customer and the relevant eligibility case.
APP 020	The EES shall track all eligibility appeals.	S	SmartPro MedEE will track all eligibility appeals as appeal cases.
APP 021	The EES shall track multiple eligibility appeals from a single contact.	S	A single client or entity can raise multiple appeals. SmartPro MedEE will track all appeals raised by that client or entity.
APP 022	The EES shall store all eligibility appeals in a central location.	S	SmartPro MedEE will store all eligibility appeals in the SmartPro MedEE database.
APP 023	The EES shall track a request for reconsideration outside of standard case notes	M	Modification effort will be required to track requests for reconsideration against eligibility cases.
APP 024	The EES shall log updates to an appeal in case notes	S	All updates to appeals will be logged against the appeal case. Note that an appeal case supports appeal case notes.
APP 025	The EES shall add notes to appeals	S	SmartPro MedEE will support notes for an appeal case.
APP 026	The EES shall capture history of eligibility appeals by multiple parameters (e.g. source, subject, date, etc.)	S	A history of appeals will be maintained in SmartPro MedEE. An appeal will be represented by an appeal case which will contain relevant details such as subject, start date, notes, and attachment.
APP 027	The EES shall sort history of eligibility appeals by multiple parameters (e.g. source, subject, date, etc.).	S	SmartPro MedEE will support a list of appeals for a client, for a single eligibility case (more than one appeal could have been raised) and for all appeals across a filtered list of eligibility cases. These lists can be sorted by column header.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 028	The EES shall document an audit trail which reflect who updated associated details to a case.	S	SmartPro MedEE will maintain an appeal audit log that will reflect important events that occurred on that appeal, including worker audit events that represent update made on the appeal case.
APP 029	The EES shall provide the capability to record all decisions of appeals.	S	SmartPro MedEE captures all decisions made on an appeal, including hearing decisions, hearing review decisions and if required judicial review decisions.
APP 030	The EES shall alert appropriate staff when action is needed or information is due to ensure timely processing of the eligibility appeals.	S	Configured Milestones are used to track timeframes and deadlines in SmartPro MedEE. Workflow logic associated with these milestones will alert users, groups of users or work queues of approaching and past deadlines.
APP 031	The EES shall support an appeals process on individual exemption decisions from the individual responsibility requirement.	S	In SmartPro MedEE, the customer can raise an appeal for an exemption decision. Refer to requirement APP018.
APP 032	The EES shall provide the functionality to reinstate service coverage until the Administrative Appeals decision is rendered.	S	SmartPro MedEE supports both terminating and continuing service delivery during appeals processing.
APP 033	The EES shall provide the ability to allow applicants to view, confirm, dispute and submit corrections to verification results.	M	SmartPro MedEE will enable the worker to view, confirm and submit corrections to verification results. The worker can also register a dispute on behalf of the applicant. Exposing this functionality online to enable the applicant to view confirm, dispute and submit corrections to verification results will require modifications. Refer to requirement ELG 078.
APP 034	The EES shall have the ability for customers to request a postponement of an appeal if the request is made in compliance with State and federal guidelines.	S	SmartPro MedEE will support the customer in requesting the postponement of an appeal. Postponing an appeal with change the status of the appeal case.
APP 035	The EES shall have the ability for the customers to request for reconsideration to handle inquiries.	M	SmartPro MedEE will support the ability for customers to appeal all eligibility determinations.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 036	The EES shall have an appeal request submitted through multiple channels including phone, e-mail, letter, etc.	S	An appeal request can be submitted through all listed channels. The worker portal will enable a call center worker to raise an appeal on behalf of a client who phones or walks-in.
APP 037	The EES shall provide an electronic template for eligibility appeal process.	S	SmartPro MedEE will provide a standard process for capturing a new appeal.
APP 038	The EES shall generate a referral to a third party assignee. (e.g. regular letter, email, automated referral, etc.).	M	Modification is needed to support a new referral notification template and logic to populate this template with data from SmartPro MedEE. Workflow configuration effort also needed re automated referral.
APP 039	The EES shall require a response by the third party assignee on a case by case basis.	S	The assignee response will be attached to the appeal case (e.g. letter received, copy of email). The response will be tracked by workflow.
APP 040	The EES shall have the ability for customers to request an appeal in written form or verbally and followed up in writing.	S	SmartPro MedEE will support a customer request for appeal when submitted in written form or verbally. The written request can be attached to the appeal case. The verbal request can be entered as notes on the appeal case.
APP 041	The EES shall maintain health benefit plan at the current level after an appeal is requested by the customer on a timely manner until the decision of appeal is made (for a discontinuance of an active case).	S	When an appeal is requested, the case decision appealed will remain unchanged, until a decision is made. Thus SmartPro MedEE will maintain benefit levels as they were before the appeal was requested.
APP 042	The EES shall notify customer, third party entity, worker, etc. that the status of an eligibility appeal has changed. (e.g. pending hearing, withdraw, referred, etc.).	W	All interested parties in an appeal will be notified when the appeal status changes. Configuration is required in order to provide notifications with Nebraska look and feel. Similar to requirements: GEN 054, ELG 037, ELG 070, NOT 017.
APP 043	The EES shall notify applicants of failed verifications.	S	Applicants are notified of failed verifications through their MyAccount inbox. Support for new notice template and logic to populate this template required to support paper notifications.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 044	The EES shall notify the customer that their eligibility appeal has been received.	W	Configuration is required in order to provide notifications with Nebraska look and feel.
APP 045	The EES shall notify the customer who their eligibility appeal has been referred to.	W	Configuration is required in order to provide notifications with Nebraska look and feel.
APP 046	The EES shall provide a mechanism to track required verification timeframes.	S	SmartPro MedEE will track verification timeframes. As deadlines approach SmartPro MedEE can issue reminder notifications.
APP 047	The EES shall provide the capability to create an electronic household file that records all application data and organizes all supporting documentation and images in an easy-to-use format.	S	Household details are fundamental to EES eligibility determination. Throughout the life of an eligibility case, a history of all household details is maintained. Supporting documentation and images can be saved in Hyland OnBase and linked to from the household case. Refer to requirement ELG 072.
APP 048	The EES shall allow all individuals to exercise their right to appeal any eligibility determination for Medicaid, premium tax credits, cost sharing subsidies, or QHP eligibility.	S	SmartPro MedEE will enable individuals to request an appeal for any relevant medical assistance eligibility determination

Notifications Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 001	The EES shall generate notices by applicant/beneficiary preferred method of communication e.g., mail, email, or fax.	S	SmartPro MedEE notifies consumers using their preferred communication format. Messages are also delivered to the consumers account inbox, to support secure messaging. Refer to requirement ELG 011.
NOT 002	The EES shall support multiple pages and applicant/beneficiaries standard "Rights and Responsibilities" text, including, but not limited to, applicant/beneficiary's right to an Administrative Appeal.	S	SmartPro MedEE generates multi-page documents which can include standard text. Refer to requirements ELG 013 to ELG 015.
NOT 003	The EES shall allow applicant/beneficiaries to choose the method of preferred communication.	S	Each beneficiary can select their own preferred method of communication.
NOT 004	The EES shall record and track how correspondence was issued to the applicant/beneficiary.	S	SmartPro MedEE tracks all correspondence sent to the applicant/beneficiary, including keeping track of how the correspondence was issued and when. Issued correspondence is saved in Hyland OnBase and linked to from SmartPro MedEE.
NOT 005	The EES shall provide the capability for mass notifications to applicant/beneficiaries or groups of applicant/beneficiaries.	M	SmartPro MedEE will support issuing mass notifications through a batch driven mechanism. Modification is required in order to provide a batch job the necessary functionality to trigger the mass issuance of notices.
NOT 006	The EES shall auto-populate all forms with required information from the system (e.g., applicable dates, missing and provided verifications, notes, etc.).	S	SmartPro MedEE will populate forms and document templates with data from the SmartPro MedEE database.
NOT 007	The EES shall not have page limits.	S	SmartPro MedEE will support multi-page forms and documents with no page limits.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 008	The EES shall produce notices and forms in English and Spanish languages as required by the federal and State statutes, regulations, and policies.	M	SmartPro MedEE will have the ability to generate notices and forms in multiple languages, including English and Spanish.
NOT 009	The EES shall issue notices at set timeframes according to program rules.	M	SmartPro MedEE will have the ability to issue required notices at set points in time, based on program logic. Modification is required in order to provide a notice batch job. A notice batch job will trigger the issuance of notices at set points in time.
NOT 010	The EES shall provide the capability to set and change release dates.	M	Maintaining release dates for notices will require some modification. This will include providing the ability for a worker to view a list of release dates and modify as appropriate.
NOT 011	The EES shall provide a mechanism to suppress and track any specific notice (one-time notice suppression).	M	Enabling a worker to suppress one or more notices will be included in the modification work required for NOT 010.
NOT 012	The EES shall provide a mechanism to suspend any notice type.	S	Refer to requirement NOT 011.
NOT 013	The EES shall provide a mechanism for designated persons to create new versions of notices/forms/correspondence from templates.	M	A worker can manually create a new version of a notice/form/correspondence from a template.
NOT 014	The EES shall provide standard letter templates and the ability to add free form text to customize a letter to the customer's specific issue.	S	SmartPro MedEE will provide the capability to generate notices from templates by combining data from the SmartPro MedEE database with a template of a suitable format. MS Word documents and templates can be further edited in MS Word. Editable PDF documents, produced by combining an empty, editable PDF document with data from the SmartPro MedEE database, can be further updated through Adobe Reader.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 015	The EES shall allow workers to generate or regenerate a notice/form upon demand.	M	SmartPro MedEE will enable a worker to manually generate or regenerate a notice/form on demand. Some modification is required to fully support this requirement, specifically in support of PDF notices.
NOT 016	The EES shall generate a notice which includes a list of needed actions by the applicant/beneficiary by a standard due date (with a worker override), depending on the status or type of program applied for.	M	SmartPro MedEE will support the creation of a "notice of outstanding actions" for the applicant/beneficiary. Some modification effort is necessary to fully support this requirement. Workflow will be configured to track and react to due dates.
NOT 017	The EES shall notify the beneficiary when their enrollment status has changed based on pre-set parameters so that the appropriate notice is generated for the circumstance.	W	When Program and Program Category status changes, SmartPro MedEE will generate the appropriate notice to notify the beneficiary. Modification effort necessary to fully support required notices. Similar to requirements: GEN 054, ELG 037, ELG 070, APP 042.
NOT 018	The EES shall provide the capability to electronically generate notices to obtain missing information.	S	SmartPro MedEE will provide the capability to generate a notice requesting missing information. Related to requirement NOT 016.
NOT 019	The EES shall create a sortable history of all notices associated with the applicant/beneficiary, including specific dates, and have the ability to view notices.	S	SmartPro MedEE provides a sortable list of all notices for a consumer and for an application and case. The notices will be saved in Hyland OnBase and linked to from the SmartPro MedEE application. A single document can be linked to both a consumer record and a case record.
NOT 020	The EES shall provide the capability to bundle and send out multiple notices and/or send out notices with corresponding forms together.	S	The Worker can generate and print out multiple notices and/or forms in order to bundle the paper documents.
NOT 021	The EES shall provide the capability to change information in a notice or delete a notice if it has not been 'sent'.	S	SmartPro MedEE will support cancelling and regenerating correspondence that have not been sent.
NOT 022	The EES shall identify whether notice was auto-generated or worker-generated.	M	SmartPro MedEE will track if a notice was auto generated or manually generated. Some modification effort is required to track this data.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 023	The EES shall have noticing tightly integrated with the Marketplace and complying with all ACA regulations for such integration.	S	SmartPro MedEE Notices will be designed to 'tightly' align with FFM noticing. Effort for ensuring this will be considered under specific notice requirements.
NOT 024	The EES shall send electronic and/or paper renewal notices to beneficiaries.	M	SmartPro MedEE will generate and issue renewal notices. Some modification effort is required to fully support the required renewal process. Related to requirements GEN 046 to GEN 049.
NOT 025	The EES shall pre-populate electronic and/or paper renewal forms with beneficiary information that is currently on file and allow the beneficiary to change or add information.	M	SmartPro MedEE will pre-populate the renewal notice with available information. Some modification effort is required to fully support the required renewal notice. Related to requirement GEN 049.
NOT 026	The EES shall renew eligibility based on current federal and State statutes and regulations. The system shall be modified as required to meet all federal and State statues that are changed during the life of the contract.	S	Upon receipt and input of any renewal updates, SmartPro MedEE will automatically recalculate eligibility for the household. Eligibility processing uses the configured rules and rates. These rules and rates reflect the Federal and State statutes and regulations.
NOT 027	The EES shall track and provide notification to users when a renewal is due.	W	SmartPro MedEE will track and provide notification functionality to workers when a renewal is due. Workflow configuration is required to fully support this requirement.
NOT 028	The EES shall track which electronic and/or paper renewals have been sent and which have been returned,	M	SmartPro MedEE will track the current status of a renewal; created, issued, and returned. Some modification effort is required to support renewal functionality.
NOT 029	The EES shall allow workers to generate notices, compliant with State and federal regulations at the time of notice generation, throughout the appeal process.	S	Notices can be generated throughout the appeals process. Support for manual generation of PDF notices catered for in requirement NOT 015.

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 030	The EES shall accept automated and manual responses received on referrals sent and associate them with initial referral.	S	Referral responses, e.g., for workflow referrals, will be related to the initial referral task. The initial referral task represents the original referral sent to a worker. Refer to requirements OPS 044 to OPS 048.
NOT 031	The EES shall retain history of all referrals sent and responses received.	S	SmartPro MedEE will track all referral workflow processes. Refer to requirements OPS 044 to OPS 048.
NOT 032	The EES shall store a copy of notices. These notices shall be available to the work units that support these functions (CSE, TPL, HIPPS, ERU, and Medical Subrogation).	S	SmartPro MedEE will store all generated notices in the solution's Document Management System. These notices will be available to EES workers.
NOT 033	The EES shall generate Notice to customer that the full application must be completed to continue coverage beyond the presumptive eligibility period.	M	SmartPro MedEE will notify the customer, eligible under Presumptive Eligibility, that a full application is required to continue eligibility. Modification effort is required for Presumptive Eligibility processing. Refer to requirements GEN 068 and ELG 056.

Appendix C

The Non-Functional Requirements Traceability Matrix (RTM) is used to document and track the project requirements from the proposal through to testing to verify that the requirement has been completely fulfilled. The Contractor will be responsible for maintaining the set of Baseline Requirements directly related to the configuration of the EES. Additions, modifications, and deletions to these requirements will be added and modified throughout the project so it is imperative that a current version of the matrix be maintained at all times.

Bidders must provide an initial RTM as part of its proposal. The RTM shall follow the instructions below. The Bidder must state requirements exactly as they are provided in this RFP. The Bidder must indicate how it will achieve full compliance (i.e., requirement fulfilled 100%). Any requirements that the Bidder cannot attest to full compliance must be documented as outlined in Appendix D: Gap Analysis.

Bidders are required to provide a response, using the appropriate codes provided in the tables below, for each requirements listed in the Functional Requirements Response Matrix. Scoring for each requirement will directly relate to the Ability Code indicated by the Bidder.

Ability Code	Condition	Description
S	Standard Function	The proposed EES fully satisfies the requirement as stated. The Bidder must describe how the requirement is satisfied by the EES.
W	Workflow or System Configuration Required	Current functionality of the proposed EES exists in the EES and can be modified by a system administrator to meet this requirement. The Bidder must describe how the requirement will be satisfied.
M	Modification Required	The proposed EES requires a modification to existing functionality to meet this requirement which requires a source code modification. The EES will be modified to satisfy the requirements as stated or in a different format. The Bidder must describe the modifications. If the modification requires 1000 or more hours the Bidder must also complete Appendix D Gap Analysis.
F	Planned for Future Release	This functionality is planned for a future release. The Bidder must describe how the requirement will be satisfied by the EES and when the release will be available.
C	Custom Design and Development	The proposed EES requires new functionality to meet this requirement which requires a source code addition. The Bidder must describe the feature and its value. If the custom design and development requires 1000 or more hours the Bidder must also complete Appendix D Gap Analysis.
N	Cannot Meet Requirement	The proposed EES will not satisfy the requirement. The Bidder must explain why the requirement cannot be satisfied. The Bidder must complete Appendix D Gap Analysis.
O	Other Software	If the requirement is to be satisfied through the use of a separate software package(s), the Bidder must identify those package(s) and describe how the functionality is integrated into the base system.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 001	The EES shall follow a modular, flexible approach to systems development which is consistent with the MITA 3.0 guidelines, the CMS Exchange Reference Architecture, and Service-Oriented Architecture (SOA) design principles.	S	IBM Cúram is based on a modular Service-Orientated Architecture and is compliant with MITA 3.0 standards. Its architecture is compatible with the MITA 3.0 business, technical, and data architecture framework, its business maturity model, and its process and planning guidelines. For example: • Service-oriented Architecture • Open Technology and Standards • Platform Independence • Security and Privacy • Common Interoperability and Access • Adaptability and Extensibility • Performance Metrics • Cloud Computing Moreover, Cúram provides prebuilt, domain -specific, outcome-focused business processes built on a unified data model. Cúram enables social enterprise agencies, such as DHHS, to achieve higher levels of efficiency, and more importantly, effectiveness in their efforts to improve the lives of their citizens.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 002	The EES shall follow an n-tiered (layered) architectural approach in which presentation, business logic, and data access are separated.	S	SmartPro MedEE supports a modern n-tier Java Enterprise Edition (Java EE) architecture with separate Presentation, Application (business logic), and Persistence (data access) tiers. • The Presentation Tier manages the creation and population of the screens/pages which the client will use to interact with the application; • The Application Tier is where the business objects are manipulated and application business logic is handled; • The Persistence Tier manages the storage, retrieval and updating of system data.
GSR 003	The EES shall provide scalable architecture.	S	SmartPro MedEE is built on a Java EE architecture that is scalable. It is SOA compliant and facilitates incremental implementation strategies so that additional components can be added over time to enable Nebraska DHHS to adopt a seamless, enterprise-wide solution. Scalability is a fundamental capability of the overall infrastructure, platform and hardware proposed.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 004	The EES shall be architected with no single point of failure, supporting a high-availability enterprise.	S	IBM Cúram is deployed on a JEE Application server. Cúram supports IBM WebSphere Application Server and Oracle WebLogic Application Server. Both WebSphere and WebLogic support deployment of Cúram in a high availability configuration. A high availability configuration includes multiple application server nodes deployed across multiple physical machines or machine partitions. The overall SmartPro MedEE solution is hosted on IBM's PureApplication server, which is a high availability, no single point of failure platform. It has fully redundant HW, processors, busses, storage, power, network interfaces and so forth. The entire network fabric is fully redundant, with no single point of failure. The System Architecture is implemented with clustering for load balancing and auto-failover, and VMs are configured for auto-restart.
GSR 005	The EES shall be deployable to servers running one of the following operating systems: - Linux - Unix - Windows - z/OS	S	SmartPro MedEE is built on the JavaEE architecture. All listed platforms are supported. See the following for details: http://www-01.ibm.com/support/docview.wss?uid=swg27036661#plats

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 006	The EES shall support deployment on virtualized servers to support scalability and flexibility.	S	The entire hosting environment is a fully virtualized "Cloud In A Box" implementation based on the IBM PureApplication Server. PureApp implements fully pre-configured, Pattern based VM installation with fully integrated middleware – a completely operational multi-tier web application architecture with clustering and automatic failover can be defined and instantiated, ready for application deployment, within 10-15 minutes, start to finish. VM's can be automatically tuned by PureApp by modifying the physical resources assigned according to configurable business rules setting limits, and resource utilization and performance targets. Once configured, PureApp self-manages physical resource assignments to meet workload SLRs, without service interruption. Full vertical and horizontal scaling is supported in our architecture – both automatically, and with human intervention. This flexible VM environment is used to implement each EES Environment as a customized workload within PureApp, each workload configured with a VM deployment model suited to its security, performance, and reliability needs.
GSR 007	All infrastructure software used by the EES (operating system, databases, web servers, network management, etc.) shall be a version that is currently supported under standard maintenance agreements and is generally available during the life of the contract.	S	All SmartPro MedEE constituent software components are late model, supported by standard maintenance agreements. The Wipro / IBM Team will monitor the component's lifecycles, and ensure that this currency is maintained throughout the life of the contract, and will work jointly with the State to schedule and execute the necessary upgrades and maintenance activities.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 008	The EES shall incorporate an externalized rules repository and engine that allows business rules (including, but not limited to eligibility rules, program determination rules, rate calculations, and application validation rules) to be separated from application logic and defined and maintained through graphical user interfaces or other non-programmatic means.	S	SmartPro MedEE uses the IBM Cúram Express Rules (CER) language and the CER Editor to define and maintain business rules. The CER editor is a graphical web based tool for business and technical users to view, create and manage CER rule sets. CER rule sets are stored as XML data on the EES database, and therefore are separate for other application logic. The EES solution is pre-integrated with the CER rules engine to simplify deployment, and can be externalized as a service for the benefit of remote systems.
GSR 009	The rules engine shall be scalable and flexible to allow it to support expanded eligibility and enrollment rules in the future.	S	SmartPro MedEE uses IBM Cúram Express Rules which has been built around the following design principle: A rules environment needs to be flexible, high performing, and easily configurable, so that ongoing changes in legislation and policy rules can be quickly implemented with the minimum of disruption. Thus scalability and flexibility are supported at the platform level and at the application level.
GSR 010	The EES shall use an enterprise workflow engine to support the routing of work items, work queues, etc.	S	SmartPro MedEE uses IBM Cúram's workflow management engine. The workflow management engine has support for managing the allocation of work items associated with workflow activity steps among machine resources, individuals and organizational units.
GSR 011	The EES shall leverage an electronic document management system that is integrated with the workflow engine to support the storage and retrieval of document images associated with member and eligibility and enrollment processes.	C	SmartPro MedEE will reuse the State's existing Hyland OnBase EDMS, using our ESB (IBM Integration Bus) to mediate the necessary real-time Web service based interface(s) between IBM Cúram's Case Management functionality and Hyland.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 012	The EES shall use an industry-standard commercial Relational Database Management System (RDBMS), Application Server, and Web Server infrastructure.	S	SmartPro MedEE supports and depends on a standard commercial Relational Database Management system, an Application Server, and Web Server infrastructure. All components can operate with a number of common industry choices - SmartPro MedEE will be implemented for the State of Nebraska using IBM's DB2 and WebSphere middleware – already fully integrated and certified out-of-the box on the PureApplication Server platform.
GSR 013	The EES' transactional databases shall use data models, referential integrity, constraints, stored procedures, and other DB specific functions to ensure data is properly formatted and orphaned records are not allowed in the EES	S	SmartPro MedEE uses the data architecture of IBM Cúram's Social Program Management (SPM) Data Model; a data model which is based on identified best practice in the delivery of programs in the areas of social security, healthcare and human services. The data model runs on a transactional database (RDBMS) which uses DB specific functions to ensure data is consistent and accurate. IBM Cúram purposely avoids the use of Stored Procedures to avoid having business logic on the database tier.
GSR 014	The EES shall support a multi-tiered network deployment model that allows some physical tiers (e.g. load balancers, web servers) to be deployed in one network zone and other tiers (e.g. application servers, databases) to be secured behind internal firewalls	S	SmartPro MedEE architecture consists of a three-tier arrangement composed of Presentation, Application and Persistence tiers. The logical separation of these tiers allows the design and maintenance considerations of each to be addressed in relative isolation and facilitates upgrading or replacing of tiers independently as requirements or technologies change. The physical separation of these tiers supports deployment across multiple network zones including secure zones which are typically protected behind configured firewalls.
GSR 015	The EES shall employ an Enterprise Service Bus (ESB) that serves as the integration backbone and the broker between service consumers and producers.	S	SmartPro MedEE is built on top of IBM's Integration Bus (aka Message Broker), which provides all ESB services.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 016	The EES shall provide a business process layer that manages/orchestrates executable business processes via the ESB, including reusable business services such as encryption, compression, validation, and dynamic routing.	S	The ESB implementation will be done using IBM Integration Bus which provides service orchestration at the ESB layer. The ESB mainly implements amalgamation of multiple data services, and/or business service to address business functionality. However the orchestration is mainly on the services layer. The Business Process Orchestration will be implemented in IBM Cúram.
GSR 017	The EES shall be architected using Business Process Management and workflow technologies as the primary integrated vehicle to implement business processes by composing them from human interactions and coarse-grained services.	S	SmartPro MedEE leverages the IBM Cúram Social Program Management Platform which incorporates extensive workflow management capabilities to support the automation of business processes and work allocation. Workflows can be defined to include human tasks and coarse-grained services. The EES enables Nebraska DHHS to define and maintain workflows to ensure that best practices are followed and to improve the speed, consistency, and quality of business processing.
GSR 018	The EES shall support multi-node application server processing so that application processing load can be distributed and balanced across multiple physical servers.	S	SmartPro MedEE will be deployed on a WebSphere Application Server. This application server is a network deployment application server which supports multi-node configuration so that application processing load can be balanced across multiple application servers.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 019	The EES architecture shall ensure that reporting and batch processing does not interfere with general system responsiveness or availability.	S	SmartPro MedEE architecture is design to minimize the impact that that batch processing will have on general EES user responsiveness and EES system availability. Batch processing is designed to execute on dedicated server resources independent of online focused server resources. The Business Intelligence component, used for both ad-hoc reporting and comprehensive system reporting, is based on a Cognos implementation executing against a Data Warehouse and multiple DataMarts that are fully isolated from the operational database and application. While executing in the same "Environment", the BI functionality has its own dedicated set of Virtual Machines isolated from the IBM Cúram component's VMs. The two components are each configured with dedicated physical resources that are separate, and do not interact. The IBM PureApplication Server Appliance, which hosts these VM structures, will automatically tune physical resources on the fly and without service interruption to maintain target resource utilization levels and responsiveness without human intervention.
GSR 020	The EES workflow, web pages and program functions, shall be configurable and modifiable without changing program code.	S	SmartPro MedEE is a highly configurable and extensible system. The Workflow Process Definition Tool (PDT), provided within the IBM Cúram administration application, is used to define and maintain workflow process definitions. As with most configurable functions provided in Cúram, the PDT is presented as an online web application. Web pages are all configured through XML User Interface Metadata (UIM) pages, Cascading Style Sheets (CSS), Intelligent Evidence Gathering (IEG) scripts, etc. without the need to change program code. In addition, the Cúram Administration Workspace is available to configure the system to meet the needs of Nebraska DHHS.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 021	The EES shall be designed and developed using a component-based architecture that is modifiable and reusable.	S	The fundamental architecture of SmartPro MedEE and its IBM Cúram component is component based and reusable. Underlying Cúram is IBM's Integration Bus (aka Message Broker), which supplies ESB functionality. IBM WebSphere SOA Policy Gateway (aka WSRR) provides Service Registry and SOA Governance functionality. Cúram's functionality can be exposed as SOA services, using the wide ranging choice of protocols and means of connectivity supported by the ESB.
GSR 022	The EES shall be designed, built and deployed in accordance with Enterprise Architecture best practices.	S	SmartPro MedEE and its major components of IBM Cúram and LifeRay Portal are fully modern architectures. Implemented based on J2EE, they support relational databases, business rule abstraction, workflow, and SOA architectures, amongst other modern best practices. The system will be built, configured, and deployed following the Federal ELC Life Cycle and Wipro/IBM's best practices driven Program and Project Management techniques. Deployment will be in a state of the art, fully virtualized and dynamic "Cloud-In-The-Box" platform, IBM's PureApplication Server.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 023	The EES shall be built upon an infrastructure that is easily upgradable through patches and point releases, including the upgrading of the EES software and all prerequisite infrastructure software and the application of data migration or update scripts.	S	The SmartPro MedEE technical infrastructure is anchored by IBM PureSystems which accelerate the deployment of applications and analytics from weeks to days or minutes with the built-in expertise and integration by design. his reduces the time and cost associated with support and upgrades by providing single system–level fixes/patches/upgrades. Platform upgrades, which include firmware, OS, DB2, and WebSphere in a single certified fix-pack, can be applied in moments. Hardware upgrades can be made without service interruption. IBM Cúram is designed for simple point upgrades. It is compartmentalized into small functional modules implemented as WAR files for deployment – this allows most upgrades to be made by only updating a few small components, reducing both time and risk.
GSR 024	The EES shall have the ability to interact with the N-FOCUS legacy system to allow for all functionality of the old and new systems to be available.	M	IBM Cúram will be integrated with N-Focus according to the interfaces described in the RFP and its supplements. The ESB and File Transfer elements of SmartPro MedEE will be used to implement these connection points.
GSR 025	The EES shall comply with CMS requirements to establish a framework of enabling technologies and processes that support improved administration of the Medicaid program.	S	SmartPro MedEE meets this out of the box. It is 7 conditions compliant, built on a MITA compliant architecture.
GSR 026	The EES shall provide the ability to terminate, reverse or back-out a software update in the event it is discovered the update is erroneous or corrupted. The EES shall provide the ability to restore the data to the state prior to the update.	S	The standard procedures for build deployment meet this requirement. Data and system (VMs) are backed up at the point of deployment, and are restorable instantly if required, as they remain available online until the risk is sufficiently low that they can be moved to archival storage.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 027	The EES shall provide a clearly defined promote-to-production process that enforces a strictly defined methodology for movement from development to QA and production.	S	Our methodology incorporates complete formal Change Management, with formalized authorization to promote changes from one level to the next. Development and System Test will be managed by the Wipro / IBM team. Promotion to Integration Test, then to QA/UAT, Staging, and ultimately Production, are authorized by the State, and technically highly proceduralized. The Change process itself is supported by IBM Team Concert, which controls Change and Configuration Management. The Wipro / IBM team will document a Configuration Management Plan that will outline practices for release management and Change Management consistent with the CMS ELC Methodology. These processes will identify timelines and approval levels where both the State of Nebraska and the collective Wipro / IBM team will be involved before any configuration item or custom code can be promoted to the Production environment. Synchronization efforts between teams will be identified as part of the deliverable scheduling areas of the Configuration Management Plan.
GSR 028	The EES shall provide the ability to roll back data and software releases/programs as requested by DHHS during testing cycles.	S	The PureApplication server's functionality to manage VM and Workload configurations will be used to implement streamlined procedures supporting rapid rollback and Environment restoration.
GSR 029	The EES shall provide DHHS with all changes, modifications, enhancements, or customized features it makes to any licensed software approved by the Department to be used in The EES.	S	We will comply with this requirement.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 030	The EES shall include appropriate checkpoint/restart capabilities, and other features necessary to ensure reliability and recovery, including telecommunications reliability, file backups, and disaster recovery.	W	The implementation of SmartPro MedEE is fully redundant, without a single point of failure in its network, hardware, storage, and middleware. To achieve the highest degree of system availability possible under normal operations, the software architecture makes aggressive use of software redundancy, such as clustering with automatic internal fail-over and restart, to achieve maximal availability levels. Additionally, all components are actively monitored by our Data Center's Enterprise Management System, with real-time alerts to human staff should components fail, resources become over-burdened, or response times suffer. Within our Data Centers, all Environments (Production, QA, Training) of SmartPro MedEE are backed up according to custom documented backup procedures that build upon our Data Center's Standard Operating Procedures
GSR 031	The EES shall be deployed primarily as a web-based interface, so that users only need a web browser to access the EES.	S	SmartPro MedEE uses IBM Cúram's web applications which use web-based interfaces both for internal access (Worker Portal) and external access (Cúram Universal Access Portal).
GSR 032	The EES workflow, web pages, and program functions shall be configurable and modifiable without changing program code.	S	SmartPro MedEE solution is a highly configurable and extensible system. The Workflow Process Definition Tool (PDT), provided within the IBM Cúram administration application, is used to define and maintain workflow process definitions. As with most configurable functions provided in Cúram, the PDT is presented as an online web application. Web pages are all configured through XML User Interface Metadata (UIM) pages, Cascading Style Sheets (CSS), Intelligent Evidence Gathering (IEG) scripts, etc. without the need to change program code. In addition, the Cúram Administration Workspace is available to configure the system to meet the needs of Nebraska DHHS.
GSR 033	The EES shall maintain the security requirements set forth by federal and Nebraska government.	C	See all the security requirements in the RSR section.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 034	The EES shall be scalable and flexible enough to accommodate any changes required by Nebraska and/or federal statute, mandate, decision or policy.	S	Scalability and flexibility are supported at the platform level (all proposed hardware and software is highly flexible and scalable) and at the application level. The EES application is highly extensible both through configuration and modification. A majority of changes required in support of State and/or federal statute, regulation, mandate, decision, or policy, will be catered for through CER rules and IBM Cúram Workflow configuration. Where such changes cannot be satisfied thru configuration, EES can be extended through modification.
GSR 035	The EES shall support multiple deployment environments, including development, test, training, and production. (sandbox, break-fix)	W	SmartPro MedEE supports 13 environments throughout the life cycle of the project. The environments to be used and supported are Production, Production Shadow, Disaster Recovery, Development, System Test, Integration Test, QA (Small), QA (Large), Sandbox, Training, Data Conversion, Staging, and PMO.
GSR 036	The EES shall provide the following testing functions: - Functional Testing - Regression Testing - Load & Performance Testing - Test case creation and tracking - Test data generation (i.e. data masking, data filtering, etc.)	W	Wipro will provide the mentioned testing functions. Apart from this Wipro will also use in-house testing tools and methodologies like Shift Left Methodology, WipDVA for data centric testing, StORM tools (Test Suite Optimizer [TSO]), CoDeC tools like DSM, SCE and SCIM. More details on this are available in the Testing section of the proposal response.
GSR 037	The EES should make the rules engine available in a shared services model to be accessed by other Nebraska systems.	M	The CER rules engine will be available as a service through the solution ESB. Some basic modification effort required to expose the rules engine as a service through the ESB.
GSR 038	The EES should leverage an enterprise content management system to store digital content, downloadable forms, and personalized on-screen content.	W	SmartPro MedEE uses LifeRay Portal to implement ECM/WCM, digital forms, content personalization, social media communications, chat, wiki, blog, and other forms of constituent communication.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 039	The EES should assure that third party software, used for ancillary aspects of the EES, that require distribution or maintenance to remote desktops or servers can be capable of being distributed and configured on user work stations from a central site and not require onsite intervention. In other words, software should support "silent" or unattended installation functionality for any non-web based features.	S	SmartPro MedEE functions are almost exclusively Web based, requiring no client side software installation or management. The few tools that use workstation software meet these requirements as stated – these are very limited in scope, either developer testing tools, or designer tools deployed to a handful of Business Analyst roles.
GSR 040	The EES should be able to support the following multi-agency configurations:	S	SmartPro MedEE will support the following multi-agency configurations:
GSR 041	• Two or more independent yet integrated Agencies in a single instance of the business application running on a single instance of the technical infrastructure	S	SmartPro MedEE will support this configuration.
GSR 042	• Two or more independent yet integrated Agencies each with a separate instance of the business application which all run on the same instance of the technical infrastructure	S	SmartPro MedEE will support this configuration.
GSR 043	• Two or more independent, yet integrated, Agencies each with a separate instances of the business application which run on separate instances of the technical infrastructure.	S	SmartPro MedEE will support this configuration.
GSR 044	The EES should include a service management layer that provides the following:	S	SmartPro MedEE has selected IBM WebSphere Service Registry and Repository (WSRR) as the Service Governance tool. The model and Taxonomy of the Service development life cycle will be implemented in WSRR for design time and run time governance. WSRR supports UDDI as its core and WSDL to publish the service description for consumer consumption.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 045	• A registry/repository in which all services related to the EES can be published. This registry should support Universal Description Discovery and Integration (UDDI) and the Web Services Description Language (WSDL)	S	The ESB solution (IIB) will implement the reusable components for error handling, logging, auditing so that all services implemented in ESB uses those components for error handling, logging. IIB provides track and replay feature which can be used to track and replay of messages in message broker layer. The basic service monitoring is done using IIB off-the shelf capability. The advanced monitoring, platform will be done using IBM ITCAM as per configured in PureApplication Server.
GSR 046	• Service monitoring, logging, and audit	S	The ESB solution (IIB) will implement the reusable components for error handling, logging, auditing so that all services implemented in ESB uses those components for error handling, logging. IIB provides track and replay feature which can be used to track and replay of messages in message broker layer. The basic service monitoring is done using IIB off-the shelf capability. The advanced monitoring, platform will be done using IBM ITCAM as per configured in PureApp.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 047	• Should be open to others and reusable by other systems and agencies	F	The WebSphere SOA Policy Gateway (WSRR) supports design time governance, run time governance for services to be discoverable during the design time and run time respectively. The services will be published using in standard based description using WSDL and the end points are based on standard protocols like Webservice, MQ, etc. which makes the services open and reusable for others within the enterprise. For Service exposure to the external (outside of the Enterprise Firewall) an AAA layer needs to be considered to be placed in the DMZ layer. DataPower XG-45 is the recommended hardware based appliance for exposing services (as Webservice, API) to external agencies. The Enterprise Services are published in DataPower which acts as security proxy for the services and protects the enterprise services. This element is for future expansion should the need materialize. At this time, this expense is not required, as standard ESB and File Transfer protocols cover all stated functional requirements.
GSR 048	The EES should ensure that the use of acronyms and codes are consistent across the EES components (windows, screens, reports and databases or data dictionary).	S	The EES solution will provide consistent acronyms and codes across all components. The configurability of the EES solution (codetable items - code/description pairs, workflow, question scripts, etc.) enables non-disruptive update of user-visible content such as screens and messages. The database is based on the IBM Cúram data model and as such provides consistent terms and acronyms across the EES worker and client applications.
GSR 049	The EES should provide the ability to support client services through a variety of channels. This may include, but is not limited to web, kiosks, call centers, other organizations, and walk ins.	S	These channels are supported, and can be extended through both the LifeRay Portal and the ESB layer, depending on actual requirements.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 050	The EES should allow new data items to be automatically included in migration paths during software upgrades.	S	The standard processes for system change and upgrade include data conversion and migration as part of the deployment scripts, to be used when required.
GSR 051	The EES should document and expose all SOA services using standard WSDL and industry best practices.	W	IBM WebSphere SOA Policy Gateway (WSRR) exposes SOA Services, following robust SOA governance practices.
GSR 052	The EES should leverage webs services and adhere to key standards such as SOAP, XML, UDDI, WSDL, BPEL, SAML, and other standards as detailed by the Department.	S	SmartPro MedEE is highly standards based in its design, following applicable industry standards throughout its constituent components. The middleware architecture is Web based, with SOA/ESB capability.
GSR 053	The EES should define service modules independently, with the interface modules bridging the gap between modules.	W	SmartPro MedEE proposed by Wipro is a modular, component-based application, which easily interfaces systems. SmartPro MedEE is rules-based and is built on SOA principles which supports modularity and effective interfacing between modules
GSR 054	The EES should provide the ability to refresh each environment.	W	The EES uses 13 Environments. The refresh activity for certain environment will be managed by periodic refresh activities, implemented using IBM PureSystems Manager. Examples of such periodic refresh are Production Shadow and Disaster Recovery. There are other environments where the refresh is managed on a need or demand basis. The refresh of the environments will be as defined in the Configuration Management Plan
GSR 055	The EES should have the ability to backup, recover, restart, and cancel jobs.	W	SmartPro MedEE uses IBM SmartCloud Workload Automation for Job / Workload Scheduling and Jobstream management. When the actual job duration deviates from the expected job duration, recovery actions, predefined by the user, are automatically taken by the tool.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 056	The EES should utilize a web portal that is scalable and has the ability to accommodate additional systems and content in the future.	S	LifeRay Portal is the portal and Web Content Management solution product, is scalable and will be deployed on a clustered environment to support a large user base. LifeRay is a leader in Gartner Quadrant for Horizontal Portals 2013 based on evaluation on scalable and other non-functional factors. It is built on an n-tier Java Enterprise Edition (Java EE) technical architecture that enables EES applications to be robust, scalable and adaptable. This allows the EES to accommodate additional systems and content whenever needed.

Service Oriented Architecture (SOA) Requirements

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SOA 001	The EES components shall be committed to an advanced approach to interoperability using web services and SOA aligned with Nebraska standards and vision for interoperability.	M	IBM Cúram functions can be exposed as needed using the underlying ESB and Service Registry components to implement SOA based services. Additionally, the ESB provides a wide range of supported techniques for deploying industry standard interfaces, ranging from batch file transfer to complex real-time transactions.
SOA 002	The EES shall provide the ability to distribute services amongst different components and tiers of the architecture.	S	SmartPro MedEE is designed as a tiered, Web-centric architecture, with a SOA layer in place supporting external interfaces.
SOA 003	The EES shall develop/integrate services using standardized Web Services formats.	S	Using the IBM Integration Bus (aka Message Broker), SmartPro MedEE supports the standard Web service formats.
SOA 004	The EES shall allow for centralized service maintenance (new, update, delete).	S	The service implementation will be following IBM WebSphere SOA Policy Gateway (aka WSRR) defined governance process for centralized service maintenance. Any service versioning, Service addition, deletion will be done in WSRR as centralized service maintenance.
SOA 005	The EES shall provide the ability to publish services and related data to be used by different types and classes of service consumers.	S	The services will developed will be exposed using standard protocol like Webservice, MQ, API, FTP (depending on the service consume patterns) for service consumption. For the service exposure the data are planned to be exposed as XML or JSON (for API) which is a standard that are followed by various service consumer. In case of file based integration the data will be transformed to CSV/delimited/accepted patterns depending on the service consumers which are mostly standard way of sending and receiving data via file.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SOA 006	The EES shall ensure enterprise-wide access to services through all required channels such as Nebraska facilities, phone, mail, and online via the Internet.	W	SmartPro MedEE combines use of its ESB (IBM Integration Bus aka Message Broker) and its LifeRay Portal to provide for a wide range of communication channels, including online, email, social media, chat, phone/IVR, mail (through use of the States Mailroom printing capability).
SOA 007	The EES shall provide the capabilities for a Real-Time (or near real-time) Integrated Enterprise where common data elements about the consumers served and services rendered are easily shared across organizational units with appropriate adherence to security and privacy restrictions.	S	The service providers adhere to the standard protocol or integration and the services are exposed in ESB with the standard protocols. The services are registered in WSRR for service governance. Policy enforcement is required in WSRR to keep track of service consumers who are using the services. The policy also needs to enforce appropriate security and privacy restriction to the access of WSRR.
SOA 008	The EES shall establish an interoperability layer that supports interactions among components via a variety of protocols (HTTP/plain old XML, SOAP, Internet Inter-ORB Protocol [IIOP], .NET remoting, Message-Oriented Middleware [MOM] protocols, file transfer protocols and others) and interaction styles (request/reply, conversational, publish and subscribe, asynchronous messaging and others).	S	The middleware IBM Integration Bus supports variety of protocols like HTTP over XML, SOAP, MOM, IIOP, File transfer protocol using MQ FTE, etc. IIB also comes with .Net version however for .Net remoting is not recommended to be implemented in IIB with Java version. With the service implementation more standardized protocols are recommended to be used like HTTP, HTTPS, SOAP, MQ, JMS, etc. Using IBM integration Bus (IIB) various interaction styles will be implemented like request-reply, Pub-Sub (MQ Pub-Sub will be leveraged), Conversational, event based integration, etc. Wipro has developed Service Enabler Kit (SEK) in Message Broker which has implemented various integration patterns and classified all implementation into three broad based components like Façade, Mediation and Routing. The SEK provides effort savings during development. Wipro will try to see if the SEK can be used in the State's ESB implementation.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SOA 009	The EES shall implement synchronous and asynchronous program-to-program communication, moving messages between SOA service consumer modules and service provider modules at runtime. The ESB component may also move files, database rows and other data.	S	The A2A integration within Enterprise will be implemented in IBM ESB layer. The services are classified into various categories like Data Services, ESB and Mediation Services, Business Services. Business Process Services (not implemented in ESB). The data Services are typically used to communicate data between two A2A layers. The ESB and Mediation services are used to communication messages between A2A, Services. The Business Services integrate multiple Data, ESB services. ESB along with MQ FTE can move files between two A2A applications within the Enterprise.
SOA 010	EES shall implement a SOA by using an ESB, responsible to monitor and control routing of message exchange between services, resolve contention between communicating service components, control deployment and versioning of services and marshal use of redundant services.	S	The ESB implementation will be done using IBM Integration Bus (IIB) and Service Governance by IBM WebSphere Service Registry and Repository (WSRR). ESB manages controlling routing of message exchange between services, service routing, mediation, etc. WSRR manages the service versioning, end point management (service contention), design time governance (selection of right services during design and development time). The policy enforcement is required to use WSRR as design time and run time governance, service versioning, discovery of service end point during run time, etc.
SOA 011	EES shall support creation and extension of service interfaces through the use of WSDL.	S	IBM Integration Bus (IIB) supports creation and extension of service interfaces using WSDL.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
IOI 001	The EES shall provide a SOA based infrastructure (i.e. hub and spoke) for connecting to other EESs using an ESB infrastructure.	S	Wipro envisions a SOA based approach in identifying, defining, designing services for the Enterprise. For EES implementation the solution will be integrated with various enterprise applications such as MMIS, N-Focus, FFE, Federal Data Hub, State Systems, etc.
IOI 002	The EES's Interface architecture for internal A2A (Application to Application) integration shall not have a negative impact on the user experience and expectation for application performance. All points of contacts for A2A communications shall be documented.	S	All such functionality is documented as a byproduct of the defined SDLC, based on the CMS ELC standard. The interface architecture allows sufficient isolation, both logically and physically, to ensure that A2A integration has no discernable impact on application performance. IBM's ITCAM actively monitors performance against SLRs as part of our integrated Performance Management Process to ensure a positive user experience.
IOI 003	The EES's interfaces shall secure and protect the data and the associated infrastructure from a confidentiality, integrity and availability perspective.	W	The toolkit used by SmartPro MedEE to effect interfaces and integration, such as IBM Integration Bus (Message Broker) and Sterling Direct Connect, provide configurable confidentiality, integrity, and availability capabilities as intrinsic and configurable options.
IOI 004	The EES shall be able to support Application to Application (A2A) synchronous and asynchronous messaging using web services. The messaging capabilities will be able to support a wide variety of A2A patterns including, but not limited to, the following: -	S	The services are classified into various categories like Data Services, ESB and Mediation Services, Business Services. Business Process Services (not implemented in ESB). The data Services are typically used to communicate data between two A2A layers. The ESB and Mediation services are used to communication messages between A2A, Services
IOI 005	• Data look-up and retrieval	S	Data Look up and retrieval is implemented as Data Service in the ESB layer.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
IOI 006	• Data look-up with services provided by other applications	S	Data Look up and retrieval is implemented as Data Service in the ESB layer.
IOI 007	• Simple bulk data transfer to/from other EES's.	S	IIB supports bulk data load using an event based integration pattern. When required, Sterling Direct Connect also provides bulk data transfer. IBM Cúram implements the necessary ETL steps using a mixture of code and the ETL tool.
IOI 008	The EES' interface infrastructure shall continue to operate despite failure or unavailability of individual technology components such as a server platform or network connection.	S	The design is fully redundant in network, hardware, and software architecture, with no single point of failure and automatic fail-over within the data center.
IOI 009	The EES shall have the capability to notify System Administrators/system support staff if an interface is not available for any reason. The notification and issue(s) shall be invisible to the applicant/beneficiary/client.	W	The Data Center's Enterprise Management System receives notice from the PureApplication Server's monitoring environment, including ITCAM, if any interface fails.
IOI 010	The EES' interfaces must be scalable to accommodate changes in scale including changes in user population, transaction volume, throughput and geographical distribution.	S	The SmartPro MedEE is open, flexible and scalable. SmartPro MedEE is architected using SOA. SmartPro MedEE is built upon IBM's PureApp server, a fully integrated web and cloud-ready hardware and software appliance. PureApp encompasses highly scalable hardware (IBM Power+ series), Operating System (AIX), Database (DB2 Enterprise), Application Server (WebSphere ND), virtualization, and monitoring/management in a single pre-integrated and certified whole. The SOA architecture provides for interoperability, scalability and, by avoiding single points of failure provides for high availability and resilience. The design is fully scalable both vertically and horizontally, without service interruption, including to the point of adding additional computing capacity while the system is still "hot".

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
IOI 011	The EES shall be capable of making any changes to the interface data elements/layouts easily, and to test those changes.	S	SmartPro MedEE employs tools-based data and architectural models, and easy deployment of changes to screens, fields, data elements, process flow and so forth. IBM Cúram abstracts Business Rules into a high-level Rules Engine, further easing significant changes. Automated test tools are used for functional, regression, integration, and load testing.
IOI 012	The EES shall implement, at a minimum, interfaces (both real-time or batch) with the applications and data sources listed in "Interface List - N-FOCUS" document included in the procurement library.	M	SmartPro MedEE meets these requirements, using the ESB and File Transfer components to mediate the communications between IBM Cúram and all listed points of interface.
IOI 013	The EES shall provide the capability to detect and remediate errors caused by batch processing and real time processing via user defined rules	W	IBM's SmartCloud Workload Automation tool is used to configure and execute intelligent "Job" scripts, and to manage their recovery. Serious event alerts are escalated to the Data Center's Enterprise Management System.
IOI 014	The EES shall provide the capability to perform source to destination file integrity checks for exchange data and alert appropriate parties with issues	W	Integrity checks are intrinsic in many of the protocols used for file movement. Application level checks will be implemented consonant with the interface requirements. For example, some interfaces are being implemented as exact replacements of existing ones, without the ability to redesign – these will have whatever level of application integrity/validation checking they have today. However, new interfaces, or ones where change is permissible, will make application validation a design consideration.
IOI 015	The EES shall build in contingencies for the storage of transactions where there is dependency on availability of data from business partners that provide authoritative data (e.g., the IRS, DHS, and SSA).	M	This is intrinsic in some of the interface specifications, and IBM Cúram functionality. Design determination will be made after Requirements Validation, on a case by case basis.

Scalability and Extensibility Requirements

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SCA 001	The EES shall be designed for ease of maintenance and readily allow future functional enhancements. This shall be accomplished through use of modern design principles for SOA, applying principles of modularity, interface abstraction, and loose coupling.	S	The overall design of SmartPro MedEE and its constituent COTS components is modern, tiered, J2EE, SOA centric, rules based, workflow driven, modular, standards driven, with data and interface abstraction.
SCA 002	The EES shall be adequately flexible to keep up with ever changing technology and regulatory changes. This shall be accomplished by separating workflow and business rules into their own separate tiers.	S	Scalability and flexibility are supported at the platform level (all proposed hardware and software is highly flexible and scalable) and at the application level: Platform flexibility will enable EES to keep up to date with ever changing technology standards and available products. The EES application is highly extensible both through configuration and modification. A majority of enhancements required in support of regulation changes will be catered for through CER rules and IBM Cúram Workflow configuration. Where such changes cannot be satisfied thru configuration, EES can be extended through modification. The application rules and workflow components are pre-integrated with the overall eligibility solution. These components can be available as services through the solution ESB for the purposes of supporting external system rules and workflow needs.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SCA 003	The EES shall be scalable and adaptable to meet future growth and expansion/contraction needs such that the EES can be expanded on demand and be able to retain its performance levels when adding additional users, functions, and data.	S	SmartPro MedEE is built on an n-tier Java Enterprise Edition (Java EE) technical architecture that enables SmartPro MedEE applications to be robust, scalable and adaptable. Scalability and flexibility are supported at the platform level (all proposed hardware and software is highly flexible and scalable) and at the application level. SmartPro MedEE application is highly extensible both through configuration and modification while retaining performance levels when adding users, functions, and data to the system.
SCA 004	The screens shall be highly re-configurable, providing ability to reposition and rename field labels/data fields, remove or "turn-off" unused fields, maintain data, and allow addition of custom-defined fields.	S	SmartPro MedEEn is a highly configurable and extensible system. Web pages/screens and data fields are configured through XML User Interface Metadata (UIM) pages, Cascading Style Sheets (CSS), Intelligent Evidence Gathering (IEG) scripts, etc. without the need to change program code.
SCA 005	The Department shall be able to modify the labels and arrangement of information in the data model EES documentation templates and can create custom data fields.	S	The data model used by SmartPro MedEE is extremely flexible. It is designed to be modified and extended where necessary without impacting future upgrades of the base IBM Cúram product. On screen labels and messages can be modified to suit the needs of DHHS. Labels and messages support multiple languages.
SCA 006	The EES shall provide the ability to create and/or modify edits and business rules which determine the correctness/integrity of data.	S	The IBM Cúram Expressive Rules (CER) editor, used by SmartPro MedEE, enables users to view rules diagrams which present the rules logic in graphical form. Users can use this editor to create new rules and enhance/modify existing rules to determine the correctness/integrity of data.

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SCA 007	The EES shall provide the ability for on-line access by any site connected to the organization WAN.	S	SmartPro MedEE user interface is provided by IBM Cúram portals. Cúram portals are web-based and can be accessible through the organization's WAN. Cúram facilitates secure deployment both within an intranet and over the Internet, and enables agencies to deploy web portals providing self-service capability to clients, providers and partners.
SCA 008	The EES shall provide the capability for remote access in compliance with existing Nebraska / federal connectivity/security policies.	W	Compliant VPN access will be supported, using Juniper VPN for Wipro / IBM Team staff for maintenance/support activities, and the State's VPN for their internal staff.

EES Performance Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PER 001	The Contractor must build the EES such that expansion of the system can be achieved with a minimum of additional system administration burden and staffing.	S	The system is fully scalable both vertically and horizontally. The IBM PureApplication Server allows for dynamic allocation/reallocation of physical resources without interruption, in real time, and can be automatically performed by the system itself according to configured business rules i.e. self-tuning. New hardware can be added without service interruption to a hot system, and placed into use immediately. Each of the two servers is in a single cabinet, which will be configured with 64 processing cores for this system. That single cabinet can be expanded to up to 608 processors. Management overhead remains nearly constant, regardless of processing power – management is highly automated and exception driven.
PER 002	EES Administration staffing requirements and workload should be minimally impacted with expanded system usage.	S	Only the help desk functions are closely coupled to usage, in that the number of State internal users will affect the related support staffing needs. However, system performance and capacity, external user capacity, and other technical measures have almost no impact on administrative staffing needs.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PER 003	The Contractor must build the EES so that there is a near linear relationship between each additional server added, and the additional load that can be accommodated (load vs. capacity added), up to specified limit.	S	The EES Solution is based on a a stateless JEE architecture. A stateless JEE architecture best supports linear scalability, such that as more processing power and memory is added in the server environment, the performance of the system will improve directly. The EES solution will take full advantage of new server resources. One typical scenario is adding memory to the existing server environment. User data is never cached in memory across web pages in the EES solution. When a user commits data on a page it is always written back to the EES database. Given that user transactional data is never cached in memory, the EES application will take full advantage of any new memory provided.
PER 004	The EES shall use fully redundant network and hardware. Hardware components (such as processor and memory) should have built-in redundancy to allow a second component to take over in the event of a failure in the primary component. Similarly, redundant paths should also exist for networks.	S	The PureApplication Server Appliance is fully redundant, with no single point of HW failure. Processors, compute nodes, memory, busses, power, network interfaces, storage and such are all redundant, and failover is automatic. Equally, the entire network fabric is fully redundant, including routers, firewall, network segments and so forth.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PER 005	The EES shall leverage virtualization to expedite disaster recovery.	W	SmartPro MedEE is built upon IBM's PureApp server, a fully integrated web and cloud-ready hardware and software appliance. PureApp encompasses many features including virtualization. PureApp's virtualization environment will be utilized by all computing resources of both the Primary (Production) and Secondary (Disaster Recovery) locations to expedite disaster recovery. During normal operations, the Production VM environment will ship database logs to a shadow VM environment operating at the contingency center. The Disaster Recovery VM Environment is kept synchronized with Production by simple VM shipping. Should a disaster occur, the recovery VM configuration can be instantiated instantly – and without taking down any other Environments operating at the contingency site. Those will be auto-tuned by the system to a reduced level of physical capacity, but will remain fully operational.
PER 006	The EES shall have the ability to support either a Production and hot (real time replication) disaster recovery design or a multi host site Production design that would allow one site to seamlessly be offline and the other site would maintain service without interruption.	W	Wipro has proposed to create the following environments to support Disaster Recovery facilities. The Production Environment runs on the Primary PureApp Server, shipping database log files in near real-time to a special Production Shadow Environment at the Secondary site. This shadow is a small Environment configured just to apply those updates in near real time to a database copy, using native DB2 functionality. A Disaster Recovery Environment configuration is also present at the Secondary site, but not instantiated. Should a Disaster materialize, the shadow is shutdown, and the DR Environment is instantiated, pointing at the current (or nearly current) DB copy. Network addressing is adjusted, the MPLS circuit to the State Data Center is swung over, and operation begins. No need to shut down any other supporting environments, no need to restore anything.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PER 007	The EES shall include a disaster recovery plan and provide contingency plans for client lookup capabilities and online collaboration in the event of a disaster.	W	As part of the Business Continuity Plan, Wipro has designed a business interruption contingency plan to ensure the survival of the business in the worst possible scenario. Wipro will assist the State of Nebraska in the event of a disaster at a Wipro data center. Specific recovery services provided by Wipro include (but are not limited to): • Upon disaster, a Wipro administrator would restore operations of the Production Environment at the Secondary Site, nearly instantly. See PER 006 for a description. • Management and coordination of recovery operations • Provisioning of appropriate technical resources during the recovery process
PER 008	The EES shall provide the ability to recover from data loss due to end user error and application error.	S	SmartPro MedEE implements a comprehensive backup plan, including both local (on disk) backups that can be restored nearly instantly by remapping logical file sets, and offsite tape backups for archival and ultimate Disaster Recovery.
PER 009	The EES shall provide the ability to perform archival/incremental backups and the ability to perform open/closed database backups.	S	These are standard features of the technical and operational environment.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PER 010	The EES shall provide tools for managing an environment that supports both high availability and disaster recovery.	S	SmartPro MedEE is implemented on high availability hardware (IBM PureApplication Server) that is fully redundant, without single points of failure: multiple CPU nodes, power supplies, busses, network interfaces, RAID disk storage and so forth. The surrounding network fabric, including routers, firewalls, load balancers, security appliances and circuits is also fully redundant. The IBM PureApplication Server can by physically maintained, and even expanded, without interruption of service. The PureSystems Manager and IBM middleware environments operate in concert to allow dynamic tuning, including automatic self-tuning, of physical resources to meet performance targets. Please refer to PER 006 for a description of the Disaster Recovery approach, which makes heavy use of intrinsic DB2 functionality (DB shadowing), and PureSystems Manager (VM shipping.)
PER 011	The EES shall include the capability to maintain all data according to Department defined records retention guidelines (i.e. record schedule). In general document retentions range from 3 to 10 years.	M	Data maintenance is out-of-the box, with sufficient capacity configured to cover all expected volume growth. Selective ageing based archival and retrieval will require a modification to the IBM Cúram system. Imaged Document Retention is managed by the State's own Hyland OnBase system, with a real-time interface with Cúram that will maintain synchronization.
PER 012	The EES shall include the capability to maintain all images and electronic documents according to Department defined document retention guidelines (i.e. record schedule).	M	Similar to PER 011, "documents", such as manuals and coded data documents will be managed within SmartPro MedEE, but "scanned" images remain with the State's Hyland OnBase application.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 001	The EES must provide a mechanism to comply with EES security requirements and safeguards requirements following federal agencies/entities:	W	Overall, SmartPro MedEE supports the comprehensive security requirements enumerated below. Key aspects are: • Role Based Security • Strong encryption of protected data while at rest and in flight • Access controls over data at the "row" and "column" level, based on defined roles and individual identities • Full logging of data access, traceable bi-directionally: "Who touched this data?"; "What data did this individual touch?" • Comprehensive physical controls in the data centers: access controls, surveillance, physical security • HR policies regarding acceptability for employment, background checks, ongoing sanctioned behaviors • Mandatory HIPAA and other standards based security training and certification programs for internal staff and contractors • Data Confidentiality, Integrity, and Assurance Controls • Fully redundant computing environments, no single points of network, hardware, or system failure; near real-time data redundancy; local and offsite backups; full Disaster Recovery capabilities on own equipment • Intrusion detection (servers and workstations), malware protection (servers and workstations), non-discretionary controls over computers accessing secure network zones, file alteration detection on severs • Strong password and access controls

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
			• VPN protected access from off-net locations • Automatic suspension of access/user id's for non-use, with follow-up; strong mandatory password controls • Penetration testing, vulnerability testing, including networks, systems, and applications • Complete Enterprise level data Center monitoring and management, automatic alerting due to failures, performance, or other SLR failures • Formalized auditing • NIST/ITIL Compliance • HIPAA Certified Data Centers – certified by the Federal Government for housing and operating the Medicare Database (MBD), the official SSA/CMS healthcare data records for all Medicare Eligible Individuals • Trusted to be the SSA/CMS single vendor for Dual-Eligible Eligibility/Enrollment Processing (Medicare/Medicaid)
RSR 002	• United States Department of Agriculture (USDA)		See RSR 001
RSR 003	• Food & Nutrition Services (FNS)		See RSR 001
RSR 004	• Internal Revenue Service (IRS)		See RSR 001
RSR 005	• Social Security Administration (SSA)		See RSR 001
RSR 006	• Department of Health & Human Services (DHHS) Center for Medicare & Medicaid Services (CMS)		See RSR 001
RSR 007	• Administration for Children & Families (ACF)		See RSR 001

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 008	• NIST 800-53 and DOD 8500.2		See RSR 001
RSR 009	• Federal Information Security Management Act (FISMA) of 2002		See RSR 001
RSR 010	• Health Insurance Portability and Accountability Act (HIPAA) of 1996		See RSR 001
RSR 011	• Health Information Technology for Economic and Clinical Health Act (HITECH) of 2009		See RSR 001
RSR 012	• Privacy Act of 1974		See RSR 001
RSR 013	• e-Government Act of 2002		See RSR 001
RSR 014	• Patient Protection and Affordable Care Act of 2010, Section 1561 Recommendations		See RSR 001
RSR 015	• Safeguards for Protecting Federal Tax Returns and Return Information (26 U.S.C. Section 6103 and related provisions)		See RSR 001
RSR 016	• Health Insurance Portability and Accountability Act (HIPAA)		See RSR 001
RSR 017	• Family Educational Rights and Privacy Act (FERPA)		See RSR 001
RSR 018	• Health Information Technology for Economic and Clinical Health (HITECH) Act		See RSR 001
RSR 019	• NIST 800-53A		See RSR 001
RSR 020	• NIST 800-53 version 4 Recommended Security Controls for Federal Information Systems Information Security		See RSR 001
RSR 021	• NIST 800-44 version 2 Guidelines on Security Public Web Servers		See RSR 001

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 022	• NIST 800-77 Security Configuration Checklist Program for IT Products – Guidance for checklist Users and Developers.		See RSR 001
RSR 023	• IRS Publication 1075, Tax Information Security Guidelines for Federal State and Local agencies, which points back to NIST 800-53 rev 3		See RSR 001
RSR 024	• CMS requirements, which points back to NIST 800-53 rev3 moderate baseline		See RSR 001
RSR 025	• Guidance from CMS including MITA Framework 2.0 and Harmonized Security and Privacy Framework		See RSR 001
RSR 026	• 45 CFR Part 95.621(f) ADP System Security Requirements and Review Process		See RSR 001
RSR 027	• Standards defined in federal Information Processing Standards (FIPS) issued by the National Institute of Standards and Technology (NIST)		See RSR 001
RSR 028	• FIPS PUB 112 Password Usage Procedure		See RSR 001
RSR 029	• FIPS PUB 186-3 Digital Signature Standard June 2009		See RSR 001
RSR 030	• Nebraska Electronic Signature Statute • http://www.legislature.ne.gov/laws/statutes.php?statute=86-611		The Cúram ID meets the needs of the statute because it is unique to the person and is verified by means of a password. It is linked to all data entered or submitted while using it because Cúram keeps history of changes associated with the ID and can also provide an audit trail with before and after images. See also RSR 001
RSR 031	• Records Usage, Duplication, Retention, Re-disclosure and Timely Destruction Procedures/Restrictions 5 U.S.C. 552a (o)(1)(F), (H) and (I)		See RSR 001

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 032	• Federal Records Retention Schedule 44 U.S.C. 3303a		See RSR 001
RSR 033	• Computer Matching and Privacy Protection Act of 1988 (CMPPA)		See RSR 001
RSR 034	• SSA Information System Security Guidelines for federal, State, and Local Agencies		See RSR 001
RSR 035	• Title XIX Confidentiality Rules		See RSR 001
RSR 036	The EES shall conform to the sub-parts of Section 508 of the Americans with Disabilities Act (ADA), and any other appropriate Nebraska or federal disability legislation.	S	SmartPro MedEE, based on IBM Cúram's ADA compliant web based solution, meets applicable State and Federal accessibility standards for all processes and user interfaces produced by the system. Cúram-based portals are designed to be accessible so that persons with disabilities can use these portals effectively. Cúram-based portals conform to both the US Federal Section 508 requirements for accessibility for persons with disabilities and the Americans with Disabilities Act (ADA). Accessibility testing is an important element of the continual testing of the Cúram solution. A dedicated team focuses only on accessibility testing using the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines 2.0 (WCAG 2.0). As part of the Cúram product development process, new features are continually evaluated and tested using WCAG. These guidelines are an integral part of the Cúram product development process and provide a basis for designing accessible software solutions.
RSR 037	The EES shall comply with all applicable Nebraska security policies and adhere to all legal, statutory, and regulatory requirements, as determined by Nebraska Leadership.	S	SmartPro MedEE will comply with all applicable Nebraska Security policies and requirements. Compliance will be enforced through Wipro's Government Healthcare Systems Information Security Office.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 038	The EES should have a unique identifier which is not the SSN.	S	The EES solution supports the concept of a Participant Reference Number. A participant (e.g. client, provider, etc.) can be associated with a list of reference numbers (e.g. a DHHS number, a passport number, a driving license numbers, an SSN). The provision of an SSN is not mandatory, but can be captured if required. The EES solution also support an internal, database generated primary key for a participant. This is used for internal usage only, and is not exposed to the business user.
RSR 039	The EES shall comply with accessibility requirements described in 45 CFR 85 and with Nebraska accessibility requirements.	S	45 CFR Part 85 - Enforcement Of Non Discrimination on the basis of handicap in programs or activities conducted by the department of Health and Human Services. SmartPro MedEE, based on IBM Cúram's ADA compliant web based solution, meets applicable State and Federal accessibility standards for all processes and user interfaces produced by the system. Cúram-based portals are designed to be accessible so that persons with disabilities can use these portals effectively. Cúram-based portals conform to both the US Federal Section 508 requirements for accessibility for persons with disabilities and the Americans with Disabilities Act (ADA). Accessibility testing is an important element of the continual testing of the Cúram solution. A dedicated team focuses only on accessibility testing using the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines 2.0 (WCAG 2.0). As part of the Cúram product development process, new features are continually evaluated and tested using WCAG. These guidelines are an integral part of the Cúram product development process and provide a basis for designing accessible software solutions.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 040	The EES shall comply with Nebraska branding standards as defined by the Department.	S	IBM Cúram is an ADA compliant web based solution using Web 2.0 technologies. For look and feel Cúram uses Cascading Style sheets (CSS) which separate presentation from content. By configuring the out of the box CSS files, the EES portals will be branded using State of Nebraska and Nebraska DHHS standards, logos, images, etc. Refer to requirement GEN 001.
RSR 041	The Contractor shall adhere to the principle of "Fail Safe" to ensure that a system in a failed state does not reveal any sensitive information or leave any access controls open for attacks.	S	Access is proscribed when network or system components fail – traffic is routed to redundant fully functioning componentry which continues to enforce policies and safeguards, up to the point that no functioning component is available and all access is denied. Sensitive database information is encrypted, and not visible absent a functioning system
RSR 042	The EES shall allow for controlled access to participant records. Users will be able to view participant data within the EES at the Department defined levels of access based on user security privileges.	S	Participant records are maintained in the IBM Cúram data model. Once a user has been authenticated, the RBAC authorization capabilities of EES control access to the various types of securable system resources.
RSR 043	The EES shall maintain a level of security that is commensurate with the risk and magnitude of the harm that could result from the loss, misuse, disclosure, or modification of information.	W	SmartPro MedEE provides scaled security of information based on its sensitivity and potential impact. Data is formally classified as to its security requirements, and commensurate controls are configured. In almost all cases, this has already been accommodated out-of-the-box. General controls include role based security, selective hiding of data based on role, role-based control over ability to alter data, role-based control over visibility of and access to functionality, role-based control over the ability to access "rows" e.g. "Whose data can I see?" and "fields" e.g. "Am I permitted to access PHI?", and selective additional protection, such as system encryption of data inside the database.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 044	Information security shall be built into the EES from its inception rather than "bolted on" after the EES has been implemented.	S	See IDT001, MDM031, RSR085 User authentication, role based access control and auditing capabilities are core cross cutting concerns of the overall EES solution. They are fundamental to the overall solution and have been built into the solution components from their inception.
RSR 045	The EES shall support security at the object level (e.g. Table, View, Index).	W	IBM Cúram implements a rich security model that provides full access control over what data rows and fields can be accessed based on roles. The Business Intelligence environment makes use of database object security as part of its implementation model, again based on use roles.
RSR 046	The EES shall support security at the row and column level.	W	IBM Cúram implements a rich security model that provides full access control over what data rows and fields can be accessed based on roles. The Business Intelligence environment makes use of database object security as part of its implementation model, again based on use roles.
RSR 047	The EES shall support auditing at the object level (i.e. Table, Column).	S	IBM Cúram maintains full audit records of which users have accessed what data. From this data, it can be determined what users have made access to specific data, or what data a specific user has accessed.
RSR 048	The EES shall provide the ability for concurrent users to simultaneously view the same record, documentation and/or template.	S	IBM Cúram uses optimistic locking for concurrency control which means that more than one user can access a record at a time, but only one of those users can commit changes to that record. Once one user has modified the record, another user cannot modify it without first re-reading the latest version of the record.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 049	The EES shall provide protection to maintain the integrity of data during concurrent access.	S	IBM Cúram uses optimistic locking for concurrency control, which means that more than one user can access a record at a time, but only one of those users can commit changes to that record. Once one user has modified the record, another user cannot modify it without first re-reading the latest version of the record.
RSR 050	The software used to install and update the systems, independent of the mode or method of conveyance, shall be certified free of malevolent software ("malware"). Contractor may self-certify compliance with this standard through procedures that make use of commercial malware scanning software.	S	As part of standard Data Center operating procedures, all servers are equipped with malware and intrusion detection software, Sophos Server Antivirus. All company issued PC devices that are permitted access to internal network resources other than the public facing Internet are also equipped with Antivirus and Malware detection software, and managed through centralized corporate configuration management systems.
RSR 051	The EES shall be configurable to prevent corruption or loss of data already accepted into the EES in the event of an EES failure (e.g. integrating with a UPS, etc.).	S	SmartPro MedEE is implemented out-of-the-box with numerous data safeguards, including full database logging, near-real-time log shipping to the contingency site, redundant storage (RAID), local and offsite data backup. Hardware is configured without a single point of failure, and UPS services are standard.
RSR 052	The EES shall support protection of confidentiality of all Protected Health Information (PHI) delivered over the Internet or other known open networks via encryption using triple-DES (3DES) or the Advanced Encryption Standard (AES) and an open protocol such as Transport Layer Security (TLS), Secure Sockets Layer (SSL), Internet Protocol Security (IPsec), XML encryptions, or Secure/Multipurpose Internet Mail Extensions(S/MIME) or their successors.	S	All protected information is delivered to browsers protected by HTTPS/SSL. Data circuits between our data center and the State's is encrypted. All file transfer protocols over which the State has control are implemented with secure transfer protocols such as SFTP or Connect Direct. Similarly, real-time interfaces are protected by appropriate encryption standards compliant with PHI security regulations.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 053	The EES, when storing PHI on any device intended to be portable/removable (e.g. smartphones, portable computers, portable storage devices), shall support use of a standards based encrypted format using 3DES, AES or their successors.	S	IBM Cúram never stores PHI locally. If this becomes a future requirement, the ESB will be configured to provide appropriate encryption using the current accepted industry standards.
RSR 054	The EES, prior to access to any PHI, shall display a configurable warning or login banner (e.g. "The EES should only be accessed by authorized users"). In the event that an EES does not support pre-login capabilities, the EES shall display the banner immediately following authorization.	M	The EES will warn the worker that they are accessing PHI data. Some modification will be required to ensure that the user is either warned or asked to re-authenticate before viewing PHI data.
RSR 055	The EES shall comply with Title XIX and related regulations and guidance.	S	The EES will comply with Title XIX and related regulations and guidance. SmartPro MedEE, based on IBM Cúram, will be an integrated, service oriented, eligibility system. It will be initially deployed to support eligibility for Medical Assistance programs, such as Medicaid, CHIP and subsidized health care as provided through the Affordable Care Act. EES supports the initial capture of application data (MAGI and non-MAGI), verification of application data (automatic and manual), maintenance of application data (change in circs), and eligibility calculation using this application data and required supporting processes to determine eligibility for all Nebraska DHHS Medicaid programs.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 056	The EES shall comply with Title XXI and related regulations and guidance.	S	The EES will comply with Title XXI and related regulations and guidance. SmartPro MedEE, based on IBM Cúram, will be an integrated, service oriented, eligibility system. It will be initially deployed to support eligibility for Medical Assistance programs, such as Medicaid, CHIP and subsidized health care as provided through the Affordable Care Act. EES supports the initial capture of application data (MAGI and non-MAGI), verification of application data (automatic and manual), maintenance of application data (change in circs), and eligibility calculation using this application data and required supporting processes to determine eligibility for all Nebraska DHHS Medicaid programs.
RSR 057	The EES shall comply with the Office of the National Coordinator's Nationwide Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information.	W	SmartPro MedEE is compliant with this security framework.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 058	The EES shall comply with the Section 504 of the Rehabilitation Act.	S	Section 504 of the Rehabilitation Act of 1973 is a national law that protects qualified individuals from discrimination based on their disability. SmartPro MedEE, based on Cúram's ADA compliant web based solution, meets applicable State and Federal accessibility standards for all processes and user interfaces produced by the system. Cúram-based portals are designed to be accessible so that persons with disabilities can use these portals effectively. Cúram-based portals conform to both the US Federal Section 508 requirements for accessibility for persons with disabilities and the Americans with Disabilities Act (ADA). Accessibility testing is an important element of the continual testing of the Cúram solution. A dedicated team focuses only on accessibility testing using the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines 2.0 (WCAG 2.0). As part of the Cúram product development process, new features are continually evaluated and tested using WCAG. These guidelines are an integral part of the Cúram product development process and provide a basis for designing accessible software solutions.
RSR 059	The EES shall comply with the Section 6103 of the Internal Revenue Code.	S	26 USC § 6103 - Confidentiality and disclosure of returns and return information. Only authenticated users with sufficient authorization can view sensitive data such as Internal Revenue data (e.g. for the purposes of validating household income). Auditing can track which users viewed sensitive data, and when.
RSR 060	The EES should comply with the National Information Exchange Model (NIEM).	W	Data exchange mediated by the ESB can be NIEM compliant when required.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 061	The EES should support processing of data in multiple formats such as XML, X12, and other industry standard formats.	W	The common data exchange standards are supported by the data exchange components of SmartPro MedEE (ESB and ETL), and EDI formats through re-use of the State's EDI capabilities via SmartPro MedEE's ESB.
RSR 062	The EES shall provide for security concepts covering the following components: Virtual Private Network (VPN), firewall technology and Demilitarized Zone (DMZ), virus-/intrusion detection, mail/content filtering avoiding fault positives, encryption, Public Key Infrastructure (PKI).	S	SmartPro MedEE fully satisfies the requirement as stated.
RSR 063	The EES upon detection of inactivity of an interactive session shall prevent further viewing and access to the EES by that session by terminating the session, or by initiating a session lock that remains in effect until the user reestablishes access using appropriate identification and authentication procedures. The inactivity timeout shall be configurable.	S	SmartPro MedEE uses Cúram's web portal application. If the browser is left inactive for a period of time, the session will timeout and the user is prevented from viewing and accessing to the EES. In this case, the user will be required to log back in and a new session will be started. The timeout value can be configured using the application server's configuration settings.
RSR 064	The EES shall enforce a limit of (configurable) consecutive invalid access attempts by a user. The EES shall protect against further, possibly malicious, user authentication attempts using an appropriate mechanism (e.g. locks the account/node until released by an administrator, locks the account/node for a configurable time period, or delays the next login prompt according to a configurable delay algorithm).	S	The underlying directories used for authentication beneath the SSO/Portal enforce these constraints: the State's own Microsoft AD implementation for State employees, Cúram's directory for external users.
RSR 065	The EES shall provide the capability to prevent database administrators from seeing the data in databases they maintain.	S	DB2 encryption capabilities are used to meet this requirement.
RSR 066	The EES shall provide the ability to maintain a directory of all personnel who currently use or access the system/IVR/SQL database.	S	SmartPro MedEE maintains information on all authorized users, linking them to their roles.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 067	The EES shall provide the ability to create and maintain a directory of external providers to facilitate communication and information exchange.	S	IBM Cúram Provider Management maintains extensive information about providers their status and services provided, including contact information and preferred means of contact.
RSR 068	The EES shall provide the ability to identify certain information as confidential (e.g. PII, PHI, etc.) and only make that accessible by appropriately authorized users.	M	The security architecture of IBM Cúram Social Program Management controls user authorization. During deployment of EES, the security profiles used to control users' access are configured. The ability to identify certain data as confidential will require some modification. Refer to requirement RSR 054.
RSR 069	The EES shall restrict access to summarized information according to organizational policy, scope of practice, and jurisdictional law.	S	The security architecture of IBM Cúram Social Program Management controls user authorization. During deployment of SmartPro MedEE, the security profiles used to control users' access are configured. Access to summarized information will be controlled through this capability.
RSR 070	The EES must be able to associate permissions with a user using one or more of the following access controls:	S	The security architecture of IBM Cúram Social Program Management supports Role Based access control.
RSR 071	• User-based (access rights assigned to each user)	S	The security architecture of IBM Cúram Social Program Management supports Role Based access control.
RSR 072	• Role-Based Access Controls (RBAC; users are grouped by role and access rights assigned to these groups)	S	The security architecture of IBM Cúram Social Program Management supports Role Based access control.
RSR 073	• Context-based (role-based with additional access rights assigned or restricted based on the context of the transaction such as time-of-day, workstation-location, emergency-mode, etc.)	S	The security architecture of IBM Cúram Social Program Management supports Role Based access control. For specific business transactions, additional aspects are considered when determining access. Aspects such as location, time of day, sensitivity, etc. are considered.
RSR 074	The EES shall provide the ability to prevent specified user(s) or groups from accessing confidential information such as a patient's chart.	S	If data such as a patient's chart is available to SmartPro MedEE, access to this data and other sensitive data (e.g. PHI and PII data) can be controlled to role based access control.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 075	The EES should preserve and report specified audit data when potential security violations are detected.	S	SmartPro MedEE fully satisfies the requirement as stated.
RSR 076	When access to a user's account is restricted, the EES shall provide a means for appropriately authorized users to "break the glass" and obtain access for emergency situations, as defined by Nebraska policy.	M	SmartPro MedEE will support a "Break the Glass" mechanism for workers to access specific client data in emergency situations. Modification effort is required to support the break the glass requirements.
RSR 077	When access to a chart is restricted and the "break the glass" has occurred, the EES shall provide the ability to notify specified users and provide an audit trail for this access.	M	Support for "Break the glass" will require modification. A workflow will be configured to notify specified users when break the glass occurs. The IBM Cúram Administration Suite provides extensive auditing capability which tracks who has accessed, updated or requested sensitive information, what they accessed and when.
RSR 078	The EES shall enforce the most restrictive set of rights/privileges or accesses needed by users/groups or processes acting on behalf of users, for the performance of specified tasks.	S	SmartPro MedEE uses Cúram's Administration Suite to provide a set of security menu options to enable administrators to configure and govern overall access to the application. The options provided allow for account administration and user set-up including management of: • Assigned role • Access Periods • Sensitivity Levels • Location In addition, SmartPro MedEE will have a central Identity Management solution which will be tightly integrated with Cúram's security architecture.
RSR 079	The EES shall provide the ability for authorized administrators to assign restrictions or privileges to users/groups.	S	SmartPro MedEE uses Cúram's Administration Suite to provide a set of security menu options to enable administrators to configure and govern overall access to the application.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 080	The EES shall support removal of a user's privileges without deleting the user from the EES to ensure history of user's identity and actions.	S	SmartPro MedEE uses Cúram's Administration Suite to provide a set of security menu options to enable administrators to configure and govern overall access to the application. A user account can be disabled or the user's role can be modified to be more restrictive.
RSR 081	The EES shall be able to support RBAC in compliance with the HL7 Permissions Catalog.	W	Basic capability exists, requiring configuration within the ESB to implement.
RSR 082	The EES shall provide more-advanced session management abilities such as prevention of duplicate logins, remote logout and location-specific session timeouts.	W	The single Sign-On/Portal component implements these controls.
RSR 083	The EES shall provide the ability to perform EES administration functions such as reference table maintenance and adding/ removing users from the system.	S	This is basic functionality of SmartPro MedEE.
RSR 084	The EES shall allow users access based on their roles irrespective of their geographical location.	S	Each user is assigned a security role, consisting of one or more security groups, which are in turn composed of multiple SIDs. This allows for highly specific user roles to be configured in order to control the functions each user can access, the data they can view, and the data they can modify. Cúram supports RBAC category of authorization, regardless of geographical location, which are configurable through the Cúram Administration Suite.
RSR 085	The EES shall provide the capability to integrate with existing authentication and authorization mechanisms (RACF on the mainframe).	M	SmartPro MedEE has central Identity Management solution which will be tightly integrated with Cúram's security architecture. Initial integration will be with the State's Microsoft AD directory, and Cúram's external user directory. See IDT 001, RSR 085, RSR 107 and MDM 031.
RSR 086	The EES shall provide the capability to create temporary and emergency accounts and terminate those accounts automatically after a user defined period of time.	M	Active Directory and SSO Solution (IDT001, MDM031)

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 087	The EES shall provide the capability to override a role and restrict access to information by users or groups of users.	S	SmartPro MedEE uses Cúram's Administration Suite to provide a set of security menu options to enable administrators to configure and govern overall access to the application for users and groups of roles, roles, etc. In addition, the EES solution will have a central Identity Management solution which will be tightly integrated with Cúram's security architecture.
RSR 088	The EES shall allow an individual with active eligibility under a different user ID to reapply under their own user ID.	S	SmartPro MedEE, a client record can only ever be associated with one user ID. In the scenario when a client incorrectly has two records in the database, then it is possible for each client record to be associated with a different user ID. In this scenario, a worker can perform a client record merge, and disable one of the user IDs. Eligibility information from both client records will be catered for as part of the merge.
RSR 089	The EES shall provide the capability to monitor events on the information system, detect attacks, and provide identification of unauthorized use of the system.	S	SmartPro MedEE fully satisfies the requirement as stated.
RSR 090	The EES shall provide the capability to identify and report on inappropriate access to information in the system, based on user defined criteria.	C	Cúram generally prevents such inappropriate actions rather than identifying and reporting but there could be circumstances where a user was allowed certain access but patterns of persistent access indicated inappropriate use (e.g. looking for data on relatives of celebrities). Such patterns can be identified and reported on via the Cúram audit trail. Application Audit logs are centralized, and scanned for such violations.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 091	The EES shall manage user profiles, including enforcing role-based security access to system data and functions.	C	Cúram supports role based access control, configurable through the Cúram Administration Suite. Each user is assigned a security role, consisting of one or more security groups, which are in turn composed of multiple SIDs. This allows for highly specific user roles to be configured in order to control the functions and screens each user can access, the data they can view, and the data they can modify. Matching logic will be implemented in the related system components – MDM and Business Intelligence.
RSR 092	The EES shall enforce strong password rules per NITC & IRS requirements.	S	Active Directory and SSO Solution (IDT001, MDM031)
RSR 093	The EES support the use of Multi-factor authentication	C	Multi-factor authentication uses data from the application database to confirm identity. The integrated identify management solution will be configured to support multi-factor authentication. Data from the application database will be compared with provided data. From the Cúram database.
RSR 094	The EES shall support the ability to disable user accounts and ensure no disabled accounts can log in or access the solution.	S	Active Directory and SSO Solution (IDT001, MDM031)
RSR 095	The EES shall provide the same security provisions for all the environments as those used in the production environment.	S	All Environments follow the same overall security model.
RSR 096	The EES shall support user account authentication procedures with configurable parameters (time, cipher strength, logon attempts, etc.).	W	Active Directory and SSO Solution (IDT001, MDM031). Configurable.
RSR 097	The EES shall implement appropriate encryption mechanisms to protect the confidentiality and integrity of critical types of data, including but not limited to passwords, social security numbers, and bank account numbers.	M	SmartPro MedEEimplements application data encryption where needed. For example, stored passwords are encrypted. Some modification required to support encryption of data fields other than passwords.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 098	All sensitive data shall be encrypted in transit (including emails) to protect data confidentiality and integrity as appropriate based on the sensitivity of data.	S	Cúram complies. Will support HTTPS for browser communication. IBM Integration Bus (IIB) complies with Web Service Security for a) SOAP Message Security b) Username Token Profile 1.1 c) X.509 Certificate Token Profile 1.1 d) SAML Token Profile (only Passthrough) e) Kerberos Token Profile (for Kerberos GSS v5 AP_REQ, Kerberos v5 AP_REQ)
RSR 099	The EES shall provide the ability to implement security for transport and messaging via web services.	S	Cúram complies. IBM Integration Bus (IIB) supports transport layer security and also message layer security. PI refers RSR 098.
RSR 100	The EES shall have the ability to support strong authentication through SSL, Kerberos, RADIUS, SAML, XACML, or OpenID.	S	IIB supports SSL, Kerberos Token Profile (for Kerberos GSS v5 AP_REQ, Kerberos v5 AP_REQ), SAML (pass through), Webservice reliable messaging.
RSR 101	The EES shall provide the ability to virus scan uploaded files using Department approved virus scanning software.	S	SmartPro MedEE uses Sophos Serv3r AntiVirus to scan all files uploaded into the Data Center.
RSR 102	The EES shall provide the ability to administer user security based on organizational unit.	C	Cúram maintains the organizational unit data, and will be interfaced to the SSO/Portal solution.
RSR 103	The EES shall support the latest version of Secure Sockets Layer (SSL)/Transport Layer Security.	S	Cúram complies. Intrinsic for all Browser presenting environments through WebSphere.
RSR 104	The EES shall be able to use HTTPS/SSL for connections between interfaces.	S	IBM ESB supports both HTTPS and SSL based connections between two participating applications.
RSR 105	The EES shall pass vulnerability tests that are deemed industry standard for an application which hosts confidential information of clients like Social Security Numbers, dates of birth, addresses etc.	S	During the deployment lifecycle, the EES shall pass vulnerability tests against the application. IBM AppScan will be used to test for system and application vulnerabilities.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 106	The EES shall pass tests for common web vulnerabilities such as poor session controls, injection flaws, denial of service, un-validated input, and cross site scripting.	S	SmartPro MedEE is based on the Cúram product. Cúram is continually tested for SQL injection and cross-site scripting vulnerabilities. Cúram is designed such that SQL injection and cross-site scripting are prevented at the infrastructure level. Any project modifications or custom development work that results in the creation of new web pages will utilize this Cúram infrastructure, thus ensuring that these new pages will also be protected against these common vulnerabilities. IBM AppScan is then used externally as a final checkpoint for system and application vulnerabilities for all components.
RSR 107	The EES shall manage user authentication and authorization via LDAP version 3.0 or higher.	S	The SSO/Portal solution is fully compliant with LDAP V3.0.
RSR 108	The solution shall contain verification mechanisms that are capable of authenticating authority (as well as identify) for the use or disclosure requested.	S	A Remote Identity Proofing process is provided to verify that the application filer is who they say they are. In this process, the application filer's identifying information such as Name and Date of Birth are sent to an external service that generates and sends back a set of questions for the application filer to answer. These questions are called the Precise Identity Questions, which are based on the personal information of the application filer, such as the last four digits of the SSN or Bank Account Number. The application filer's responses are then evaluated by the external service, and a decision returned.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 109	The EES should provide role-based security using unique identifiers (IDs), mandatory password standards, and profile or group access assignments. All users should be authenticated when establishing a connection to the solution. Authentication should be based on unique user IDs and should support separation of duties based on roles.	C	Each user is assigned a security role, consisting of one or more security groups, which are in turn composed of multiple SIDs. This allows for highly specific user roles to be configured in order to control the functions each user can access, the data they can view, and the data they can modify. Cúram supports RBAC category of authorization, which are configurable through the Cúram Administration Suite. The SSO solution is interfaced to Cúram's role definitions, to allow other application components to be integrated with the environment and re-use these roles.
RSR 110	The EES shall enforce password policies for length, character requirements, forced reset intervals, and updates, as defined by the Department.	S	These policies are enforced by the underlying directories – Microsoft AD for State employees, Cúram for external users.
RSR 111	The EES shall have the ability to use secure (SSL/SSH) FTP to accommodate file transfers.	S	IBM MQ FTE Supports SSL based FTP to accommodate file transfer. Connect:Direct will be leveraged for SSL/SSH FTP with external parties.
RSR 112	The EES shall ensure a timely and reliable process for security breach notification to the appropriate entity.	S	Wipro provides timely and accurate notification of security breaches as part of its standard operating procedures. Wipro has significant experience hosting HIPPA compliant systems for private Insurers, and both State and Federal Governmental entities, including hosting a copy of the Federal MDB.
RSR 113	The EES shall alert appropriate staff authorities of potential violations of privacy safeguards, such as inappropriate access to confidential information.	S	Wipro will comply. Cúram monitors access attempts, including those that are proscribed, and SmartPro MedEE rises the appropriate alerts.
RSR 114	The EES shall assure strict adherence to IRS security and privacy requirements for data obtained from IRS and the federal Data Hub.	W	SmartPro MedEE will be compliant with IRS and Federal Data Hub security requirements.
RSR 115	The EES shall adhere to all Nebraska and federal requirements to secure, store, and dispose of data.	W	SmartPro MedEE will be configured to meet the requirements for securing, storing, and disposing data.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 116	The EES shall provide complete control and accounting of all data received, stored, accessed, or transmitted to ensure administrative, physical, and technical security of the data	M	An End to End tracking and monitoring will be implemented to provide the audit information of the data movement in the integration layer. Tivoli ITCAM along with the IBM ESB will be leveraged to provide end to end tracking and monitoring of events.
RSR 117	The EES shall ensure the security of all State documents and data ensuring that complete segregation of the State data and files exists from other selected Contractors/selected Contractor customers.	S	All SmartPro MedEE storage is dedicated, never shared at the physical or logical level within the Data Centers.
RSR 118	The EES shall offer the latest, commercially available and industry accepted encryption technologies for any file transfers or information exchanges within the solution network through the Internet and with any potentially unsecured network.	S	SupportPac for Encryption/Decryption Nodes allows users to encrypt/decrypt message body in WebSphere Message Broker, irrespective of the protocol being used. This increases the security to the message body when messages are moving out or into the message broker. Currently Password Based Cryptographic methods are supported in the SupportPac. File Transfers are secured via standard protocols such as SFTP and Connect:Direct, as required.
RSR 119	The EES should implement a security architecture based on MITA 3.0 Security and Privacy model, including the following security architectural elements: - Multi-Level Security - Identity Management - Role Based Access Control (RBAC) - Decentralized Label Model (DLM)	M	Cúram supports these requirements out-of-the-box, and the SSO/Portal solution will be integrated Cúram to extend this functionality across all components.
RSR 120	The EES should support a defense-in-depth, multi-zone computing architecture that physically separates the layers between the solution components. Each layer should be protected by firewalls and appropriate security devices based on the sensitivity of data it houses and functions it performs.	S	The basic SmartPro MedEE design is based on strong firewall protection of multiple access zones, including DMZ and Secure Zone, with VLAN separation between environments with different security classes.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 121	The EES should be built upon an infrastructure that protects against the known forms of exploits and attacks, including SQL injection, code injection, cross-site scripting, request forgery, and session fixation.	S	SmartPro MedEE is based on the Cúram product. Cúram is continually tested for SQL injection and cross-site scripting vulnerabilities. Cúram is designed such that SQL injection and cross-site scripting are prevented at the infrastructure level. Any project modifications or custom development work that results in the creation of new web pages will utilize this Cúram infrastructure, thus ensuring that these new pages will also be protected against these common vulnerabilities.
RSR 122	The EES should support the saving of user profiles for archival purposes, including the ability to re-enable/reuse the profile.	S	Active Directory and SSO Solution.
RSR 123	The EES should pass credentials for authentication and authorization from the solution to authenticate system access to web service transactions (that is, connect to external web systems in the context of a named user, not super-user, account).	S	Active Directory and SSO Solution.
RSR 124	The EES should support, issue, and manage public key certificates for secure transactions, following standard practices such as the use of accepted Certification Authorities (CA), documented Certificate Policies (CP), and Certificate Practice Statements (CPS), including key escrow strategy. Implementation should use fundamental technical standards such as X.509 certificate format and Public Cryptographic Standards (PKCS).	S	This is standard Wipro Data Center practice, managed by the operations and security teams.
RSR 125	If a system component or application fails, the EES should not leave sensitive data accessible, and should return user-friendly error messages that do not expose internal system details and does not include information that might help an attacker exploit vulnerabilities in the application.	S	SmartPro MedEE leverage's Cúram's exception handling which returns user-friendly error messages when a system component does not work as expected. The text for the exception is loaded from a message catalog file and can easily be changed. Exception messages never contain sensitive data. Also when an exception is thrown, Cúram access control still applies for future transactions.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 126	The EES should have the ability to support robust session management controls, including the ability to limit the number of concurrent sessions for an individual user.	S	Enforced by the Portal/SSO.
RSR 127	The EES should ensure transactions and messages are accurately received as they were sent and information is not altered by non-authorized individuals.	S	IBM Integration Bus (IIB) conditionally complies with Web service Security for a) SOAP Message Security b) Username Token Profile 1.1 c) X.509 Certificate Token Profile 1.1 d) SAML Token Profile (only Passthrough) e) Kerberos Token Profile (for Kerberos GSS v5 AP_REQ, Kerberos v5 AP_REQ) This ensures transactions and messages are accurately received as they were sent.
RSR 128	The EES should support the latest version of the IP Protocol Security extension (IPSec).	S	Wipro's Network and system environments support IPSec.
RSR 129	The EES should support S/MIME for email communications.	W	S/Mime is configurable within SmartPro MedEE.
RSR 130	The EES should support cryptography levels set forth in FIPS 1402.	S	A standard used to accredit cryptographic modules - SmartPro MedEE is compliant.
RSR 131	The EES should prevent the creation of duplicate user accounts.	S	Standard function of Active Directory and SSO Solution (IDT001, MDM031)
RSR 132	The EES should use file encryption for data transfer between entities.	S	For file based integration and external component needs to be written to encrypt file with the security software that are selected by State. For Service based integration protocol layer security and also message layer security are implemented in IIB (the ESB).
RSR 133	The EES should provide the ability to create, display and maintain an administrative structure as specified by the Department.	S	SmartPro MedEE's organizational unit structure is also maintained via the Cúram Administration suite.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 134	The EES should provide the ability to include a viewable online history of all changes made by User Account Managers as specified by the Department.	S	The IBM Cúram Administration Suite provides extensive auditing capability to allow administrative personnel to identify who has accessed, updated or requested sensitive information, what they accessed and when.
RSR 135	The EES should prevent installation or use of remote control or file sharing software unless explicitly approved by the Department.	W	Wipro controls this for all Wipro controlled workstations through centralized automated policy management.
RSR 136	The EES should detect and prevent hacking, intrusion, and other unauthorized use of system resources.	S	SmartPro MedEE fully satisfies the requirement as stated. Intrusion Detection at the network and server level is standard in our data centers, as is malware detection and prevention for all servers and workstations. McAfee Intrushield, Sophos Server AV.
RSR 137	The EES should provide procedures for guarding, monitoring and detecting malicious software.	S	SmartPro MedEE fully satisfies the requirement as stated. We deploy Sophos Server AV across all server environments, and McAfee AV across all workstations.
RSR 138	The EES should update virus blocking software daily and aggressively monitor for and protect against viruses.	S	SmartPro MedEE fully satisfies the requirement as stated.
RSR 139	The EES should suspend all EES users who have not accessed the solution within a specified number of days as specified by the Department. The suspension requirements should be configurable and distinct for each system environment.	S	Configurable inactivity suspension is standard in Microsoft Ad and our SSO/Portal solution.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 140	The EES should provide screen/window security, including links that route to interfaces.	S	IBM Cúram includes comprehensive security capabilities to help assure the protection of sensitive information. Cúram achieves this by providing features and functionality designed to: • ensure that only authorized individuals have access to Cúram applications and data; • control access to sensitive personal information; • restrict the access of authorized individuals to only the personal information needed in order to effectively deliver services; • identify who has access to sensitive information and audit who has made changes to that information. In addition, the default configuration uses SSL provided by the application server to secure content as it is transferred.
RSR 141	The EES should provide a secure web portal with authentication and encryption to protect interactions and transactions including, at a minimum Secure Socket Layers (SSL).	S	SmartPro MedEE provides a secured web portal with a log in screen for authentication. SSL is on by default for access to the web application. This ensures a secure SSL connection between the client and server and also ensures data is encrypted. SSL is turned on for the client through settings in the web.xml file for the web client application. SSL is turned on at the application server level.
RSR 142	The EES should provide a secure web portal with role based access enabling viewing and maintenance of information across all components of the solution meeting all applicable Nebraska and federal standards.	S	SmartPro MedEE provides a secured web portal with a log in screen for authentication. SmartPro MedEE supports RBAC category of authorization, which is configurable through the Cúram Administration Suite. Once a user logs in, depending on their assigned role, the appropriate screens (or workspace) with specific functionality will be displayed.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 143	The EES should accommodate all current HIPAA revisions/updates including those that may occur during the life of the project.	S	Wipro maintains currency with HIPAA regulations, as it operates certified data centers that include hosting a copy of the SSA/CMS Medicare Data Base (MDB), and extensive other Medicare and Medicaid programs for both Healthcare plans, the Federal Government, and various state Governments.
RSR 144	The EES should maintain all data sets defined by the HIPAA Implementation Guides to support all transactions required under HIPAA Administrative Simplification Rule.	M	Cúram plus the ESB are configured to support required HIPAA transaction under the HIPAA Administrative Simplification rule, when relevant.
RSR 145	The EES should protect the confidentiality and integrity of electronic Protected Health Information (PHI).	M	Cúram protects PHI data; this protection will be extended to the MDM and BI components.
RSR 146	The EES should support encryption and decryption of stored PHI or an equivalent alternative protection mechanism, if approved by the Department.	M	DB2 encryption will be used to protect PHI data stored in the database, and modules that access this data will be compliant.
RSR 147	The EES should track disclosures of PHI; provide authorized users access to, and reports on the disclosures.	W	The IBM Cúram Administration Suite provides extensive auditing capability to track who has accessed, updated or requested sensitive information, what they accessed and when.
RSR 148	The EES should include procedures for accessing necessary electronic PHI in the event of an emergency and continue protection of PHI in emergency.	S	In an emergency, alternative persons can be temporarily given authority to access electronic PHI, while maintaining the protection of the PHI.
RSR 149	The EES should provide data integrity of PHI by preventing and detecting improper alteration or destruction (including but not limited to: message authentication, electronic signature, check sums etc.).	S	IBM Cúram and Master Data Management do not allow improper alteration or destruction of any case information, including PHI. Changes history is maintained and an audit trail recording the authenticated user ID as electronic signature from the user interface or from the authenticated source of message from other systems, and an audit trail will be maintained of such changes. Security will be maintained at the database level to prevent unauthorized change through other means than through the Cúram or Master Person Index applications.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 150	The EES should perform data mapping to identify the PHI contained in the solution.	S	This will be a project responsibility, part of our standard approach when dealing with sensitive healthcare data.
RSR 151	The EES should provide ability to redact records in whole or in part to comply with Nebraska and federal privacy standards based on role and authority.	S	In SmartPro MedEE, redacted data can be asterixed out. Redaction will occur at the database level and will involve an operational user. This will provide DHHS with a solution that enables redaction of fields, partial fields, or complete records.
RSR 152	The EES should provide audit reports for tracking users, associated security groups, roles, settings, passwords and duplicate IDs. The frequency and content of security audit reports will be determined by the Department.	C	A uniform audit logging and reporting capability will be implemented, based on data and log extracts.
RSR 153	The EES should track adds, changes and deletes of individual user data.	S	The IBM Cúram Administration Suite provides extensive auditing capability to track who has accessed, updated or requested sensitive information, what they accessed and when. This includes tracking adds, changes and deletes of individual user data.
RSR 154	The EES shall audit/track all activity specific to each user and process, including at a minimum date and time of last login, invalid login attempts, system errors, and all transaction activities, including inquiry.	S	The EES solution includes auditing capability that tracks user transaction activities, including inquiry activity. Auditing can be configured on or off for selected transactions by a system administrator.
RSR 155	The EES should provide read-only access to system job and maintenance schedule, submission, and processing statistics, and system performance tools for designated staff.	S	IBM SmartCloud Workload Automation provides this capability.
RSR 156	The EES should monitor system activity and log and examine system activity in accordance with audit policies and procedures adopted by the Department.	S	The proposed EES fully satisfies the requirement as stated.
RSR 157	The EES should provide security administrative rights to the Department security administrator(s) for the purpose of adding, updating, and deleting security access.	W	This role will be configured into SmartPro MedEE. Basic State User authentication will be maintained by the State's Active Directory implementation.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 001	The EES shall maintain a record (e.g. audit trail) of all additions, changes and deletions made to data in the system. This should be readily searchable by user ID or client ID. This must include but is not limited to:	W	The EES solution will maintain an audit trail of all transactions that impact EES data. Auditing can be configured on or off for selected transactions by a system administrator. Additional log data will be gathered and consolidated to provide a comprehensive audit picture.
AUD 002	• The user ID of the person who made the change	S	The IBM Cúram Administration Suite provides extensive auditing capability to track who has accessed, updated or requested sensitive information, what they accessed and when. The user ID is captured in the audit record.
AUD 003	• The date and time of the change	S	The IBM Cúram Administration Suite provides extensive auditing capability to track who has accessed, updated or requested sensitive information, what they accessed and when. The date and time of change are captured in the audit record.
AUD 004	• The physical, software/hardware and/or network location of the person while making the change	M	These data elements will be retrieved from WebSphere, the webserver layer provider.
AUD 005	• The information that was changed	S	The IBM Cúram Administration Suite provides extensive auditing capability to track who has accessed, updated or requested sensitive information, what they accessed and when. The before and after data are captured in the audit record.
AUD 006	• The outcome of the event	S	The IBM Cúram Administration Suite provides extensive auditing capability to track who has accessed, updated or requested sensitive information, what they accessed and when. The before and after data are captured in the audit record.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 007	• The data before and after it was changed, and which screens were accessed and used	S	The IBM Cúram Administration Suite provides extensive auditing capability to track who has accessed, updated or requested sensitive information, what they accessed and when. The before and after data are captured in the audit record. The screens accessed and used are also written to the audit trail.
AUD 008	The EES shall allow an authorized administrator to set the inclusion or exclusion of auditable events based on organizational policy and operating requirements/limits.	S	The IBM Cúram Administration Suite provides extensive auditing capability which tracks who has accessed, updated or requested sensitive information, what they accessed and when. The type and extent of audit data captured can be tailored to meet specific implementation requirements.
AUD 009	The EES shall support logging to a common audit engine using the schema and transports specified in the Integrating the Healthcare Enterprise (IHE) Audit Trails and Node Authentication (ATNA) profile, Audit Log specification.	C	Existing Cúram logs will be augmented with data taken from other system component's logs and placed in a consolidated logging database to fulfill this and related audit logging requirements.
AUD 010	The EES shall be able to detect security-relevant events that it mediates and generate audit records for them. At a minimum the events shall include those listed here:	C	Monitoring of all key system events/logs will be consolidated into a single repository.
AUD 011	• start/stop	S	From system log files
AUD 012	• user login/logout	S	From SSO Solution (IDT001) logs
AUD 013	• session timeout	S	From WebSphere logs
AUD 014	• account lockout	S	From SSO Solution (IDT001) log

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 015	• client record created/viewed/updated/deleted	S	The IBM Cúram Administration Suite provides extensive auditing capability which tracks who has accessed, updated or requested sensitive information, what they accessed and when. The type and extent of audit data captured can be tailored to meet specific implementation requirements such as tracking the client records that have been created, viewed, updated, and deleted.
AUD 016	• scheduling	S	From SmartCloud Workload Manager logs
AUD 017	• query	S	Cúram provides robust auditing capability to enable administrative personnel to identify who has accessed, updated or requested sensitive information, what they accessed and when. For more details see section 6.2
AUD 018	• order	S	See previous "AUD 017" – queries and updates are logged. There are no deletions as such, only logical deletions which are also logged.
AUD 019	• node-authentication failure	S	The proposed EES fully satisfies the requirement as stated.
AUD 020	• signature created/validated	S	Creation of validated identifiers is performed either through the State's Active Directory (for State personnel) or the Cúram Universal Access portal and both of these are able to maintain audit logs of these events.
AUD 021	• Personally Identifiable Information (PII) export	S	Cúram has no explicit function to export PII (or other) data, other than through the standard export to the BI subsystem which is not inappropriate – will be enforced in the Cognos/BI component.
AUD 022	• PII import	C	Cúram has no explicit function to import PII (or other) data – enforced by Cognos/BI.
AUD 023	• security administration events	S	The proposed EES fully satisfies the requirement as stated.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 024	• backup and restore	S	The proposed EES fully satisfies the requirement as stated.
AUD 025	The EES shall provide authorized administrators with the capability to read all audit information from the audit records.	C	Part of the Audit Log Consolidation and Reporting.
AUD 026	The EES shall provide the audit records in a manner suitable for the user to interpret the information.	C	Part of the Audit Log Consolidation and Reporting.
AUD 027	The EES shall provide the capability to generate reports based on ranges of EES date and time that audit records were collected.	C	Part of the Audit Log Consolidation and Reporting.
AUD 028	The EES shall be able to export logs into text format in such a manner as to allow correlation based on time (e.g. Coordinated Universal Time [UTC] synchronization).	C	Part of the Audit Log Consolidation and Reporting.
AUD 029	The EES shall be able to perform time synchronization using NTP/SNTP, and use this synchronized time in all security records of time.	S	Standard system time maintenance at the OS level, from which date/timestamps are subsequently derived.
AUD 030	The EES shall have the ability to format for export recorded time stamps using UTC based on ISO 8601.	C	Part of the Audit Log Consolidation and Reporting.
AUD 031	The EES shall prohibit all users read access to the audit records, except those users that have been granted explicit read access.	C	Part of the Audit Log Consolidation and Reporting.
AUD 032	The EES shall protect the stored audit records from unauthorized deletion.	C	Part of the Audit Log Consolidation and Reporting.
AUD 033	The EES shall prevent modifications to the audit records.	C	Part of the Audit Log Consolidation and Reporting.
AUD 034	The proposed EES shall provide logging, reporting and accessing errors and exceptions.	C	Part of the Audit Log Consolidation and Reporting.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 035	The EES shall maintain an audit trail of all inquiry, and updates to the EES that are required by State and federal policies and regulations.	S	The IBM Cúram Administration Suite provides extensive auditing capability which tracks who has accessed, updated or requested sensitive information, what they accessed and when. The type and extent of audit data captured can be tailored to meet specific implementation requirements. Auditing all inquiry will generate a very large volume of audit data. As required DHHS can decide to audit certain inquiry types, and not others.
AUD 036	The EES shall ensure plans and procedures are in place for all modules to meet audit and compliance requirements	S	This is a standard component of our Project Management / SDLC procedures.
AUD 037	The EES should capture and retain the data that was used to determine eligibility, calculate benefits, and generate various outputs, at the point in time that the particular action took place. Subsequent changes to data elements (e.g. an applicant's income) should not over-write the value that used to make a determination at a particular point in the past.	S	EES maintains all eligibility data in an effective dated manner. Changes to eligibility data will never overwrite existing data. Rather the new data will join a timeline of data that EES maintains for the beneficiary.
AUD 038	The EES should have the ability to research transaction exceptions (e.g. a failed "add" transaction due to business rule violation) and make corrections within the system as necessary to correct enrollment discrepancies.	S	Transaction exceptions will be written to the application logs. Business users will use the EES application to make corrections as necessary to business data. Operational users can also make corrections directly on the database in exceptional circumstances.

Usability Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 001	The EES will adhere to the accessibility standard as outlined in the web guidelines and based on the W3C level 2 accessibility guidelines: (http://www.w3.org/TR/WCAG10/full-checklist.html).	S	The IBM Cúram user interface is presented through a standard web browser and provides an intuitive and consistent look and feel for system users. Designed in accordance with the W3C's Web Content Accessibility Guidelines (WCAG), including level 2 accessibility guidelines, the Cúram user interface provides a modern, configurable and highly accessible user experience.
USE 002	The EES shall adhere to all federal and Nebraska accessibility requirements, or their successors: (section 508 of the Rehabilitation Act and detailed in section 1194.22 of the Code of Federal Regulations, "Web-based intranet and internet information and applications".	S	SmartPro MedEE, based on Cúram's ADA compliant web based solution, meets applicable State and Federal accessibility standards for all processes, user interfaces and documents produced by the system. Cúram-based portals are designed to be accessible so that persons with disabilities can use these portals effectively. Cúram-based portals conform to both the US Federal Section 508 requirements for accessibility for persons with disabilities and the Americans with Disabilities Act (ADA). Accessibility testing is an important element of the continual testing of the Cúram solution. A dedicated team focuses only on accessibility testing using the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines 2.0 (WCAG 2.0). As part of the Cúram product development process, new features are continually evaluated and tested using WCAG. These guidelines are an integral part of the Cúram product development process and provide a basis for designing accessible software solutions.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 003	The EES shall provide a user interface that shall be simple and consistent throughout all areas and functions of the EES.	S	SmartPro MedEE uses Cúram's user interfaces which are consistent throughout all areas and functions of SmartPro MedEE. Cúram screens are 'described' in XML User Interface Metadata (UIM). From the UIM and the centrally maintained Cascading Style Sheets, JSPs are generated. Using this generation approach, the SmartPro MedEE user interface is guaranteed to have a consistent user interface throughout. UIM supports the following user interface components: application sections, application tabs, section shortcut panels, section shortcut categories, section shortcut menu items, content area navigation bar, page group navigation bar, and in page navigation tabs. These components are used throughout and provide the worker with the same look and feel, and consistent navigation metaphors through the SmartPro MedEE application.
USE 004	The EES shall minimize the number of mouse clicks/user interaction to complete any action.	S	SmartPro MedEE uses Cúram's user interfaces which are designed to minimize the number of mouse clicks required to complete any action, and to ensure that user has complete context of what they are working on and how they got to where they are. The Cúram product was first released in the year 2000. Between then and now, the user interface has evolved through four different versions to where it is at today. It took that many iterations to get user navigation right.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 005	The EES shall use a Graphical User Interface (GUI) to help the user navigate to the next logical step in the workflow, or freely navigate to other parts of the EES functionality, and then allow the user to return to complete the in-process task.	S	Cúram provides several features that contribute towards making it as easy as possible to navigate quickly around the system. For example, every Cúram page contains a variety of quick navigation hyperlinks that are relevant to the particular user-type that is logged on. In addition to the extensive use of hyperlinks throughout the application, Cúram also supports the use of predefined wizards and workflows to assist users with complex processing paths. This includes allowing users to freely navigate to previous steps and then returning to complete the in-process task.
USE 006	The EES shall preserve context by limiting abrupt transitions and redisplays in order to maximize and enhance the user experience and EES usability.	S	One of the primary goals of the Cúram user interface is to maintain context for the user, and to make it very easy for the user to understand how they got to where they currently are, and to return back to where they came from. The User Interface achieves this by being organized around the concept of 'primary objects'; a client, a case, an eligibility determination, etc. Each primary object has a home page that is displayed within a Cúram tab. As each primary object is accessed (e.g. the client is accessed from the case) a new object home page is opened in a new tab. This enables the user to always click back on the case tab, or on previously accessed primary objects. Above these Cúram tabs, the user has access to static links, such as a link to the page they see when they log in (the workspace page), a link to their task inbox, a link to their calendar, etc. As such, no matter what the user is working on, they always have single click access to key parts of their application.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 007	The EES shall speak the users' language, with words, phrases and concepts familiar to the user, rather than EES-oriented terms.	S	The IBM Cúram user interface is presented through a standard web browser and provides an intuitive and consistent look and feel for system users. Designed in accordance with the W3C's Web Content Accessibility Guidelines (WCAG), the Cúram user interface provides a modern, configurable and highly accessible user experience. It delivers a highly consistent look and feel, which is user-friendly and intuitive for new users to learn. The configurable user interface will speak the user's language.
USE 008	The EES shall follow real-world conventions, making information appear in a natural and logical order.	S	The IBM Cúram user interface is presented through a standard web browser and provides an intuitive and consistent look and feel for system users. Designed in accordance with the W3C's Web Content Accessibility Guidelines (WCAG), the Cúram user interface provides a modern, configurable and highly accessible user experience. It delivers a highly consistent look and feel, which is user-friendly and intuitive for new users to learn. Information and tasks in the user interface appear in a natural and logical order.
USE 009	The EES shall allow the users to easily navigate to a variety of functions available to them without having to move sequentially through excessive menus and screens.	S	The Cúram user interface provides clear navigation that ensures users have a sense of where they are, where they have been, and where they can go to in the system. This also allows a user to easily navigate to a particular function.
USE 010	The EES shall support undo and redo, or provide onscreen confirmation/acceptance to the user to confirm a change that is permanent and cannot be "undone".	S	The Cúram user interface provides clear buttons to go back to a previous screen/step as well to as confirm an action.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 011	The EES shall provide users with a clearly marked "emergency exit" for the instances when a user mistakenly chooses a function and such "emergency exit" must be simple with minimal dialogue.	S	SmartPro MedEE's user interface is designed to ensure that a user always has direct access to "emergency exit" type links such as their home page or their task inbox. Other "emergency exit" type links are available based on the context of what the user is working on. For example if a user is working on an eligibility case, they will have direct access to a link that will return them to the eligibility case home page. For transactions where new data is being added or existing data is being modified, the user will always be presented with a Cancel button, to enable them to back out of what they have been doing.
USE 012	The EES shall follow standardized conventions and limit the use of words, situations, or actions that have multiple meanings.	S	The user interface of SmartPro MedEE follows standardized conventions and thus limits situations which may confuse a user.
USE 013	The EES shall eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.	S	The Cúram user interface provides summary screens that allow a user to review the information provided before submitting. If there are any errors in the information entered by the user, the user interface will display error messages and will allow the user to correct the information before committing an action.
USE 014	The EES shall minimize the user's memory load by making objects, actions, and options visible.	S	The SmartPro MedEE user interface displays text, objects, and actions that are available to the user thus minimizing the user's memory load.
USE 015	The EES shall provide the option to have rollover/ tool-tip help or context messages and provide the option to turn off this option in the user preferences profile.	S	SmartPro MedEE provides an extensive and integrated help capability which supports page and field level context help. Rollover/tool-tip help is also available on images and individual data fields for the user.
USE 016	The EES shall provide all user instructions in a visible or easily retrievable location, when appropriate.	S	Whenever a user action is needed, SmartPro MedEE displays the user with guided screens to complete the appropriate action.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 017	The EES shall cater to both inexperienced and experienced users and shall provide accelerators (e.g. onscreen short cuts, hot-keys, alternate workflows, etc.) to speed up the interaction for the expert user.	S	SmartPro MedEE caters to several different kinds of users, business and technical users as well as citizens (experienced or inexperienced), administrators, caseworkers, etc. For example, a short cut panel is always displayed in the Worker portal application. An experienced case worker may choose an action from the short cut panel were as an inexperienced case worker may go through a set of guided screens in order to complete the same action.
USE 018	The EES will allow users to create shortcuts (e.g. onscreen short cuts, hot-keys, etc.) for frequent actions.	S	The worker can create browser bookmarks for frequent actions.
USE 019	The EES's error messages shall be expressed in plain language, precisely indicate the problem, and constructively suggest a solution.	S	SmartPro MedEE leverages Cúram's exception handling which returns user-friendly error messages when an exception is raised. The text for the exception is loaded from a message catalog file and can easily be changed.
USE 020	The EES shall use colors to enhance user experience and EES usability while complying with all disability requirements notated elsewhere in these requirements.	S	SmartPro MedEE, based on Cúram's ADA compliant web based solution, meets applicable State and Federal accessibility standards for all processes and user interfaces produced by the system. User interface colors are maintained centrally in Cascading Style sheets and can easily be modified to suit DHHS needs. Default user interface colors are ADA compliant.
USE 021	The EES shall allow the user to navigate to any functional component from a client landing page.	S	Upon log in, the user is presented with their personalized home page or workspace which has links to all the functions they are able to do. For example, a case worker can log in to their workspace and search for cases, view their assigned cases, check their Inbox for tasks assigned, etc.
USE 022	The EES shall alert the user with information relevant to required next steps.	S	When a user is processing through a multi-step process (i.e. applying for an application, entering evidence data, etc.) a "menu of steps" is shown to the users with the total amount of steps in sequential order needed to complete the process.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 023	The EES shall provide drop down and list boxes for all key entry, and text entry will display existing values for selection (auto fill).	S	SmartPro MedEE provides user interfaces with drop down lists, list boxes, text entry fields, etc. for entering values into the system. If the user types in their selection into the editable part of a drop down list, the items in the list will change to only show the items that align with what is being typed in.
USE 024	The EES shall accommodate point and click selection and check box entry for all relevant data entries to ensure that the user does not have to enter textual data that may already be available to the system.	S	SmartPro MedEE supports point and click selection options and check boxes for data entry/selection.
USE 025	The EES shall facilitate data entry and shall contain pop-up list boxes for all code fields in all processing windows and allow selection of the entry with use of hot keys.	S	Where an input field is associated with a list of items to select from (e.g. US States or Gender), the user will be presented with a text field containing a drop down list of selectable items. The user can use the arrow keys and the page up/page down keys to select the item they want. The user can also type ahead in the input field, and the available items in the list will be updated to reflect the characters entered.
USE 026	The EES shall provide field level on-screen edits with limited user override capabilities.	S	SmartPro MedEE will provide on-screen edits. When a user attempts to commit the data, they are informed of any required edits that must be made. For example, if the user enters a date of 13/32/2013, the on-screen edits will inform the user that they must update the date field before continuing.
USE 027	The EES shall not show fields that are not accessible to a given user based on access rights, nor shall the EES show fields not in use.	S	SmartPro MedEE interface is a role-based web portal. Depending on the user role logged into the system, appropriate system functionality and actions will be available and displayed. For example, when a case worker is logged in to the system, they are only presented with functionality related to case management.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 028	The EES cursor shall automatically advance to the next logical input field when the maximum allowed numbers of characters have been entered for the keyed field.	S	SmartPro MedEE'z input cursor will advance to the next input field when the user hits the tab key. The majority of data input fields have a length that extends beyond what most users need (e.g. a name field is 30 characters).
USE 029	The EES shall provide the option of having a selection from the drop down boxes automatically take the user to the next field.	S	SmartPro MedEE input cursor will advance to the next input field when the user hits the tab key.
USE 030	The EES shall provide validation checks by methods described within policy, functional, and detailed requirements.	S	IBM Curam will support both electronic validation of data through the federal data hub and required State systems (modification required - see GEN 011) and the ability to manually upload validation documents where electronic validation is not possible.
USE 031	The EES shall identify invalid entries to the user as immediately as possible.	S	SmartPro MedEE leverages Cúram's exception handling which returns user-friendly error messages when invalid entries are submitted by the user. The text for the exception is loaded from a message catalog file and can easily be changed. Error messages and informational messages are displayed on screen as the user is entering or maintaining data.
USE 032	The EES shall provide the ability to suggest or automatically change entries that do not conform to data entry standards.	S	IBM Cúram will highlight entries that do not conform to data entry standards, as the user is entering data. For example if the user enters letters into a date field.
USE 033	The EES shall be designed to include only the necessary information and functionality on screens and shall be based on the user's access level and the user's configuration.	S	SmartPro MedEE's interface is a role-based web portal. Depending on the user role logged into the system, and their access level rights, appropriate system information and functionality will be available and displayed.
USE 034	The EES shall be designed to include logical transitions between screens and level of detail during navigation.	S	SmartPro MedEE provides clear navigation that ensures users have a sense of where they are, where they have been, and where they can go to in the system. It also includes "tabbed" pages to provide an easily navigable way of viewing and accessing a large amount of information for various record types.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 035	The EES shall provide templates for data entry with identified mandatory and optional data fields.	S	SmartPro MedEE supports the requirement to identify and enforce entry of mandatory input fields and allow other fields to be optional. All mandatory fields are indicated with an asterisk (*) – for example, Last Name, Gender, Date of Birth, etc. – while optional fields do not show an asterisk.
USE 036	The EES shall allow incomplete data sets to be saved for completion of the workflow at a later time.	S	Once logged in to the system, users can save their incomplete data sets for completion at a later time. For example, a citizen can start an online program application and decide to Save and Exit half way through the application.
USE 037	The EES shall highlight and flag required and incomplete data fields.	S	IBM Cúram supports the requirement to identify and enforce entry of mandatory input fields and allow other fields to be optional. All mandatory fields are indicated with an asterisk (*) – for example: Last Name, Gender, Date of Birth, etc. – while optional fields do not show an asterisk. Incomplete data fields will be highlighted via exception messages.
USE 038	The EES shall include a graduated system of alert levels to allow users to determine urgency and relevancy.	S	Electronic notifications are sent in SmartPro MedEE to users to alert them of task items such as pending and overdue work. Alerts can be sent to a user via tasks in their Inbox or displayed in their Home Pages for greater urgency.
USE 039	The EES shall allow configuration of alerts by a user, for a user by a supervisor, and for a user by an EES administrator	S	The alerts in the system can be configured via the workflows in which they pertain to.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 040	The EES shall allow for the request of or entry of data from external devices (e.g. tablets, kiosks, barcode scanner, RFID scanner, speech).	S	External devices can be used to input data into SmartPro MedEE: The tablet browser can be used to display the IBM Cúram client and worker portals. A Kiosk can run a supported browser and so display the IBM Cúram client portal. A connected barcode or RFID scanner can read data and insert it automatically in an on screen input field. A speech to text device can be used to interact with the IBM Cúram portal.
USE 041	The EES shall notify the user when a source system is unavailable/inoperable and notify user that any available information about the subject being viewed is as of certain time and date.	M	SmartPro MedEE will inform a user when any data that is mastered in a remote system, was last updated. Modification effort will be included to cater for this requirement, though it is not yet clear what functions will operate like this.
USE 042	The EES's web interface shall be aligned with Web 2.0 design principles and best practices.	S	Cúram is an ADA compliant web based solution that users Web 2.0 technologies including JSP, JavaScript, Cascading Style sheets, AJAX, etc.
USE 043	The EES shall not require users to reenter data due to validation errors if the systems can auto-correct based on the entered data or the user can navigate to the entry error to correct the entry.	S	Upon validation errors in the system, SmartPro MedEE does not require the user to re-enter all information which was not deemed invalid. The EES displays user friendly messages to the users to highlight which entries need to be corrected.
USE 044	The EES shall enable central workflow alerts and transactional status.	S	Notifications can be defined and associated with any workflow activity. They can be issued in the form of an Alert.
USE 045	The EES shall centralize pending work items for the user as in a "work queue"	S	Cúram Workflow provides work allocation features for assigning work items to system resources, individuals, organizational units, and shared work queues as appropriate. Once a work item has been allocated, it ultimately becomes a task for an individual who can then view and action the task. Tasks are used to assign and track a user's workload.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 046	The EES shall have the capability to push messages to the intended workers without requiring them to specifically inquire for the data.	S	Users manage their workload from the Inbox. A toolbar shortcut to the user Inbox is available on each page in the application. The Inbox provides the functionality necessary to allow a user to manage workload. Messages are handled as tasks. When a task is assigned to a user, an alert can optionally be configured. The alert will appear in the user's notification list and can be emailed directly to the user.
USE 047	The EES shall provide linked access to help functions which contain the appropriate information and search of all help information from every window, based on user profiles.	S	IBM Cúram provides links to access help information from every window. The Help viewer provides the user with a help search function.
USE 048	The EES shall have the capability to capture a public benefit applicant's application in a disconnected/offline mode to be processed once a connection to the Internet is established	M	Will be implemented with email delivery of an offline form.
USE 049	The EES shall utilize standard web browser-based technology with the ability to provide data over a web browser interface (i.e. HTML over HTTP).	S	The Cúram user interface is composed of HTML pages generated JSP pages, using cascading style sheets (CSS) to determine the formatting of screen pages. The user interface provides the ability to send data over a web browser interface (HTML over HTTP or HTTPS).
USE 050	The EES shall include the capability to encrypt the data communicated over the network via SSL (HTML over HTTPS).	S	SmartPro MedEE provides a secured web portal with a log in screen for authentication. SSL is on by default for access to the web application. This ensures a secure SSL connection between the client and server and also ensures data is encrypted. SSL is turned on for the client through settings in the web.xml file for the web client application. SSL is turned on at the application server level.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 001	The EES shall have the capability of exchanging information with the legacy N-FOCUS system.	M	The interfaces described in the RFP will be supported using SmartPro MedEE's ESB and File Transfer functionality.
IER 002	The EES shall have the capability to provide data and access to notifications to the Federal Facilitated Marketplace.	S	SmartPro MedEE has prebuilt capability in support of the FFM account transfer interface.
IER 003	The EES shall have the capability to request and store data from federal Hub for a number of purposes including, but not limited to: updated Citizenship and Income verification.	S	A unique feature of "Cúram for Medical Assistance" is prebuilt integration with the Federal Hub and prebuilt hooks to enable integration with other systems, such as State systems, for the verification of application data.
IER 004	The EES shall have the capability to request and store results of IRS service information.	S	SmartPro MedEE has prebuilt capability in support of Federal Hub integration. The Fed Hub supports a connection to the IRS.
IER 005	The EES shall have the capability to request and store results of Equifax – TALX wage verification.	M	SmartPro MedEE will support integration with the Equifax - TALX wage verification service through IBM's Integration Bus, the solution ESB. TALX is an employment verification service (among other things) - state systems talk directly to this for many of their benefit programs (SNAP and TANF too) - this is not through the Fed Hub. Some modification effort required to support the integration with the TALX wage verification service.
IER 006	The EES shall have the capability to request and store results of verification service citizenship/lawful presence provided by CMS	S	SmartPro MedEE supports prebuilt integration with the Federal Hub for electronic verification purposes, and where not possible the manual creation of verification records and the upload of related verification artefacts.
IER 007	The EES must be able to express eligibility determination business rules outside transactional system in the business rules engine implemented as part of the Nebraska EES.	S	The Eligibility determination rules can be extracted out of the transactional system as XML documents.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 008	The EES shall have the capability of exchanging eligibility information with the legacy N-FOCUS system.	S	SmartPro MedEE uses the IIB (ESB) to exchange information with N-FOCUS. Refer to requirement IER 010 for Cúram effort. See also IER 019.
IER 009	The EES shall have the capability of exchanging eligibility information with the legacy MMIS.	S	SmartPro MedEE uses the IIB (ESB) to exchange information with the legacy MMIS. Refer to requirement IER 010 for Cúram effort. See also IER 019 and ELG 153.
IER 010	The EES shall have the capability to provide results of eligibility determination to other systems.	M	SmartPro MedEE maintains the eligibility determination results for all beneficiaries. Modification effort required to expose required eligibility details for external systems. Refer to requirements IER 008 and IER 009.
IER 011	The EES shall have the capability to provide data and access to notifications to other systems.	S	Access to data through the ESB and web services exposed from Cúram. Access to notifications (i.e. correspondence) will be through the EDMS, the State's Hyland system – this will be connected through the ESB to SmartPro MedEE.
IER 012	The EES shall have the capability to store results/client attestation of a number of factors including, but not limited to Native American Status, Residency, Incarceration Status, and Individual Exemption qualification.	S	SmartPro MedEE supports the capture of application data including native American status, pregnancy details, disability status, incarceration status, individual exemption qualification data, etc., and of the client attestation of this data.
IER 013	The EES shall have the capability to store results of alternate client verifications for a number of items including, but not limited to income, Citizenship / Lawful presence	S	IBM Cúram supports prebuilt integration with the Federal Hub for electronic verification purposes, and where not possible the manual creation of verification records and the upload of related verification artefacts. New verification types for specific data (e.g. citizenship, income, lawful presence, etc.) can be configured into EES.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 014	The services and consumers employed in the EES shall be loosely-coupled to ensure service logic can evolve while guaranteeing backwards compatibility to existing consumers.	S	The interfaces are developed with SOA based implementation to identify reusability. The grain of the services determines its reusability. The services are loosely coupled and are exposed with standard set of protocols which ensures the service logic can evolve while guaranteeing backwards compatibility.
IER 015	The EES shall be able to interface with multiple state systems as well as external partner systems to allow interoperability as appropriate with outside entities and state agencies. (Real-time, near-time, batch)	S	For external integration there are two types of patterns a) Real time/near real time integration b) Batch based integration. For type a integration the ESB mediates the exchange. For type b integration either the ESB or Connect Direct integrates with outside entities, state agencies, the choice depending upon the interface protocol. For User access based integration (UI Layer) the access credentials and access privileges ensures the security of the user/group access.
IER 016	The EES shall provide the ability to leverage the federal approach to verification from federal agencies such as the Internal Revenue Service, Department of Health and Human Services, and Department of Homeland Security to eliminate the independent establishment of those interfaces and connections at the Nebraska level.	S	A unique feature of "Cúram for Medical Assistance" is prebuilt integration with the Federal Hub and prebuilt hooks to enable integration with other systems, such as State systems, for the verification of application data. Direct connections to the IRS, department of Homeland Security, etc. is discouraged, and not needed.
IER 017	The EES shall provide standard, secure, and configurable interfaces between all interfacing information sharing entities.	S	SmartPro MedEE Interfaces will be implemented in IBM Integration Bus providing a standard, secure set of interfaces which can be configured to be leveraged between different interfacing entities.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 018	The EES shall provide the ability to support real-time automated data exchanges with internal systems to ensure that data is aligned.	S	The event based integration between participating application where any change in data entity are published by the service provider to a message queue which ESB Send data to the service consumer after doing transformation and routing. The service consumer needs to consume messages from the queue and update its system. This way the data is synced between two participating applications.
IER 019	The EES shall provide the ability to communicate the eligibility decision to other relevant systems.	S	SmartPro MedEE will provide the ability to communicate eligibility information to external systems, either online through a web services or in batch through an eligibility data file. Refer to requirement IER 010.
IER 020	The EES shall provide the ability to export an enrollment file to external entities as specified by the Department.	S	Refer to requirement ELG 107 for effort around extracting enrollment data from the EES. Exporting the file for external entities is an ESB file transfer effort.
IER 021	The EES shall provide the ability to export Medicaid benefits to the Nebraska MMIS.	S	Refer to requirement ELG 107 for effort around extracting enrollment data (i.e. Medicaid benefit enrollment data) from the EES. Exporting the file for external entities is an ESB file transfer effort.
IER 022	The EES shall ensure that dates across Nebraska systems remain in synch (e.g., a case's closing or some other action).	S	Refer to IER 018.
IER 023	The EES shall provide the ability for data and process integration between programs according to state and federal regulations as required.	S	The IBM ESB provides for data and process integration.
IER 024	The EES should expose a web service that allows other systems to submit requests to verify an individual's enrollment.	M	Modification effort required to support a common format for individual enrollment data. Refer to requirement ELG 107 for effort around extracting enrollment data from SmartPro MedEE.
IER 025	All web services used in the EES should be reusable as enterprise resources by systems external to the EES.	S	The Services are developed using SOA principals which ensures reusability.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 026	The data exchange infrastructure should support multiple open standards and industry standard protocols, including Secure FTP (S-FTP), SOAP over HTTPS, and JMS/ MQ messages.	S	The Integration layer supports SFTP, SOAP over HTTPS, JMS/MQ based integration.
IER 027	The EES should provide common bi-direction interfaces (preferably, a web service API) that will support the integration with Computer Telephone Integration (CTI) systems for purposes such as retrieving caller information and triggering screen pops.	S	The Service Consumer makes a call to the ESB which in-turn makes call to the CTI Webservices to get the response and provides the information to the service consumer.
IER 028	The EES should provide the ability to report on interface transmissions (e.g., total number of records loaded, date of interface transmission, amount of time to execute the interface transmission, errors, and failures).	S	The audit logging will be done by the common components implemented in the ESB layer. The main flows implemented in the ESB provide information based on the audit logging framework defined.
IER 029	The EES should provide the ability to import data into the EES in multiple formats (e.g., csv, fixed length ASCII, tab-delimited).	S	The ESB layer supports file based integration using various formats like CSV, Fixed length ASCII, Tab delimited, etc. IBM ESB supports file based integration.
IER 030	The EES should provide the ability to automatically identify inconsistencies between the case record and information received from interfaces as specified by the Department.	S	Cúram Evidence Broker is used to capture and process incoming eligibility data. Cúram Evidence Broker mediates the sharing of eligibility data across cases, acting as both a receiver and a broadcaster of eligibility data. Cúram Evidence Broker is used to decide the types of evidence can be shared, and what to do when shared data and existing data does not match - auto-accept the shared data, auto-reject the shared data, or inform a user.
IER 031	The EES should support integration with Nebraska's current calendar and e-mail environment.	W	IBM Cúram supports integration with calendar and email systems through several mechanisms. For example, workflow can generate emails automatically when tasks are ready or overdue, or through Cúram calendaring, where for a scheduled meeting, Invitations to all parties are sent via Personal Information Manager (PIM) tools such as Microsoft Outlook. The invite appears in the invited user's calendar where they can accept or reject the invitation.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 032	The EES should employ XML-based standards for communication and integration with other environments.	S	IIB uses XML as the standard for messaging. The objects are implemented as XML.
IER 033	The EES should provide alerts to DHHS staff on status of interface data processing (e.g., when processing is completed or error occurs).	M	The ESB implements Audit and Error handling components to provide the status of the interface processing, which will be exposed to DHHS staff.
IER 034	The EES should provide the ability to support Interfaces by exchanging information on schedule as specified by the Department.	W	IBM's SmartCloud Workload Scheduler manages scheduled interfaces.
IER 035	The EES should provide the ability to automatically track inbound customer service interactions received through the IVR and/or interfaces based on program rules.	M	For IVR integration interfaces the ESB components will implement an audit log entry for each invocation.
IER 036	The EES should provide the ability to present a result list for data imports and exports (e.g., success or failure, time started, time completed).	S	SmartPro MedEE maintains status and timestamps for interface events.
IER 037	The EES should provide the ability to restart an interface transmission from a specific point (e.g., restart at failed record, restart from beginning).	S	IBM IIB provides a record and Replay feature which provides ability to restart from a failure to a logically completed step.
IER 038	The EES should associate information received via interface with the line-of-business record which generated the information request.	M	Cúram maintains alternate identifiers, which can be identifiers used by other systems for line-of-business records. Cúram can then use these external identifiers to associate the information received via an interface with the appropriate Cúram record. This may require only configuration where the interface is using identifiers already "known" to Cúram as part of standard message formats, but others may require modification to identify the identifier.
IER 039	The EES should support exchange of bulk data information to be printed and mailed.	W	Cúram will deliver the ready to print mailing files via batch file transfer to the State, which will dispatch them to their mailroom printer for production and mailing.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ADM 001	The EES shall provide data archiving capabilities based on Department defined criteria.	C	Cúram will be extended to allow archiving of aged operational data while maintaining internal database consistency. Aging / Archival will be constrained to closed/inactive cases and to log data, such as logs of data access. The value of the aging threshold will be set in agreement with the State as determined in project execution. Aging / archival will normally be executed as a monthly job, and the resultant archives will be retained consistent with State requirements. Archived data will be restorable based on Archive date.
ADM 002	The EES shall provide the capability to move all historical, expired and/or unnecessary data to offline storage according to a set of business rules and schedule to be defined by the Department as a part of the ongoing system operational decision making.	C	Same as ADM 001
ADM 003	The EES shall maintain an archival process so that accumulated historical records and log files do not consume large amounts of disk space.	C	See ADM 001
ADM 004	The EES shall provide an auto archive/purge of the log files to prevent uncontrolled growth of the log and historical records storage using administrator-set parameters.	C	See ADM 001
ADM 005	The EES shall provide version control capabilities to ensure the integrity of all software releases.	S	Versioning is an intrinsic capability of Rational Team Concert, which manages configurations and SCC.
ADM 006	The EES shall monitor and provide reports on any unauthorized access.	S	SmartPro MedEE fully satisfies the requirement as stated.
ADM 007	All EES communications shall be protected by at least 128-bit encryption.	S	SmartPro MedEE fully satisfies the requirement as stated.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ADM 008	The EES shall be supported by public key/private key encryption Secure Socket Layer (SSL) certificates.	S	SmartPro MedEE fully satisfies the requirement as stated.
ADM 009	The EES shall provide admin tools and maintenance routines to change access rights quickly.	S	Native Cúram and Portal functionality.
ADM 010	The EES shall use firewalls and Demilitarized Zones (DMZs) for external access and remote access.	S	Basic design of Wipro's shared Data Center services.
ADM 011	The EES shall allow EES administrators to create and manage user accounts.	S	Mixture of State Microsoft and Cúram functionality.
ADM 012	The EES shall allow EES administrators to assign status and permissions to user accounts.	S	Cúram and Portal functionality.
ADM 013	The EES shall allow EES administrators to create and manage user roles.	S	See IDT001, MDM031 and RSR085. SmartPro MedEE uses Cúram's Administration Suite to provide a set of security menu options to enable administrators to configure and govern overall access to the Cúram application including the creation and management of user roles.
ADM 014	The EES shall allow EES administrators to create user groups to manage workflow.	S	SmartPro MedEE uses Cúram's Workflow component that provides work allocation features for assigning work items to system resources, individuals and organizational units. Allocation strategies determine how work is distributed to individuals or groups. Administrators can create groups and manage the workflows.
ADM 015	The EES shall allow EES administrators to assign users to particular local offices.	S	SmartPro MedEE administrators can assign users to locations. A Location hierarchy is maintained.
ADM 016	The EES shall allow EES administrators to assign users to particular user groups / units.	S	SmartPro MedEE administrators can assign users to user groups.
ADM 017	The EES shall allow EES administrators to assign users to particular supervisors.	S	SmartPro MedEE administrators can assign users to supervisors and vice versa.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ADM 018	The Contractor shall establish an automated maintenance routine that shall at a minimum: - backup the user IDs and password data - identify expired IDs and related data	S	Backup in Cúram and Portal is automatic, as is expiry.
ADM 019	The Contractor shall use offsite storage. Data backup should be stored offsite in the event of a physical disaster	S	SmartPro MedEE fully satisfies the requirement as stated. SOP for Wipro Data Center operations.

EES Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MGT 001	The EES shall have the ability to generate administrative alerts and warnings when statistics indicate an impact or potential limits on EES component performance and availability. The specific alerts will be defined by the hosting services provider.	W	Wipro will be the hosting provider for SmartPro MedEE. PureSystems Manager monitors component performance and utilization. It can dynamically self tune within boundaries defined by configured business rules. When this management layer cannot self-correct within defined boundaries, it elevates an alert to Wipro's Data Center Enterprise Management software.
MGT 002	The EES shall allow for all changes/updates to the distributed components to be administered and completed centrally and available immediately to all source systems and sites.	S	PureSystems Manager and WebSphere SOA Policy Gateway (WSRR) provide this functionality to SmartPro MedEE.
MGT 003	The EES shall provide Service Level Requirements (SLR) monitoring and reporting capabilities. Service Level definitions will be drafted into a single document provided as an attachment.	S	SmartPro MedEE fully satisfies the requirement as stated. The PureApplication Server Monitoring and ITCAM provide most of server based SLR monitoring. Other Data Center shared tools monitor network, backup, and job performance -- all are consolidated in the Data Center's Enterprise Management software, and are made available to the State over a Portal. SLR definitions will be prepared and maintained in a single reference document.
MGT 004	The EES shall securely support State's existing remote control (i.e. support personnel ability to take over the user device for troubleshooting and support) capabilities deployed for any type of client workstation.	S	All user interfaces for SmartPro MedEE are based on standard browser technology and therefore have no impact on the ability to manage the workstations or take over the device for troubleshooting and support.
MGT 005	The EES shall provide event management and monitoring functionality according to Information Technology Infrastructure Library version 3 (ITIL v3) or equivalent best practices.	S	SmartPro MedEE fully satisfies the requirement as stated. Our Data Centers provide extensive industry standard monitoring and event management support, pursuant to ITIL stnadards.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MGT 006	The EES shall provide application performance monitoring and management capabilities (i.e. transaction monitoring, synthetic transactions, component root cause analysis)	S	SmartPro MedEE fully satisfies the requirement as stated. PureSystems Manager and ITCAM provide monitoring and management, including response time measurement. Root cause analysis is SOP for Wipro Data Center Operations.
MGT 007	The EES shall provide transaction tracking and log consolidation capabilities across all tiers of the application	C	Complete log consolidation with alert and search capability will be created as part of SmartPro MedEE.
MGT 008	The EES shall use automated application and network performance measuring tools for proactive system monitoring, tuning mechanisms, reporting, and trend analysis. Performance monitoring alerts shall be configurable and allow for user notification using multiple communication methods.	S	SmartPro MedEE fully satisfies the requirement as stated. PureSystems Manager and ITCAM provide monitoring and management, including response time measurement. PureSystems Manager provides for dynmic tuning, including business rule driven self-tuning. Data Center shared tools provide reporting and trend analysis, which is made available to the State over a portal.
MGT 009	The EES shall provide a custom report outlining system anomalies such as high levels of utilization, poor response times, large number of failed logins, and other abnormal activities, identified, repaired and resolved. This report's frequency shall be dictated by the number of anomalous activities. The report shall include specifics regarding the issues encountered, the measures taken to resolve the anomalies and the resources (EES Contractor, Department and third-party, as applicable) participating in the process.	W	The monitoring requirements are addressed as part of the standard toolkit, and report their data to the Data Center's centralized Enterprise Management system. eHealth provides significant reporting and drill down capabilities to present customized reports. Incident Management tracks the resources used to resolve tickets, and is accessible to the State.
MGT 010	The EES shall provide a report reflective of system performance statistics. This performance statistics report shall be presented to the Department not less than monthly for the purposes of monitoring the Department's systems and network activity.	S	SmartPro MedEE fully satisfies the requirement as stated. System reports are available online to the State through a portal.
MGT 011	The EES shall provide event and incident notification capabilities which can integrate with industry standard system management frameworks such as those provided by CA, IBM and Microsoft.	S	SmartPro MedEE fully satisfies the requirement as stated. Wipro's Data Centers utilize all of those frameworks, integrated into a comprehensive Enterprise Management system.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MGT 012	The EES shall have the ability to capture and report on system utilization needed to allocate costs down to the user and transaction level.	M	SmartPro MedEE captures basic Business Metrics, including transaction performed, and the users who performed them. These metrics can be associated with accurate models of required system resources to develop allocation data.
MGT 013	All performance and systems management functions shall be able to operate without degrading business systems response time.	S	SmartPro MedEE will undergo different types of performance testing activities like benchmark testing, load, stress and endurance. All the hardware server resources and software resources are monitored, including transaction response time, to validate adherence to performance SLRs. Physical resources are allocated to meet SLR goals, and already accommodate monitoring overhead.
MGT 014	The EES shall include the infrastructure (e.g. via the ESB and business process layer) needed to support effective Business Activity Monitoring and Reporting of various business performance metrics, and the information reports necessary to allocate costs based on usage.	M	SmartPro MedEE captures basic Business Metrics, including transaction performed, and the users who performed them. These metrics can be associated with accurate models of required system resources to develop allocation data.
MGT 015	The EES shall provide the ability for system capacity monitoring including, but not limited to, server volume/capacity, and network volume/capacity.	S	PureApplication systems self-monitor all key system resources, and provide a rich management console capability to review and manage this data, including graphical presentations, dashboards, and drill down. Similarly, Data Center tools capture network utilization statistics. In all domains, usage is analyzed against capacity, and known trends in expected business volumes, to update and refine capacity models.
MGT 016	The EES shall have the ability to provide workload statistics (e.g., work-in-process, queues, waiting-for-resources).	S	An EES supervisor can monitor workload for those workers, groups of workers and work queues that they are responsible for. Refer to requirements OPS 022 and OPS 024.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MGT 017	The EES shall have the ability to notify users, via multiple channels, when the measured performance is outside tolerances.	S	SmartPro MedEE fully satisfies the requirement as stated. Exceeding configured limits triggers automatic notifications to the Data Center's Enterprise Management software, and based on rules can automatically open trouble tickets and notify both Wipro operations staff and management, and State staff.
MGT 018	The EES shall have the ability for users, upon notification of performance outside tolerance, to identify the cause of the performance issue.	S	Wipro's Data Center Standard Operating Procedures include root cause analysis for performance issues, and other failures or problems.
MGT 019	The EES shall have the ability to provide dashboard and other report types suitable for business activity monitoring including templates for common display types.	C	Cúram's own Monitoring and Reporting features, along with 1 Cognos based Dashboard and 3-4 custom reports will fulfil this requirement. The actual monitoring activity will be finalized by Wipro IBM SMEs and State's Business users during requirements Assessment Phase, and IBM Cognos standard display types and functionalities will be more than sufficient for such reports.
MGT 020	The EES shall provide for and support the ability to control batch job execution by time of day, date, and processing cycle (weekly, monthly, yearly, quarterly, on request, etc.).	W	IBM's SmartCloud Workload Automation provides complete control of job execution.

Enterprise Service Bus (ESB) Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 001	The EES shall provide reliable, once-only delivery of messages (guarantee of reliable and non-repetitive delivery).	S	SmartPro MedEE implements IBM's Integration Bus "IIB" (incorporating "Message Broker" and "MQ" functionality) as its ESB middleware. IIB provides reliable, once-only, non-repetitive message delivery.
ESB 002	The EES shall have the ability to support varying message payloads, ranging from individual transactions to large files (more than 1GB) containing multiple transactions.	S	IIB and Sterling Direct Connect jointly provide information transfer ranging from short real-time transactions up to effectively unlimited size file transfers. A wide range of transfer protocols, both messaging and file based are supported by this tool combination.
ESB 003	The EES shall have the ability to track a message from its origin to its destination (inside a firewall), inquire on the status of that message and address exceptions (for example, resend the message if a target times out).	S	IIB addresses this requirement. ITCAM is configured to monitor applications and messages.
ESB 004	The EES shall have the ability to use standards-based communication protocols, such as TCP/IP, HTTP, HTTP/S and SMTP.	S	IIB directly supports all of these protocols.
ESB 005	The EES shall have the ability to convert between the protocol native to the messaging platform and other protocols, such as Remote Method Invocation (RMI), IIOP and .NET remoting.	S	IIB provides this functionality.
ESB 006	The EES shall have features that enable in-flight message manipulation, such as transformation (typically XML-based), intelligent routing, naming and addressing.	S	IIB provides this. Message transformation can be performed by IIB standard nodes, and if needed, in code. Intelligent routing is accommodated.
ESB 007	The EES shall have the ability to apply logic to the routing of messages, including support for the following file interaction styles:	S	IIB addresses this and the following subordinate requirements:

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 008	• Store and forward: Ability to persist a message and then send it to destinations.	S	IIB supports persisting and then sending messages to their destinations.
ESB 009	• Publish/subscribe: Ability to distribute a message to multiple destinations based on a message attribute usually described as the subject area of the message.	S	IIB supports the publishing of messages to subscribers based on subscriber configurations and message attributes.
ESB 010	• Request/reply: Ability to correlate asynchronous messages so that the target's response is associated with the appropriate request made by the source.	S	IIB supports both synchronous and asynchronous Request/Reply messages. It correlates the request and reply messages using unique ids, so that the reply will be associated with the appropriate request message.
ESB 011	• Content-based: The ability to route a message based on a value or values within a message. For example, the ability to route a referral message whose target turnaround time is small to a different set of targets than a referral message whose turnaround time is high.	S	IIB can route messages to various destinations based on the message content.
ESB 012	The EES shall provide for syntactic conversion and semantic transformation, including ease of use and reuse, number of built-in functions, ease of extending the transformation function with custom-coded logic and XML support (e.g. schema or Extensible Style sheet Language Transformations [XSLT]).	S	Message Broker handles message transformation using built-in nodes as well as using code. This can also be achieved using XSLT transformation. The common mapping logic can be reused across different flows.
ESB 013	The EES shall have the capability during operations, to assist service consumers by dynamically finding, binding to and invoking the execution of service providers.	S	IIB combined with WebSphere SOA Policy Gateway (WSRR) will address this requirement. Service consumers dynamically locate provider services by using IIB to connect to WSRR, and can then invoke the target service. This is an integration pattern for EESB implementations provided on the PureApplication Server.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 014	The EES shall provide the technology that combines design tools and runtime software to implement programs that act as "glue," transforming among protocols, connecting to databases and linking pre-SOA Application Programming Interfaces (APIs) to the SOA backplane. To support B2B projects, adapters also need to support SOA services using B2B protocols such as Applicability Statement 1 (AS1)/Applicability Statement 2 (AS2), RosettaNet and Electronic Data Interchange for Administration, Commerce and Transportation (EDIFACT).	S	These functions are provided by IIB the State's existing EDI implementation in tandem. IIB provides the SOA implementation linking SmartPro MedEE to the State's EDI capabilities.
ESB 015	The EES shall support the industry-standards messaging and interfaces relevant to health and human services organizations including, but not limited to: - Health Level Seven (HL7) Versions 2.x, 3.x, and CCD - Integrating the Healthcare Enterprise (IHE) XD* Profiles	S	IIB links SmartPro MedEE with the State's EDI system to provide this functionality. If in the future the State wishes to dispense with its EDI gateway, or some other reason arises that it will no longer support HI7 et al, then SmartPro MedEE can acquire and deploy InfoSphere Transformation Extender (WTX) to directly provide this functionality.
ESB 016	The EES shall provide the technology that hosts the execution of process logic spanning multiple back-end services or applications - typically for short-term (seconds or minutes) processes that can occasionally also be long term (hours, days, weeks) - with the aim of implementing composite services or automated EES-to-EES processes. Features include:	S	IBM Cúram provides a full workflow capability that can orchestrate short or long term processes and this provides all the functionality needed to meet the requirements. Where it is required to orchestrate processes spanning multiple back-end services, Cúram tasks can be exposed as Web Services and orchestrated by an external Business Process Manager. Our solution includes the open source Bonita BPM software that integrates with our WebSphere Application server to provide this functionality.
ESB 017	• Graphical design surface for specifying process flows	S	Standard Bonita functionality.
ESB 018	• Support for standard specification languages including Business Process Modeling Notation (BPMN)	S	Standard Bonita functionality.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 019	• Support for standard representations including Business Process Execution Language (BPEL), XML Process Definition Language (XPDL), Business Process Modeling Language (BPML) and Web Services Flow Language (WSFL)	S	Standard Bonita functionality.
ESB 020	• Ability to specify compensating transactions and execute those transactions upon failure of the process flow	S	Standard Bonita functionality.
ESB 021	• Integration with workflow	S	Standard Cúram and Bonita functionality.
ESB 022	The EES shall provide the technology to perform syntactic and semantic hub-based transformation of messages, including:	S	IIB provides this as standard functionality.
ESB 023	• Support of taxonomy	S	IIB and WSRR together address this requirement. SmartPro MedEE uses WSRR as the Service Governance tool. The model and Taxonomy of the Service Development Life Cycle will be implemented in WSRR for design time and run time governance. WSRR supports UDDI as its core and WSDL to publish the service description for consumer consumption.
ESB 024	• Support of ontology	S	IIB addresses this requirement.
ESB 025	• Reusable transformation maps	S	IIB fulfills this requirement. The transformation maps which are common across multiple messages can be reused across various message flows.
ESB 026	• Built-in transformation functions	S	IIB addresses this. It has built-in mapping nodes that are used for message transformation, and also supports transformations using custom-code.
ESB 027	• Extending the transformation function with custom-coded logic	S	IIB addresses this. It has built-in mapping nodes that are used for message transformation, and also supports transformations using custom-code.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 028	• Support B2B project translation including Electronic Data Interchange (EDI), RosettaNet, HL7, etc.	S	IIB links SmartPro MedEE with the State's EDI system to provide this functionality. If in the future the State wishes to dispense with its EDI gateway, or some other reason arises that it will no longer support Hl7 et al, then SmartPro MedEE can acquire and deploy InfoSphere Transformation Extender (WTX) to directly provide this functionality.
ESB 029	The EES shall provide the functionality that provides reliability for applications, services or message flows:	S	IIB provides for these functions and requirements.
ESB 030	• Load balancing	S	IIB supports clustering, both for load balancing and for high availability. The PureApplication Server is "IIB Aware", with preconfigured deployment Patterns to circumvent the need to engineer a complex clustered design: instead, the PureApp box directly deploys clustered IIB in a certified configuration suitable for load balancing, high availability, fault tolerance, and automatic failover, merely by requesting that IIB be deployed on more than one VM within the environment.
ESB 031	• High availability	S	Please refer to ESB 030.
ESB 032	• Fault tolerance	S	Please refer to ESB 030.
ESB 033	• Failover	S	Please refer to ESB 030.
ESB 034	• In-order delivery	S	IIB provides for in-order delivery of messages.
ESB 035	• Transaction support	S	IIB supports message transactionality. If s failure happens between source and destination, IIB can roll back the message.
ESB 036	• Execution prioritization	S	IIB supports prioritization of execution.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 037	• Message prioritization	S	IIB supports prioritization of message delivery.
ESB 038	• Downstream throttling	S	Using IIB channel configuration / message exit, downstream throttling can be achieved.
ESB 039	The EES shall provide the functionality used to monitor the operation of the overall system (services, applications, processes and application infrastructure), and to collect events and usage information aimed at populating technical KPIs of the deliverables supported by the SOA backplane and of the SOA backplane components by monitoring and collecting metrics for:	W	Provided by PureSystems Manager and ITCAM.
ESB 040	• Messaging traffic	S	Provided by PureSystems Manager and ITCAM.
ESB 041	• Process state and behavior	S	Provided by PureSystems Manager and ITCAM.
ESB 042	• Application and service parameters and behavior for all nodes in a LAN or WAN	S	Provided by PureSystems Manager and ITCAM, plus Wipro's Data Center Enterprise Management monitoring of the network fabric.
ESB 043	The EES must provide for any combination of Alert Destinations such as Email, JMS, SNMP, reporting services, and server logs. The alerts shall be customizable with respect to the frequency of the alert, the ability to enable/disable an alert, rule expiration dates, starting and ending times for an alert, and customizable conditions for an alert".	W	Wipro's Data Center Enterprise Management system provides for configurable alerting and flexible delivery of information to the State, including a web portal.
ESB 044	The EES shall provide the tools and technologies required to implement the necessary control access to the services and the connected resources (for example, other services and databases), as well as the SOA backplane functionality. Capabilities include:	S	IIB, combined with WebSphere SOA Policy Gateway (WSRR), provides for these requirements.
ESB 045	• Authentication	S	Service based authentication is supported by IIB.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 046	• Authorization	S	Service based authorization is supported by the IIB.
ESB 047	• Encryption/decryption	S	Refer to RSR 118
ESB 048	• Digital signatures	S	IIB Functionality.
ESB 049	• Credential mapping	S	IIB Functionality.
ESB 050	The EES shall provide the functionality to assist Department's operations personnel in keeping the resultant system (applications, services and infrastructure) running at peak efficiency at all times, including:	W	While Wipro has the responsibility as the hosting provider for managing the environment, SmartPro MedEE does deploy the monitoring tools to meet these requirements, and will provide the State with the associated management reporting, including online through our management web portal.
ESB 051	• Establishing rules for automated system monitoring	W	Configurable functionality of the management environment.
ESB 052	• Establishing network-alert-based management	W	Configurable functionality of the management environment.
ESB 053	• Supporting autonomous network behavior so local management and problem resolution can continue during an outage	S	Part of Wipro's generic Data Center design.
ESB 054	• A console that enables domain-specific display for multiple devices	W	Configurable functionality of the management environment. CA Spectrum consolidates all information, and consolidated reporting is available to the State via eHealth and the CA Service Desk portal.
ESB 055	The EES shall provide the technology that manages the metadata and provides the features needed to support the reliable operation of services. Examples include:	S	Functionality of WebSphere SOA policy Gateway (WSRR).

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 056	• Online catalog of services and associated artifacts such as WSDL files, XSDs, BPEL files	S	SmartPro MedEE uses WSRR as the Service Governance tool. The model and Taxonomy of the Service development life cycle will be implemented in WSRR for design time and run time governance. WSRR supports UDDI as its core and WSDL files, XSDs and BPEL files to publish service descriptions for consumer consumption.
ESB 057	• A single point of controlled access for cataloging, promoting, publishing and searching for information about managed assets	S	WSRR controls access for cataloging, promoting, publishing and searching for assets.
ESB 058	• Metadata that enables an ESB to find, bind to and invoke the execution of a service implementation	S	IIBB and WSRR fulfil this requirement. IIB has built-in nodes to connect to WSRR, find, and invokes a service.
ESB 059	• Support for extending existing asset types and defining and populating custom asset types	S	WSRR addresses this requirement.
ESB 060	The EES shall provide support for building frameworks and extensible tools that enable the design, configuration, assembly, deployment, monitoring, and management of software designed around an SOA.	S	SmartPro MedEE addresses this requirement with a combination of IIB, WSRR, and ITCAM.
ESB 061	The EES shall provide assistance for deploying applications with SOA and event-driven architecture in a manner that supports the following implementation strategies:	S	IIB and WSRR will address these requirements.
ESB 062	• Web Services: Web Services Interoperability (WS-I) Organization-compliant implementation of basic Web services standards, including SOAP, WSDL and Universal Description, Discovery and Integration (UDDI), as well as higher-level Web services standards, such as WS-Security.	S	The model and Taxonomy of the Service Development Life Cycle will be implemented in WSRR for design time and run time governance. WSRR supports UDDI as its core and WSDL, SOAP to publish the service description for consumer consumption.
ESB 063	• Representational State Transfer (REST): Support for XML-based message processing a well as HTTP, and XHTML.	S	IIB handles XML based message processing over HTTP and XHTML.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 064	The EES shall support Transport Security, Message Security, WS-Security, SAML architecture, and WS-Policy.	S	IIB conditionally complies with Web service Security for • SOAP Message Security • Username Token Profile 1.1 • X.509 Certificate Token Profile 1.1 • SAML Token Profile (only Passthrough) • Kerberos Token Profile (for Kerberos GSS v5 AP_REQ, Kerberos v5 AP_REQ)
ESB 065	The EES shall implement the ability to externalize security by using a third-party security infrastructure whereby the ESB's proxy action calls a third-party for user/role information.	S	IIB can make a service call to an LDAP implementation for security authentication.
ESB 066	The EES shall provide the technology to implement processing logic that directly manipulates data values, and the representation of those values for storage, transport or presentation purposes to establish common access to data sources (structured and unstructured), improve data quality or federate data from multiple sources.	W	Implemented in IIB based on the mapping specification to be provided by State.
ESB 067	The EES shall provide the tooling that enables the recording (storage) or retrieving (reading) of information (data) from data stores. An example is distributed query functionality that parses incoming queries into sub queries and the execution of those sub queries, via the connectivity layer, against the respective sources where the desired data resides.	S	The IBM Integration Bus contains "nodes" that allow the bus to communicate with various data stores. These include • Database node • DatabaseInput node • DatabaseRetrieve node • DatabaseRoute node which allow the bus to orchestrate and integrate sub queries and assemble the results into a single message.
ESB 068	The EES shall provide the data infrastructure tooling that enables users to represent semantic models, identify model-to-model relationships, and execute the necessary translations to reconcile data with differing semantic models.	S	By using the database nodes referred to in the ESB 067, together with the IBM Integration Bus ability to transform data using a canonical representation, messages resulting in data reconciliation can be transformed from one semantic model to another.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 069	The EES shall provide optimization services that continuously read various types of metadata from across the architecture. The optimization verbs shall use the semantic/logical services to reconcile context to data content and deliver against some aspect of the application service-level agreement (requirements for data quality, data freshness, data volumes, throughput parameters, data-mining results, on-demand data aggregation or summarization, data enrichment, and many others).	W	SmartPro MedEE is implemented on top of IBM's PureApplication Server, which continuously self-monitors all aspects of its operation, resource utilization and performance, ranging from low-level technical metrics such as CPU or memory usage, up to high level measures such as service response time (ITCAM). Based on the metrics, PureApp self-tunes its physical resource allocations, based on configured business rules, to maintain defined tolerances in resource loading and responsiveness. If the system is unable to maintain SLR performance on its own, it raises an alert with the Data Center Enterprise Management System, triggering human investigation and intervention.
ESB 070	The EES shall provide tooling that supports data profiling: the process of examining the data available in an existing data source (for example, a database or a file), and collecting statistics and information about that data.	S	ER/Studio and DB2 combine to provide this profiling data.
ESB 071	The EES shall provide a modeling environment to support the roles of the business analyst, process architect, EES architect and developer.	S	SmartPro MedEE implements ER/Studio and Rational Enterprise Architect as its primary tools supporting the technical roles. Cúram provides the Business Analyst and Process Architect with Workflow Management and Business Rule management tools, such as the Process Definition Tool (PDT).
ESB 072	The EES shall support individual and group teamwork at design time and runtime.	S	SmartPro MedEE uses Rational Team Concert for core project team collaboration support, supplemented by the systems own LiveRay Portal which provides advanced social media and content management capabilities to the internal teams, as well as to the States internal and external users.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 073	The EES must incorporate the ability to undo changes, detect and resolve conflicts, test service connectivity with tracing information, easily enable/disable services, provide logging and view all session activities/change history attributable to each logged in user.	S	This is the standard management functionality of IIB.
ESB 074	The EES must incorporate Role/Group-based rights for the management of the ESB across the environments.	S	The integrated OS and ESB environments support Role / Group based management rights.
ESB 075	The EES shall have the ability to automatically manage complex workflow patterns that are system-based, human-based, or a mixture of both.	S	IBM Cúram has an integrated workflow engine that will be used to orchestrate the complex workflow patterns required, including mixes of automated or system tasks. See 4.2.2.6 Technical Components subsection xiv.d Workflow Engine for more details.
ESB 076	The EES shall have the ability to design workflows, preferably using Business Process Model and Notation (BPMN).	S	IBM Cúram has a Process Definition Tool (PDT) for designing workflows), which incorporates a graphical visualization tool. The PDT allows workflow administrators to define and maintain workflow processes and automatically maintain a version history for each process. The development of a workflow process involves defining the workflow activities, the transitions between these activities, and the data that passes through the workflow process. A Cúram workflow process can be marked as a Web Service by setting a metadata value which indicates that the process should be exposed as a Web Service. This allows the process to be able to participate in a BPEL or BPMN process. Workflow processes outside of Cúram can be defined by Bonita BPM, which is BPMN 2 compliant.
ESB 077	The EES shall provide the ability to schedule events (e.g., reminders, notification generation, business process execution, etc.).	S	Cúram workflow can schedule activities of various types including: Manual events (such as reminders); Automatic business process execution; Loops; Event Wait; Route; Notification; and Subflow.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 078	The EES shall provide the ability to associate the scheduled event with a system record (e.g., case record to an event).	S	Cúram workflows define the data objects which often include the CaseID but can include other data – the required data is defined using the PDT.
ESB 079	The EES shall provide the ability to attach documentation to the scheduled event.	S	The data can include document IDs which will result in the document being made available.
ESB 080	The EES shall provide the ability to notify a user of a scheduled event based on user-defined criteria (e.g., reminder time, delivery mechanism).	S	The workflow engine is able to notify interested users about the progress of a workflow process instance based on criteria specified via the PDT.
ESB 081	The EES shall provide the ability to modify existing scheduled events (e.g., begin date, end date, frequency, and business process specific information).	S	The Cúram workflow engine provides and administrative function to modify the existing workflows.
ESB 082	The EES shall have the ability to monitor and manage executing processes, including the capability to override workflows and business rules by authorized users.	W	Cúram workflow provides the capabilities to search for, view, suspend, resume and abort executing workflow instances. It also permits overriding of "event waits" (If the workflow is waiting for some event that has not occurred, the workflow will be resumed regardless) Once the workflow is suspended, if the system is configured to permit it, persons with authority to override rules or trigger an alternate workflow can do so.
ESB 083	The EES shall provide the ability to suspend a scheduled event.	S	The workflow administration tool provides the capability to suspend and resume scheduled events.
ESB 084	The EES shall provide the ability to cancel a scheduled event.	S	The workflow administration tool provides the capability to cancel scheduled events.
ESB 085	The EES shall provide the ability to route imaged correspondence to any work queue.	S	The EES will include a monitor which picks up imaged correspondence and uses configured rules to route the images to appropriate work queues based on image metadata.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 086	The EES shall provide the ability to maintain historical information related to scheduled events.	S	The task history and comments page displays all of the events that have occurred during the life cycle of the task. For each event, the user name, the date and time that the life cycle event occurred and change information are recorded. A task history item is recorded for the following task life cycle events: • Task Created • Comment Added • Time Worked Changed • Priority Changed • Deadline Changed • Added to My Tasks • Made Available • Forwarded • Allocation Failed • Allocated To Default Queue • Reallocated • Deferred • Restarted • Deadline Expired • Closed

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 087	The EES shall provide the ability to maintain user-defined calendars and dates specific to business functionality (e.g., time off, work hours, review dates).	S	User calendars are used to schedule and maintain meetings and activities for the users of the organization. Meetings are appointments about a client or a case to which other users or participants can be invited. Invitations to all parties are sent via Personal Information Manager (PIM) tools such as Microsoft Outlook. The invite appears in the invited user's calendar where they can accept or reject the invitation. Cúram calendars are used to schedule events, activities, meetings, holidays and payment processing dates. In addition to user calendars, Cúram also provides other calendars including case calendars and location calendars that show events related to specific cases or holidays for a location.
ESB 088	The EES shall provide the ability to associate comments with scheduled events.	S	A comment can be added at any time by an authorized user.
ESB 089	The EES should have the ability to import and export process designs using an industry standard format, such as Business Process Execution Language (BPEL) or XML Process Definition Language (XPDL).	S	SmartPro MedEE uses Bonita BPM for external BPM functionality. Bonita can import and execute both BPEL and XPDL. Bonita Studio, its designer environment, supports importation of design in several Industry standard formats, including: • BPMN 2.0 • jBPM 2.2 • MS Visio Bonita supports process exporting in BPMN 2.0

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ETL 001	The EES shall have the ability to convert message formats and translate coded data within messages.	S	SmartPro MedEE uses a combination of IBM InfoSphere Information Server (aka DataStage) for general ETL, and IBM Integration Bus (ESB) to convert data and message formats as required.
ETL 002	The EES shall provide support for a metadata repository for data and message conversion and transformations.	C	Acknowledged and Metadata repository has been considered as part of overall solution.
ETL 003	The EES shall at a minimum support the following standards:	M	Acknowledged and all mentioned standards will be supported and tested and compliance reports will be submitted. Per Q&A Round 2, SmartPro MedEE will utilize the State's existing EDI capability, interfacing through our ESB solution, to support this functionality when needed. If it should become necessary in the future to directly support these standards without relying upon the State's existing EDI solution, IBM WebSphere Transformation Extender can be deployed into SmartPro MedEE.
ETL 004	• Integrating the Health Enterprise (IHE): Cross-Enterprise Document Sharing (XDS); Cross-Community Access (XCA)	M	Acknowledged and all mentioned standards will be supported and tested and compliance reports will be submitted.
ETL 005	• Health Level Seven (HL7) Continuity of Care Document (CCD) C32 profile	M	Acknowledged and all mentioned standards will be supported and tested and compliance reports will be submitted.
ETL 006	• ONC Direct Project	M	Acknowledged and all mentioned standards will be supported and tested and compliance reports will be submitted.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ETL 007	The EES shall provide the technology to implement processing logic that can manipulate data values, and the representation of those values for transport or conversion purposes.	S	SmartPro MedEE uses a combination of IBM InfoSphere Information Server (aka DataStage) for general ETL, and IBM Integration Bus (ESB) to manipulate data values as required.
ETL 008	The EES shall provide tools for data source connectivity: Adapters for a range of source types beyond RDBMS' and legacy databases (access to data stored in non-relational structures - for example, VSAM files and IMS databases), including packaged applications and Web services, the ability to access semi-structured and unstructured data (such as e-mail, websites, office productivity tools, content repositories and rich media) and the ability to interpret (as a source) XML structures.	S	SmartPro MedEE provides this functionality through the IBM Integration Bus (ESB). The ESB supplies multiple built-in nodes/adapters to connect to Databases, send emails, etc. It also has parsers to interpret various message formats such as XML structures, files, etc.
ETL 009	The EES shall provide tools to support the Extract-Transform-Load (ETL) process that involves:	S	SmartPro MedEE implements IBM InfoSphere Information Server (aka DataStage) as its ETL tool for EES. It will be used for conversion, cleansing, transformation, extraction, loading etc.
ETL 010	• Extracting data from data sources	W	IBM InfoSphere Information Server (aka DataStage) has connectors to legacy/DB2 and required ETL scripts will be built and leveraged. Where required, SmartPro MedEE's ESB will be used to mediate access to remote data source.
ETL 011	• Transforming it to fit business needs (which can include quality levels).	W	IBM InfoSphere Information Server (aka DataStage) will be used for all batch transformations and conversions, the ESB for transactional transformations.
ETL 012	• Loading it into the target data store	W	IBM InfoSphere Information Server (aka DataStage) will be leveraged for loading the transformed data to Cúram (which has its own loading utility) as well as to DW and DataMarts.
ETL 013	• Caching: The ability to cache federation results and various subsets of the source data to improve performance in situations where source data volumes are large; therefore, retrieving all data required for integration directly from the source is not feasible.	S	The IBM Integration Bus ESB uses SupportPac for Message Broker to fulfil this requirement. It stores and retrieves data from memory, providing fast access to transient data.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ETL 014	• Verbose ETL process logging to allow for ease of support and debugging.	C	Wipro will create additional reports (apart from the ones generated by DataStage) which will give additional visibility to ETL process and allow easier debugging.
ETL 015	The EES shall have the ability to load data in a variety of approaches including (but not limited to) the following:	S	Standard functionality of DataStage. All required configurations, scheduling will be done by Wipro Data Conversion team.
ETL 016	• Bulk data extraction and loading	S	Standard functionality of DataStage. All required configurations, scheduling will be done by Wipro Data Conversion team.
ETL 017	• Granular trickle-feed acquisition and delivery	S	Standard functionality of DataStage. All required configurations, scheduling will be done by Wipro Data Conversion team.
ETL 018	• Changed-data capture (ability to identify and extract modified data)	S	Standard functionality of DataStage. All required configurations, scheduling will be done by Wipro Data Conversion team.
ETL 019	• Event-based acquisition (time-based or data-value-based)	S	Standard functionality of DataStage. All required configurations, scheduling will be done by Wipro Data Conversion team.
ETL 020	The EES shall include the following types of transformation:	S	DataStage can support all such transformations. Wipro's Data Conversion team will design and develop the ETL scripts to address all kind of transformations required.
ETL 021	• Simple transformations such as data-type conversions, string manipulations and Simple calculations	S	DataStage can support all such simple transformations. Wipro's Data conversion team will design and develop the ETL scripts to address all kind of transformations required.
ETL 022	• Moderate-complexity transformations, such as lookup and replace operations, aggregations, summarizations, deterministic matching and management of slowly changing dimensions	S	DataStage can support all such medium complexity transformations. Wipro's Data conversion team will design and develop the ETL scripts to address all kind of transformations required.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ETL 023	• Higher-order transformations, such as sophisticated parsing operations on free-form text and rich media Facilities for developing custom transformations and extending packaged transformations	M	DataStage ETLs and built integrations will support all such complex and higher order transformations.
ETL 024	• Facilities for developing custom transformations and extending packaged transformations	S	DataStage ETLs and built integrations will support all such complex and higher order transformations.
ETL 025	The EES shall provide tools that enables the recording (storage) or retrieving (reading) of information (data) from data stores. An example is distributed query functionality that parses incoming queries into sub-queries and the execution of those sub-queries, via the connectivity layer, against the respective sources where the desired data resides.	W	Where required, SmartPro MedEE's ESB can be used to store and retrieve data from data stores external to SmartPro MedEE.
ETL 026	The EES shall comply with all relevant HIPAA standards, including national standards for electronic health care transactions and code sets, unique employee and provider identifiers, and security and privacy of individually identifiable health information (called "protected health information" or PHI).	S	Acknowledged and all mentioned standards will be supported and tested and compliance reports will be submitted.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 001	The EES shall have the capability to support the global identification, linking and/or synchronization of client and provider information across heterogeneous data sources through semantic reconciliation of master client and master provider data.	M	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement.
MDM 002	The EES shall create and manage a central, database-based EES or index of record for master client (i.e. Master Client Index [MCI]) and master provider (i.e. Master Provider Index [MPI]) data.	M	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement.
MDM 003	The EES shall enable the delivery of a single client and a single provider view for all stakeholders.	M	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component, along with Cúram, addresses this requirement. Cúram fundamentally presents a single point of view; MDM is required to provide the accurate information from multiple sources.
MDM 004	The EES shall support ongoing client and provider data stewardship and governance requirements through monitoring of policy decisions and corrective action.	W	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement. Wipro will deploy a Governance lead and Policy Specialist during the engagement to make the required configurations.
MDM 005	The EES shall track and maintain detailed records on all changes via interfaces and authoring to support audit requirements.	M	Acknowledged and will be taken into consideration during requirements finalization and design phase. Audit records will be written to a central Audit repository, accessible to authorized users via the Business Intelligence (Cognos) component.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 006	The EES must include a flexible data model that can model the complex relationships between the internal application sources inside Nebraska, its trading partners, clients and providers, as well as intermediaries and other parties, with the ability to handle complex hierarchies.	S	The Cúram data model used by SmartPro MedEE is extremely flexible and is designed to be modified and extended where necessary. It is a client-centric, multiple program based, data model with a pre-built social program specific data structure. While its client-centric it allows for a holistic view of a citizen, its multi program capabilities improve the reuse and currency of data by capturing data such as household, relationships, income, expenses, and resources only once and utilizing that data to support the eligibility and enrollment process across multiple program types.
MDM 007	The EES's data model must be capable of handling at least the following categories of elements for clients and providers:	S	The SmartPro MedEE Data Model can handle the elements listed here:
MDM 008	• Identification	S	The Cúram data model captures identification information for both clients and providers.
MDM 009	• Demographics	S	The Cúram data model captures demographic information for both clients and providers.
MDM 010	• Contact information	S	The Cúram data model captures contact information for both clients and providers.
MDM 011	• Relationships with other entities / providers	S	The Cúram data model captures relationships between participants.
MDM 012	• Interactions with other entities / providers	S	The Cúram data model captures interactions with other providers for both clients and providers.
MDM 013	The EES shall include data modeling capabilities that will be configurable, customizable, extensible, and upgradable.	S	The Cúram data model used by SmartPro MedEE is extensible. It is designed to be modified and extended where necessary to meet the specific needs of individual agencies. The data model is extended following certain rules that ensure future upgrades are not impacted.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 014	The EES data model must be able to support Nebraska's standards for data content and coding where they exist.	S	The SmartPro MedEE data model can support Nebraska standards for content and coding. DHHS would be advised to stay as close to the out of the box data model for existing data definitions, as changes to the existing data model, while possible, can impact dependent technical artefacts (e.g. changing the length of a name field is non-disruptive, whereas changing the name of the 'Person' table would be disruptive).
MDM 015	The EES data model must be expressed using commonly accepted logical data model conventions with associated metadata.	S	Cúram has its own data model which will be leveraged, and the logical data model conventions are already in place and being leveraged by other states.
MDM 016	The EES shall have strong facilities, in batch and real-time mode, for profiling, cleansing, matching, linking, identifying and semantically reconciling master client and master provider data in different data sources to create and maintain golden records.	C	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement. Apart from this InfoSphere Information Server (DataStage and QualityStage) will be used for cleansing, reconciling and other requirements.
MDM 017	The EES's business rules and associated metadata related to data cleansing shall be sufficiently visible to satisfy any audit requirements.	C	Acknowledged and will be taken into consideration during requirements finalization and design phase. Proper audit mechanism, data lineage and metadata visibility are core to the solution considered.
MDM 018	The EES shall include the ability to review data quality metrics and track corrective actions.	M	Acknowledged and will be taken into consideration during requirements finalization and design phase. Proper data quality metrics and auditing are core to the proposed solution and will be enabled during development phase.
MDM 019	The EES shall provide dynamically configurable rules for comparing and reconciling semantics across data sources, matching (both probabilistic and tunable) across changing demographic data structures, linking data, and managing the merging and unmerging of client and provider records with full auditability and survivability.	M	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component, along with Cúram, addresses this requirement.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 020	Where data is matched by a proxy rather than the actual identifier (e.g. client or provider ID) the EES shall load data no less quickly, efficiently or accurately.	W	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component, along with Cúram, addresses this requirement.
MDM 021	The EES shall include integration middleware to provide a communication backbone for the bidirectional flow of client and provider data between the central repository and the spoke solutions, and/ or remote applications.	S	SmartPro MedEE uses IBM's Integration Bus (ESB) to provide this functionality, supporting both bi and uni-directional communication flows between a client and a provider.
MDM 022	The EES shall provide tools to validate and manage all client and provider addresses to include all address types (mailing, residential, etc.).	S	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement.
MDM 023	The EES shall be able to leverage a range of middleware products to data sources, including all Nebraska and trading partner data sources, and expose Healthcare industry-standard interfaces.	S	SmartPro MedEE is able to leverage multiple external sources and expose Healthcare standard interfaces through a combination of IBM Integration Server (ESB) and the State's own EDI capabilities.
MDM 024	The EES shall support integration with different latency characteristics and styles (e.g. real-time, batch).	S	SmartPro MedEE supports batch and real-time interfaces directly, through a combination of IBM's Integration Bus and Sterling Connect Direct/File Gateway.
MDM 025	The EES shall support integration with downstream Business Intelligence (BI) and analytical requirements.	C	All such integrations have been considered as part of the proposed DW and BI solution.
MDM 026	The EES shall provide flexible and comprehensive workflow capabilities to enable business users and client and provider data managers to collaborate effectively in the authoring and management of client and provider data across the multiple source systems.	W	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement, in concert with SmartPro MedEE's LifeRay Portal to provide effective collaboration between remote teams. The workflow configuration will be done by the Wipro/IBM team.
MDM 027	The EES shall include facilities for managing and controlling access to client and provider data in the MDM such as reporting on MDM activities.	C	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement. Required reports about MDM activities will be configured / built by the Wipro/IBM team.
MDM 028	The EES shall have the ability to integrate the data within the MDM with management and security tools.	C	Acknowledged and will be taken into consideration during requirements finalization and design phase.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 029	The EES shall manage the policies and rules associated with privacy access rights.	S	SmartPro MedEE/Cúram directly manages privacy policies and rules.
MDM 030	The EES shall configure and manage differing visibility rules, providing different views for different roles.	S	The EES solution supports Role Based Access Control. Access control (i.e. controlling access to the individual components) will be managed centrally EES. Upon log in to the system, the user will be presented with a workspace page that contains appropriate content depending on their user role.
MDM 031	The EES shall integrate with the Department's Active Directory to provide authorization, e.g., role-based security.	W	SmartPro MedEE's LifeRay Portal Server implementation is trivially configurable to connect directly with the Department's AD implementation to provide single point-of-authentication for system users to be authenticated by the State.
MDM 032	The EES shall provide analytics and performance measures related to the range of processes and activities taking place within the MDM; from the running of batch data loads and the execution of workflows against benchmarks to the quality of active client and provider data in the MDM.	C	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement. Required reports, Analytics, and benchmarking on MDM activities will be configured / built by the Wipro/IBM team.
MDM 033	The EES shall include status and management tools for the data stewards to monitor to-do lists to ensure effective action takes place across the management of the master client and master provider data.	C	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement.
MDM 034	The EES shall include solution-wide meta models to help identify what users, roles, applications and systems are responsible for which client and provider data.	C	Both Data Modelling (ER/Studio) and Design (Rational System Architect) are used were applicable to capture and maintain this information.
MDM 035	The EES shall provide workflow services for remediation of quality issues in client and provider data.	W	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement.
MDM 036	The EES shall include business rules services to interrogate which rules are used by MDM by frequency and preference and to provide suggested enhancements to such business rules.	C	The proposed IBM's InfoSphere Master & Patient Hub (Initiate) MDM solution component addresses this requirement.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 037	The EES shall be based on up-to-date, mainstream technologies, and capable of flexible and effective integration with a wide range of other application and infrastructure platform components (whether from the same Contractor or not) that will be deployed by Nebraska.	S	SmartPro MedEE is based upon current architectural principles (multi-tier Web Application, Relational Database, ESB), and implemented on top of IBM's most current infrastructure technology, middleware, and supporting tools. SmartPro MedEE implements a wide range of common protocols and integration techniques, including messaging, web services, common file movement and ETL techniques, SSO protocols and so forth.
MDM 038	The EES shall protect and complement the data layer with a layer of business services for accessing and manipulating the client and provider data that is built for an SOA environment, by exposing web services interfaces.	S	SmartPro MedEE/Cúram is SOA compliant and capable out of the box. IBM Integration Bus (ESB) is used to develop and expose Web Service interfaces. IBM SOA Policy Gateway (formerly WSRR) provides for Service Registry, WSDL definition, and both design and run-time SOA governance.
MDM 039	The EES shall be capable of flexible configuration into a range of architectural styles in terms of instantiation, latency and use of client and provider data to enable different deployment scenarios, such as the consolidation, registry, coexistence and centralized scenarios.	S	SmartPro MedEE uses IBMs PureApplication Server to rapidly instantiate architectural styles that are flexible, self-tuning based on parameters, and directly supports multiple, flexible deployment styles.

Consent Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CMT 001	The EES shall be interoperable/Contractor agnostic.	S	SmartPro MedEE will interoperate, through the solution ESB (IIB) with remote systems.
CMT 002	The EES shall support break-the-glass/ override access for emergency data access per HIPAA.	S	See requirements RSR 076 and RSR 077.
CMT 003	The EES shall provide an alert mechanism for privacy breaches.	S	Refer to requirement RSR 077. When break -the-glass occurs, a configured workflow will notify an identified user or group of users and the action will be audited.
CMT 004	The EES shall be non-disruptive to worker workflow.	S	SmartPro MedEE is non-disruptive to worker workflow. SmartPro MedEE can be used in a guided manner, or in a more ad hoc manner, where the user navigates according to their preference.
CMT 005	The EES shall be centralized to consistently enforce policies network-wide.	S	External systems will communicate with SmartPro MedEE through the ESB (IIB). Access Control rules will be enforced for SmartPro MedEE Users and for external systems.
CMT 006	The EES shall enable all applications to support consumer consent.	S	The ACA streamlined application requests consumer consent to access remote systems, through the hub, for verification purposes.
CMT 007	The EES shall accommodate granular directives.	S	SmartPro MedEE supports very granular access control directives. Also see requirement CMT 012.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CMT 008	The EES shall audit all access to protected information in real time.	S	The IBM Cúram Administration Suite provides extensive auditing capability which tracks who has accessed, updated or requested sensitive information, what they accessed and when. The type and extent of audit data captured can be tailored to meet specific implementation requirements including auditing all access to protected information.
CMT 009	The EES shall provide an alert mechanism for privacy breaches or when HIPAA break-the-glass or override functions are enacted.	S	Refer to requirement RSR 077. When break -the-glass occurs, a configured workflow will notify an identified user or group of users, and the action will be audited.
CMT 010	The EES shall be highly flexible to meet changing requirements.	S	SmartPro MedEE's physical architecture and application configuration are highly flexible to enable the changes needed in support of changing or evolving requirements.
CMT 011	The Department has a strong preference to use a COTS product to provide the consent management required for the EES.	S	The Cúram COTS product provides functionality that underpins the requirements in this section.
CMT 012	The EES shall have the consent service tied into role-based access control system for real-time permissions access-granting/removal/denial.	M	Some modification required to enable a client to maintain consumer consent through the client portal. Also the ability for a worker, with sufficient authorization, to view and maintain consumer consent data. Assumption that the client can select from the list of case data (in Cúram this is known as evidence data) and assign consent to all or to specific rows. Also modifications needed to reference this consent data during display and access to this data.
CMT 013	The EES shall provide extensive search and reporting capabilities on any consent audit event data.	C	Search and reporting on audit data will depend on the common audit engine and the viewing solution used. See AUD 009.
CMT 014	The EES shall maintain historical record of consent/removal of consent.	M	Refer to requirement CMT 012. Enhanced capability to support a history of consent pre case data record.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 001	The EES shall provide the ability to impose graduated access to reports based on user role and agency requirements/permissions to better analyze program data.	M	User role based authentication and authorization have been considered in the proposed BI solution. During the requirements analysis phase the actual permissions for Program data analysis/reports will be finalized and subsequently implemented. SmartPro MedEE's portal will provide user credentials for single-sing on, authenticating users against the States' Microsoft Active Directory.
BIR 002	The EES's business intelligence and reporting capabilities must be scalable to accommodate changes in EES scale including changes in user population, transaction volume, throughput and geographical distribution while maintaining the agreed service levels.	S	The proposed BI solution will be as per the industry best practices and will have all such flexibility and scalability accounted for. It is implemented on top of a highly flexible system platform, IBM PureApplication Server, which provides near instantaneous allocation of physical resources to meet performance targets.
BIR 003	The EES shall have a mechanism to share specific data (e.g. limited data sets, detailed data at the level of the individual but with the data anonymous and completely de-identified, etc.) in a controllable fashion with other State and local agencies.	M	Acknowledged and will be taken into consideration during requirements finalization and design phase.
BIR 004	The EES shall be extensible and have a scalable data architecture incorporating State and external data.	S	The proposed Solution will be as per the industry best practices and will have all such flexibility and scalability accounted for. SmartPro MedEE's fundamental architecture provides Data Warehouse and DataMart functionality out-of-the-box, implemented in its own virtualized environment isolated from the operational data stores. The design is highly scalable, both vertically and horizontally to meet future needs for incorporating State and external data.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 005	The EES shall provide a tool to allow predictive modeling and analysis utilizing production data and coexist and integrate with tools such tools as SPSS and SAS.	S	Wipro will initially utilize Cognos BI for basic modeling and analysis, supported by Data Scientists and Statisticians who have been accounted for in the proposed BI team. If at a future date the State wishes to expand its capabilities, it can supply its own SPSS or SAS applications to operate against the SmartPro MedEE BI universe, or Wipro/IBM can provide a bid for such an implementation.
BIR 006	The EES shall provide the ability for user to create and customize reports, queries, and dashboards.	S	This is a standard Cognos (proposed BI platform) feature. Appropriate security and access controls will be designed which will allow specific users to be able to create reports, view, query only permissible data.
BIR 007	The EES shall provide scalable architecture and support designs that will provide flexibility to add more data fields and change granularity level efficiently as analytic demand matures and expands.	S	Acknowledged and will be taken into consideration during requirements finalization and design phase. The fundamental architecture is based on a formalized Data Warehouse and DataMart model out of the box, hosted on the scalable on-demand PureApplication Server system. The basic design allows for the addition of new data and structures as required, naturally with our DWH/DM/Cognos BI solution.
BIR 008	The EES shall have the ability for logical and physical view creation and storage.	S	The basic data modelling tools, ER/Studio, support this directly.
BIR 009	The EES shall support designs that facilitate a single view of business data.	S	This is intrinsic in Cúram's basic DWH/DM design, and will be maintained if/when the models are extended to meet new requirements.
BIR 010	The EES shall support OLAP database structure for use in analytics and business intelligence to include ROLAP or MOLAP processing.	S	The proposed BI solution has been designed keeping such requirements in consideration. OLAP structures are directly supported by the Bi toolset, IBM's DN2 and Cognos.
BIR 011	The EES shall support hierarchical drill up/down; ad-hoc query; multi-dimensional tables and views.	S	This is a standard Cognos (proposed BI platform) feature. Appropriate configurations will be done by the Wipro BI team.
BIR 012	The EES shall provide the ability to support data mining functions.	S	The proposed BI solution has been designed keeping such requirements in consideration.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 013	The EES shall provide the ability to perform in-database analytics.	S	Analytical querying will be available on top of the DWH and DataMarts using native Cognos capabilities.
BIR 014	The EES shall offer options to use Database Management EES (DBMS)-integrated data integration tool and/or third party Contractor integration tool.	M	The proposed solution has been designed keeping such requirements in consideration.
BIR 015	The EES shall support fast large volume data loading and shall have the ability to capture real-time data.	S	Support for fast large volume data loading and real-time data capture are intrinsic in the toolset: the proposed BI solution has been designed keeping such requirements in consideration. Actual real time data integration requirements will be finalized during requirements analysis phase and appropriate integrations/ETLs will be designed and developed.
BIR 016	The EES shall have the ability to capture delta of changes to data from diverse systems and populate them to Shared Analytics.	C	The proposed BI solution has been designed keeping such requirements in consideration.
BIR 017	The EES shall provide the ability to capture and load data via SOA-based services and the ability to schedule data integration and load jobs.	W	The IBM Integration Bus ESB solution addresses this requirement. The SOA-based services are implemented using IB (aka Message Broker). IBM SmartCloud Workload Automation provides scheduling and management of scheduled jobs.
BIR 018	The EES shall include the ability to facilitate design and construction of data integration processes.	S	SmartPro MedEE provides a rich suite of tools for facilitating the design and construction of data integration processes: IBM's Integration Bus (ESB), InfoSphere Information Server, and DB2 are the core of this capability.
BIR 019	The EES shall provide the ability to create custom transformations and the ability to group and reuse mapping and transformation operations.	S	The IBM Integration Broker solution addresses this requirement. IB aka Message Broker is used for transformations based on mapping specifications. The common transformation logic is made a reusable component and can be reused by several flows.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 020	The EES shall provide comprehensive metadata management from source to target.	C	A comprehensive metadata management component has been accounted for as part of overall solution and data lineage and tracking will be enabled as required.
BIR 021	The EES shall provide single repository for metadata, such as mappings of business concepts to underlying data structures, business glossary, data lineage, reference data, and objects (e.g. view, table, join) and reports from source to target.	C	A comprehensive metadata management component / repository has been accounted for as part of overall solution
BIR 022	The EES shall provide the ability to import metadata from tools and data sources.	C	The proposed metadata management solution component will address this requirement.
BIR 023	The EES shall provide data quality tools and/or support 3rd party data quality tools for data profiling, cleansing and monitoring.	S	Appropriate Data quality tools within IBM InfoSphere stack (like QualityStage, Info Analyzer) are used to meet profiling, cleansing and monitoring requirements.
BIR 024	The EES shall produce metadata and/or data dictionaries in a format that the Department can consume, e.g., Word, Excel, PDF, OF, etc.	C	The proposed metadata management solution component will address this requirement.
BIR 025	The EES shall be highly available via various mechanisms, e.g. data marts, data replication, clustering and backup configuration.	S	The basic SmartPro MedEE platform is implemented on a highly fault-tolerant, no single point of failure HW and SW architecture, built on top of IBM's PureApplication Server Appliance. Production data is protected by local redundancy such as RAID storage, by classic point-in-time backups (both local and offsite), and by real-time shadow replication of data changes to the backup data center.
BIR 026	The EES shall support reorganization of databases, indexes and configurations online without the need for the EES to shut down.	S	DB2 provides SmartPro MedEE with this functionality out of the box.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 027	The Contractor shall release upgrades and patches that shall be applied with minimal loss of system availability during production hours.	S	Most changes to the environment can be scheduled during non-operating times, with no impact. However, should a change be required during operating hours, Curam is designed to allow extremely rapid deployment of small units of functionality while the remainder of the system is fully functional. This compartmentalization minimizes the scope of any outage to a minimal set of functions.
BIR 028	The EES shall allow data loading to support environments with small or no window where system is down when loading data.	S	Acknowledged and will be taken into consideration during requirements finalization and design phase. Data load schedules will be finalized based on State's IT team feedback and loads will be scheduled in a manner when there is least impact to system uptime.
BIR 029	The EES shall provide standards based connectivity including Open Database Connectivity (ODBC), Java Database Connectivity (JDBC), Web Services (WS) and others.	S	SmartPro MedEE uses both native capabilities in its own code, and IBM's Integration Bus to provide these types of standards-based connection, including IDBC and JDBC connectivity, along with Web services and other common protocols.
BIR 030	The EES shall have no limit on the size of data types (including CHAR, NUM, CLOB, BLOB and XML) that are less than that of the manufacturer-known and published limits of the underlying DBMS.	S	Acknowledged and will be taken into consideration during requirements finalization and design phase.
BIR 031	The EES shall have no limits on the size of tables, indexes and other database-level objects that are less than that of the manufacturer-known and published limits of the underlying DBMS.	S	Acknowledged and will be taken into consideration during requirements finalization and design phase.
BIR 032	The EES shall support both horizontal and vertical scaling.	S	This is an out-of-the-box capability of both the underlying environment (IBM PureApplication Server), all middleware (clusterable, load balanced) and the VM design which allows for real-time self-tuning of physical resources such as compute and memory capacity.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 033	The EES shall have an option for fast loading of data into the database. Where necessary this will include minimal relaxation of quality and integrity constraints and mechanisms for carrying out data quality checks as the final stage in the process.	M	Acknowledged and will be taken into consideration during requirements finalization and design phase.
BIR 034	The EES shall provide for expansion of data storage as needed to accommodate increased volume of data based on approved Capacity Plans by the Department.	S	The hosting environment is fully virtualized, including storage. Extensive capacity for data growth is accommodated in the server box (~48TB per each of two PureApplication servers), after which nearly unlimited additional expansion can be accomplished through expansion into Data Center SAN.
BIR 035	The EES shall be American National Standards Institute (ANSI) Structured Query Language (SQL) Compliant. (Contractor needs to specify version of SQL compliance – e.g. 2003, 2006, 2008).	S	SmartPro MedEE, using DB2, is compliant with SQL-92. DB2® Version 10 is compliant with the following standards: • ANSI/ISO SQL 92 Entry via FIPS 127.2 Entry • JDBC • Object Management Group (OMG) Common Warehouse Metadata Interchange (CWMI) • Open Geospatial Consortium (OGC) • ISO SQL/MM part 3: Spatial • SQLJ is compliant to ISO/IEC 9075-10:2003. Specification dated 2003/07/25. "Information technology - Database languages - SQL - Part 10: Object Language Bindings (SQL/OLB)" • X/OPEN CLI (Call Level Interface) • X/Open XA
BIR 036	The EES shall be XQuery 1.0 standard compliant.	S	DB2 is XQuery 1.0 compliant.
BIR 037	The EES shall support industry standards for electronic data exchange.	S	SmartPro MedEE supports a wide variety of industry technical and format standards, through its ESB component, IBM Integration Bus (Message Broker).

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 038	The EES shall provide flexibility in using public/private cloud versions of the DBMS as an option to provide cost-effective scalability as needed.	S	SmartPro MedEE is implemented on a highly scalable private cloud offering with extremely cost effective scaling out-of-the-box: IBM's PureApplication Server.
BIR 039	The EES shall run on and be portable across multiple Contractors' hardware and operating systems (e.g. IBM, HP, and Dell hardware, AIX, Linux, and Windows Operating Systems and VMware)	S	While SmartPro MedEE is implementing on IBM's PureApplication Server Appliance under AIX, its components are either directly compatible with the standard HW and OS options named, or have licensable version of middleware components that have this compatibility.
BIR 040	The EES shall make an underlying DBMS available as a data warehouse appliance so it is also available as a standalone query-able DBMS.	S	SmartPro MedEE implements a fully isolated Data Warehouse and DataMart model, executing on a distinct instance of the DB2 database within a virtualized environment that is never in conflict with the resources supporting the operational database.
BIR 041	The EES shall support major application development interfaces (e.g. .NET interface, Java 2 Platform, Enterprise Edition [J2EE]).	S	The SmartPro MedEE environment is predominately a standards compliant Java environment, and directly supports these interfaces through native Application Server environment or through the ESB component (IBM Integration Bus).
BIR 042	The EES shall support various database connectivity protocols (e.g. ODBC, JDBC, etc.)	S	SmartPro MedEE supports the standard database connectivity protocols in its own data base layer (DB2), and external through its ESB – IBM Integration Bus.
BIR 043	The EES shall support all connections required for BI analysis and reporting tools and ETL tools.	M	The proposed BI solution will support this. Wipro will configure all connections required for ETL (DataStage) and Reporting (Cognos)
BIR 044	The EES shall support stored procedures and extensions.	S	The proposed BI solution will support this.
BIR 045	The EES shall not employ triggers or cursors.	S	SmartPro MedEE does not employ triggers or cursors.
BIR 046	The EES shall support native geo-spatial data types.	S	The proposed BI solution will support this.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 047	The EES shall provide DBA tools for monitoring and administering DBMS and contain tools to manage the storage devices.	S	SmartPro MedEE utilizes IBM's PureSystem Manager, ITCAM for Applications, and Computer Associates NetIQ AppManager, to monitor the DBS and manage storage devices.
BIR 048	The EES shall have built-in utilities to the DBMS to automate the normal day-to-day DBA operations (e.g., automated index rebuilding, free space reclamation and block reorganization).	S	This is a standard feature of the DB2 and Job scheduling environment out of the box. These will be configured as required during system development and implementation.
BIR 049	The EES shall provide the ability to:	S	See below, fully compliant.
BIR 050	• prioritize workload executions and ensure quality-of-service;	S	SmartPro MedEE uses a combination of IBM SmartCloud Workload Automation and PureApplication's PureSystems Manager to prioritize and dynamically manage workloads.
BIR 051	• partition indexing and aggregate management via parameters and tools;	S	IBM DB2 directly supports this requirement.
BIR 052	• simulate the various workloads and mixes	S	SmartPro MedEE provides a fully configured and provisioned Load/Stress Test Environment fully sufficient to simulate full production workloads on production sized hardware.
BIR 053	The EES shall provide workflow and collaboration support for administrator tasks.	W	SmartPro MedEE uses LifeRay Portal and collaboration services and Computer Associates Service Desk module to support administrative workflows and collaboration.

Rules Engine Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 001	The EES shall support data verification and consistency checks.	S	SmartPro MedEE supports data verification and consistency checks of all data entered in the system.
RLE 002	The EES shall support compute values based on input data.	S	Based on the values entered in the system, the system will compute values where appropriate.
RLE 003	The EES shall support the selection of business process path.	S	SmartPro MedEE, built on IBM Cúram, incorporates extensive workflow management capabilities that support the automation and selection of business processes and work allocation.
RLE 004	The EES shall support mechanisms and ease of use for users to edit rules while maintaining compliance with CMS rules.	S	SmartPro MedEE uses IBM Cúram Express Rules (CER). CER is a flexible, high performing, and configurable rules environment. Evolving legislation and policy rules can be implemented quickly with the minimum of disruption. The CER editor is a graphical web based tool for business and technical users to view, create and manage CER rule sets.
RLE 005	The Contractor must follow all standards defined by CMS in Guidance for Exchange and Medicaid Technology Systems and Enhanced Funding Requirements: Seven Conditions and Standards; and other federal guidelines yet to be defined; including use a technology neutral rules repository.	S	SmartPro MedEE adheres to the CMS 7 Conditions and Standards and enhanced funding requirements.
RLE 006	The EES shall support design for a multi-step decision.	S	SmartPro MedEE, built on IBM Cúram, incorporates extensive workflow management capabilities that support the automation and selection of business processes and work allocation. Workflow multi-step processes consist of multiple activities linked with rules based transitions.
RLE 007	The EES shall have the ability to tune individual steps in the overall decision process for maximum performance by the execution engine.	S	Cúram Express Rules and Cúram Workflow both support the ability to focus on individual steps, or units of logic and tune for maximum performance.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 008	The EES shall support reporting requirements either natively or integrate with other reporting tools to provide reporting.	M	Apart from the Cúram Reports, Wipro proposes IBM Cognos as the Business Intelligence Tool for generation of operational and analytical reports and catering to State's EES reporting Requirements.
RLE 009	The EES shall support repository infrastructure for rule storage and versioning.	S	SmartPro MedEE includes versioning capabilities for rules.
RLE 010	The EES shall support seamless and easy user interaction.	S	CER provides a highly versatile and adaptable rules environment that supports the definition, creation, and execution of rules. CER consists of a Rules Engine and Rules Editor components. The Rules Editor component provides a user friendly tool for business analysts and developers to storyboard, design, and construct rules, and to link rules to data.
RLE 011	The EES shall provide context sensitive help and extensive documentation.	S	IBM provides online help and documentation for creating and maintaining CER rule sets.
RLE 012	The Rules Engine must be able to submit business rules to a federal repository at such time as the repository exists.	S	Rule sets are stored as XML document in the system's data repository. These XML documents can be exported as XML files.
RLE 013	The EES shall support high performance and scalability, including the following characteristics:	S	CER Rules, deployed as part of the Cúram application on a JEE application server, supports high performance and scalability of rules execution.
RLE 014	• High performance for large rule bases (more than 20,000 rules)	S	The EES supports a large rules base. As an example, 'Cúram for Medical Assistance' provides an extensive prebuilt rules base for Medicaid programs, extended Medicaid, CHIP and ACA Insurance Assistance programs.
RLE 015	• Ability to share rule sets across multiple engines	S	Rulesets can execute in parallel, such as during a bulk re-assessment

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 016	• Dynamic and static execution versions for performance	S	A CER Rule set is saved as an XML document on the EES database. When the rule set is first executed, it is parsed and loaded into in memory java objects. Subsequent executions of this same ruleset will run from the in-memory representation of the rule set, unless the original XML document has been updated. In which case, the rule set will be reloaded to memory. The in memory representation of the rule set is provided for performance reasons, as it avoids the need to parse and continually re-parse the Rules XML document.
RLE 017	• Multiple, cross-platform support	S	The Cúram rules engine and rules editor are supported across various platforms including either of WebLogic Server or WebSphere Application server on a variety of Unix platforms, Microsoft Windows, IBM z/OS, using DB2 or Oracle as its database. Rulesets can execute across multiple nodes of a JEE application server.
RLE 018	• Segmented repositories	S	The EES solution uses IBM Cúram Express Rules (CER). CER supports segmented rule repositories. A CER Rule set is saved as an XML document on the EES repository, separate from the main server logic, and can be extracted and maintained independently.
RLE 019	• Pre-built rule paths	S	Cúram for Medical Assistance' provides prebuilt rules for Medicaid programs, extended Medicaid, CHIP and ACA Insurance Assistance programs.
RLE 020	• Rule pre-fetch to memory	S	Rulesets are cached in memory, as Java objects, when first executed.
RLE 021	• Parallel rule search	S	Multiple Rules Search transactions can be executed in parallel.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 022	• Ability to compile rule sequences into base languages like C++, Java and C#	S	A CER Rule set is saved as an XML document on the EES database. When the rule set is first executed, it is parsed and loaded into in memory java objects. Subsequent executions of this same ruleset will run from the in-memory representation of the rule set.
RLE 023	The EES shall support advanced inference features, including:	S	CER supports advanced inference features.
RLE 024	• Truth maintenance to support parallel rule execution	N	CER Rules is not a TMS (Truth Maintenance System). Truth Maintenance is an advanced inference feature that is not required for eligibility determination.
RLE 025	• Inductive and deductive problem sets supported.	N	CER Rules support deductive reasoning only.
RLE 026	• Recursive rules supported	S	CER supports recursive execution.
RLE 027	• Rule aggregation supported	S	The EES solution uses IBM Cúram Express Rules (CER). CER supports aggregated rules by building rule sets that are dependent on other rules or rule sets as needed.
RLE 028	• Links to simulation capabilities	S	CER supports the ability to Check Eligibility on "In Edit" eligibility data to perform "what if" scenarios. Bulk simulation of rules changes against live data should be performed in a pre-production system with a copy of the live database.
RLE 029	• Agent or daemon links	S	The IBM Cúram Express Rules (CER) engine can execute in the background as an Agent or Daemon process. As data is entered and maintained the rules engine executes in the background monitoring input and presents onscreen guidance to the worker. The guidance is related to the specific Case, Household or Individual, that the worker is focusing on.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 030	• Object inheritance supported	S	The EES solution supports object inheritance.
RLE 031	• Multiple-engine support	S	Rulesets can execute in parallel and across nodes of a JEE application server.
RLE 032	The EES shall include rule management features for the execution engine, including:	S	The EES includes rule management features for the rules engine.
RLE 033	• Rule extensibility	S	OOTB rulesets can be extended to meet State requirements.
RLE 034	• Rule mapping to owners and stewards	M	The EES will support Rule mapping to workers. Modification is required to link CER Rule sets to one or more workers.
RLE 035	• Rule change impact analysis purposes	S	CER Editor has a "Find References To This Rule" option which can be used to determine the impact of a rule change.
RLE 036	• Integration/coordination of distributed rule engines with a corporate "master"	C	When required, the CER Rules Engine can be set to invoke a "higher authority" through the ESB of SmartPro MedEE.
RLE 037	• Ability to rerun the engine for a point which has passed (for example, after 1 January, still able to rerun year-end jobs with 31 December rules)	S	The CER Rules Engine can be executed for any point in time. The correct rule set, program rates and eligibility data will be used for the selected date.
RLE 038	• Ability to enter new rules or changes to become effective on a future date (for example, ability to put in the rule changes for 1 January in December)	S	Rules, Rates and eligibility data are all effective dated. Rules, Rates and eligibility data can be entered effective a past, current or future date.
RLE 039	• Rule consistency/collision checks	S	Rules consistency/collision checking occurs during rules unit testing. Rules unit testing enables rules developers to fully test all rules and rule fragments in isolation, and supports ongoing regression testing of CER rules.
RLE 040	• Rule versioning	S	CER rule sets support rule versioning.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 041	• Release versioning and rollback	S	CER rule sets support rule versioning and ability to rollback.
RLE 042	• Rule security	S	Cúram Role Based Access Control (RBAC) controls access to rules and rules maintenance screens and processes.
RLE 043	The EES shall include a rule repository for global rule management, including:	S	Rules are stored as XML documents in the EES database.
RLE 044	• nomadic support	S	CER Rules can be exported as XML documents and maintained while disconnected from the server.
RLE 045	• an extensible meta model	S	Any rule set can be extended
RLE 046	• rule merge support	S	Supported through the export of the rules XML file and use a text/XML diff and merge tool.
RLE 047	• versioning/lockout	S	Rules management includes versioning and lockout.
RLE 048	• rule promotion	S	The Cúram Configuration Transport Manager (CTM) provides a mechanism for packaging configuration data and transporting it from one Cúram deployment to another Cúram deployment. For example, promoting a rule set from a pre-production environment to a production environment.
RLE 049	• change management	S	The Cúram Configuration Transport Manager (CTM) provides a mechanism for packaging configuration data and transporting it from one system to another.
RLE 050	• electronic rule distribution (publish or subscribe)	S	Rulesets are managed globally within the database - if a new version is activated, it is instantly available.
RLE 051	• security	S	Cúram Role Based Access Control (RBAC) controls access to rules and rules maintenance screens and processes.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 052	The EES shall support ease of use in operation/development and administration, including:	S	Rules are managed by the CER rules engine and the CER rules editor. The CER rules editor provides a user friendly tool for business analysts and developers to storyboard, design/develop, and construct rules, administer, and to link rules to data.
RLE 053	• Rule-firing audit report capabilities	S	The EES solution supports rules execution auditing.
RLE 054	• Rule views by project or role	S	The CER Rules editor supports both a business user view and a technical user view. The user can switch back and forth between these two views. Cúram also support a rules execution view, that displays the output of the rules calculation in a format suitable for an eligibility worker.
RLE 055	• Ability to be used as a wizard/plug-in for multiple development environments	S	CER Rules are saved as XML documents. These XML documents can be extracted from the EES database and further modified using an XML editor. Common XML editors are available as plug-ins, such as Eclipse plug-ins.
RLE 056	• Dynamic rule change supported	S	Dynamic rule change is supported in the EES. Rules are saved as XML documents, not as source code.
RLE 057	• Rules separated from the engine	S	Rules are stored as XML documents in the EES database separate from the Rules Engine.
RLE 058	• Constraints naturally supported	S	Constraints are supported.
RLE 059	The EES will include the capability to save and retrieve partial user sessions.	S	Partial user sessions, such as an in progress application, can be saved and later retrieved and completed.
RLE 060	The EES shall provide the capability to associate effective dates with each program and rule in the rules engine.	S	Rules sets are effective dated - multiple dated versions co-exist and are selected based on timeframe being evaluated. Within a specific rule set, the concept of an Era exists to support effective dated rules with a specific rule set.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 061	The EES shall provide the capability to associate a rule with multiple program profiles.	S	A program definition in Cúram can be associated with multiple rule sets. A rule set can be associated with multiple different programs.
RLE 062	The EES shall provide the capability to identify and apply a rule change appropriately to existing cases.	S	Rules changes will be associated appropriately with existing active cases. Where the rules change is in the past, this may result in re-running eligibility for a selection of cases. As this could result in a large number of cases, this process will run in batch or asynchronously online on dedicated hardware.
RLE 063	The EES shall provide the capability to copy an existing rule to create a new rule.	S	In the CER editor, rules can be created and modified as needed. This can include copying an existing rule, or group of rules, to create a new one.
RLE 064	The EES shall provide the ability to identify all other rules that are dependent on a specific rule by allowing rules association.	S	During rules execution, the CER engine will identify all other rules that are dependent on the specific rule being executed. During rules editing, the user can find all rules that reference or depend on a specific rule.
RLE 065	The EES shall provide the capability to generate and display a flow chart of each program profile.	S	CER rules display the output of the rules calculation in a format suitable for an eligibility worker. Known as an eligibility decision, this eligibility view is displayed across a set of tabbed panels. The initial panel contains a summary of eligibility decision. Subsequent panels display a breakdown of this eligibility decision. Depending on the program, this view will include household eligibility results, income eligibility results, resource eligibility results, etc.
RLE 066	The EES shall provide the ability to maintain and display the history of each rule change in the rules engine to show previous versions of the rule, a timestamp of when the change was made and the ID of the user making the change.	S	Cúram captures the versioning details of a Ruleset.
RLE 067	The EES shall provide the capability to add additional table-driven variables to support new regulations using a rules engine.	S	Cúram Rate tables are used for table-driven values in the EES.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 068	The EES shall include an automated rule build capability for rule repository propagation through the environments Development, Integration/Test, User Acceptance Testing and Production.	S	The Cúram Configuration Transport Manager (CTM) provides a mechanism for packaging configuration data and transporting it from one Cúram deployment to another.
RLE 069	The EES shall have the ability to expose sets of interrelated rules in the rules repository as either a web service and/or in an interactive, web-based interview format.	M	Modification required to expose the rules engine as a Web Service. The web service will take parameters that identify what rule set to execute, what date to execute for, and an identifier that will specify what eligibility data to use. Interactive, web-based interview format will be supported by Cúram Intelligent Evidence Gathering infrastructure.
RLE 070	The EES shall have the ability to create customizable web-based, interview sessions based on defined rule sets.	S	IBM Cúram Intelligent Evidence Gathering (IEG) uses a dynamic questionnaire capability to maximize the efficiency of data collection and to reduce the likelihood of redundant or irrelevant data being requested. Cúram IEG presents questions to the user through a series of screens known as a "script".
RLE 071	The EES must facilitate the creation and maintenance of rules referencing complex data relationships this will include, but not be limited to, rules referencing complex many-to-many relationships between entity types	S	The IBM Cúram CER Editor provides a user friendly tool for business analysts and developers to storyboard, design, and construct rules, and to link rules to data, including data with complex many-to-many relationships.
RLE 072	The EES must have the ability for text documentation and meta-data to be included as part of the rules repository.	S	The EES can include descriptions/annotations on each rule.
RLE 073	The EES will have documentation to assist rule authors and administrators with best practices for rule repository creation and maintenance, repository check-in/checkout, repository promotion across environments.	S	CER Rules documentation is available online from IBM and will be made available to rule authors and administrators.
RLE 074	The Contractor shall partner with the Department management and Rule Author(s) to design suitable policy models for Eligibility Determination and other rules to be automated using the proposed Rules Management System.	S	Cúram OOTB Medical Assistance Rulesets will be extended to meet State requirements; new rulesets will be created for State specific programs, or State variants of existing programs.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 075	The Contractor shall transform all of the state's Medicaid eligibility program rules into a format that can be consumed by the proposed Rules Management System.	S	A significant proportion of the State's Medicaid eligibility programs are provided, prebuilt, with 'Cúram for Medical Assistance'. For those programs or program variants that are not prebuilt, configuration and extension will enable the implementation of these programs. All required eligibility rules will be expressed in CER Rules.
RLE 076	The Contractor shall create the program rules in the proposed Rules Management System and test them in an established environment.	S	The rules will be created in the CER Rules Editor and shall be unit and regression tested in the EES development environment, and integration tested in the system test environment.
RLE 077	The Contractor shall create a valid set of rules to transition from the current mainframe system to the proposed Rules Management system in preparation for the new SOA system.	S	Rules are created and maintained via the Cúram CER Editor.
RLE 078	The Contractor rules management team will work with and mentor the Department staff Rule Author(s) in the best practices of: - Converting rules from federal or legislative documents into properly structured rules that can be consumed by the proposed Rules Management System and writing future rules in such a way that eases the transition - Capturing meta-data about each of the rules sets and how they function	S	The Wipro / IBM team will mentor the designated State Staff, and provide a variety of training materials both written and CBT, to teach them how to use the Rules Engine, and best practices for converting rules from external sources into the Rules Engine.
RLE 079	The Contractor shall provide guidance on: - How best to store and look up the meta-data - Defining the Lifecycle of rule sets - How to integrate or flow rules - How to provide help or commentary on rules - General use of the proposed Rules Management System	S	CER Rules documentation is available online from IBM and will be made available to rule authors and administrators.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 080	The Contractor shall provide selected Department staff with holistic education on the proposed Rules Management system that includes (but is not limited to): - Knowledge about how the proposed Rules Management system works - Knowledge about how to structure the Rule Author(s) to meet the Agency goals - Knowledge about how to create, maintain and update rules in the proposed Rules Management system	S	See RLE 078. The Wipro / IBM team will provide the designated State staff with the required educational experience. Both the Training Environment and the Sandbox Environment can be used a practical Exploratoriums to further deepen the State's knowledge.
RLE 081	The EES shall have the ability to test rules independently from the application with which they are being integrated.	S	CER rules can be unit tested in the EES Eclipse-based development environment, separate from main application. Support for this type of isolated testing is key to enabling the tests to only focus on the accuracy of the rules, and not other factors such as accessing the correct data. Further dedicated unit tests will be developed for testing data access.
RLE 082	The EES shall have the ability to debug rules using an integrated tool.	S	Rules logic is debugged using Eclipse development tools.
RLE 083	The EES shall have the ability to assign effective dates to rules to control when rules are applied and to allow the storage and application of rules in historical, current, and future contexts.	S	Rules sets are effective dated - multiple dated versions co-exist and are selected based on timeframe being evaluated. Within a specific rule set, the concept of an Era exists to support effective dated rules with a specific rule set.
RLE 084	The EES shall have the ability to invoke rules as a service from the service integration capability as well as directly from other system modules.	S	The CER Rules Engine can be made available as a Rules Service through the solution ESB. It is also pre-integrated with the overall EES eligibility solution to facilitate and accelerate system deployment.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 085	The EES shall have the ability to record and output the exact reasons and/or basis for decisions determined by the Rules Engine.	S	CER rules display the output of the rules calculation in a format suitable for an eligibility worker. Known as an eligibility decision, this eligibility view is displayed across a set of tabbed panels. The initial panel contains a summary of eligibility decision. Subsequent panels display a breakdown of this eligibility decision. Depending on the program, this view will include household eligibility results, income eligibility results, resource eligibility results, etc.
RLE 086	The EES business rules shall be expressed using a consistent, technology-neutral standard format that is human-readable.	S	Rules are stored as XML documents and can be viewed in any XML viewer that is human -readable.
RLE 087	The EES shall provide a Business Rules Engine to generate transaction logs in accordance with the Harmonized Security and Privacy Framework and other federal requirements.	S	The CER Rules engine will generate a configurable level of logging information that can be used to understand system activity; i.e. the rules that were executed and the results of those rules.
RLE 088	The EES shall provide a Business Rules Engine, which generates transaction logs in accordance with the Health Insurance Portability and Accountability Act (HIPAA)	S	HIPAA - 45 C.F.R. § 164.312(b): "Implement hardware, software, and/or procedural mechanisms that record and examine activity in information systems that contain or use electronic protected health information." The CER Rules engine will generate a configurable level of logging information that can be used to understand system activity; i.e. the rules that were executed and the results of those rules.
RLE 089	The EES should be able to recreate results on a unique set of data regardless of when the rules are executed; modeled and/or What-if situations are required.	S	SmartPro MedEE will always recreate identical results on a unique set of data, using the same rules and rates. Rules, Rates and Eligibility Data are all effective dated. If new versions exist for a future date, EES will always use those rules, rates and data that were/are/will be valid for a particular date.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 090	The EES should provide a Business Rules Engine which contains a process for built-in rule review and approval process that should identify any conflicts in business rules as they are being developed.	S	CER Rules are reviewed and approved as part of the CER rules implementation process.
RLE 091	The EES should include a Business Rules Engine which provides a debugging process that automatically analyzes and identifies logical errors (i.e. conflict, redundancy, and incompleteness) across business rules.	S	CER includes a comprehensive rule set validator which can detect errors in a rule set before allowing the rule set to be published or executed.
RLE 092	The EES should provide a Business Rules Engine which allows for the tracking and reporting of rules usage.	S	Rules logging will allow for the tracking and reporting of rules usage.
RLE 093	The EES should include a Business Rules Engine which provides the flexibility to define business rules by inclusion or exclusion.	S	By default, CER rules are defined by inclusion. Exclusion requires copying existing rule sets and extracting specific rules from that copy.
RLE 094	The EES should include a Business Rules Engine which provides the capability for the user to view and model rules for system exceptions online and to trace exception rule dependencies.	S	The CER Rules engine provides the capability for the user to maintain rules in support of system exception processing.
RLE 095	The EES should provide a Business Rules Engine to manage the synchronization of business policies and rules across physical system environments. (e.g. development, test, training and production).	S	The Cúram Transport Manager manages the synchronization of rules between physical environments.
RLE 096	The EES should have the ability to automatically promote rules from one environment to another (e.g. development to system test to user acceptance to production) as well as rollback changes to a previous version.	S	The Cúram Transport Manager manages the synchronization of rules between physical environments.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 097	The EES should have the ability to produce and consume rules in both machine and human readable formats (which may be the same format).	S	A CER Rule set is saved as an XML document on the EES database. When the rule set is first executed, it is parsed and loaded into in memory java objects. Subsequent executions of this same ruleset will run from the in-memory representation of the rule set, unless the original XML document has been updated. In which case, the rule set will be reloaded to memory. The in memory representation of the rule set is provided for performance reasons, as it avoids the need to parse and continually re-parse the Rules XML document.
RLE 098	The EES should have the ability to define rules via a customizable business vocabulary using rule metaphors, including decision tables, decision trees, and text-based rules.	S	SmartPro MedEE uses Cúram's CER editor which includes both business and technical palettes used to design the business and technical logic in a diagram form. The Decision Table Template contains the decision table element which is used to create decision tables. The Data Types palette includes a range of rule elements (string, date, number, rate, etc.) that can be used to design the data types in the diagram form.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 001	The EES shall provide a portal UI framework that separates content from logic and is robust, scalable and interoperable with W3C Web-based standards.	S	LifeRay Portal is the portal product and is a leader in Gartner Quadrant for Horizontal Portals 2013, and easily meets the goals expressed in this requirement.
PRT 002	The EES shall provide session management capabilities to support user sessions and coordinated back-end application functionality.	S	Comes out of the box with both application and portal servers.
PRT 003	The EES shall provide support for multiple languages and character set encoding standards.	S	Multi-Lingual support with the help of resource bundles and out of the box support from Liferay portal.
PRT 004	The EES shall provide portal personalization and customization capabilities for the constituent user experience.	S	Out of the box portal server capability, will be configured to meet customer specific need.
PRT 005	The EES shall support access from multiple channels and devices.	S	Portal supports multi-channel detection and redirection. Specific device based themes would be created to provide better user experience across devices as per the need.
PRT 006	The EES shall provide support for Web content management EES that is robust and scalable.	S	LifeRay portal comes bundled with web content management tool for usage.
PRT 007	The EES shall provide time-based content expiration and version management capabilities.	S	LifeRay Bundled Content Mgmt. solution has the versioning capabilities.
PRT 008	The EES shall provide Web content related workflow management capabilities.	S	LifeRay Bundled Content Mgmt. solution has the workflow management capabilities.
PRT 009	The EES shall provide syndicated content capabilities including creation and subscription to RSS feeds	S	LifeRay Bundled Content Mgmt. solution has the Syndication and Subscription capabilities.
PRT 010	The EES shall provide content metadata attributes for portal extensibility.	S	Our processes will define the desired metadata attributes, which will be employed in the Portal implementation.
PRT 011	The EES shall provide multimedia Web content management capabilities.	S	LifeRay Bundled Content Mgmt. solution has the limited Multi-media WCM capabilities.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 012	The EES shall provide wiki- and blog-based capabilities	S	LifeRay has 60 out of the box portlets which includes Wiki's and Blog capabilities.
PRT 013	The EES shall provide XHTML e-form capabilities.	S	Portal integrates directly with ORBEON 4.0.0 form portlet and provides this capability out of the box.
PRT 014	The EES shall provide survey engine capabilities.	S	Portal can integrate with any 3rd party service provider for Survey Capabilities like Survey Monkey.
PRT 015	The EES shall provide chat and instant messaging (IM) support.	S	LifeRay come Bundled with LIMS – Chat and Instant Messaging solution. This function can be enhanced for client specific use.
PRT 016	The EES shall provide the capability to consume externally available mapping Web services.	S	Provided out of the box.
PRT 017	The EES shall provide portlet capabilities.	S	LifeRay support the Portlet JSR 286 specification and hence supports Portlet capabilities.
PRT 018	The EES shall provide inter-portlet communications that are robust, scalable and reliable using Shared Render Parameter and Events methods.	S	LifeRay supports the Portlet JSR 286 specification and hence supports Inter-Portlet communication capabilities.
PRT 019	The EES shall provide search engine capabilities.	M	LifeRay Portal can Integrate with any external search engine, and provides its own strong internal engine.
PRT 020	The EES shall provide taxonomy-based cataloging of portal resources.	M	Minimal modification required.
PRT 021	The EES shall provide index-based search capabilities.	S	Crawling and Indexing capabilities comes out of the box with all major enterprise search providers. Enterprise Search engine can be integrated with Portal server. LifeRay provides an complete indexed search capability.
PRT 022	The EES must allow for user analytics to be captured and reported	S	Any Web Analytics tool can be integrated with portal to provide user analytics.
PRT 023	The EES shall support commonly used Internet browsers without any degradation in functionality, including the following:	S	We plan to use AWD/RWD along with HTML5/CS3 and Ajax based JS Framework for User Experience rendering and cross browser compliance.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 024	• Internet Explorer Version 8.0 or greater	S	Internet Explorer 8 and above is supported.
PRT 025	• Mozilla Firefox Version 6 or greater	S	Mozilla Firefox is supported.
PRT 026	• Google Chrome Version 20 or greater	S	Google Chrome is supported.
PRT 027	• Apple Safari version 5.1 or greater	S	Apple Safari is supported.
PRT 028	• Opera Browsers 10 or greater	M	Cúram requires Opera testing and possible style sheet maintenance to accommodate Opera.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 029	The EES shall meet all American with Disabilities Act (ADA) and Limited English (LEP) requirements as required by the ACA and Federal regulations.	S	SmartPro MedEE, based on IBM Cúram's ADA compliant web based solution, meets applicable State and Federal accessibility standards for all processes and user interfaces produced by the system. Cúram-based portals are designed to be accessible so that persons with disabilities can use these portals effectively. Cúram-based portals conform to both the US Federal Section 508 requirements for accessibility for persons with disabilities and the Americans with Disabilities Act (ADA). Accessibility testing is an important element of the continual testing of the Cúram solution. A dedicated team focused only on accessibility testing using the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines 2.0 (WCAG 2.0). As part of the Cúram product development process, new features are continually evaluated and tested using WCAG. These guidelines are an integral part of the Cúram product development process and provide a basis for designing accessible software solutions. The Plain Writing Act of 2010 requires agencies to write clear communication that the public can understand and use. "Cúram Universal Access" provides an EES public-facing portal based on a sixth grade reading level. This public-facing portal can be further tailored to meet the specific language proficiency levels desired by the State. "Cúram Universal Access" includes an extensive help function that provides detailed explanations of new and non-basic terminology. Usability and Visual Design team will take care of the UI compliance and regulations. Portal team will enable rendering. IBM rational Policy Tester / Access will be used to automate X509 standards compliance testing.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 030	The EES shall allow consumers to submit applications with an electronic signature that complies with State, federal, and agency requirements and standards.	M	EES supports the electronic signing of applications submitted by an authenticated customer through the Client Portal. Once the new application is complete, a disclaimer is displayed asking the user to sign the new application. The customer must click a number of check boxes confirming that all the information they have provided is accurate. Specific Portal Pages/Forms will be designed and developed to enable this functionality.
PRT 031	The EES shall use cascading style sheets and other modern browser technologies to ensure that the look and feel of the site can be changed without requiring reprogramming the portal if using a browser based interface.	S	The EES uses cascading style sheets and HTML to define the appearance (colors, fonts, etc.) of the client pages when viewed in a web browser. Default style sheets are provided for the Cúram client application which can be overridden to suit DHHS branding. Plan to use CSS3 for themes/skins and User Experience.
PRT 032	The EES shall provide the ability to capture, display and maintain confidentiality statements and privacy protections as specified by the Department.	M	The EES supports the configuration and display of disclaimers and confidentiality statements for display in the client portal. Specific Portal Pages/Forms will be designed and developed to enable this functionality.
PRT 033	The EES shall provide the ability to capture, display and maintain signature acknowledgement(s) of completed forms / case activity(s) as specified by the Department.	M	The EES supports the configuration, display and capture of signature acknowledgements. Specific Portal Pages/Forms will be designed and developed to enable this functionality.
PRT 034	The EES shall provide the ability for external users (e.g. Clients, Community Partners) to upload documents as specified by the Department.	M	SmartPro MedEE will enable external users to upload documents. All uploaded documents will be virus checked, saved in the document management system and linked to the relevant application, individual or ongoing eligibility case. Some modification effort will be required to expose this existing worker capability to external users. Specific Portal Pages/Forms will be designed and developed to enable this functionality.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 035	The EES should support small form-factor devices, including the following mobile phone and tablet platforms:	S	SmartPro MedEE web pages can be displayed using common mobile micro browsers. Pages are best viewed using a larger form factor. We plan to use AWD/RWD along with HTML5/CS3 and Ajax based JS Framework for User Experience rendering and cross browser compliance.
PRT 036	iOS phones and tablets	S	SmartPro MedEE web pages can be displayed using common mobile micro browsers.
PRT 037	Android phones and tablets	S	SmartPro MedEE web pages can be displayed using common mobile micro browsers.
PRT 038	Blackberry phones and tablets	S	SmartPro MedEE web pages can be displayed using common mobile micro browsers.
PRT 039	Windows mobile phones and tablets	S	SmartPro MedEE web pages can be displayed using common mobile micro browsers.
PRT 040	The EES should be 100% accessible via the Internet and require no desktop software (including specialized plug-ins and applets) except for the commercially-available web browsers listed above.	S	SmartPro MedEE is a web-based portal solution that does not require any desktop software to be installed. We will use AWD/RWD along with HTML5/CS3 and Ajax based JS Framework for User Experience rendering and cross browser compliance.
PRT 041	The EES should provide web analytics.	S	Any Web Analytics tool can be integrated with portal to provide web analytics info. LifeRay also comes with its own internal analytics capability.
PRT 042	The EES should provide citizen and business-centric portals.	S	SmartPro MedEE uses Cúram's Universal Access portal for citizen and Cúram's Worker portal for business-centric portals. Portal can enable any number of sub-portals as per the requirement.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 043	The EES should have a common look and feel across the portal, regardless of the source of information	S	Web pages are all configured through XML User Interface Metadata (UIM) pages, Cascading Style Sheets (CSS), Intelligent Evidence Gathering (IEG) scripts, etc. without the need to change program code. The use of these technologies ensures SmartPro MedEE has a common look and feel across the entire portal. Based on the branding guidelines, the Visual Design team will create screen and portal would enable the screens for user perspective.

Application Server Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
APP 001	The Application Server shall be a scalable, enterprise-ready application and shall support the deployment of many types of distributed applications and provides an ideal foundation for building applications based on SOA.	S	SmartPro MedEE is architected using SOA and built upon IBM's PureApp server, a fully integrated web and cloud-ready hardware and software appliance. The SOA architecture provides for interoperability, scalability and, by avoiding single points of failure provides for high availability and resilience. The use of IBM's PureApplication server appliance, specifically PureApp's PureSystems Manager (PSM) as the core tool for technical system management is central to successfully executing this strategy. PSM provides a single unified tool environment for Application Management, Web services Management, Systems Management, Performance Monitoring, and Workload Management.
APP 002	The Application Server shall enable deployment of mission-critical applications or components in a robust, secure, highly available, and scalable environment.	S	PureApplication Server and WebSphere jointly provide nearly instant deployment of fully scalable, tiered, clustered environments, without the usual integration engineering effort. By using pre-certified Patterns, and management software representing over 1,000,000 staff hours of IBM expertise of effort, these mission critical middleware environments can literally be deployed application-ready within minutes, not months.
APP 003	The Application Server clusters shall provide scalability and reliability for applications by distributing the work load among multiple instances of the server.	S	Please also refer to APP 002. SmartPro MedEE provides this out of the box, based on PureApplication Server and WebSphere – clustering for reliability and performance scaling. By merely assigning more than one VM to a tier (Web, Application, or DB), the tier is automatically deployed as a scalable fault-tolerant cluster.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
APP 004	The Application Server clusters shall have overload protection to allow the server the ability to detect, avoid, and recover from overload conditions.	S	PureApplication Server self-monitors resource utilization, and auto-tunes without service interruption based on configured business rules. For example, provisioning a VM with additional physical CPU cores if utilization exceeds a configured threshold,
APP 005	The Application Server clusters shall prioritize work based on pre-defined rules and by monitoring actual run time performance statistics.	S	PureApplication Server and ITCAM monitor actual performance, and adjust the cluster based on configured business rules, in real time, without human intervention.
APP 006	The Application Server clusters shall store-and-forward services to enable the server to deliver messages reliably between applications that are distributed across many Server instances.	S	The ESB is used to deliver store and forward message when required. However, SmartPro MedEE does not rely upon this for its functionality.
APP 007	Allows for System Administration that include tasks such as creating Application Server domains; deploying applications or components; migrating domains from development environments to production environments; monitoring and configuring the performance of the application Server domain; and diagnosing and troubleshooting problems.	S	PureApplication provides direct high level management for all of these administrative functions, via a highly functional graphical control console. Complete multi-tier redundant clustered fault tolerant environments, with the middleware already integrated and certified, can be engineered, configured, and instantiated within less than 15 minutes. Basic tools allow for entire EES Environments, complex definitions of many VMs, to be configured in moments, and moved freely between environments upon command.
APP 008	The Application Server security architecture shall provide a comprehensive, flexible security infrastructure designed to address the security challenges of making applications or components available on the Web.	S	WebSphere provides the Web Server and Application Server tiers of SmartPro MedEE. Based on the deployment pattern, these may be compressed into a single small environment (for example, an internal test environment), or fully isolated by firewalls and VLAN protection, all via simple configuration.
APP 009	Shall provide for a monitoring and diagnostic service that creates, collects, analyzes archives, and accesses diagnostic data generated by a running server and its deployed applications.	W	PureApplication Server provides all the technical level monitoring of the appliance, while ITCAM provides SOA Service and response time monitoring. Both report exceptions up to the Data Center Enterprise Management system in real time.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
APP 010	The EES must allow for user analytics to be captured and reported.	C	Such Detailed Analytics will be enabled using the DW/DataMart solution component of EES solution. Wipro will leverage its KPI library and learning and best practices from other State Eligibility Enrollment system to recommend the user Analytics KPIs State should capture.
APP 011	The EES shall support session replication to support transparent fail over.	S	PureApplication Server provides this out of the box, on demand. When using a Web Architecture deployment Pattern, the mere act of requesting more than one VM in any of the middleware tiers (Web, Application, DB) automatically provisions and instantiates clustered design with load balancing and automatic fail-over.
APP 012	The EES shall provide guidelines and tools (MVC frameworks, persistent frameworks) to create web applications (portal or stand-alone) with basic CRUD functionality.	S	Primarily the web application will be supported as portlets on the Liferay Portal Server using the Spring MVC framework; the same framework can be used at Application Server Layer in case the need arises for development of web applications.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 001	The EES shall lock database records based on various parameters (e.g., at row level, field level, or at the application level).	S	In the EES solution, a database transaction runs at a specific isolation level: Repeatable Read - This guarantees that dirty data is not read and that a second read will read the same thing as a first. Read Committed isolation level - This guarantees that a transaction cannot read a row with uncommitted changes in it. "WITH CS" is automatically appended to SELECT statements All queries which do not have the forUpdate flag set run at the "Cursor Stability" isolation level. All modifies and queries with the forUpdate flag set run at "repeatable read" isolation level. This means that they place a lock on the row(s) that have been read so that they cannot be updated by anyone else, and in the case of modify operations be read by anyone else. This lock is not released until the transaction commits.
DMA 002	The EES shall accommodate separate instances of databases.	S	PureApplication automatically implements fully integrated DB2 database deployments upon demand. Preconfigured Patterns are provided out of the box for common architectural metaphors, such as "3-Tier Web Application" or "Cognos BI Database". Appropriately optimized VM configurations are immediately deployed. VM technology is used to enforce isolation, both for security and for performance management.
DMS 003	The EES shall support online modifications to database structures with minimal user downtime.	S	DB2 and Cúram cooperate to allow very rapid modifications in almost all cases to database structures, with minimal downtime.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 004	The EES shall allow for data and transaction replication including, but not limited to, copying an instance of any database to specified locations (e.g. SAN, Multi-site implementations)	S	PureApplication management tools allow instant copying of data stores within and between Environments and locations. This capability is at the heart of the Disaster Recovery approach implemented by SmartPro MedEE.
DMS 005	The EES shall provide standard data extraction APIs to allow import and export of data.	S	Db2 and InfoSphere Information Server (DataStage) provide these out of the box.
DMS 006	The EES shall provide documented best practices including, but not limited to optimum database configuration, client maintenance and change control.	S	These are provided. Please note that much of the database configuration optimization is fully automatic and system driven, and is dynamically tunable by the PureApplication system, dramatically simplifying the technical engineering task.
DMS 007	The EES shall handle load balancing, failover and/or clustering ability for extended scalability and performance	S	PureApplication provides this automatically, within moments, without requiring integration or middleware Engineering. The PureApplication environment instantiates the most common application architecture and middleware designs based on fully automated and preconfigured Patterns, based on answering a handful of design parameter questions. These patterns already accommodate load balancing, clustering for performance and fail-over (automatic), vertical and horizontal scaling, and online physical resource provisioning for performance. Provisioning can be optimized dynamically by the system itself, while hot, in real time, to meet performance goals expressed as business rules.,
DMS 008	The System shall avail the capacity planning model for database configuration.	S	Our SDLC processes include specific capacity planning, engineering, monitoring, and corrections in a feedback loop. However, PureApplication dramatically simplifies the actual execution, by directly executing real-time capacity and resourcing adjustments to meet resource and performance goals.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 009	The EES supports advanced configurations for data caching (e.g., support of client/application caching, support of server caching, etc.)	S	Both client side and server side caching are used. Client caching is used to store non-user data; code table items, security role configurations, error message strings, etc. This data represents configurable data, used on the presentation tier that is accessed very regularly. When this data changes, due to configuration, the cache is refreshed. Server caching is used to cache data that is repeatedly accessed in a single transaction. For example, when executing an eligibility period over a long period of time, multiple date-based executions of the rules engine is often required. During this period, a lot of the referenced data (e.g. the rules, rates, and eligibility data) will not change, and so does not need to be continually be re-read from the database. It is far more efficient to read from a cache.
DMS 010	The EES shall have the ability to optimize performance in transaction processing versus report processing	S	SmartPro MedEE is designed with these two aspects of the Production Environment isolated using VM technology. Report processing is executed against a Data Warehouse / DataMart model, against its own database and middleware instance, provisioned physically on different computer nodes with the single large server.
DMS 011	The EES shall use history tracking within the database and logging options (e.g., transaction auditing)	S	SmartPro MedEE enables these database functions.
DMS 012	The EES shall be fully ACID (Atomicity, Consistency, Isolation, Durability)- compliant so as to ensure it handles transaction rollbacks, validity and referential integrity checks, etc.	S	The EES fully supports ACID principals, both on the database and on the application server. Two phase commit is used when both the database and application server message queues must be updated together. If one rolls back, the other will too.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 013	The EES shall handle record locking (e.g., row, field, other) and record updating/committing.	S	Cúram uses optimistic locking for concurrency control. This means that more than one user can access a record at a time, but only one of those users can commit changes to that record. Once one user has modified the record, another user cannot modify it without first re-reading the latest version of the record.
DMS 014	The EES shall support indexing technology (multiple types of Indexing shall be available to tune performance of SQL statements).	S	DB2 standard index management and SQL tuning technologies are employed for this.
DMS 015	The EES must have the ability to support a variety of data model constructs including complex entity relationships and complex many-to-many relationships	S	The EES data model supports complex data model constructs including 1:1, (0)1:N, N:1(0), and N:N types relationships using Primary Key/Foreign Key constraints and link tables.
DMS 016	The EES shall provide the ability to optimize individual queries and support parallelizing a query to run on multiple CPUs at the same time to increase performance.	S	This is implemented as a standard feature of DB2.
DMS 017	The EES shall manage multiple query queue entries in parallel.	S	This is implemented as a standard feature of DB2.
DMS 018	The EES shall offer tools to manage and control disparate mixed workloads in a DBMS environment.	S	A supervisor worker can monitor and maintain workload for those workers that they are responsible for. Refer to requirements OPS 022 to OPS 026
DMS 019	The EES must have the ability to maintain security based upon defined roles.	S	The EES solution supports Role Based Access Control. Fine grained access control will be the responsibility of the individual solution components. High level access control (i.e. controlling access to the individual components) will be managed centrally in the EES Identity Management solution.
DMS 020	The EES must have data replication capabilities to external file formats or other RDBM Systems.	S	Provided by DB2 and InfoSphere Information Server.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 021	The EES shall have full, incremental and transaction log backup and recovery capabilities on both a regular schedule and an ad hoc basis, including redundant off-site backups.	S	Standard features of DB2. Data is also backed up locally, offsite on Tape, and a near real-time shadow database instance receives all Production Environment database updates at the contingency data center, using DB2's log shipping functionality,
DMS 022	The EES shall provide the capability to remain fully-functional during database backup windows.	S	Standard capability.
DMS 023	The EES must support geo-coded address data for the storage and retrieval of latitude and longitude coordinates.	S	The system property "curam.miscapp.geocode.enabled" allows for geocoding functionality to be enabled or disabled. Longitude and latitude details are included in the data that is recorded for a participant's address.
DMS 024	The EES shall assist the Department in developing procedures to ensure that specified data is archived and protected from loss, unauthorized access, or destruction.	S	This is part of our proposed Project and SDLC Plan.
DMS 025	The EES shall have the ability to extend the data model in a manner that is compatible with framework upgrades.	S	Due to the flexibility of the IBM Cúram product upon which the EES solution is based, any DHHS data that is not supported out of the box, can be added to EES and used for typical system processing such as driving workflow, seeding eligibility decisions, notifications generation, etc. The IBM Cúram product has been designed from the ground up to be extensible through configuration and modification, including extending the data model, in such a way that ongoing upgrades to the base product are possible. Refer to requirement GEN 066.
DMS 026	The EES shall have the ability within the base data model to store effective and expiration dates for items being tracked.	S	Effective dating of application data is an important and fundamental capability of the EES solution. All application data is dated. As change in circumstances occur, data is never changed in place, rather the current data record is end dated, and a new record is inserted with a contiguous start date.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 027	The EES shall have the ability to prevent the alteration of information that has been deemed as historical.	S	In the EES solution, data is never modified in place. Any attempt to modify effective dated data will result in a new record being inserted, linked to the previous record and the status of the previous record is updated to reflect that it has been superseded. Superseded records are never updated.
DMS 028	The EES shall have the ability to maintain the data model and associated dictionaries and generate appropriate DDL for local modifications and new releases of the product.	S	The EES data model is designed and modelled in a UML model. Cúram supplied generators will generate the DDL from this UML model, and will also generate a HTML based data dictionary that provides an up to date non-UML version of the EES data model. As the base UML model is extended to reflect DHHS data definitions, the Cúram generators will combine the provided extensions with the base model to produce a single set of DDL and a single data dictionary that represents the updated, DHHS specific data model.
DMS 029	The EES shall have the ability to gather and analyze database performance information and provide recommendations for improvement.	S	DB2 and PureApplication Server monitoring provide this capability.
DMS 030	The EES shall employ one defined set of data standards (e.g., consistent data schema, data element, data class, field lengths, data tables, view naming conventions).	S	The EES solution will be based on one defined set of data standards. These data standards are defined in the Cúram UML model (from which the DDL is generated). They will include standards relating to field types, field lengths, field format validations (e.g. date formats, money formats, regular expressions, etc.), field names, related pick-lists for drop down types.
DMS 031	The EES shall provide consistency and validity checks on data elements at the database level.	S	The EES solution employs Primary Key/Foreign Key pairs to ensure data consistency between related tables.
DMS 032	The EES shall provide a data history in accordance with state and federal law (7 years is the general requirement except where otherwise indicated).	S	Applicable data retention standards will be met. Physical disc provisioning accommodates projected long term needs.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 033	The EES shall provide the ability to archive records (i.e., remove from active system) based on administrator defined criteria.	M	A minor modification will be made to Cúram to migrate records from storage to archival storage, and to accommodate their restoration when needed.
DMS 034	The EES shall properly normalize or de-normalize all tables for efficient operation.	S	Data normalization and de-normalization is used in the EES database. The majority of the data on database will be normalized to third normal form. Denormalized data is used where appropriate.
DMS 035	The EES shall store all data (data, configuration, user, etc.) in a central repository.	S	All EES eligibility data, configuration data and user data will be saved in the central EES relational database.
DMS 036	The EES shall provide sharing of data among all parts of an integrated system.	S	Standard DB2 design, mediated by security design.
DMS 037	The EES shall store all data in industry-standard relational databases that use referential integrity rules.	S	The EES solution will store all data in an industry-standard relational database and will employ Primary Key/Foreign Key pairs to ensure the referential integrity of data.
DMS 038	The EES shall have the capability and capacity to maintain data as required by Nebraska and federal requirements as well as the DHHS electronic retention policy	S	The EES database will maintain the eligibility data as required by this RFP.
DMS 039	The EES should have the ability to support conceptual, logical and physical modeling.	S	The EES solution supports conceptual, logical and physical data modelling.
DMS 040	The EES should have the ability to reverse engineer, document, and inventory existing databases.	S	Provided by ER/Studio tool.
DMS 041	The EES should include metadata on all data fields stored in the database, web services, or indexed documents in the document library.	S	Metadata will be captured and maintained in the design tools ER/Studio, Rational System Architect.
DMS 042	The EES should provide the ability to return archived records to the active system based on user request and/or administrator defined criteria.	M	To be implemented as a functional requirement of the archival process.
DMS 043	The EES should provide the ability to configure a retention schedule for records and documents.	M	Requirement of the Archival process.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 044	The EES should provide automatic program checks for controlling data files, verifying correct processing, and ensuring data integrity.	W	A combination of DB2 functionality and job stream management using SmartCloud Workload Automation.
DMS 045	The EES should have the ability to retrieve data based on worker requests and retrieve the data and return it to the system within 24 hours.	M	Requirement of the Archival Design.

SOA Governance Infrastructure Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
GOV 001	The Enterprise Metadata Repository shall provide design-time governance in support of the service life phase, delivering key capabilities for the storage and management of an extensible set of metadata for number of composites, services, business processes, and other IT-related assets.	S	This functionality will be provided by WebSphere SOA Policy Gateway (WSRR - WebSphere Service Registry & Repository).
GOV 002	A Service Registry shall serve as an integration point for runtime tooling.	S	This functionality will be provided by WebSphere SOA Policy Gateway (WSRR - WebSphere Service Registry & Repository).
GOV 003	The SOA governance infrastructure should support the Service Bus in subscribing to new or modified assets.	S	WSRR and IBM ESB products are well integrated and WSRR artifacts can be used by IBM ESB products at run time out of the box.
GOV 004	The SOA governance infrastructure should facilitate composite applications in discovering updated endpoints and WSDL locations.	S	This will be implemented using the service end point lookup primitive/node in IBM ESB products.
GOV 005	As part of the SOA governance model, Runtime monitoring tooling should publish metrics to the Service Registry.	C	Requires a small amount of custom code to move the metrics to the Registry. This will be illuminated during formal Requirements Analysis.
GOV 006	The security policy manager for Web services shall allow for centrally defined security policies that govern Web services operations (such as access policy, logging policy, and load balancing).	S	Provided by a combination of WSRR and PureApplication management.
GOV 007	The ESB solution shall provide dynamic discovery and service level monitoring of all artifacts deployed in the Application Server.	S	Dynamic discovery as per GOV004. ITCAM will be integrated with the ESB to provide service level monitoring.
GOV 008	The Contractor shall define governance processes for the following domains:	S	Basic Project / SDLC Process. These processes will be defined:

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
GOV 009	• Service Portfolio Management	S	This functionality is provided by WSRR out of the box. The complete service life cycle can be defined and managed within WSRR.
GOV 010	• Services Technical Architecture	S	Rational System Architect and Document based.
GOV 011	• Service Design & Development	S	Rational System Architect and WebSphere will provide service design and development functionality.
GOV 012	• Configuration & Release Management	S	Will be provided using the IBM Rational Jazz Team Concert platform.
GOV 013	• Contract Management	S	Program Management governance process will define this.
GOV 014	• Service Monitoring & Control	S	Will be provided by utilizing the services of ITCAM
GOV 015	• Incident Management	S	During technical activities such as development, Rational Team Concert will provide for in-Team incident management. The functioning Environments will use Computer Associates Service Desk Module aka InfoPac for true ticket / problem management.
GOV 016	• Change Management	S	Will be provided by implementing the features provided by IBM Rational Team Concert.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CSE 001	The EES shall include business process management capabilities (e.g., roles, responsibilities, policies, procedures, approvals, deadlines, integrations, etc.).	S	SmartPro MedEE uses Cúram's Workflow Management System (WMS) which serves two main functions. The first is to support the automation of business processes. The second is to facilitate the routing of work among individuals and departments. The main components of this system are Workflow Process Definitions, the Workflow Engine, the Inbox and Task Management, and the Workflow Administration application (which includes the Process Definition Tool, PDT).
CSE 002	The EES shall provide process execution and state management.	S	The Workflow Engine performs and maintains the runtime execution of the workflow process definition (i.e. process enactment).
CSE 003	The EES shall interact/integrate with the case management components with Enterprise Data Management and Content Management Systems.	C	SmartPro MedEE will re-use the State's existing Hyland OnBase EDMS for Case Level Document storage and management. This real-time link between Cúram and Hyland will be established using the ESB layer, based on IBM's Integration Bus (aka Message Broker).
CSE 004	The EES shall enable collaboration.	S	Multiple users can work together in a controlled workflow. Users can communicate with each other as part of the workflow.
CSE 005	The EES shall enable BAM (Business Activity Monitoring) and event-based notifications.	S	The Workflow Management system supports Business Activity Monitoring and event driven notifications.
CSE 006	The EES shall provide simulation and optimization.	S	Workflow simulation and optimization is best executed on a pre-production system using a copy of the live production database.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CSE 007	The EES shall provide a registry for process components.	S	SmartPro MedEE uses Cúram's Workflow Process Definition Tool (PDT) to create workflow process definitions. The PDT manages a registry of workflow process definitions and a library of business methods which are available for use by the workflow process definitions.
CSE 008	The EES shall provide robust Administration functions.	S	The Workflow Administration used by the EES provides functions which enable an administrator to monitor, control and manage process instances that are executed by the Workflow Engine.
CSE 009	The EES shall provide and/or integrate with a robust and easily configurable workflow engine.	S	The Workflow Engine used by the EES provides the runtime execution environment for a process instance. The Workflow Engine is pre-integrated into the EES solution. It can also be made available, as needed, for the workflow needs of external systems.
CSE 010	The EES shall include the capability to assign tasks to staff based on defined business rules.	S	Workflow processes will assign tasks to users when manual activities are executed. A manual workflow activity is a workflow step that requires human involvement (as opposed to an automatic activity that will be satisfied by the system itself). The logic in the workflow definition will determine when a manual activity is executed, and when it is, the allocation rules will determine which user, group of users or work queue should be assigned the task.
CSE 011	The EES shall include the capability to route work to the next person in a workflow based on process outcomes.	S	Workflow processes will assign tasks to users when manual activities are executed. If multiple manual activities are defined in the workflow definition then work will be routed to the next user as defined by the workflow definition logic.
CSE 012	The EES shall provide an automated method to balance workload based on user and work unit queues or skills and availability.	W	Modification effort required to implement automated workload balancing.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CSE 013	The EES will provide a method to manually reassign workload based on user input.	S	The worker or supervisor can manually reassign workload.
CSE 014	The EES shall support e-mail (push) or on-line queries (pull) by a user for work that is in their queue.	S	When a task is assigned to a user, the user can view that task in their inbox. They can also optionally be notified by email that there is a task awaiting their attention.
CSE 015	The EES shall provide data validation rules to ensure data validity	S	All data input into EES is validated first for format and then for correctness using business validation rules.
CSE 016	The EES shall enforce workflow rules (with task checklists) to ensure that processes are completed correctly.	S	Workflow logic and allocation rules ensure that the workflow completes correctly and that work is assigned to the correct allocation targets (system, user, user group, work queue)
CSE 017	The EES shall improve management and staff accountability through the production of reports and/or electronic notifications which will alert users of pending and overdue work.	S	Electronic notifications are sent in the EES to users to alert them of task items such as pending and overdue work. Supervisors have a high level view of all users and tasks in a department via the Supervisor Workspace. In this workspace, supervisors can take action to improve staff workload management.
CSE 018	The EES shall provide for comprehensive case tracking as defined in requirements detailed during system configuration - minimally these requirements will include logging of task status, case and contact history, issues, etc.	S	SmartPro MedEE supports comprehensive case tracking. A case is a central concept in Cúram. All data related to a case is linked to the case home page and is viewable by a user with sufficient authorization. Workflow tasks associated with a case are directly linked to the case. The user can view a list of tasks associated with a case, and their status. The user can also link directly to a case from a task.
CSE 019	The EES shall track milestones and due dates and support notification of the appropriate parties about upcoming and overdue milestones.	S	Milestones are used to maintain due dates in EES. If a milestone is approaching or is overdue, workflow processing will informed a configured target (a user, user group or work queue).

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CSE 020	The EES shall support multiple forms of electronics notification channels for external users (e.g. text, page, etc.).	M	SmartPro MedEE will notify consumers using their preferred communication format. Messages will also be delivered to the consumers account inbox, to support secure messaging. Refer to requirement ELG 011. The LifeRay Portal component of SmartPro MedEE will be used to deliver Social Media messages when desired, and will be interfaced to Cúram using the common ESB layer based on IBM's Integration Bus (aka Message Broker.)
CSE 021	The EES shall support a visual/modeling tool to define business process flows.	S	The Workflow Process Definition Tool (PDT) – provided within the Cúram administration application – is used to define and maintain workflow process definitions. The PDT allows a process definition to be visualized during design.
CSE 022	The EES shall be integrated and exposed via portal for citizens (100%) and key functionality for other users, enabling high usage of system within portal.	S	SmartPro MedEE uses Cúram's Universal Access portal for citizen access. Other users, such as case workers/administrators/etc, have access to the Cúram Worker portal.
CSE 023	The EES shall support standard business process definition languages.	S	Cúram Workflow is designed based on standards for workflow management that have been defined by the Workflow Management Coalition (WfMC). Workflow definitions are saved internally as XML documents.
CSE 024	The EES shall provide the capability to tie business rules to workflows.	S	The Workflow Engine directly uses business rules for routing and work allocation logic. Workflow and Rules can also be tied together through the execution of an automatic activity that executes the rules engine for a particular purpose.
CSE 025	The EES shall provide the capability to link a workflow to one or more workflows.	S	A process definition can include a sub-flow step which allows another process definition to be enacted as part of a parent process.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CSE 026	The EES shall provide the capability to suspend and resume a workflow that is incomplete.	S	A workflow administrator has the ability to influence the execution of a running process instance through the Cúram Workflow Administration interface. This includes suspending and resuming a process instance.
CSE 027	The EES shall provide production of reports and/or electronic notifications to identify suspended workflows.	S	The state of a process instance can be monitored in the Workflow Administration Tool. A report of all workflows that have encountered errors and are therefore suspended is available.

Application/Transaction Monitoring and Logging Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
TNS 001	The EES shall log all system transactions and keep them easily retrievable and sortable.	S	The system and middleware tools generate these logs OOTB.
TNS 002	The EES shall detect major errors related to one or more components including loss of network connectivity, a database server going off line, or the application suffers an out-of-memory situation.	S	PureApplication management detects almost all in-server events. ITCAM monitors service and application availability and performance. Data Center Enterprise Management software monitors jobs, backups, and the network fabric, plus consolidates serious exception events from the server monitoring layers.
TNS 003	The EES shall detect less than desirable application performance, such as degraded servlet, database or other back end resource response times.	S	PureApplication Server and ITCAM monitor these resource and performance metrics. The PureApplication server self-tunes physical resources in an attempt to resolve any shortfalls, according to configured business rules. If it is unable to achieve its rules-driven goals, it alerts the Data Center's Enterprise Management system to trigger human intervention.
TNS 004	The EES shall have safeguards designed to ensure that configuration variables affecting the application and the back end resources remain at Department predetermined configuration settings.	S	Change and Configuration Management will enforce this.
TNS 005	The EES shall detect intrusion attempts by unauthorized system users.	S	The Data Center implements network and server based intrusion detection.
TNS 006	The EES shall monitor critical performance parameters such as response time, resource availability, CPU Utilization, etc.	S	PureApplication Server directly monitors these parameters, and attempts to self-tune physical resources to correct resource and performance shortfalls, following configured business rules. If the server is unable to self correct within the constraints it was given, it alerts the Data Center Enterprise Management system to trigger human intervention.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
TNS 007	The EES shall provide a holistic view of a wide range of application services and network services providing the ability to drill down to a level where the observations provide useful information and both real-time and snapshot views.	S	ITCAM and Network monitoring capture these metrics, which are forwarded to the shared Data Center Management Environment. This system provides tools for dashboard presentation, graphical presentation, and drill down into performance and related data, and information is made available to the State via a web portal.
TNS 008	The EES shall send alarms based on the monitored attributes; these can be escalated through E-Mail / SMS etc.	S	The Data Center Enterprise Management software provides this capability.
TNS 009	The EES shall provide information on the bottleneck in the system.	S	The monitoring environment provides this information.
TNS 010	The EES shall allow Department staff to perform admin activities through an intuitive user interface.	S	SmartPro MedEE will provide department staff with the Cúram Administration Suite A broad range of functions in the Cúram application can be administratively configured through an intuitive user interface including eligibility rules, workflow, question scripts, case audit selection queries, communication templates, batch processes, security role settings, etc.
TNS 011	The EES shall have the ability to create custom dashboards to empower the users.	S	The Data Center tools provide for customized reporting and dashboards, accessible through a web portal.
TNS 012	The EES shall allow for different roles for Users including Operators, Administrators, Managers etc.	S	SmartPro MedEE will support multiple user roles.
TNS 013	The EES shall allow for report generation and analysis for application troubleshooting and capacity planning.	S	The proposed EES fully satisfies the requirement as stated.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
	Document Management		
DOC 001	The EES shall provide the ability to capture EES-generated documents and store them at appropriate level (e.g. individual, case, program, application, various workflow/process).	C	Documents can be uploaded through Cúram and will be attached to participants, applications, cases, etc. Also any documents that come into the system through scanning will be linked to a Cúram object (Participant, Application, Case, etc.) through a call to a Cúram Web Service. Cúram will respond around the Web Service. Cúram will be integrated with the State's Hyland OnBase Document Management system using standard Hyland Web service access points, linked to SmartPro MedEE via the ESB, to manage scanned documents.
DOC 002	The EES shall provide the ability to store electronic forms (EES generated or 3rd-party generated forms).	C	Capability to be provided by the State's Highland OnBase system, interfaced with SmartPro MedEE via the ESB.
DOC 003	The EES shall enable indexing and searching of documents by a variety of user-defined metadata attributes.	C	Typically the meta data and indexing considered here would be the associated participant or case. Refer to requirement ELG 033.
DOC 004	The EES shall provide support for full text search.	C	Capability to be provided by the State's Highland OnBase system, interfaced with SmartPro MedEE via the ESB.
DOC 005	The EES shall provide built-in viewers/converters for a wide variety of file types.	C	Capability to be provided by the State's Highland OnBase system, interfaced with SmartPro MedEE via the ESB.
DOC 006	The EES shall provide digital rights management capabilities.	C	Capability to be provided by the State's Highland OnBase system, interfaced with SmartPro MedEE via the ESB.
DOC 007	The EES shall provide check-in/check-out functionality for electronic documents.	C	Capability to be provided by the State's Highland OnBase system, interfaced with SmartPro MedEE via the ESB.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DOC 008	The EES shall provide notification features for files that are checked out (overdue, availability, etc.).	C	If using Cúram Workflow for notification features some effort will be required to call a Cúram Web Service from the Doc Mgmt solution to ensure the correct user or group of users are notified. Also see IMG005 and IMG008.
DOC 009	The EES shall ensure version control of documents as they are changed or modified.	C	Capability to be provided by the State's Highland OnBase system, interfaced with SmartPro MedEE via the ESB.
DOC 010	The EES shall allow rollback to a previous version of a document.	C	Capability to be provided by the State's Highland OnBase system, interfaced with SmartPro MedEE via the ESB.
DOC 011	The EES shall enable collaborative document creation and/or markup.	C	Capability to be provided by the State's Highland OnBase system, interfaced with SmartPro MedEE via the ESB.
DOC 012	The EES shall enable attachment of documents to e-mails and e-mail distribution lists.	C	Note requirement IER031 - integration with State email system, to be provided through the ESB.
DOC 013	The EES shall utilize the EES' authorization and access control for file level security.	S	See RSR085, MDM031 and IDT001.
DOC 014	The EES shall have the ability to, based on rules or context, automate the creation of indexing, meta data and overall taxonomy.	C	Capability to be provided by the State's Highland OnBase system, interfaced with SmartPro MedEE via the ESB.
DOC 015	The EES shall have robust bulk load and conversion features.	C	Capability to be provided by the State's Highland OnBase system, interfaced with SmartPro MedEE via the ESB.
DOC 016	The EES shall provide the capability to communicate natively with the document management API.	C	Cúram supports the CMIS open interface standard for integrating with document management systems.
DOC 017	The EES shall provide the capability to access the output of the document management system over the Internet and/or Intranet web sites.	S	SmartPro MedEE implements online access to policy, procedure, and training material via the LifeRay Portal.
DOC 018	The EES shall develop a user guide that can be accessed online and printed on demand.	C	The User guide will be developed, and will be accessible from SmartPro MedEE's LifeRay portal.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DOC 019	The EES shall provide the capability for online access to policy and procedure and training materials.	W	SmartPro MedEE implements online access to policy, procedure, and training material via the LifeRay Portal.
DOC 020	The EES shall be integrated with document processing center workflow.	C	To be determined which system (Hyland or SmartPro MedEE) controls the workflow – both alternatives are possible. Refer to requirement DOC 008.
	Imaging and Image Capture		
IMG 001	The EES shall accommodate multiple imaging locations.	S	State's Hyland System feature
IMG 002	The EES shall integrate the Imaging and Document Management System with Nebraska's Hyland On-Base solution.	C	ESB integration, Cúram is CMIS capable.
IMG 003	The EES shall provide the capability to access Nebraska's Hyland On-Base solution to extract data to pre-populate index fields, and/or values on forms.	C	ESB integration, Cúram is CMIS capable.
IMG 004	The EES shall provide the capability to send and receive faxed and e-form documents, process the data and image directly into and out of the system including the ability to automatically send confirmation of transmission to the sender.	C	ESB integration, Cúram is CMIS capable.
IMG 005	The EES shall provide the capability for performing conditional routing that will send documents to a specific queue or inbox, either manually or electronically, based on preset conditions as defined by the User.	S	When a new document is received, a Cúram workflow will be triggered which will attempt to link the document image in the Document Management System to the correct case and individual in Cúram using scanned meta data. The workflow will attempt to do this automatically and without worker intervention. Where worker intervention is required the workflow will notify one or more workers, or a work queue, that the document image needs attention. Refer to requirements GEN 009 and OPS 013.
IMG 006	The EES shall provide the capability to store and view a multiple page document as a single document.	C	State's Hyland system

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IMG 007	The EES shall provide the capability to attach notes, annotations, e-mails and other documents to an original scanned document at any time without rescanning.	C	ESB integration, Cúram is CMIS capable.
IMG 008	The EES shall provide the capability to notify the user when a duplicate document has been received so the user can decide whether to use the previously received document, replace the existing document or store the new document separately.	W	SmartPro MedEE will notify a worker, group of workers or a work queue when a duplicate document is recognized. Both documents will be available for viewing and the worker can process the duplicate document accordingly. Configuration of workflow will be required.
IMG 009	The EES shall provide the capability to link imaged documentation together and link it to an individual and/or cases within Nebraska EES.	C	Refer to requirements GEN 009 and OPS 013 re linking docs to an individual or case.
IMG 010	The EES shall provide the capability to record user and workstation identification for each document processed, accessed or updated.	C	ESB Integration between Hyland and Cúram.
IMG 011	The EES shall provide the capability for documents to be grouped together during scanning based on user defined criteria.	S	Hyland capability.
IMG 012	The EES shall provide the capability to allow the User to manually remove, rescan and replace a previously scanned image or document(s).	S	Hyland capability.
IMG 013	The EES shall provide the capability to employ user-defined form/template, indexes and/or field values for recognition and retrieval of documents.	S	Hyland capability.
IMG 014	The EES shall provide the capability to validate data captured from specific fields on forms electronically read by OCR/OMR/ICR.	S	Hyland capability.
IMG 015	The EES will provide the capability to archive documents manually and/or automatically by user-defined criteria.	S	Hyland capability.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IMG 016	The EES shall provide the capability for archived documents to be retrieved and re-indexed.	S	Hyland capability.
IMG 017	The EES shall provide the capability to permanently delete documents based on user defined criteria.	S	Hyland capability.
IMG 018	The EES shall provide the capability to interface with other imaging systems using industry standard interfaces and file formats.	M	Curam is CMIS capable; will use the ESB (IIB) to integrate.
IMG 019	The EES shall provide the capability to version multiple copies of scanned documents.	S	Hyland capability.
IMG 020	Scanners provided as part of the EES shall have the capability to scan at least 80 pages per minute.	S	Hyland capability.
IMG 021	The EES shall provide image retrieval response times within a maximum of two seconds for all documents stored in the system given a minimum level of bandwidth agreed during detailed requirements and EES configuration.	C	Cúram / Hyland Integration
IMG 022	Scanners provided as part of the EES shall provide the capability for simplex and duplex scanning.	S	Hyland Capability.
IMG 023	The EES shall provide audit trail functions with the ability to log every step in the process to a database for query and reporting purposes.	C	Refer to the Audit requirements section
	Records Management		
REC 001	The EES shall automatically calculate transfer and destruction dates (and assign records ready for deletion to the appropriate review process for approval of final deletion) for all records in the retention schedules.	M	SmartPro MedEE will support retention schedules for paper records, including transfer and destruction dates. Modification required to support record retention schedules.
REC 002	The EES shall provide email notification of disposition results	M	SmartPro MedEE will email notification of disposition results. Modification required to support record disposition.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
REC 003	The EES shall include a workflow tool to support the records management process.	S	The Cúram Workflow component is included in the EES.
REC 004	The EES shall allow users to manually or automatically classify records or classified automatically based on a policy/rules engine.	M	SmartPro MedEE will enable users to manually or automatically classify records. SmartPro MedEE will support the ability to automatically classify records using the CER Rules Engine. Modification required to support records classification.
REC 005	The EES shall allow administrators and authorized users to create, apply, view or remove legal holds for individual or multiple records.	M	SmartPro MedEE will enable administrators and authorized users to create, apply, view or remove legal holds for individual or multiple records. Modification required to support legal hold processing for records.
REC 006	The EES shall have the capability to produce colored and bar-coded labels created for physical records.	M	SmartPro MedEE will enable a user to produce colored and bar-coded labels for physical records. Modification required to support label generation.
REC 007	The EES shall have the capability to check records in and out using barcodes, with adherence to security permissions and support the use of barcode scanners for the purpose.	M	SmartPro MedEE will support the capture and maintenance of record check in and check out status, by what user and when. Modification required to support this functionality.
REC 008	The EES shall have the capability to track all types and sizes of storage containers within storage locations.	M	SmartPro MedEE will track all types and sizes of storage containers within storage locations. Modification required to support this functionality.
REC 009	The EES shall have the ability for an administrator to create and maintain retention schedules.	M	Refer to requirement REC 001.
REC 010	The EES shall have the ability to create disposition, legal hold and audit reports for the records.	S	The SmartPro MedEE Reporting solution will support the required reports.
	Web Content Management		
WEB 001	The EES shall provide content authoring capabilities including:•	S	Native features of LifeRay Portal implemented in SmartPro MedEE.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 002	• Provide a structured container for the content (e.g. document)	S	This is out of box feature of Liferay WMS, in LifeRay you can Easily add and remove fields you want available to content creators and then dynamically move them around. This editor includes an entire suite of form controls you can drag and drop onto your structure. Further its provides template feature wherein with help of template script files it informs the system how to display the content within the fields determined by the structure. Web publishing works alongside Liferay Portal's larger collection of applications, which means that you can add in shopping cart functionality, visitor polls, web forms, community collaboration tools and more. Liferay Portal's OpenOffice/LibreOffice integration, allows users to convert the content to one of several formats: • DOC • ODT • PDF • RTF • SXW • TXT Everything is done with LifeRay's collection of easy-to-use tools with familiar rich-text editors and intuitive interface.
WEB 003	• Support reuse via Copy and Paste or "Save As"	S	LifeRay WMS has a strong and Rich WYSIWYG Editing with support reuse and copy paste content within a given text snippet/ content. The system also enable used of assets content,
WEB 004	• Tracking of changes to content within a container	S	Native features of LifeRay Portal

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 005	• Drag-and-drop page layout	S	LifeRay comes with many layouts already defined; the administrator can modify the page layouts from the dockbar menu. Developers can create more and they can be deployed to your portal for your use. The overall functionality of managing page layout allows administrator, user or developer to drag and drop various portlets across the page layout Further, the portal customization feature provides
WEB 006	• Ability for collaboration by allowing the "single control" to transfer between authors, reviewers and authorizers	S	LifeRay CMS provide workflow feature functionality which enables the content creation process, allowing single control and collaborative content management. Apart from the workflow feature, LifeRay CMS's page customization and page permission feature enable users to manage the access and permission to define user controls.
WEB 007	• Real-time active collaboration allowing multiple authors to review and update the content in a container during the course of a shared session	S	The Kaleo workflow engine of Liferay supports ability to fork and create parallel activity enabling shared session.
WEB 008	• Standard templates to make authoring documents within certain parameters	S	LifeRay provides a template feature wherein with help of template script files it informs the system how to display the content within the fields determined by the structure. LifeRay comes with many layouts already defined. Developers can create more and they can be deployed to your portal for your use. Web publishing works alongside Liferay Portal's larger collection of applications, which means that you can add in shopping cart functionality, visitor polls, web forms, community collaboration tools and more.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 009	• Facilitate the use of Microsoft Office creation tools to submit content directly into the WCM repository	S	LifeRay provides integration with Microsoft Office® for content management and authoring , The system also provides OpenOffice / LibreOffice integration, allows users to convert the content to one of several formats DOC, ODT,PDF,RTF,SXW,TXT etc.
WEB 010	• The bulk import and export of XML content for integration and migration	S	Native features of LifeRay Portal
WEB 011	• Reuse of content and templates to enforce a common "look and feel" and brand identity	S	LifeRay WMS provide feature functionality to reuse media assets, content and leverage complex asset with its assets framework. Similarly structures and templates can also be re-used.
WEB 012	• A flexible and extensible workflow to manage authoring review and approval of content across its life cycle	S	LifeRay Portal includes a workflow engine called Kaleo. In Greek, Kaleo means "called ones," which is appropriate for a workflow engine that calls users to participate in a process designed for them. Kaleo workflow allows a user to define any number of simple to complex business processes/workflows, deploy them, and manage them through a portal interface. The processes have knowledge of users, groups and roles. You don't have to write a single line of code to accomplish this: all you have to do is create one XML document. And if you're a LifeRay EE customer, you get a graphical workflow designer which gives you a point and click interface to create workflows.
WEB 013	• The ability to expire and retire content.	S	LifeRay's WCM lets you define when your content goes live. You can determine when the content is displayed, expired and/or reviewed. This is an excellent way to keep your site current and free from outdated (and perhaps incorrect) information.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 014	The EES shall support the combination of text and other page elements, such as graphics, logos and buttons and multimedia, such as audio/video and Flash.	S	SmartPro MedEE's web-based portal is provided by Cúram and LifeRay. As such, the portal supports the combination of all typical web based components including graphics, text and multimedia. LifeRay has set of functionality that supports content management, layout definition, page creation, content creation that supports various media types. The Content Authoring WYSIWYG editor supports the platform also supports the use of various other editors namely ckeditor, fckeditor, tinymice etc. as part of content authoring capabilities of both CMS as well as portal functionalities.
WEB 015	The EES shall include the ability to support content in multiple languages.	S	SmartPro MedEE supports content in multiple languages. LifeRay supports multi-language as well as multi-site capabilities which can provide friendly URLs that are location-aware, and can be defined on a per-language basis. In addition to this, a default language can be set for each site.
WEB 016	The EES shall support multiple versions of the same site using the same WCM instance and repository.	S	LifeRay's Site Pages Variations functionality provides the capability to maintain various version of the page. Variations only affect pages and not the content, which means all the existing content in your staging site is shared by all your variations. In different site page variations you can have different logos, different look and feel for your pages, different applications on these pages, different configuration of these applications and even different pages. One page can exist in just one site page variation or in several of them.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 017	The EES shall display content targeted toward specific user profiles.	S	The EES portal is provided by Cúram. Cúram leverages a role-based web portal. Depending on the user role (Admin, supervisor, case worker, etc.) logged in to the system; a personalized workspace will be displayed. A workspace is a view that is specific to their role. In addition, a user's workspace can be customized based on user preferences. Such customization includes displaying particular pods in the user's workspace. Such pods include, My Queries, My Tasks, My Appointments, My Care Summary, Recent Notifications, etc. This customization is saved on the user's profile.
WEB 018	The EES shall target content based on visitor-supplied preferences	S	Outreach is a configurable rules-based capability that facilitates the display of targeted messages to client users based on information held about the individual. In addition, a worker's workspace can be modified to control what areas of functionality should be displayed by default, based on user preferences.
WEB 019	The EES shall personalize a site based on customer transaction data, apply personalization rules to elements smaller than pages and use perceived behavior employing mechanisms to assess the behavior of an individual user (known or unknown) in real time and enable choice of delivered content based on that analysis).	S	The EES will personalize what the client sees based on customer transaction data. For example if the user submits a Change of Address Life Event, their MyAccount home page can be configured to display related outreach information, such as Moving Companies that are available in the immediate area. The system can also prompt the user for related information, such as 'has your rent changed?' LifeRay portal and CMS supports feature functionality that allows content targeting based on user group, role and communities.
WEB 020	The EES shall provide reporting of:•	S	Native features of LifeRay Portal
WEB 021	• The status and history of a piece of content	S	Native features of LifeRay Portal

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 022	• Content source and descriptive information	S	Native features of LifeRay Portal
WEB 023	• Timetable of release dates or content submission dates	W	Native features of LifeRay Portal
WEB 024	• User-definable audit reporting on an ad hoc basis for content	W	Native features of LifeRay Portal
WEB 025	• Active content page inventory	S	Native features of LifeRay Portal
WEB 026	The EES shall provide out-of-the-box log file analysis.	S	LifeRay uses Log4j extensively to implement logging for nearly every class in the portal. If you need to debug something specific while the system is running, you can use the control panel to set logging levels by class dynamically. The system provides an administrative console where logs are displayed in a paginated list based on categories with an ability to search through the logs.
WEB 027	The EES shall have the ability to find broken links and repair them.	S	Native features of LifeRay Portal
WEB 028	The EES shall have the capability to track and report on-site use and demographics.	W	LifeRay includes built-in support for usage reporting.
WEB 029	The EES shall provide content publication capabilities including:	S	Native features of LifeRay Portal
WEB 030	• Support in-context (what you see is what you get [WYSIWYG])	S	Web publishing works alongside LifeRay Portal's larger collection of applications, which means that you can add in shopping cart functionality, visitor polls, web forms, community collaboration tools and more. Liferay has a rich WYSIWYG where it show in-context editing and page creation.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 031	• editing and the ability to preview rendered content in a staging area.	S	Staging is an important feature of LifeRay WCM. The concept of staging is a simple one: you can modify your site behind the scenes and then publish all your updates in one shot. Liferay provides site administrators with two different ways to set up staging: Local Live and Remote Live. With Local Live staging, both your staging environment and your live environment are hosted on the same server
WEB 032	• verify content for hygiene (for example, accessibility, spelling, format validation, privacy, security, speed of deployment)	S	LifeRay Portal gives you great control in managing when, and for how long, your web content is displayed on your web site. Additionally, you have the ability to determine when your content should be reviewed for accuracy and/or relevance. This makes it possible to manage your growing inventory of content.
WEB 033	• Publish to multiple locations and channels based on predefined attributes	S	Native features of LifeRay Portal
WEB 034	• Roll back content publication if unsuccessful	S	Staging Page publication enables administrator to work on new changes and releases of the portal content, Manage page variation across versions, LifeRay provides an ability to undo/redo.
WEB 035	• Automatically publishing on a scheduled date	S	LifeRay's WCM lets you define when your content goes live. You can determine when the content is displayed, expired and/or reviewed. In LifeRay you can use the functionality of scheduling content to automatically publish content
WEB 036	• Support dynamic and event-driven presentation of content	S	Native features of LifeRay Portal

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IDT 001	The EES shall provide APIs/Connectors to integrate with a variety of 3rd party/custom applications to provide single sign-on.	S	SmartPro MedEE's general portal component, LifeRay Portal, provides these connectors OOTB.
IDT 002	The EES shall enforce a limit of (configurable) consecutive invalid access attempts by a user.	W	Configured in States' AD for State Internal Users and in Cúram for External Users. LifeRay honors these underlying sources of User Authentication.
IDT 003	The EES shall protect against further, possibly malicious, user authentication attempts using an appropriate mechanism (e.g. locks the account/node until released by an administrator, locks the account/node for a configurable time period, or delays the next login prompt according to a configurable delay algorithm).	W	Configured in States' AD for State Internal Users, and in Cúram for External Users.
IDT 004	The EES shall provide an administrative function to reset passwords.	S	AD & Cúram native feature.
IDT 005	The EES shall not display passwords while being entered.	S	SmartPro MedEE does not display passwords during entry.
IDT 006	The EES shall provide only limited feedback information to the user during the authentication.	S	SmartPro MedEE does not leak extra information back during user authentication. For example, SmartPro MedEE does not distinguish to the client if they have a wrong ID or a wrong password – merely that the logon attempt was not successful.
IDT 007	The EES shall support case-sensitive usernames that contain typeable alpha-numeric characters in support of ISO-646/ECMA-6 (aka US ASCII).	S	SmartPro MedEE supports case-sensitive usernames containing typeable characters from these character sets.
IDT 008	The EES shall allow an authenticated user to change their password, automatically when possible, consistent with password strength rules.	W	Configured in States' AD, and in Cúram for External Users.

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IDT 009	The EES shall support password strength rules that allow for minimum number of characters, and inclusion of alpha-numeric complexity.	W	Configured in States' AD, and in Cúram for External Users. Enforced by SmartPro MedEE.
IDT 010	The EES shall support case-sensitive passwords that contain typeable alpha-numeric characters in support of ISO-646/ECMA-6 (aka US ASCII).	W	SmartPro MedEE supports case-sensitive passwords containing typeable characters from these character sets.
IDT 011	The EES shall use either standards-based encryption, e.g., 3DES, AES, or standards-based hashing, e.g., SHA1 to store or transport passwords.	W	Configured in States' AD, and in Cúram for External Users.
IDT 012	The EES shall prevent the reuse of passwords previously used within a specific (configurable) timeframe, or shall prevent the reuse of a specific (configurable) number of the most recently used passwords.	W	Configured in States' AD, and in Cúram for External Users.
IDT 013	The EES shall meet:	C	Active Directory/SSO Solution(s)
IDT 014	• CMS E-Authentication Assurance Levels	C	Met by AD and Cúram.
IDT 015	• NIST 800-63 guidance **Level 1**: Single factor authentication, Identity proofing relies on subscriber's own assertions **Level 2**: Single factor authentication, requires verifying the individual's financial account information, and other information **Level 3**: Multifactor authentication, requires verifying the individual's financial account information, and other information **Level 4**: Multifactor authentication, In-person proofing is required Tokens (typically a cryptographic key or password) for proving identity,	C	Met by AD and Cúram.
IDT 016	• Identity proofing, registration and the delivery of credentials which bind an identity to a token,	C	Performed by the Portal/SSO

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IDT 017	• Remote authentication mechanisms, that is the combination of credentials, tokens and authentication protocols used to establish that a claimant is in fact the subscriber he or she claims to be	C	A Cúram function for external users; requires integration with SSO.
IDT 018	• Assertion mechanisms used to communicate the results of a remote authentication to other parties.	C	Details to be determined in Requirements Analysis
IDT 019	The EES should re-authenticate the user before any access to Protected Health Information (PHI) or other sensitive or confidential information is allowed, including when not connected to a network (e.g. on unconnected mobile devices).	M	z will re-authenticate the user before the user accesses any PHI data. Modification required to support this requirement.
IDT 020	The EES shall encrypt storage of all passwords using a one-way hash or other equivalent functionality to minimize damage from a security breach.	S	Standard for both AD's & Curam's directory stores.

Appendix D

"ny requirements that the Bidder cannot attest to full compliance; i.e., provides a value of "N" in the Ability Code field of the Appendix B Functional Requirements Traceability Matrix or Appendix C Non-Functional Requirements Traceability Matrix, must document the requirement gap as outlined in this Appendix.

The Bidder must ensure that the Gap Analysis Matrix contains an entry for each requirement where one or more of these conditions are true:

1. The Bidder has indicated "N" to Compliant in either RTM

2. The Bidder has indicated an M or C and indicated that 1,000 or more hours will be needed to meet the requirement as documented in the EES description in the RTM.

For each requirement gap, the Bidder must follow the instructions in this Appendix. The Bidder must copy exactly the Identifier, Requirement Description, and Ability Code from the RTM to ensure linkage between the RTM and the Requirement Gap Analysis Matrix.

The Bidder must provide an assessment of the requirement gap, including an estimate of its impact or severity if not compliant, and the steps necessary to close the gap and achieve full compliance. For system and/or product features that will support the requirement and close the gap, the Bidder must also provide an estimated date when the capability will be available as part of the Bidder's baseline capability.

Bidders are required to use the following Gap Analysis instructions:

Column Description	Bidder Responsibility
Identifier	The unique identifier of the requirement which does not have a compliant solution according to the criteria established in either Appendix B Functional Requirements Traceability Matrix or Appendix C Non-Functional Requirements Traceability Matrix. Copy the requirement identifier from the applicable RTM.
Requirement Description	Copy the requirement description from the applicable RTM for the requirement identified above.
Ability Code	Copy from the RTM for the requirement identified above.
Impact/Severity (Product development or integration effort to fulfil the requirement)	**High** (H) = >2500 hours **Medium** (m) = >1000 hours to <2500 hours **Low** (l) = <1000 hours
Gap Description	Provide a description and analysis of the gap.
Recommendation for Closure	Recommended steps provided by the Bidder to close the gap and achieve full compliance with the requirement.
Date Available	Date to be published for release to baseline capability (e.g. available to installed EES base) per recommendation for closure above.

Identifier	Requirement description	Ability Code	Impact severity	Gap Description	Recommendation for Closure	Date Available
RPT 017	The EES shall provide a comprehensive reporting solution that will generate standard operating, pre-defined or operational reports without an adverse effect on system performance or response time.	C	H	Full details of EES reporting requirements are not specified in the RFP. Requires analysis, implementation, and testing.	Our project plan includes all the steps to finalize reporting requirements with the State, and to design, implement, and test within the development phase. This capability will be predominantly implemented under the Cognos BI subsystem, drawing upon the Data Warehouse and DataMarts of SmartPro MedEE.	3/19/2015 (Closed within initial implementation)
OPS 001	The EES shall create easy, efficient, and accurate interfaces with other systems, including the federal data hub, state and other data sources to verify application information	C	H	EES requires the implementation of numerous interfaces, both batch and real-time. Cúram comes with the Federal Hub OOTB. Other interfaces will require analysis, design, and implementation.	We've included the necessary time and resources in our project plan to fully deliver all required interfaces between SmartPro MedEE and State, Federal, and Private organizations. The ESB (IIB) and Connect:Direct tools will be used as the basic framework for interface implementation.	3/19/2015 (Closed within initial implementation)

Identifier	Requirement description	Ability Code	Impact severity	Gap Description	Recommendation for Closure	Date Available
OPS 008 GSR 011	Integrated document imaging The EES shall leverage an electronic document management system that is integrated with the workflow engine to support the storage and retrieval of document images associated with member and eligibility and enrollment processes.	C	M	We are proposing reusing the State's Hyland OnBase Image and Document Management system for image and EDMS. This requires the development of the necessary interface to support transfer of index information and retrieval of images.	This interface will be fully designed and implemented within the project's DDI phase, using HyLand's published Web Services interface and SmartPro MedEE's ESB capability to provide the technical connection required. Cúram will be modified to store and manipulate the required indices, and to invoke Hyland functions for image storage and retrieval as required.	3/19/2015 (Closed within initial implementation)
AUD 009	The EES shall support logging to a common audit engine using the schema and transports specified in the Integrating the Healthcare Enterprise (IHE) Audit Trails and Node Authentication (ATNA) profile, Audit Log specification.	C	H	EES requires a single common audit trail, across multiple components. The multiple components of SmartPro MedEE do not commonly support this common engine.	This common audit engine will be implemented as part of the primary DDI, deriving its source data from the components of SmartPro MedEE.	3/19/2015 (Closed within initial implementation)
MDM 002	The EES shall create and manage a central, database-based EES or index of record for master client (i.e. Master Client Index [MCI]) and master provider (i.e. Master Provider Index [MPI]) data.	M	H	Cúram incorporates the concept of single identifier, single point of view OOTB. However, the actual conversion and interface components must be design, implemented, and tested.	Cúram, combined with InfoSphere MDM will provide the solution framework. This task accommodates the requirements finalization, design, development, and testing of the necessary conversion and interface elements required of MDM.	3/19/2015 (Closed within initial implementation)

Identifier	Requirement description	Ability Code	Impact severity	Gap Description	Recommendation for Closure	Date Available
RLE 024	Truth maintenance to support parallel rule execution	N	H	CER Rules is not a TMS (Truth Maintenance System). Truth Maintenance is an advanced inference feature that is not required for eligibility determination.	Since 1990, the Cúram Social Program Management platform has been implemented in the United States 19 times. In each of these implementations, there has not been a business need for either TMS or Inductive Reasoning to make eligibility determinations. Cúram's integrated Rules Engine is highly configurable and, in fact, more tailored to the needs of the state than competitive platforms: the Cúram rules engine solution was built with the social services community in mind.	
RLE 026	Inductive and deductive problem sets supported	N	H	CER Rules support deductive reasoning only.		



Proposal to Provide Nebraska Medicaid Eligibility and Enrollment Solution

Prepared for:

State of Nebraska Administrative Services
Material Division Purchasing Bureau

Submitted in Response to RFP: 4544Z1
January 21, 2014

Prepared by: Wipro LLC

– ORIGINAL –
Cost Proposal

WIPRO
Applying Thought

Table of Contents

Table of Contents

Table of Contents.....
1. Pricing Summary 1
2. Prices.....2
3. Fixed Hourly Rates 8
4. Pricing Forms 11
Form D-1 Fixed Price by Deliverable 11
Form D-2 Post Implementation Support 15
Form D-3 Total Cost and Fixed Price Summary Response.....16
Form D-4 Value Add Options.....17
C. Payment Schedule 18

Pricing Summary

1. Pricing Summary

As required by State of Nebraska, Wipro proposes fixed price cost "SmartPro MedEE" solution for Nebraska Medicaid Eligibility and Enrollment System.

Proposed "SmartPro MedEE" solution is expected to be ready for use by April 2015. This provides State of Nebraska an opportunity to use and stabilize new system 9 months in advance, at no extra cost to State of Nebraska.

Wipro "SmartPro MedEE" solution leverages state of the art "IBM PureApplication™", which has hardware and software bundled in a box. Proposed fixed price to state includes bundled hardware and software price of "IBM PureApplication™".

Wipro proposes an attractive economical fixed price of **$79.87Million** for EES project, as per project description by State of Nebraska in the section "IV. PROJECT DESCRIPTION AND SCOPE OF WORK" of RFP, starting in March 2014 and ending on Dec 31, 2023.

Table 1 provides a summary of fixed price cost proposed for "SmartPro MedEE" solution.

Table 1: Summary of fixed price cost

Sequence. Number	Description	fixed price cost
1.	Design Development Implementation (DDI) Phase, including 9 months of new system advanced use and stabilization of system. Duration: March 2014 to December 31, 2015	$38,760,000
2.	4 Years of post-implementation support - maintenance & operation, hosting and disaster recovery, including 6 months of warranty for services and 4 years of warranty support for software. Duration : January 01, 2016 to December 31, 2019	$19,688,696
3.	2 years of post-implementation support – maintenance & operation, hosting and disaster recovery, software defect fix services. Duration: January 01, 2020 to December 31, 2021	$10,710,652
4.	2 years of post-implementation support – maintenance & operation, hosting and disaster recovery, software defect fix services. Duration: January 01, 2022 to December 31, 2023	$10,710,652
5.	EES project Duration: March 2014 to December 31, 2023	$79,870,000

Prices

2. Prices

All fixed price quoted on this "Cost Proposal" document are net inclusive of transportation and delivery charges fully paid by Wipro delivered supplies/services F. O. B. (Free On Board) destination named in the Request for proposal by State of Nebraska.

Table2 through Table6 in this section provides details of fixed price cost proposed for supplies and services, price for various parts of software/hardware.

Table 2: Prices for supplies/services

Description	FIXED price cost
IBM Cúram License and 12 months software support and subscription (S&S)	$4,500,000
IBM Cúram 105 months software support and subscription (S&S)	$9,643,374
IBM PureApplication™ appliance install, 12 months support and subscription (S&S)	$1,760,350
IBM PureApplication™ appliance 105 months support and subscription (S&S)	$2,567,708
IBM Software tools License and 12 months software support and subscription (S&S)	$1,716,895
IBM Software tools 105 months software support and subscription (S&S)	$2,786,069
Non-IBM Software License and 12 months software support and subscription(S&S)	$206,478
Non-IBM Software 105 months software support and subscription(S&S)	$1,275,723
Hosting and disaster recovery services for 96 months	$10,365,478
IT Services labor cost for 118 months	$45,047,925
TOTAL of supplies / services for 118 months	**$79,870,000**

Table 3: IBM Cúram product list

Part Number	Quantity	Description	Price
D0S5SLL	700	IBM Curam Evidence Broker Authorized User License + SW Subscription & Support 12 Months	$268,724.40
D0S5ZLL	700	IBM Curam Life Event Management Authorized User License + SW Subscription & Support 12 Months	$269,235.20
D0S65LL	200	IBM Curam Life Event Management Professional Authorized User License + SW Subscription & Support 12 Months	$7,677.60
D0S6KLL	700	IBM Curam Verification Engine Authorized User License + SW Subscription & Support 12 Months	$159,709.20
D0S6SLL	200	IBM Curam Verification Engine Professional Authorized User License + SW Subscription & Support 12 Months	$4,562.50
D0QPRLL	700	IBM Curam Appeals Authorized User License + SW Subscription & Support 12 Months	$137,667.60
D0QPYLL	200	IBM Curam Appeals Professional Authorized User License + SW Subscription & Support 12 Months	$3,928.80
D0QQBLL	700	IBM Curam Business Intelligence and Analytics Authorized User License + SW Subscription & Support 12 Months	$31,701.60
D0QQJLL	200	IBM Curam Business Intelligence and Analytics Professional Authorized User License + SW Subscription & Support 12 Months	$904.80
D0QRGLL	700	IBM Curam Provider Management Authorized User License + SW Subscription & Support 12 Months	$448,862.40
D0QRNLL	200	IBM Curam Provider Management Professional Authorized User License + SW Subscription & Support 12 Months	$12,825.60
D0QS9LL	Public access	IBM Curam Universal Access Resource Value Unit License + SW Subscription & Support 12 Months	$455,245.60
D0QSHLL	700	IBM Curam Social Program Management Platform Authorized User License + SW Subscription & Support 12 Months	$2,355,259.20
D0QSTLL	200	IBM Curam Social Program Management Platform Professional Authorized User License + SW Subscription & Support 12 Months	$67,293.60
D0QUALL	700	IBM Curam Income Support for Medical Assistance Authorized User License + SW Subscription & Support 12 Months	$268,724.40
D0QUHLL	200	IBM Curam Income Support for Medical Assistance Professional Authorized User License + SW Subscription & Support 12 Months	$7,677.50
		Total IBM Curam license and 12 months S&S	**$4,500,000.00**

Table 4: Table 4: IBM PureApplication™ appliance product

Line No.	Qty	Part Number	Description	Part Auth	Unit Price	Ext Price
1	2	D11MZLL	IBM PUREAPPLICATION SYSTEM W1700-64E APPLIANCE INSTALL APPLIANCE + SUBSCRIPTION AND SUPPORT 12 MONTHS	Expert Integrated Systems	$880,175.00	$1,760,350.00

Table 5: IBM Software tools product list

Line No.	Qty	Part Number	Description	Part Auth	Unit Price	Ext Price
1	1,600	D0LESLL	IBM INTEGRATION BUS HYPERVISOR EDITION FOR AIX PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	WebSphere Core	$305.24	$488,384.00
2	800	D110ELL	IBM SOA POLICY GATEWAY PATTERN FOR AIX PER PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	WebSphere Core	$207.45	$165,960.00
3	200	D10S4LL	IBM INFOSPHERE INFORMATION SERVER ENTERPRISE HYPERVISOR EDITION FOR AIX - AIX LICENSE REQUIRED PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	IBM InfoSphere	$356.11	$71,222.00
4	4	D0P3LLL	IBM INFOSPHERE INFORMATION SERVER ENTERPRISE EDITION AUTHORIZED USER LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	IBM InfoSphere	$7,574.35	$30,297.40
5	200	D10S8LL	IBM INFOSPHERE INFORMATION SERVER ENTERPRISE HYPERVISOR EDITION FOR AIX FOR NON-PRODUCTION ENVIRONMENTS- AIX LICENSE REQUIRED PROCES SOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	IBM InfoSphere	$178.06	$35,612.00
6	5	D10A0LL	IBM COGNOS BUSINESS INTELLIGENCE ARCHITECT PER AUTHORIZED USER LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	IBM Cognos	$4,154.59	$20,772.95

Line No.	Qty	Part Number	Description	Part Auth	Unit Price	Ext Price
7	280	D10AJLL	IBM COGNOS BUSINESS INTELLIGENCE USER PER PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	IBM Cognos	$565.25	$158,270.00
8	1	D0NWGLL	IBM BUSINESS INTELLIGENCE PATTERN INSTALL LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	IBM Cognos	$1,413.13	$1,413.13
9	1	D0PSQLL	IBM INFOSPHERE OPTIM DATA PRIVACY ENTERPRISE EDITION TERABYTE LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	IBM Optim	$16,957.50	$16,957.50
10	5,435	D0LL1LL	IBM INFOSPHERE MASTER DATA MANAGEMENT INDIVIDUAL HUB - STANDARD EDITION FOR NON-FINANCIAL SERVICES PER RESOURCE VALUE UNIT LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	IBM InfoSphere	$43.26	$235,118.10
11	400	D0NUHLL	IBM INFOSPHERE MASTER DATA MANAGEMENT PATIENT HUB - STANDARD EDITION RESOURCE VALUE UNIT LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONT HS	IBM InfoSphere	$80.00	$32,000.00
12	200	D0J2LLL	IBM STERLING CONNECT:DIRECT PREMIUM EDITION PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	B2B Integratio n	$14.06	$2,812.00
13	200	D0J2NLL	IBM STERLING CONNECT:DIRECT PREMIUM EDITION FOR NON-PRODUCTION ENVIRONMENT PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SU PPORT 12 MONTHS	B2B Integratio n	$6.99	$1,398.00
14	600	D0J1GLL	IBM STERLING FILE GATEWAY ENTERPRISE PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	B2B Integratio n	$232.88	$139,728.00

Line No.	Qty	Part Number	Description	Part Auth	Unit Price	Ext Price
15	600	D0J18LL	IBM STERLING FILE GATEWAY ENTERPRISE FOR NON-PRODUCTION ENVIRONMENT PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 1 2 MONTHS	B2B Integration	$116.44	$69,864.00
16	200	D0IZCLL	IBM STERLING SECURE PROXY PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	B2B Integration	$59.36	$11,872.00
17	200	D0IZELL	IBM STERLING SECURE PROXY FOR NON-PRODUCTION ENVIRONMENT PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	B2B Integration	$29.68	$5,936.00
18	150	D0PNZLL	IBM SMARTCLOUD WORKLOAD AUTOMATION 10 MONTHLY JOBS LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	Tivoli Automation	$14.55	$2,182.50
19	128	D0V2QLL	IBM TIVOLI COMPOSITE APPLICATION MANAGER FOR APPLICATIONS 3 AGENT PACK RESOURCE VALUE UNIT LICENSE + SW SUBSCRIPTION & SUPPORT 12 MO NTHS	Tivoli Automation	$802.66	$102,740.48
20	100	D0PTZLL	IBM RATIONAL TEST VIRTUALIZATION SERVER PROCESSOR VALUE UNIT (PVU) LICENSE + SW SUBSCRIPTION & SUPPORT 12 MONTHS	Rational Authorized	$1,243.55	$124,355.00
			Total IBM software license and 12 months S&S			**$1,716,895.00**

Table 6: Non-IBM software product list

Line No.	Qty	Description	Part Auth	Unit Price	Ext Price
1	1	LifeRay Portal Enterprise Edition – Software License and 12 months platinum support	Less than 8 core server	$137,900.00	$137,900.00
2	2	Orbeon Forms – Software License and 12 months platinum support	Physical Server	$4,994.00	$9,988.00
3	1	Survey Monkey Platinum Edition		$780.00	$780.00
4	5	MS Project Profession – Software License and 12 months support	Seat	$682.00	$3,410.00
5	3	Adobe Captivate 7– Software License and 12 months support	Seat	$900.00	$2,700.00
6	5	Adobe Acrobat XI Standard – Software License and 12 months support	Seat	$300.00	$1,500.00
7	5	SnagIt – Software License and 12 months support	Seat	$40.00	$200.00
8	1	Pitney Bowes Spectrum Universal addressing module – Software License and 12 months support	COTS	$50,000	$50,000
		Total Non-IBM software license and 12 months S&S			**$206,478.00**

Fixed Hourly Rates

3. Fixed Hourly Rates

Wipro will provide support for solution change projects, as required by State of Nebraska.

a. Wipro will provision 1000 total hours of annual work to be performed by Wipro's change management staff(s) in each calendar year of operation.

b. Wipro's change management staff will use these 1000 hours to work on solution change project(s) approved by State of Nebraska. No other staff time such as vacation, sick leave, training etc. will be applied against the annual 1000 hours allocated for working on change project(s).

c. Wipro's change management staff(s) will track; record and report hours spent working on system change project. If any Wipro staff working under fixed administrative fee services spends effort on system change project, effort spent by such staff on system change project will be tracked; recorded and reported to State of Nebraska.

d. At the completion of system change project, Wipro will charge for time spent by change management staff on the system change project, at the hourly rates included in this cost proposal section.

e. Wipro will provide additional staff resources to work on the system change projects, as required by State of Nebraska. Additional staff will be provided on the hourly rate as per this cost proposal and number of resource for each role as described in contract amendment to acquire additional staff.

Table 7: Hourly Rates

Change management staff role	Hourly rate in USD
Analytics Developer	122.40
Analytics Specialist	149.60
Application Developers	122.40
Application Developers	115.60
Automation Test Engineer	121.04
Automation Test Lead	125.12
B2B Consultant	133.28
B2B Developer	122.40
BI Analyst	133.28
BI Cognos Architect	149.60
BI Developer	115.60
BI Sr. Developer	122.40
Business Analyst	129.20
Data Conversion ETL Sr. Developer	122.40
Data Conversion ETL Architect/Lead	143.20
Data Conversion ETL Developer	115.60

Change management staff role	Hourly rate in USD
Data Conversion ETL Track Lead	133.28
Data Governance Lead	149.60
Data Migration Test Engineer	121.04
Data Migration Test Lead	125.12
Data Modeler /DBA	133.28
Data Quality SME	133.28
Data Warehouse Developer	115.60
Data Warehouse Architect	149.60
Data Warehouse Lead	133.28
Data Warehouse Sr. Developer	122.40
DWBI/Report Test Engineer	121.04
DWBI/Report Testing Lead	125.12
Functional Test Lead	125.12
Implementation Manager	153.20
Integration Test Engineer	121.04
Integration Test Lead	125.12
Jr. User Interface Developer	115.60
MDM Consultant	133.28
MDM Developer	122.40
MDM Sr. Consultant	149.60
Message Broker Architect	149.60
Message Broker Developer	122.40
Message Broker, MQ FTE, MQ Tech Lead	133.28
Performance Test Engineer	121.04
Performance Test Lead	125.12
Portal Architect	143.20
Program Director	170.00
Senior Application Developers	122.40
Senior Test Engineer	121.04
Single Sign On Architect	143.20
Single Sign On Developer	115.60
Single Sign On SME	133.28
Single Sign On Sr. Developer	122.40
SOA Governance Consultant	143.20
Sr. User Interface Developer	122.40
System Analyst / Technical Lead	133.28
System Configuration Manager	129.20

Change management staff role	Hourly rate in USD
Test Architect	140.08
Test Manager	140.08
Test Tool Administrator	125.12
Visual Designer	122.40
WSRR Implementer	149.60

Form D-1

4. Pricing Forms

FORM D-1 FIXED PRICE BY DELIVERABLE

Bidder Name: Wipro LLC						
Form D-1 Fixed Price by Deliverable						
Bidder Milestone/ Deliverable	**Date**	**Labor**	**Hardware**	**Base Software**	**EES License**	**Other**
Project Kick Off	03/17/2014	$ 713,234.50	$ 1,760,350.00	$ 6,423,373.00	$ -	$ -
Acquisition Plan	05/28/2014	$ 370,627.21	$ -	$ -	$ -	$ -
Risk Management and Issues Resolution Plan (F)	05/28/2014	$ 370,627.21	$ -	$ -	$ -	$ -
Scope Management Plan (F)	05/28/2014	$ 370,627.21	$ -	$ -	$ -	$ -
Project Management Plan (P)	05/28/2014	$ 370,627.21	$ -	$ -	$ -	$ -
Project Schedule (P)	05/28/2014	$ 370,627.21	$ -	$ -	$ -	$ -
Concept of Operation Plan (F)	05/28/2014	$ 370,627.21	$ -	$ -	$ -	$ -
Communication Plan (F)	05/28/2014	$ 370,627.21	$ -	$ -	$ -	$ -
Configuration and Performance Management Plan (F)	05/28/2014	$ 370,627.21	$ -	$ -	$ -	$ -
Migration Plan (F)	06/13/2014	$ 298,879.22	$ -	$ -	$ -	$ -
Architecture Diagrams and Design Documents (Environments) (F)	06/13/2014	$ 298,879.22	$ -	$ -	$ -	$ -
Business Process Models and Gap Analysis (F)	06/13/2014	$ 298,879.22	$ -	$ -	$ -	$ -
Project Management Plan (F)	07/25/2014	$ 395,917.92	$ -	$ -	$ -	$ -
Project Schedule (F)	07/25/2014	$ 395,917.92	$ -	$ -	$ -	$ -
Quality Management Plan	07/25/2014	$ 395,917.92	$ -	$ -	$ -	$ -
Change Management Plan	07/25/2014	$ 395,917.92	$ -	$ -	$ -	$ -
Project Process Agreement (F)	07/25/2014	$ 395,917.92	$ -	$ -	$ -	$ -
Release Plan (F)	07/25/2014	$ 395,917.92	$ -	$ -	$ -	$ -
Privacy Impact Assessment (P)	07/25/2014	$ 395,917.92	$ -	$ -	$ -	$ -

Bidder Name: Wipro LLC						
Form D-1 Fixed Price by Deliverable						
Bidder Milestone/ Deliverable	**Date**	**Labor**	**Hardware**	**Base Software**	**EES License**	**Other**
Requirements Document (P)	09/22/2014	$ 514,547.74	$ -	$ -	$ -	$ -
Detailed Design Documents (P)	09/22/2014	$ 514,547.74	$ -	$ -	$ -	$ -
Technical Design Documents (P)	09/22/2014	$ 514,547.74	$ -	$ -	$ -	$ -
Information Security Risk Assessment (P)	09/22/2014	$ 514,547.74	$ -	$ -	$ -	$ -
System Security Plan (P)	09/22/2014	$ 514,547.74	$ -	$ -	$ -	$ -
Test Plan (P)	09/22/2014	$ 514,547.74	$ -	$ -	$ -	$ -
Technical Architecture Diagrams (F)	09/22/2014	$ 514,547.74	$ -	$ -	$ -	$ -
Logical Data Model (F)	09/22/2014	$ 514,547.74	$ -	$ -	$ -	$ -
Requirements Document (I)	11/21/2014	$ 700,134.27	$ -	$ -	$ -	$ -
System Design Document (P)	11/21/2014	$ 700,134.27	$ -	$ -	$ -	$ -
Interface Control Document (P)	11/21/2014	$ 700,134.27	$ -	$ -	$ -	$ -
Database Design Document (P)	11/21/2014	$ 700,134.27	$ -	$ -	$ -	$ -
Data Management Plan (P)	11/21/2014	$ 700,134.27	$ -	$ -	$ -	$ -
Physical Data Model (P)	11/21/2014	$ 700,134.27	$ -	$ -	$ -	$ -
Data Conversion Plan (P)	11/21/2014	$ 700,134.27	$ -	$ -	$ -	$ -
Requirements Document (F)	12/26/2014	$ 295,482.86	$ -	$ -	$ -	$ -
System Design Document (F)	12/26/2014	$ 295,482.86	$ -	$ -	$ -	$ -
Interface Control Document (F)	12/26/2014	$ 295,482.86	$ -	$ -	$ -	$ -
Database Design Document (F)	12/26/2014	$ 295,482.86	$ -	$ -	$ -	$ -
Data Management Plan (F)	12/26/2014	$ 295,482.86	$ -	$ -	$ -	$ -
Physical Data Model (F)	12/26/2014	$ 295,482.86	$ -	$ -	$ -	$ -
Data Conversion Plan (F)	12/26/2014	$ 295,482.86	$ -	$ -	$ -	$ -
System of Record Notice (P)	12/26/2014	$ 295,482.86	$ -	$ -	$ -	$ -
Test Plan (F)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
Contingency/Recover Plan (P)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
Implementation Plan (P)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
User Manuals (P)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -

Bidder Name: Wipro LLC

Form D-1 Fixed Price by Deliverable

Bidder Milestone/ Deliverable	Date	Labor	Hardware	Base Software	EES License	Other
O&M Manuals (P)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
Training Plan (P)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
Test Reports (P)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
Security Agreement (P)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
Information Security Risk Assessment (F)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
System Security Plan (F)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
Automated Code Review Results (F)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
Business Product (P)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
Training Materials (P)	01/26/2015	$ 163,025.03	$ -	$ -	$ -	$ -
Contingency/Recover Plan (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Implementation Plan (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Post-Implementation Support Plan	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
User Manuals (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
O&M Manuals (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Training Plan (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Test Reports (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Security Agreement (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Business Products (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Training Materials (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
System of Record Notice (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Project Completion Report (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
SLAs/MOU	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Privacy Impact Assessment (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
POA&M (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Authority to Operate (F)	03/19/2015	$ 213,333.53	$ -	$ -	$ -	$ -
Verification, Validation and Stabilization 1	4/24/2015	$ 583,040.90	$ -	$ -	$ 1,068,747.00	$ -
Verification, Validation and Stabilization 2	5/29/2015	$ 583,040.90	$ -	$ -	$ -	$ -
Verification, Validation and Stabilization 3	6/26/2015	$ 583,040.90	$ -	$ -	$ -	$ -

Bidder Name: Wipro LLC						
Form D-1 Fixed Price by Deliverable						
Bidder Milestone/ Deliverable	**Date**	**Labor**	**Hardware**	**Base Software**	**EES License**	**Other**
Verification, Validation and Stabilization 4	7/31/2015	$ 583,040.90	$ -	$ -	$ -	$ -
Verification, Validation and Stabilization 5	8/28/2015	$ 583,040.90	$ -	$ -	$ -	$ -
Verification, Validation and Stabilization 6	9/25/2015	$ 583,040.90	$ -	$ -	$ -	$ -
Verification, Validation and Stabilization 7	10/30/2015	$ 583,040.90	$ -	$ -	$ -	$ -
Verification, Validation and Stabilization 8	11/27/2015	$ 583,040.90	$ -	$ -	$ -	$ -
Verification, Validation and Stabilization 9	12/25/2015	$ 583,040.90	$ -	$ -	$ -	$ -
Others	none					

Form D-2

FORM D-2 POST IMPLEMENTATION SUPPORT

Bidder Name: Wipro LLC			
Form D-2 Post Implementation Support			
Year	**Warranty**	**M&O**	**Hosting & Disaster Recovery**
2014	Not Applicable	Not Applicable	Not Applicable
2015	Not Applicable	Not Applicable	Not Applicable
2016	Part of DDI Phase	$ 2,654,883	$ 1,282,856
2017	Part of DDI Phase	$ 3,967,463	$ 1,282,856
2018	Part of DDI Phase	$ 3,967,463	$ 1,282,856
2019	Part of DDI Phase	$ 3,967,463	$ 1,282,856
2020	$ 105,006	$ 3,941,806	$ 1,308,513
2021	$ 105,006	$ 3,941,806	$ 1,308,513
2022	$ 105,006	$ 3,941,806	$ 1,308,513
2023	$ 105,006	$ 3,941,806	$ 1,308,513

Form D-3

FORM D-3 TOTAL COST AND FIXED PRICE SUMMARY RESPONSE

Bidder Name: Wipro LLC		
Form D-3 Total Cost and Fixed Price Summary		
Year	**Total Cost**	**Fixed Price for RFP**
2014	$26,911,224	
2015	$11,848,776	
2016	$3,937,739	
2017	$5,250,319	
2018	$5,250,319	
2019	$5,250,319	$58,448,696
2020	$5,355,326	
2021	$5,355,326	$10,710,652
2022	$5,355,326	
2023	$5,355,326	$10,710,652

Form D-4

FORM D-4 VALUE ADD OPTIONS

Bidder Name: Wipro LLC		
Form D-4 Value Added Options		
Value Added Options	**Schedule**	**Cost**
Diona Government Enterprise Mobility (GEM) Platform and Case Worker Packs -Support 700 Case Workers -Perpetual License -Annual Maintenance Support (additional)	License Cost Annual Maintenance (20%)	$ 620,000 $ 124,000
Automation Test Services	Regression Test Bed Test Repository, Consists of -Baselined Test Data -Baselined Test Cases -Process & Procedures -Knowledge Transfer	$ 1,500,000

Payment Schedule

C. Payment Schedule

Scheduled Invoice Stages	Invoicing Date	Amount
Design Development Implementation (DDI) 1	Mar 31,2014	$ 8,896,957.50
Design Development Implementation (DDI) 2	May 31,2014	$ 2,965,017.69
Design Development Implementation (DDI) 3	Jun 30,2014	$ 896,637.65
Design Development Implementation (DDI) 4	Jul 31,2014	$ 2,771,425.47
Design Development Implementation (DDI) 5	Sep 30,2014	$ 4,116,381.95
Design Development Implementation (DDI) 6	Nov 30,2014	$ 4,900,939.89
Design Development Implementation (DDI) 7	Dec 31,2014	$ 2,363,862.90
Design Development Implementation (DDI) 8	Jan 31,2015	$ 2,119,325.36
Design Development Implementation (DDI) 9	Mar 31,2015	$ 3,413,336.52
Design Development Implementation (DDI) 10	Apr 30,2015	$ 1,651,787.90
Design Development Implementation (DDI) 11	May 31,2015	$ 583,040.90
Design Development Implementation (DDI) 12	Jun 30,2015	$ 583,040.90
Design Development Implementation (DDI) 13	Jul 31,2015	$ 583,040.90
Design Development Implementation (DDI) 14	Aug 31,2015	$ 583,040.90
Design Development Implementation (DDI) 15	Sep 30,2015	$ 583,040.90
Design Development Implementation (DDI) 16	Oct 31,2015	$ 583,040.90
Design Development Implementation (DDI) 17	Nov 30,2015	$ 583,040.90
Design Development Implementation (DDI) 18	Dec 31,2015	$ 583,040.90
Base Maintenance & Operation Q1 & Q2 2016	Jun 30, 2016	$ 1,968,869.73
Base Maintenance & Operation Q3 2016	Sep 30, 2016	$ 984,434.86
Base Maintenance & Operation Q4 2016	Dec 31, 2016	$ 984,434.86
Base Maintenance & Operation Q1 2017	Mar 31, 2017	$ 1,312,579.82
Base Maintenance & Operation Q2 2017	Jun 30, 2017	$ 1,312,579.82
Base Maintenance & Operation Q3 2017	Sep 30, 2017	$ 1,312,579.82
Base Maintenance & Operation Q4 2017	Dec 31, 2017	$ 1,312,579.82
Base Maintenance & Operation Q1 2018	Mar 31,2018	$ 1,312,579.82
Base Maintenance & Operation Q2 2018	Jun 30, 2018	$ 1,312,579.82
Base Maintenance & Operation Q3 2018	Sep 30, 2018	$ 1,312,579.82
Base Maintenance & Operation Q4 2018	Dec 31, 2018	$ 1,312,579.82
Base Maintenance & Operation Q1 2019	Mar 31,2019	$ 1,312,579.82

Scheduled Invoice Stages	Invoicing Date	Amount
Base Maintenance & Operation Q2 2019	Jun 30, 2019	$ 1,312,579.82
Base Maintenance & Operation Q3 2019	Sep 30, 2019	$ 1,312,579.82
Base Maintenance & Operation Q4 2019	Dec 31, 2019	$ 1,312,579.82
Option1 - Maintenance & Operation Q1 2020	Mar 31,2020	$ 1,338,831.42
Option1 - Maintenance & Operation Q2 2020	Jun 30, 2020	$ 1,338,831.42
Option1 - Maintenance & Operation Q3 2020	Sep 30, 2020	$ 1,338,831.42
Option1 - Maintenance & Operation Q4 2020	Dec 31, 2020	$ 1,338,831.42
Option1 - Maintenance & Operation Q1 2021	Mar 31,2021	$ 1,338,831.42
Option1 - Maintenance & Operation Q2 2021	Jun 30, 2021	$ 1,338,831.42
Option1 - Maintenance & Operation Q3 2021	Sep 30, 2021	$ 1,338,831.42
Option1 - Maintenance & Operation Q4 2021	Dec 31, 2021	$ 1,338,831.42
Option2- Maintenance & Operation Q1 2022	Mar 31,2023	$ 1,338,831.42
Option2- Maintenance & Operation Q2 2022	Jun 30, 2023	$ 1,338,831.42
Option2- Maintenance & Operation Q3 2022	Sep 30, 2023	$ 1,338,831.42
Option2- Maintenance & Operation Q4 2022	Dec 31, 2023	$ 1,338,831.42
Option2- Maintenance & Operation Q1 2023	Mar 31,2023	$ 1,338,831.42
Option2- Maintenance & Operation Q2 2023	Jun 30, 2023	$ 1,338,831.42
Option2- Maintenance & Operation Q3 2023	Sep 30, 2023	$ 1,338,831.42
Option2- Maintenance & Operation Q4 2023	Dec 31, 2023	$ 1,338,831.42

ADDENDUM THREE

DATE: February 11, 2014

TO: All Vendors

FROM: Peter Kroll/Robert Thompson, Buyers
State Purchasing Bureau

RE: Revised Schedule of Events for RFP Number 4544Z1

REVISED SCHEDULE OF EVENTS

The State expects to adhere to the tentative procurement schedule shown below. It should be noted, however, that some dates are approximate and subject to change.

	ACTIVITY	DATE/TIME
10.	"Oral Interviews/Presentations and/or Demonstrations" (if required)	~~January 27, 2014~~ ~~February 10, 2014~~ To ~~February 7, 2014~~ ~~February 21, 2014~~ **To Be Determined**
11.	Post "Letter of Intent to Contract" to Internet at: http://das.nebraska.gov/materiel/purchasing/rfp.htm	~~February 14, 2014~~ ~~February 28, 2014~~ **To Be Determined**
12.	Performance bond submission	~~February 21, 2014~~ ~~March 7, 2014~~ **To Be Determined**
13.	Contract award	~~February 21, 2014~~ ~~March 7, 2014~~ **To Be Determined**
14.	Contractor start date	~~March 3, 2014~~ ~~March 17, 2014~~ **To Be Determined**

This addendum will become part of the proposal and should be acknowledged with the RFP.

NEBRASKA
Administrative Services
Dave Heineman, Governor

Gerry A. Oligmueller
Acting Director

ADDENDUM TWO

DATE: December 20, 2013

TO: All Vendors

FROM: Peter Kroll/Robert Thompson, Buyers
State Purchasing Bureau

RE: Round Two Questions and Answers and Revised Schedule of Events for RFP Number 4544Z1 to be opened January 21, 2014 2:00 pm Central Time

Following are the questions submitted and answers provided for the above mentioned Request For Proposal. The questions and answers are to be considered as part of the Request For Proposal.

QUESTIONS	ANSWERS
1. RFP Section Reference-N/A RFP Page Number-N/A What is the operational budget for Nebraska DHHS?	Please find information on Nebraska's budget, including DHHS, at: http://budget.nebraska.gov/
2. RFP Section Reference-IV.D and V.A.4.b.i RFP Page Number-38 and 108 Paragraph IV.D states, "The EES' Functional Requirements are contained in the narrative of the RFP and in Appendix B. Bidders must become familiar with and respond to both." Question: Can you be more specific about the statement "contained in the narrative of the RFP"? Are the functional requirements referring to the EES Functional Components listed in the table on Page 32?	Yes. The reference is to the table entitled "EES Functional Components" on page 32.

QUESTIONS	ANSWERS
3. RFP Section Reference-I.A.7 RFP Page Number-1 Will the State of Nebraska consider a four-week extension to the due date, making proposals due on February 4, 2014?	The Department will extend the due date for proposals 2 (two) weeks. All RFP events subsequent to the new due date will also move back two weeks. Please see the revised schedule of events posted with the responses to Round 2 questions.
4. RFP Section Reference-Cover & 1 - A RFP Page Number- I & 1 Will the State consider a 3 week extension to give the vendors adequate time to respond based upon the information provided to the 2nd round for vendors' questions?	The Department will extend the due date for proposals 2 (two) weeks. All RFP events subsequent to the new due date will also move back two weeks. Please see the revised schedule of events posted with the responses to Round 2 questions.
5. RFP Section Reference-IV.I RFP Page Number-80 Does the LINK Learning Management System (LMS) support the scheduling and tracking of class, CBT and on-line training?	Yes.
6. RFP Section Reference-IV.I RFP Page Number-80 Does the LINK system provide qualification tracking as well as test results and certifications?	LINK provides test results and certification tracking, but does not provide qualification tracking at this time. Future enhancements to this system may meet this.
7. RFP Section Reference-V.A.1 RFP Page Number-104 The RFP instructs the bidder to include "Form A" in combination with the "Terms and Conditions" from Section III. Which sub section of Section III - Corporate Overview should we include this information in?	Please include "Form A" in combination with the "Terms and Conditions" from Section III with the Technical Proposal as part of the "Request For Proposal For Contractual Services" section.
8. RFP Section Reference-IV.I Training RFP Page Number-79 In many cases there are external stakeholders that will also require training such as providers, community partners, etc. Will the state require the vendor to train external providers? If so can the state provide a rough estimate?	No. The Department will not require external provider training.

QUESTIONS	ANSWERS
9. RFP Section Reference-BI and Reporting RFP Page Number-Multiple With the separation of the Medicaid Program (EES) and the other HHS programs (N-FOCUS) is the expectation that the BI and Reporting solution will integrate the data from these 2 systems and provide integrated reporting across all programs as needed?	No.
10. RFP Section Reference- e.Technical Components xviii RFP Page Number-50 Please explain how Shared Analytics is different than Reporting and/or BI.	Shared Analytics is an overarching term to encompass various information domains, such as Business Intelligence (What happened?), Diagnostic Analytics (Why did it happen?), and Predictive analytics (What will happen?). Reporting is differentiated from shared analytics in that it is typically pre-defined and is focused on providing insight into operational aspects of the system as opposed to answering informational questions.
11. RFP Section Reference-Appendix B - Functional Requirements - Reporting RFP Page Number-B-12 The requirement states: RPT 046 - The EES shall provide access to Query builder application. Please explain what the Query builder application is.	This requirement is looking for the bidder to provide query building capability within their solution.

QUESTIONS	ANSWERS
12. RFP Section Reference-I RFP Page Number-1 We applaud the State for recognizing the value of a COTS-based solution and the importance of being able to take advantage of a clear upgrade path. We did not see COTS in the glossary of terms and COTS can sometimes have broad interpretations. For example, a transfer system that includes some elements of third-party products being referred to as a COTS. Given the various interpretations, could the State provide their definition of a COTS-based solution and what is required to be considered compliant?	The Department defines COTS as commercially available software that can be leased, licensed, or purchased by the general public and which can be tailored for specific uses through configuration as opposed to programming. COTS should require limited modifications and should receive regular maintenance over its lifespan. The Departments motivations for pursuing COTS include the potential for reduced overall system-development time, effort and costs (as components can be bought or licensed instead of being developed from scratch) and reduced long-term maintenance costs. The Department has not set a specific standard for compliance given the breadth of viable alternatives. The Department is open to considering solutions that range from being COTS in themselves to solutions that leverage COTS components.
13. RFP Section Reference-Section N. Provide Post Implementation Support RFP Page Number-83 In order to provide the highest value solution to Nebraska is it acceptable to use service desk agents that are potentially shared with other clients?	Yes, as long as the bidder is able to provide the requirements defined in the RFP.
14. RFP Section Reference-Section N. Provide Post Implementation Support, Section 4, RFP Page Number-86 In order to provide the highest value solution to Nebraska, is it acceptable to use a Service Desk ticketing platform (infrastructure and application) that is shared with other clients but would have a logically dedicated instance for Nebraska with all appropriate access / security controls necessary?	Yes, so long as the bidder is able to provide the requirements defined in the RFP and can satisfy all necessary security and privacy requirements.

QUESTIONS	ANSWERS
15. RFP Section Reference-Section I. Training RFP Page Number-77 The RFP, it states "over 400 employees that perform Medicaid eligibility duties throughout the state" 1. Can we get additional details on these programs these employees support? 2. In addition to heavy workloads and turnover, what other specific training needs and concerns does the Department believe needs coverage in our response? 3. Groups to be trained include medical eligibility employees, department partners and contact center staff - a. What roles are considered department partners, and will these staff be using the system to process items, or do they work in the system in a "view-only" capacity? b. What are the current duties of contact center staff?	1. The State has a dedicated workforce to support Medicaid eligibility. 2 The Department expects the training to cover anything necessary for staff to effectively utilize the EES and satisfy all requirements as identified in the RFP. 3a. Department partners are considered external or internal. External Department partners should have a limited role in the EES to allow benefit inquiry and do not require training. Internal Department partners, such as other agencies and contractors may require full access to the EES and training. 3b. The customer service centers (CSC) answer phones, gather financial and demographic information, assess client's situations and make referrals for community resources if necessary, verify information utilizing interfaces/databases, prepare correspondence, and determine client eligibility and document actions.
16. RFP Section Reference-Appendix B RFP Page Number-19 Regarding requirement ELG 031, is the state of Nebraska planning to retire any family Medicaid categories due to ACA? If so, which ones?	Not at this time.

QUESTIONS	ANSWERS
17. RFP Section Reference-F. Project Planning and Management RFP Page Number-51 Regarding the sample plans requested throughout the RFP, is the following list sufficient to meet the state's requirements: Scope Management Plan Requirements Management & Traceability Plan Issue Resolution Plan Risk Management Plan Configuration Management Plan Performance Management Plan Communications Management Plan Quality Management Plan Change Management Plan Detailed Design Documents Technical Design Documents Architectural Diagrams and Design Documents Network Diagrams Data Model Diagrams Requirements Traceability Matrix Business Rules Configuration Documents Test Plans User Cases or User Stories Business Design Documents Business Process Models Organization Change Management Plan Training Plan Courseware Knowledge Transfer Plan EES Canned Reports EES Standardized Reports Implementation Plan Disaster Recovery Plan	Bidders should comply with the requirements and specifications of the RFP.

QUESTIONS	ANSWERS
18. RFP Section Reference-Appendix B Page B-15 RFP Page Number-B-15 Functional Requirement OPS 049 states "The EES shall associate a consumer notice related to the specific Cost Avoidance and Recovery area (CSE, TPL, HIPPS, ERU, and Medical Subrogation)." Please provide clarity on this requirement. Is this asking for generation of notices to clients? Is there a portion of this requirement that is missing?	Please see revised Appendix B 12/20/2013.
19. RFP Section Reference-Appendix B RFP Page Number-B-19 Functional Requirement - ELG 031 states "The EES shall determine eligibility for all Medical Assistance programs." Will the state please provide a list of what constitutes all Medical Assistance programs?	Medical Assistance programs include: (Bidders should be aware this list is subject to change.) 599 CHIP Enhanced Medical Assistance for Children Former Foster Children Medicaid CHIP Medicaid for AABD Medicaid for TANF Medicaid Insurances for Workers with Disabilities Medical Assistance for Children Medically Needy sub guardian Medicare Savings Programs Personal Assistance Services Pregnant Woman Presumptive Eligibility Qualified Medicare Ribicoff School Aged Medical Specified Low Income Medicare Beneficiaries Specified Low Income Medicare Beneficiaries Spousal Impoverishment Programs State 1619 B Waiver cases Women's Cancer Program

QUESTIONS	ANSWERS
20. RFP Section Reference-Appendix B RFP Page Number-B-3 Functional Requirement - GEN 014 states "The EES shall support all Nebraska DHHS Medicaid programs." Will the state please provide a list of what constitutes all Nebraska DHHS Medicaid programs?	Medical Assistance programs include: (Bidders should be aware this list is subject to change.) 599 CHIP Enhanced Medical Assistance for Children Former Foster Children Medicaid CHIP Medicaid for AABD Medicaid for TANF Medicaid Insurances for Workers with Disabilities Medical Assistance for Children Medically Needy sub guardian Medicare Savings Programs Personal Assistance Services Pregnant Woman Presumptive Eligibility Qualified Medicare Ribicoff School Aged Medical Specified Low Income Medicare Beneficiaries Specified Low Income Medicare Beneficiaries Spousal Impoverishment Programs State 1619 B Waiver cases Women’s Cancer Program

QUESTIONS	ANSWERS
21. RFP Section Reference-Form D-2; Post Implementation Support RFP Page Number-121 If a solution enables Post Implementation Support activities (M&O and Hosting & DR) to start earlier than January 1, 2016, how should bidders include the pricing for these services as the M&O 2015 pricing is currently grayed out in Form D-2? In this case, should bidders price only 48 months of M&O or 48 plus the additional months prior to 12/31/15? If additional M&O months are included in a bidder's proposal, how will the State ensure a fair price comparison occurs between bidders?	RFP Section IV.N Provide Post Implementation Support has been replaced and superseded in its entirety. RFP Sections IV.N.12 Warranty and RFP Section IV.N.13 Software Maintenance and Operations (M&O) have been revised. Please see RFP Revision 12/20/2013 Section IV. N – Provide Post Implementation Support. To ensure fair pricing comparison, all bidders should bid 48 months of M&O which should be recorded in Form D.
22. RFP Section Reference-Appendix B RFP Page Number-B-26 Functional Requirement ELG 141 states "The EES shall provide a mechanism to match and replace the pseudo-SSN with the actual SSN." Our understanding is that the Federal Data Services Hub will not return an SSN for an applicant if the eligibility system doesn't send it. Can the State clarify the expected data source for SSN match and retrieval?	There are a number of potential sources ranging from the SSA service provided by the FDSH, data provided via an existing batch feed from the SSA, State data sources, and ultimately data sources provided by the applicant.
23. RFP Section Reference-Appendix B RFP Page Number-B-20 Functional Requirement ELG 046 states "The EES shall refer cases with potentially fraudulent activity to appropriate agency". To which agencies will potentially fraudulent activity need to be sent?	The following agencies/departments play a role in fraud cases: Nebraska Attorney General Office, Medicaid Fraud and Patient Abuse Unit; and Nebraska Department of Health and Human Services, Child and/or Adult Protective Services; the Special Investigative Unit (SIU).

QUESTIONS	ANSWERS
24. RFP Section Reference-Appendix B RFP Page Number-B-28 Functional Requirement APP 001 states "The EES shall support an electronic appeals process, which includes transmission of data to the Federal Hub, interfacing with document imaging, and a client web accessibility." Can the state please confirm what data needs to be sent to the federal HUB regarding appeals?	The specifics of the Appeals data interface with the FDSH and FFM has not been defined by CMS, and therefore the Department is unable to provide at this time.
25. RFP Section Reference-Appendix B RFP Page Number-B-30 Functional Requirement APP 035 states "The EES shall have the ability for the customers to request for reconsideration to handle inquiries." Can the state please clarify what this requirement is asking for?	Please see revised Appendix B 12/20/2013.
26. RFP Section Reference-Appendix B RFP Page Number-B-29, B-30 Regarding Functional Requirements APP – 017, 018, 031, and 048, we believe these requirements all relate to ACA and appealing a Marketplace Exchange eligibility determination. These determinations are made outside of the EES system. Is the State expecting citizens to be able to appeal and process non-EES determined eligibility in EES?	Nebraska's ACA mandated private insurance Exchange is operated by the FFM under an assessment model. The FFM performs eligibility determinations for advanced premium tax credit/cost sharing reduction (APTC/CSR) and also performs Medicaid eligibility assessments. Medicaid eligibility determinations are performed by Nebraska DHHS. Per Federal regulations, applicants can appeal Medicaid eligibility decisions and Federally Facilitated Marketplace (FFM) advanced premium tax credit/cost sharing reduction APTC/CSR eligibility decisions. The Department expects the EES to support eligibility appeals in two ways. First, it should support the Department in appeals of all Medicaid eligibility related decisions. Second, per ACA regulations, as an FFM assessment state, the State Department is required to coordinate support the FFM with all APTC/CSR eligibility appeals with the FFM as eligibility for APTC/CSR requires the applicant to be Medicaid ineligible.

QUESTIONS	ANSWERS
27. RFP Section Reference-Appendix B RFP Page Number-B-17 Regarding requirement ELG 011, how many paper NOAs does the State have for Medicaid today?	The current system has a flexible template that can handle approval and denials in numerous combinations.
28. RFP Section Reference-V.A.3.i RFP Page Number-108 Regarding the Integration Lead key personnel role, can the State please elaborate further on the expectations of the specific responsibilities of this role? Is this role the Implementation Lead role who would be responsible for the implementation activities (training, OCM, deployment, etc.) of the project? Or is this a technical integration role who would be responsible for the integration of all the various system components?	It is the latter. The Integration Lead is the technical integration role responsible for the integration of all the various system components.
29. RFP Section Reference- Appendix C: non Functional requirements RFP Page Number-9 "The EES shall provide a mechanism to perform a QC sampling by maintaining the current functionality for sampling methodology" Can the state explain the technology involved in the current functionality of the sampling methodology for the purposes of appropriately estimating integration effort?	The Department's current eligibility system, N-FOCUS, provides the ability to pull quality control samples in accordance with CMS required methodology. The bidder should describe and submit how their EES solution will provide sampling methodology consistent with CMS requirements.
30. RFP Section Reference- Appendix C: non Functional requirements RFP Page Number-18 RSR 066 and IER 035 both state data and integration to IVR as requirements. Does the vendor have to propose an IVR system as part of the EES solution?	The use of an IVR is a key and integral part of how the Department currently supports the clients and will remain so in the foreseeable future. Therefore, the ability of the proposed EES to integrate with the existing IVR is highly desirable.

QUESTIONS	ANSWERS
31. RFP Section Reference- Appendix C: non Functional requirements RFP Page Number-21 RSR 098 state "All sensitive data shall be encrypted in transit (including emails) to protect data confidentiality and integrity as appropriate based on the sensitivity of data." Will the State provide access to the existing email server for the EES system to send or receive emails in encrypted manner? Or Will the State expect the vendor to setup separate e-mail server for this requirement as part of the solution?	The Department can provide access to the existing email system for the EES system to send or receive emails in encrypted manner. Vendors may set up their gateway to require encryption when sending to the State's SMTP gateway or the State can set up a list of IP addresses to require a TLS connection. Email could also be encrypted using CRES, and every recipient would be required to register once and provide a password when opening the emails. A separate email system is not required so long as the emails can be routed/smarthost through the State's SMTP gateway.
32. RFP Section Reference- Appendix C: non Functional requirements RFP Page Number-34 IER 022 state "The EES shall ensure that dates across Nebraska systems remain in synch (e.g., a case's closing or some other action)". Can the State provide more clarification for this requirement? Would it be appropriate to interpret requirement to mean that the systems is required to capture the 'date time zone' such as PST, CST, GMT and maintain consistency across the solution?	While the need to address multiple time zones within the system is important, that is not the intent of the requirement. The requirement is focused on the ability of the proposed system to ensure that a case that crosses programs (Medicaid, SNAP, etc.) can be manage as a single entity, and therefore activities related to it are properly coordinated and synchronized.

QUESTIONS	ANSWERS
33. RFP Section Reference- Appendix C: non Functional requirements RFP Page Number-54 There are requirements, including MDM 031 which refers to Active Directory for identification, authorization and role-based security. Additionally, requirement RSR 085 states “”The EES shall provide the capability to integrate with existing authentication and authorization mechanisms (RACF on the mainframe).” Can the State clarify with more details if the solution should integrate with Active Directory, RACF, or both? If both, can further clarification of the circumstances under which each should be utilized, be provided?	The details of the answer to this question are driven by the solution proposed by the bidder. The Department can provide the following for the bidders to consider. The Department currently utilizes Active Directory as a source of authentication, authorization and security. RACF is used for authentication, authorization, and security on the mainframe.
34. RFP Section Reference- Appendix C: non Functional requirements RFP Page Number-68 PRT 009 – requires syndicated content capabilities including creation and subscription to RSS feeds. Can the state clarify if this functionality is intended for citizen users, case worker users, or for both the categories of users?	While the specific uses of this functionality have not been determined at this time, the State anticipates that this functionality would be restricted to agents of the State for the foreseeable future. Bidders should use the base RFP narrative and functional requirements as the basis for determining what functionality to include in their proposed solution.
35. RFP Section Reference- Appendix C: non Functional requirements RFP Page Number-68 PRT 012 – requires wiki and blog functionality. Can the state clarify if Is this functionality intended to be viewed by citizens, DHHS agency staff, or both the categories of users?	While the specific uses of this functionality have not been determined at this time, the State anticipates that this functionality would be restricted to agents of the State for the foreseeable future. Bidders should use the base RFP narrative and functional requirements as the basis for determining what functionality to include in their proposed solution.

QUESTIONS	ANSWERS
36. RFP Section Reference- Appendix B: Functional requirements. Notifications Requirements RFP Page Number-31 NOT008 states: "The EES shall produce notices and forms in English and Spanish languages as required by the federal and State statutes, regulations, and policies " Can the State specify how many notices are expected to support this requirement?	All client correspondence shall be available in both English and Spanish.
37. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: Section R RFP Page Number-100-101 The Value Added Options specify in part (a) that the bidder should list the description of requirements, products or services necessary to successfully install and implement the Nebraska EES. In part (b) the bidder should list the description of requirements, products or services necessary to install and implement the bidder's solution. As each requirement has been responded to elsewhere in the RFP, is it acceptable to provide only a description of capabilities and products to install any value-added components and reference the sections where the sections where the details of the requirements have already been provided?	RFP Section IV.R Value Added Options has been replaced and superseded in its entirety. Please see RFP Revision 12/20/2013 Section IV. R - Value Added Options.

QUESTIONS	ANSWERS
38. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: SECURITY AND PRIVACY RFP Page Number-50 RFP states that "The EES must be compliant with FedRAMP CSP, NIST-800-53 Rev 4 Federal Security controls, MARS-e requirements, and State of Nebraska Security and Privacy Policies" Is the State's expectation for the data center is to be FedRAMP CSP compliant at the time of bid process or can this be procured during the implementation of this project?	The bidder is expected to achieve FedRAMP by production implementation. In the absence of formal FedRAMP compliance, the bidder must meet IRS Cloud Computing requirements, and State and DHHS Cloud Computing standards and policies. The bidder should refer to the latest version of IRS publication 1075, and should pay particular attention to sections on Cloud Computing (such as 7.4.1 Cloud Computing (45 day Notification Requirement), and 9.4.1 Cloud Computing Environment). See: http://www.irs.gov/pub/irs-pdf/p1075.pdf. Appendix A Bidders Library Content: Excerpt from DHHS IT Securing Hardware and Software Standard DHHS-2013-001-A. Please see Revised Appendix A 12/20/2013 Bidder Library Content.
39. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: POST IMPLEMENTATION SUPPORT RFP Page Number-N/A What is the State's requirement towards the desired support window for L1, L2 and L3 kind of support? Is it appropriate to assume the support window to be 8*5?	The Department considers these to be Service Levels that fall within the scope of Section IV.P on page number 98. It is not appropriate to assume the support window is 8*5. See RFP section IV.C.8 Capacity Planning for some guidance.
40. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: General RFP Page Number-N/A Is the State currently using any ITIL tool for change, incident and problem management? If yes, please provide the details of the tools and indicate if the Vendor will be expected to re-use the existing tools.	The bidder is not expected to re-use the Departments existing tools used for change, incident and problem management. However, the vendor's solution should provide accessibility and visibility to these capabilities and may need to integrate their functions with other solutions in the future.

QUESTIONS	ANSWERS
41. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: Data Migration RFP Page Number-N/A Can the state provide the details of which Medicaid data domains are included in migration along with the number of tables and data elements to be migrated? • Enrollment/Eligibility • Claims • Providers • Third Party Liability • Managed Care Plans	The primary focus of this project is on Eligibility and Enrollment (inclusive of plan selection). Please refer to the "Production Database by Table Size" for N-FOCUS table in Appendix A. N-FOCUS to EES conversion requirements have not been determined
42. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: Data Migration RFP Page Number-N/A Can the State provide the details with respect to how many data marts are expected to be migrated?	This is a design detail that the Department considers to be best developed in the course of executing the project.
43. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: Data Migration RFP Page Number-N/A In addition to EES, NFOCUS and Marketplace what are the other essential state of Nebraska systems considered part of migration?	For clarification, EES is the system that will be delivered through this RFP so it will be the target of the data migration as opposed to a source. Nebraska is using the Federally Facilitated Marketplace which will need to integrate with the EES. It is unlikely there will be the need to migrate any data from that system since it will continue to operate as it does currently. At this time, it is expected that it will be necessary to migrate data from N-FOCUS, and most likely some data migration from the MMIS to support the plan selection capability. Migration from other systems may be necessary based on details of the proposed solution(s) that are unknown at this time.

QUESTIONS	ANSWERS
44. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: Data Migration RFP Page Number-N/A Is there a coexistence period defined by the state? (Where both old and new databases should be maintained and synched)	N-FOCUS supports eligibility and enrollment for programs other than those targeted for EES and will therefore remain an active system. We anticipate that it will be necessary for both databases to be maintained and synched for the foreseeable future.
45. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: Data Migration RFP Page Number-N/A Can the State clarify, if all the data is required to be migrated or only data which would be older than a certain period can be archived?	The Department is required to adhere to the data retention policies set forth by CMS and the State of Nebraska. Currently, this requires that data be retained for a minimum of seven years. The data can be archived versus remaining active in operational and/or informational data stores are based on details of the proposed solution(s) that are unknown at this time.
46. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: IVR, CTI RFP Page Number-N/A We understand that the state uses the custom CTI system supplied by the vendor E-metro Tel and it has softphone features and real time dashboard. Please clarify ; Is this CTI solution used by the agents across the entire 4 customer service center? Does this offer email and chat feature? Can we get more technical details about this solution ability to integrate with external systems e.g. does this support web-service integration?	The CTI application is used by all 4 DHHS call centers. The CTI feature does not accommodate an e-mail or chat feature. Currently the CTI does not support web service integration. Web service integration may be available in the future.

QUESTIONS	ANSWERS
47. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: IVR, CTI RFP Page Number- N/A We understand there are 4 distributed customer service center currently in use. What is the current agent seating capacity per location? Approximately, how many calls are being currently handled by agents per location on a daily basis?	Two locations are specific to Medicaid eligibility. Those are the Lincoln CSC, which presently has 120 employees and the Lexington CSC, which presently has 60 employees. Freemont and Scotts Bluff locations are used to support non-Medicaid programs. Medicaid workers are currently handling approximately 2400 calls per day.
48. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: IVR, CTI RFP Page Number- N/A Does the existing call center operations have telephony notification feature enabled? If yes, please share the appropriate component/infrastructure details	No.
49. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: IVR, CTI RFP Page Number- N/A Would it be appropriate to assume that the existing voice infrastructure (MPS, CS1000, CTI, and QM) can be leveraged to build and host the new IVR, CTI applications?	Yes, if the bidder is able to meet or exceed the Departments requirements as identified in the RFP (functional and non-functional) by leveraging the existing voice infrastructure.

QUESTIONS	ANSWERS
50. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: IVR, CTI RFP Page Number- N/A We understand the state has existing MPS, CS1000, and CCT as part of call center infrastructure. Please share the technical architecture diagrams that can provide insight in the following • System redundancy, resiliency? • Whether these systems are centrally hosted and distribute calls to any of the 4 customer service center.45 • How these systems are centrally managed and what sort of reporting systems are available?	The existing CS1000/MPS/Contact Center are part of a centrally hosted infrastructure with a geographically redundant core located in Lincoln Nebraska. This centralized system supports all 4 DHHS call centers. These systems are centrally managed by the OCIO with contracts in place that utilize a Vendor and the manufacturer for additional support. Reporting is available utilizing the Avaya Aura Contact Center Manager reporting platform. Canned and custom reports provide various information, both historical and real-time, on calls in queue, hold times, averages, and agent performance.
51. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: IVR, CTI RFP Page Number- N/A Can the State share the existing IVR application details?	The current IVR application provides benefit inquiry information and directs callers to various sites for service.
52. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: IVR, CTI RFP Page Number- N/A Can the State share the existing method used by the state to record voice signatures for phone applications i.e. how the voice signature is stored, indexed and retrieved with other eligibility information?	Currently the entire phone application is recorded, including the signature, and kept on a mass storage device. Records are currently indexed by date/time of call and incoming phone number, making client specific retrieval difficult.
53. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: IVR, CTI RFP Page Number- N/A Is the vendor expected to provide forecasting and scheduling module capability in the proposed solution?	Yes.

QUESTIONS	ANSWERS
54. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: IVR, CTI RFP Page Number- N/A Is the State looking to integrate EES with CRQM solution?	Yes.
55. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska: General RFP Page Number- N/A Can the State please clarify if Hyland Onbase Document Management system license be reused for this project and whether it can be installed in the new data center?	The State's licensing for Hyland Onbase Document Management does not allow for installation in additional data centers beyond the State data center. If the use of Hyland Onbase presents a significant barrier to the bidder's solution, the Department asks the bidder to provide a description of the barrier and an alternative approach which will satisfy the remaining requirements.
56. RFP Section Reference- Addendum Round One Q_A RFP Page Number-32 The State in the Q&A has confirmed that warranty for services will be for 180 days. Can the State please validate our understanding of the timeline for Warranty and Application Maintenance & Support? Warranty From 1-Jan-2016 till 30-Jun-2016 Application Maintenance & Support From 1-Jan-2016 till 31-Dec-2019	RFP Section IV.N Provide Post Implementation Support has been replaced and superseded in its entirety. RFP Sections IV.N.12 Warranty and RFP Section IV.N.13 Software Maintenance and Operations (M&O) have been revised. Please see RFP Revision 12/20/2013 Section IV. N – Provide Post Implementation Support. The warranty period will run for 180 days beginning upon the production deployment of the full scope of the project. The Maintenance and Operation Support will begin at the expiration of the warranty period and will run for 42 months.
57. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska – IV – N – 1 – Production RFP Page Number-85 At what time will the State be making the decision to host the production system with the selected contractor, or with another provider? If the state chooses to host the production systems with another provider, will the remaining environments (Sandbox, Configuration/Development, Testing, QA and DR) still be hosted with the contractor?	The production system will initially be hosted by the selected contractor, but the Department reserves the right to host the production system with another provider (including the Department or other State agency) at any time during the life of the contract. The Department will consider other provider capabilities and cost among other factors when considering the future hosting of the application. At the time another provider would host the production system it is anticipated that all remaining environments would also be hosted by the other provider.

QUESTIONS	ANSWERS
58. RFP Section Reference- RFP 4544Z1 Eligibility and Enrollment Solution Nebraska – Non-Functional Requirements Spreadsheet RFP Page Number-RSR 131 What level of FIPS 140-2 will be required? (Level 1, Level 2, Level 3 or Level 4)	FIPS 140-2 Level 1
59. RFP Section Reference-A. REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM RFP Page Number- "Would the State favorably consider extending the Opening Date and Time by 2 weeks, until 21 January 2014? Little more than a week ago, RFP Amendment One revised Appendix A, Bidders' Library Content, giving potential bidders expanded access to technical and other information. The amendment also answered important bidder questions that make possible several solution concepts that were precluded by the original RFP. This combination now enables bidders to propose solutions to provide the State short-term benefits and position the State to reach their longer term goals. However, unless given additional time, bidders may not be able to formalize and integrate these new amended solutions into a proposal based on the original RFP's premise. A related factor is that bidders will otherwise have only 2 weeks after receiving Round Two answers and any related RFP amendment, which could further impact bidders' ability to propose a solution in the State's best interest. "	The Department will extend the due date for proposals 2 (two) weeks. All RFP events subsequent to the new due date will also move back two weeks. Please see the revised schedule of events posted with the responses to Round 2 questions.

QUESTIONS	ANSWERS
60. RFP Section Reference- Appendix B, Gen009 RFP Page Number-B-2 Will the State support re-use of existing State Call Center capabilities for transmission and delivery of FAX, integrating it at the backend with EES? Or is a stand-alone FAX gateway within EES required?	The Department supports re-use of either the existing Call Center capabilities or the State Fax Gateway (RightFax) if the bidder is able to meet or exceed the Departments requirements as identified in the RFP (functional and non-functional).
61. RFP Section Reference- Appendix B, Table 2, Reporting Requirements RFP Page Number-B-9 Can the State provide an estimate of the number of users of the Business Intelligence capabilities, especially users of on-demand reporting and analysis tools? Does the State have an estimate of the peak concurrent BI user base? Approximately how many State staff will require training in the BI capabilities of ESS?	The Department expects approximately 20 initial BI users with approximately 10 simultaneous users. All initial users are required to receive training. Bidders are cautioned however that the original user number could change based on the system proposed and the skill level required using the BI tools.
62. RFP Section Reference- Appendix C, RSR129; Appendix B, ELG123 (and various others) RFP Page Number-C-23, B-26 The State requires EES to send and accept emails, referenced by several requirements disbursed throughout the RFP. Is it acceptable to the State if EES reuses existing State email capabilities as the mail server of record for all emails, public and internal, integrating EES to the State's email using a standard low-cost SMTP gateway connection carried over a secure data channel between the State's network and EES? Or does the State require EES to provide its own stand-alone email domain?	Yes, it is acceptable for EES to reuse existing State email capabilities using an SMTP gateway connection carried over a secure data channel between the State's network and EES. No, the Department does not require EES to provide its own stand-alone email domain so long as EES can route/smarthost all email generated for the State of Nebraska solution to the State's SMTP gateway.

QUESTIONS	ANSWERS
63. RFP Section Reference- Appendix C, Table 14, MDM RFP Page Number-C-52 Master Data Management: does the State have an estimate of the quality of current master data, such as estimates of the percentage of duplication, percentage of "junk" data?	The Department has no such estimate. For client demographic data originating from N-FOCUS and CHARTS (refer to the answer to question 57 Addendum One), client identification information is verified via the Social Security Administration (SVES) interface. Additionally, N-FOCUS interfaces client demographics to CHARTS daily and CHARTS tracks and stores the N-FOCUS internal person (client) identifier which results in a reliable cross referencing mechanism between these two (N-FOCUS, CHARTS) client data sources.
64. RFP Section Reference- Appendix C, Table 14, MDM RFP Page Number- C-52 Master Data Management: Are there presently any 3rd party external data quality services that are integrated into the current system that are in-scope and to be retained in EES?	No.
65. RFP Section Reference- Appendix C, Table 14, MDM RFP Page Number-C-52 Master Data Management: Is any of the current master data unstructured, requiring parsing & interpretation? If so, can the State estimate the % of total master data that is unstructured?	Detailed, data element level data mastering requirements have not been determined at this time. However, the Department anticipates limited amounts of unstructured master data will be utilized.
66. RFP Section Reference- Appendix C, BIR005 RFP Page Number-C-57 The State requires integration of predictive modelling and analysis with SPSS and SAS. Are SPSS and SAS in the current State toolset, or is that a plan for the future?	These tools are not actively utilized by the Department. They are being considered for the future.

QUESTIONS	ANSWERS
67. RFP Section Reference- Appendix C, BIR046 RFP Page Number-C-60 The State requires support for geo-spatial data types. Does the State have an estimate of the number of reports that will require geo-spatial visualization?	The Department has no such estimates at this time. The Department can share that the Medicaid Eligibility and Enrollment system does not currently have this functionality. Bidders should use the base RFP narrative and functional requirements as the basis for determining what functionality to include in their proposed solution.
68. RFP Section Reference- Appendix C, PRT014 RFP Page Number-C-68 Can the State provide an estimate of the number of surveys to be conducted annually, and the average and maximum number of participants per survey?	The Department plans to utilize surveys. No estimates are available at this time.
69. RFP Section Reference- Appendix C, PRT012 RFP Page Number-C-68 Will authorship and editing of Wiki content be restricted to agents of the State, or does the State require opening this capability to the general public? Will blog authorship remain within the State, or does the State require opening authorship to the general public?	While the specific uses of this functionality have not been determined at this time, the State anticipates that authorship and editing would be restricted to agents of the State for the foreseeable future. Bidders should use the base RFP narrative and functional requirements as the basis for determining what functionality to include in their proposed solution.
70. RFP Section Reference- Appendix C, PRT015 RFP Page Number-C-68 What are the State's estimates for the volumes (average daily and peak hourly) for Chat sessions; Instant Messaging? Can the State provide the high level functional use case for Chat and IM? For example, citizens communicating with the State's Help Desk.	At this time, the primary use case is to provide another avenue for support to our client base. Estimated volumes are not known at this time.
71. RFP Section Reference- Appendix C, PRT039 RFP Page Number-C-70 What percentage of the total reports/dashboards does the State expect to access via mobile devices and tablets?	The Department has no such estimates at this time.

QUESTIONS	ANSWERS
72. RFP Section Reference- "RFP II.K - Evaluation of Proposals IV.O - Turnover" RFP Page Number-Page 6, Page 96 Is a discussion of Turnover required in the proposal? The list of required proposal elements in RFP II.K (page 6) includes Turnover as required proposal response (in the table under c. Technical Proposal, item XVIII). Turnover is also described within the Statement of Work, but there does not appear to be any mention in RFP Part V as to where this discussion should be placed within the proposal.	Yes, a discussion of Turnover is a required component of the RFP. RFP Section V.A.4.c.xiii Turnover corresponds to RFP II.K.3.o and IV O. Turnover. Bidders should respond as required in RFP Section V.A.4.b.xiii.
73. RFP Section Reference- Project Overview RFP Page Number-Page 31 The RFP states "The Department is looking for the EES and associated training materials to provide additional power for users, but with less training." Please explain the ""additional power for users"" statement. What is the power to be gained/realized that the training plan would address?"	The requirement is to enable users to quickly come up to speed on the EES with less training than the current system requires.
74. RFP Section Reference- RFP IV.C.6.a & b RFP Page Number- Page 38 Browser Access & VPN Access: Is it safe to assume that all State employees and Agents accessing EES (as opposed to citizens) will access the non-public aspects of EES through the State's network, with traffic then passing over secured communications pipes between the State and EES? Specifically, for mobile State staff accessing non-public portions of EES from the public Internet, that they will connect to the State's front end/VPN and then be securely routed to EES?	The optimal network design to handle this communications traffic is dependent on details of the proposed solution(s) that are unknown at this time; therefore the Department is unable to confirm this assumption at this time.

QUESTIONS	ANSWERS
75. RFP Section Reference- RFP Section IV.I - Training RFP Page Number-Page 78 The RFP states "The Contractor shall develop a Training Plan deliverable that addresses how the training needs of the EES users will be met, including but not limited to: Different user groups." Does the State have a list of user groups?"	User groups are currently defined by functional area. The Department is open to alternative methods of user classification based on the capabilities and business functionality of the EES solution selected.
76. RFP Section Reference- RFP Section IV.I – Training RFP Page Number-Page 78 The RFP states "The Training Plan should provide training based on Department staff training needs including: 1. Instructor Led (ILT); 2. Web-based Training (WBT); 3. Computer–based Training (CBT); and 4. On-line Help, On-screen tips and Training Aids." Does the State have a preference of which “Department” staff need which type of training?	No, the materials covered in training should dictate which method of delivery would be most appropriate to ensure accurate competency test completion and retention.
77. RFP Section Reference- RFP Section IV.I – Training RFP Page Number-Page 78 The RFP states "The Training Plan should provide training based on Department staff training needs including: 1. Instructor Led (ILT); 2. Web-based Training (WBT); 3. Computer–based Training (CBT); and 4. On-line Help, On-screen tips and Training Aids." Can the State clarify what they see as the difference between WBT and CBT?	In this context, Web based training utilizes the Internet for content delivery. Computer based training is software installed on a desktop computer.

QUESTIONS	ANSWERS
78. RFP Section Reference- RFP Section IV.I – Training RFP Page Number-Page 78 The RFP states "The Contractor will work with the State of Nebraska to upload all the required materials into the LINK Learning Management System (LMS) or other approved location/tool." What version on the Cornerstone On Demand LMS is the state using? What are the standards for developing content in order to be playable on the State's LINK LMS?	Cornerstone is a cloud software application, which means that we are always using the latest version of the software. We have quarterly updates to the software each year. Online content must be SCORM or AICC compliant. We also ask that if online content is developed in/for the system, it at the very least have effective text accompaniment (closed captioning being ideal/desired). For ILT training, there is no formal requirement. We do ask that for sessions, reasonable accommodations be made for those employees who need it.
79. RFP Section Reference- RFP Section IV.I – Training RFP Page Number-Page 78 The RFP states "The Contractor will work with the State of Nebraska to upload all the required materials into the LINK Learning Management System (LMS) or other approved location/tool." What are all the content formats that would be supported by the LINK LMS? For ex: Deployed Scorm, AICC, zip file, TinCan, File, IMS Pkg, SCORM package, URL, type of video files	Cornerstone supports SCORM and AICC, which are content standards for online content. Cornerstone will also house URLs, zip files, word processor files, PDFs, spreadsheets, and the following video content formats - .mpg, .mpeg, .wmv, .flv, .m4v, .mp4.
80. RFP Section Reference- RFP Section IV.I - Training RFP Page Number-Page 79 The RFP states "The reports will include at a minimum the training classes planned for the next reporting period, training registration and training completion, the competency rate by office and trainer and the number of total training classes planned and delivered." What is the periodicity of the reports being referenced?	The periodicity can change depending upon circumstances. For example, annual training vs. new hire training.

QUESTIONS	ANSWERS
81. RFP Section Reference- RFP Section IV.I – Training RFP Page Number-Page 79 The RFP states "The Plan must provide backup knowledge for a Department-determined period of time." What is "backup knowledge"? Is this referring to offline availability of training materials? Please explain.	"Backup knowledge" refers to the successful bidder providing knowledge to keep the EES and associated processes running until such time as the knowledge transfer activities have completed and the Department's staff are properly equipped to run the EES and associated processes.
82. RFP Section Reference- RFP Section IV.I – Training RFP Page Number-Page 80 Of the roughly 400 State staff to be trained in ESS, what percentage of the staff, and what key roles (i.e. Supervisors, Admin, Management) would the State like to have trained before the commencement of UAT?	The Department expects only those users participating in UAT to be trained before UAT commences.
83. RFP Section Reference- RFP IV.P - Service Level Requirements RFP Page Number-Page 103 Please clarify where within the proposal bidders are to include the State's proposal response needs pertaining to service level requirements. RFP Part IV.P (page 103) states ""The Bidder must submit a list of their standard Service Level Requirements for the EES as part of the proposal."" However, RFP Part V seems to be silent as to where the list should included, and we do not wish to appear non-compliant.	The Bidder must submit a list of their standard Service Level Requirements for the EES as part of the proposal. The Service Level Requirements should be included in Section V.A.4.c. Technical Considerations.

QUESTIONS	ANSWERS
84. RFP Section Reference- Appendix C, ESB015, ESB028 RFP Page Number-Round One Q&As, pg 47 Answer 151 encourages re-use of the State's existing EDI gateway. What is the EDI gateway product? Does it suffice to fulfil the RFP's EDI requirements? Does it support HL7, CCD, RosettaNet, IHE XD* as required in the non-functional requirements? Are those requirements solid for this implementation, as Mediciad E&E does not appear to require their use at this time - building in support for unused non-functional requirements can increase system cost without providing a matching benefit.	The Departments existing EDI gateway products include Sybase EDI Gateway for batch exchanges, and Edifecs: XEngine Server, XEConnect, and SpecBuilder for real-time exchanges. The Department believes that these solutions are capable of meeting the EDI requirements set forth in the Non-Functional requirements that apply to the scope of the project. Given the investment that the Department is making in the EES, it considers the associated infrastructure, tools and platforms to be enterprise in nature. Therefore, from a non-functional functionality perspective, they are being evaluated against capabilities that transcend the Medicaid program. Bidders should use the base RFP narrative and functional requirements as the basis for determining what functionality to include in their proposed solution.
85. RFP Section Reference-Round One Q & As , Question 126 RFP Page Number-Q&A Page 38 Does the State supplied equipment in its Training Centers include student PC's and networking that would allow students to access the vendor maintained ESS Training Environment, perhaps through the State's VPN? Are the Training Centers provisoned with a projector?	Networked PCs and projectors are available for in the Training Centers.

QUESTIONS	ANSWERS
86. RFP Section Reference Section IV, N, 12 RFP Page Number 91 Please confirm the Department envisions the 4 year warranty period to run concurrently with the M&O period (CY 2016 - 2019). Because contractors' generally warrant systems to function as delivered for a short period of time after the system is delivered, will the Department please define what it envisions will fall under "warranty" vs. "M&O" work during the 4 year warranty period.	RFP Section IV.N Provide Post Implementation Support has been replaced and superseded in its entirety. RFP Sections IV.N.12 Warranty and RFP Section IV.N.13 Software Maintenance and Operations (M&O) have been revised. Please see RFP Revision 12/20/2013 Section IV. N – Provide Post Implementation Support. No, the warranty period and the M&O periods will not run concurrently. As described in the revised RFP sections, the Warranty will run for six-months and will include maintenance, modifications, and services to address failures, faults, "errors", and other defects related to the execution of the project and/or the design, development, configuration, and implementation of the solution. The activities related to warranty should be at no cost to the Department and therefore are not included in the cost proposal. M&O will commence upon the end of the Warranty period and will include everything initially covered by the Warranty, as well as, maintenance, modifications, and services needed to ensure that the solution, and its underlying environments, adapt to changes in policy, technology, and the industry and therefore remain current and functionally rich. M&O is part of the on-going costs and should therefore be included in the cost proposal.
87. RFP Section Reference Form D-2 RFP Page Number 121 There is a column titled "warranty", the area to insert warranty price is grayed out until the start of the first option period (2020), what kind of warranty does the Department intend for the contractor to price during the option years (2020 – 2023)?	Those columns should have been grayed out; therefore bidders should leave them blank. The Departments expects that the terms of the software warranty will carry forward upon executing the option(s).

QUESTIONS	ANSWERS
88. RFP Section Reference Round 1 Q&A, Question 110 The Department amended the warranty requirement to 180 days of warranty for Services and 4 years of warranty for Software. Will the State please define "services" and "software" within the context of the warranty?	RFP Section IV.N Provide Post Implementation Support has been replaced and superseded in its entirety. RFP Sections IV.N.12 Warranty and RFP Section IV.N.13 Software Maintenance and Operations (M&O) have been revised. Please see RFP Revision 12/20/2013 Section IV. N – Provide Post Implementation Support. The 180 days of warranty applies to both the services rendered during the DDI phase and post production deployment, and all components of the solution. M&O will commence upon expiration of the 180 days of warranty, and will apply to all components of the solution and any services rendered after the end of the warranty period.
89. RFP Section Reference Appendix C RFP Page Number C-85 Could the State provide additional information about the rationale for records management system and if these requirements (REC 001-005 and REC 007-010) are imperative for the mission?	Given the investment that the Department is making in the EES, it considers the underlying technology; tools and platforms to be the basis of an enterprise architecture (see Technical Framework General 1.1). Therefore, from a non-functional functionality perspective, they are being evaluated against capabilities that transcend the Medicaid program. Bidders should use the base RFP narrative and functional requirements as the basis for determining what functionality to include in their proposed solution.
90. RFP Section Reference Appendix C RFP Page Number C-85 through C-87 Could the State provide additional information about the rationale for a full Web Content Management System and if these requirements (WEB 001-013, WEB 016-28, and WEB 032-035) are imperative for the mission?	Given the investment that the Department is making in the EES, it considers the underlying technology, tools and platforms to be the basis of an enterprise architecture (see Technical Framework General 1.1). Therefore, from a non-functional functionality perspective, they are being evaluated against capabilities that transcend the Medicaid program. Bidders should use the base RFP narrative and functional requirements as the basis for determining what functionality to include in their proposed solution.

QUESTIONS	ANSWERS
91. RFP Section Reference c. System Security and Disaster Recovery RFP Page Number 44 The RFP states that the bidder must describe the approach to development and implementation of security measures that will provide security and protection for POS terminals. Will the State please clarify what POS terminal is referring to?	In this instance POS stands for Point of Service. Examples are kiosks, terminals supported by the Department in county offices, and terminals not supported by the Department in locations such as Libraries.
92. RFP Section Reference Section IV.F.15 RFP Page Number 69 Will the NE EES contractor be testing the interfaces using live systems or is there a test system or harness that the NE EES contractor will be using?	A definitive answer cannot be provided at this time since the details of which systems will be interfacing to the EES won't be determined until project execution. The major systems that are known integration points (N-FOCUS, MMIS, and FFM/FDSH) have either test systems or harnesses.

REVISED SCHEDULE OF EVENTS

The State expects to adhere to the tentative procurement schedule shown below. It should be noted, however, that some dates are approximate and subject to change.

	ACTIVITY	DATE/TIME
5.	State responds to Round Two written questions through Request for Proposal "Addendum" and/or "Amendment" to be posted to the Internet at: http://das.nebraska.gov/materiel/purchasing/rfp.htm	December 20, 2013
6.	Last day to submit "Letter of Intent To Bid"	December 23, 2013
7.	Proposal opening Location: State Purchasing Bureau 1526 K Street, Suite 130 Lincoln, NE 68508	~~January 7, 2014~~ **January 21, 2014** 2:00 PM Central Time
8.	Review for conformance of mandatory requirements	~~January 7, 2014~~ **January 21, 2014**
9.	Evaluation period	~~January 8, 2014~~ **January 22, 2014** to ~~January 20, 2014~~ **February 3, 2014**
10.	"Oral Interviews/Presentations and/or Demonstrations" (if required)	~~January 27, 2014~~ **February 10, 2014** To ~~February 7, 2014~~ **February 21, 2014**
11.	Post "Letter of Intent to Contract" to Internet at: http://das.nebraska.gov/materiel/purchasing/rfp.htm	~~February 14, 2014~~ **February 28, 2014**
12.	Performance bond submission	~~February 21, 2014~~ **March 7, 2014**
13.	Contract award	~~February 21, 2014~~ **March 7, 2014**
14.	Contractor start date	~~March 3, 2014~~ **March 17, 2014**

This addendum will become part of the proposal and should be acknowledged with the RFP.

NEBRASKA
Administrative Services
Dave Heineman, Governor

Gerry A. Oligmueller
Acting Director

ADDENDUM ONE

DATE: November 26, 2013

TO: All Vendors

FROM: Pete Kroll/Robert Thompson, Buyers
State Purchasing Bureau

RE: Round One Questions and Answers for RFP Number 4544Z1
to be opened January 7, 2014 2:00 p.m. Central Time

Following are the questions submitted and answers provided for the above mentioned Request For Proposal. The questions and answers are to be considered as part of the Request For Proposal.

NOTE: State Purchasing is moving from December 16 through 27, 2013. Effective Monday, December 30, 2013, all bid/proposal openings will be held at our new location, 1526 K Street, Suite 130, Lincoln, NE.

QUESTIONS	ANSWERS
1. RFP Section Reference Request for Proposal Scope of Service Cover Sheet RFP Page Number i Cover Page Will the State revise the RFP by replacing the sentence on the cover sheet concerning the purported unconstitutionality of limitations of liability with a provision substantially similar to the following sentence: "The State is of the opinion that it may negotiate and enter into an enforceable limitation of contractor liability not in violation of the Nebraska State Constitution provided the limitation of liability provision does not obligate the State to indemnify the contractor with respect to third party claims that may arise from the performance of the contract."	The State of Nebraska will not negotiate terms and conditions prior to the Award Process; however the State will be open to a discussion on this topic with the selected contractor only during contract negotiations.

QUESTIONS	ANSWERS
2. RFP Section Reference IV.8(Item C – IT Component Capacity Planning) RFP Page Number 38 Can the State please clarify the State's objective in requiring a Tier IV datacenter which can result in a higher cost for the State? Tier III + facilities can meet necessary uptime and redundancy requirements for a lower cost without restricting competition to a few data centers.	After further consideration, the State has determined that it is open to the use of a Tier III facility as long as the Bidder can identify those areas where cost drove the decision and the increased risk that it presents.
3. RFP Section Reference IV.E.1. RFP Page Number 39-40 The RFP states "The EES Contractor will be responsible for supporting the required modifications to N-FOCUS to integrate with the EES." Could the state clarify the nature of the support expected? Is the contractor expected to perform modifications to N-FOCUS? If new (rather than modified) interfaces to N-FOCUS are required, is the development of these interfaces the responsibility of the Contractor, the State, or both?	Successful integration of the two systems will require the involvement of both the State and the Contractor, and therefore will be the responsibility of both parties. While the Contractor will not be expected to perform the actual modifications to the N-FOCUS system, they will be expected to support the analysis, design, testing and implementation of those modifications, in addition to any and all changes needed in the EES to support the integration.

QUESTIONS	ANSWERS
4. RFP Section Reference V. A. 3. i. RFP Page Number 107 RFP Section V. A. 3. i. (page 107) states that the State of Nebraska will provide workspace, equipment and conference telephone capabilities to house the EES Contractor staff in Lincoln, NE. However, RFP Section V, A. 3. d. (page 103) states "The bidder's office location responsible for performance pursuant to an award of a contract with the State of Nebraska must be identified." With the exception of the service desk and application support help desk which may be located anywhere within the United States and training facilities provided by the State, could the state please clarify who provides the primary place of performance for the main project office (i.e., the State or the vendor)? If the place of performance is at a State provided facility, will the State provide office furniture and equipment and office supplies in addition to the workspace, equipment and conference telephone capabilities?	RFP Section V, A. 3. d. (page 103) refers to the Contractor's business office location responsible for the performance of the contract. This could be a regional, Divisional or Corporate office location. RFP Section V. A. 3. i. (page 107) refers to the work to be performed in Lincoln, NE. The State of Nebraska will provide workspace with office furniture, equipment and conference telephone capabilities to house the EES Contractor staff in Lincoln, NE. Basic office supplies will be provided.
5. RFP Section Reference RFP for Contractual Services Form RFP Page Number Cover Page The RFP for Contractual Services Form states, "It is understood by the parties that in the State of Nebraska's opinion, any limitation on the contractor's liability is unconstitutional under the Nebraska State Constitution, Article XIII, Section 3, and that any limitation of liability shall not be binding on the State of Nebraska despite inclusion of such language in documents supplied with the contractor's bid or in the final contract." Is the State open to discussing during negotiation inclusion of an industry-standard limitation of contractor liability in the final contract? What will be the contractual provisions regarding limitation of liability?	The State of Nebraska will not negotiate terms and conditions prior to the Award Process; however the State will be open to a discussion on this topic with the selected contractor only during contract negotiations.

QUESTIONS	ANSWERS
6. RFP Section Reference II.G – Submission of Proposals RFP Page Number 5 This section states, "Pages may be consecutively numbered for the entire proposal, or may be numbered consecutively within sections." For ease of evaluation, would the State allow the Bidder to include an 'RFP Compliance Matrix' or 'Table of Contents' with the Technical Proposal to ensure responsiveness to all RFP requirements?	A Bidder may include an RFP Compliance Matrix or Table of Contents with the Technical Proposal to ensure responsiveness to all RFP requirements, however it is not mandatory.
7. RFP Section Reference II.O – Secretary of State/Tax Commissioner Registration Requirements RFP Page Number 8 This section states, "…Bidders should submit the above certification(s) with their bid." Would the State accept said certifications in the first section of our Technical Proposal, accompanying the signed RFP Form, completed Form A, and completed Terms and Conditions?	Yes, this is acceptable to include in this section.
8. RFP Section Reference III.B – Award RFP Page Number 10 This section states, "The State reserves the right to waive any deviations or errors that are not material…" Because "Materiality" is not defined in definitions section; would the state please clarify how materiality is determined?	The State of Nebraska will determine "Material" on a case by case basis with the selected contractor.

QUESTIONS	ANSWERS
9. RFP Section Reference III.E – Ownership of Information and Data Page Number 11 This section states, “The State of Nebraska shall have the unlimited right to publish, duplicate, use and disclose all information and data developed or derived by the contractor pursuant to the contract.” Assuming that information has been acknowledged to be proprietary or confidential, what reasonable measures will be undertaken by the State to ensure that proprietary and confidential information will not be published or similarly disclosed?	Please reference Section III OO Proprietary Information “Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State’s definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information.”
10. RFP Section Reference III.F – Insurance Requirements RFP Page Number 11 This section states, “If contractor will be utilizing any subcontractors, the contractor is responsible for obtaining the certificate(s) of insurance required herein under from any and all subcontractor(s).” Are the certificates of insurance for subcontractors due at the time of proposal submission?	No Certificate of Insurance is required for sub-contractors. Please reference Section III F “The contractor shall not commence work under this contract until he or she has obtained all the insurance required hereunder and such insurance has been approved by the State. If contractor will be utilizing any subcontractors, the contractor is responsible for obtaining the certificate(s) of insurance required herein under from any and all subcontractor(s). Contractor is also responsible for ensuring subcontractor(s) maintain the insurance required until completion of the contract requirements. The contractor shall not allow any subcontractor to commence work on his or her subcontract until all similar insurance required of the subcontractor has been obtained and approved by the contractor. Approval of the insurance by the State shall not limit, relieve or decrease the liability of the contractor hereunder.”

QUESTIONS	ANSWERS
11. RFP Section Reference III.F.2 – Insurance Requirements RFP Page Number 11 This section states, "The Commercial General Liability Insurance shall be written on an occurrence basis, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury and Contractual Liability coverage…" Is it possible to obtain a complete list of parties required to be listed as additional insured?	No such list exists. Upon award, The State of Nebraska, Certificate Holder, is an additionally insured, primary and non-contributory on the General Liability.
12. RFP Section Reference III.F.4 – Evidence of Coverage RFP Page Number 12 With respect to Evidence of Coverage, does the State require a particular "Acord" form of insurance certificate?	The State of Nebraska prefers the "Acord" form of insurance Certificate.
13. RFP Section Reference III.F.4 – Evidence of Coverage RFP Page Number 12 Under existing insurance policies, cancellation notice is per the policy conditions which is typically sent to the first named insured. Must notice of cancellation be sent to all additional insureds, or if to any, which ones?	The notice of cancellation should be sent to the State of Nebraska should cancellation occur.
14. RFP Section Reference III.F.4 – Evidence of Coverage RFP Page Number 12 Regarding auto coverage, is additional insured status required for the State, and if so, on a primary and non-contributory basis, and is a waiver of subrogation required?	The State of Nebraska, Certificate Holder, is an additionally insured, primary and non-contributory on the General Liability. A waiver of subrogation is required on the COI.

QUESTIONS	ANSWERS
15. RFP Section Reference III.G.1 – Cooperation with Other Contractors RFP Page Number 13 This section states, “The State reserves the right to award the contract jointly between two or more potential contractors, if such an arrangement is in the best interest of the State.” May the contractor opt out of any such partnership?	It is not anticipated that this procurement will be awarded jointly. Any bidder may withdraw their bid prior to the award.
16. RFP Section Reference III.I – Contractor Responsibility RFP Page Number 13 This section states, “The contractor shall agree that it will not utilize any subcontractors not specifically included in its proposal, in the performance of the contract, without the prior written authorization of the State.” May the contractor augment staff on as-needed basis with qualified independent contractors and/or agency contractors?	Yes. Please reference Section III I Contractor Responsibility “If the contractor intends to utilize any subcontractors' services, the subcontractors' level of effort, tasks and time allocation must be clearly defined in the contractor's proposal. The contractor shall agree that it will not utilize any subcontractors not specifically included in its proposal, in the performance of the contract, without the prior written authorization of the State. Following execution of the contract, the contractor shall proceed diligently with all services and shall perform such services with qualified personnel in accordance with the contract.”
17. RFP Section Reference III.J – Contractor Personnel RFP Page Number 14 This section states, “The contractor warrants that all persons assigned to the project shall be employees of the contractor or specified subcontractors, and shall be fully qualified to perform the work required herein.” Must all independent contractors and agency contractors be specified by name in advance at the time of bid submission? Also, does contractor have sole discretion to determine contractor qualifications?	Please reference Section V A i For key personnel the Bidder must provide resume(s) for the defined the key personnel positions and at a minimum must meet the defined requirements to receive State of Nebraska approval. For non-key personnel the contractor does have sole discretion to determine contractor qualifications for RFP response purposes. “ The Bidder is required to demonstrate that their consultant(s) or employee(s) have the skills necessary to meet the objectives of this project”

QUESTIONS	ANSWERS
18. RFP Section Reference III.K – State of Nebraska Personnel Recruitment Prohibition RFP Page Number 14 This section states, “The contractor shall not, at any time, recruit or employ any State employee or agent who has worked on the Request for Proposal or project, or who had any influence on decisions affecting the Request for Proposal or project.” Does this obligation survive completion of contract obligations, and if so for how long?	The obligation terminates upon completion of the contractual obligations.
19. RFP Section Reference III.L – Conflict of Interest RFP Page Number 15 This section states, “The bidder certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its services hereunder or which creates an actual or appearance of conflict of interest....” How is a conflict of interest or appearance of conflict of interest determined as it is not defined in the glossary of terms?	Conflicts of Interest will be determined on a case by case basis.
20. RFP Section Reference III.Q – Assignment by the Contractor RFP Page Number 16 This section states, “The contractor may not assign, voluntarily or involuntarily, the contract or any of its rights or obligations hereunder (including without limitation rights and duties of performance) to any third party, without the prior written consent of the State, which will not be unreasonably withheld.” Does this provision limit the use of independent or agency contractors for staff augmentation?	This provision does not limit the use of sub-contractors, provided all requirements regarding sub-contractors are met.

QUESTIONS	ANSWERS
21. RFP Section Reference III.W – Site Rules and Regulations RFP Page Number 17 This section states, "The contractor shall use its best efforts to ensure that its employees, agents and subcontractors comply with site rules and regulations while on State premises." Will site rules be promulgated in writing and if not, how will site rules be made known?	All rules and regulations will be made available to the selected contractor through the agency.
22. RFP Section Reference III.Y.3.i – Early Termination RFP Page Number 18 Concerning the language: "second or subsequent documented "vendor performance report" form deemed acceptable by the State Purchasing Bureau," should the reference be to "unacceptable"?	The reference to "acceptable" in this section refers to the State Purchasing Bureau accepting the documentation in the form of a vendor performance report from the agency as being valid, not that the vendor performance is acceptable.
23. RFP Section Reference III.CC – Penalty RFP Page Number 19 This section states, "In the event that the contractor fails to perform any substantial obligation under the contract, the State may withhold all monies due and payable, until such failure is cured/adjudicated. Failure to meet the dates stipulated in the contract for the deliverables may result in an assessment of penalty due the State of $1,000 dollars per day, until the deliverables are approved." What is defined as a "substantial" obligation, such that failure of performance would trigger the withholding of funds and/or the penalty? Will notice and opportunity to cure be given before penalties are assessed?	"Substantial" will be determined on a case by case basis. Notice and opportunity to cure will be given before forfeiture of the bond occurs.

QUESTIONS	ANSWERS
24. RFP Section Reference III.DD – Performance Bond RFP Page Number 19-20 This section states, "…The check or bond will guarantee that the selected contractor will faithfully perform all requirements, terms and conditions of the contract. Failure to comply shall be grounds for forfeiture of the check or bond as liquidated damages." Does this apply to a material default or any default? Will notice and opportunity to cure be given before forfeiture of the bond occurs?	Notice and opportunity to cure will be given before forfeiture of the bond occurs.
25. RFP Section Reference III.DD – Performance Bond RFP Page Number 19-20 This section states, "The bond or certified check will be returned when the service has been satisfactorily completed as solely determined by the State, after termination or expiration of the contract." Would the State confirm that the bond functions as a security deposit and that it will in fact be returned, and in fact not forfeited, provided the work is satisfactorily completed after notification to Contractor of the deficiency?	The bond or certified check will be returned upon completion of contractual obligations.
26. RFP Section Reference III.EE – Force Majeure RFP Page Number 20 This section states, "Neither party shall be liable for any costs or damages resulting from its inability to perform any of its obligations under the contract due to a natural disaster, or other similar event outside the control and not the fault of the affected party ("Force Majeure Event"). A Force Majeure Event shall not constitute a breach of the contract." Would the State please confirm this does not apply to payment obligations for work satisfactorily performed prior to the occurrence of the force majeure event?	Yes. Payment obligations for work satisfactorily performed will be honored.

QUESTIONS	ANSWERS
27. RFP Section Reference III.GG – Payment RFP Page Number 20 This section states, "State will render payment to contractor when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the contractor as solely determined by the State." Would the State please define the specific payment approval process?	Please reference Section V. C "The payment schedule for the project is tied to specific dates and deliverables. Invoices may be submitted by the contractor on specific dates based on the completion and acceptance of related deliverables. No invoice will be approved unless the associated deliverables have been approved. The vendor will be given an opportunity to cure any defects prior to the penalty provision being utilized."
28. RFP Section Reference III.II – Audit Requirements RFP Page Number 21 This section states, "…The contractor shall agree that it will be held liable for any State audit exceptions, and shall return to the State all payments made under the contract for which an exception has been taken or which has been disallowed because of such an exception. Because "Exceptions" is not defined in Glossary of Terms, would the State please clarify how exceptions will be noted?	"Exceptions" will be determined on a case by case basis.
29. RFP Section Reference III.KK – Inspection and Approval RFP Page Number 21 This section states, "The State and/or its authorized representatives shall have the right to enter any premises where the contractor or subcontractor duties under the contract are being performed, and to inspect, monitor or otherwise evaluate the work being performed. Will the State provide reasonable prior notice?	Yes.

QUESTIONS	ANSWERS
30. RFP Section Reference III.LL – Changes in Scope/Change Orders RFP Page Number 22 This section states, "The State may, at any time with written notice to the contractor, make changes within the general scope of the contract. (The State retains the right to employ the services of a third party to perform any change order(s))." Would the State please clarify circumstances under which the State would engage a third party, and whether Contractor will participate in discussions to engage any such third party?	The State of Nebraska will not speculate as to circumstances that may involve a third party. The State of Nebraska reserves the right as specified in the RFP.
31. RFP Section Reference III.LL – Changes in Scope/Change Orders RFP Page Number 22 This section states, "Changes in work and the amount of compensation to be paid to the contractor for any extra work so ordered shall be determined in accordance with the applicable unit prices of the contractor's proposal." Will the contract set forth more specific procedures for Change Order requests?	No.
32. RFP Section Reference III.NN – Confidentiality RFP Page Number 22 What reasonable measures or protections will be given to contractor's confidential information?	Please reference Section III OO Proprietary Information "Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State's definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information."

QUESTIONS	ANSWERS
33. RFP Section Reference III.OO – Proprietary Information RFP Page Number 23 This section states, "Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). Will contractor's interpretation of Nebraska law with respect to the definition of proprietary information, if reasonable, control, or if not, what mechanism exists for resolving any disparity of interpretations under the statute as to what constitutes proprietary information?	The bidder's interpretation of proprietary information will not control any governance related to proprietary information. Proprietary information will be processed following all internal rules and regulations.
34. RFP Section Reference IV.C.6.b – VPN Access RFP Page Number 37 The State has requested VPN access or encrypted tunnels to connect in to the EES. What type of networking infrastructure does the State have in place today (e.g., MPLS)? Does the State have preferred vendor for network gear?	Existing infrastructure is MPLS and utilizes Cisco routers and Fortinet firewalls.

QUESTIONS	ANSWERS
35. RFP Section Reference IV.E.2.e.xvi – Enterprise Content Management System RFP Page Number 47 This section states that "The EES must have the capability to connect to the State of Nebraska's Enterprise Content Management System to centrally manage all documents throughout their lifecycle and share documents between various stakeholders." For clarification sake, is it safe to assume that the 'State of Nebraska Enterprise Content Management System' and the 'State of Nebraska Document Repository' (mentioned throughout the RFP) are references to the Document Management System provided by Hyland OnBase? If not, please provide additional details on these various systems.	Yes.
36. RFP Section Reference IV.F.8 – Communications Management RFP Page Number 59 This section of the SOW mentions both Communications Management and Contact Management. For the Contact Management System requirement, is the State looking for the Bidder to propose a CRM tool?	This section of the proposal refers to Communications Management during the execution of the project as opposed to the on-going EES solution. As part of that communications management, it is expected that the project will track the communications including the contacts. It is up to the Bidder to propose how to accomplish this activity.
37. RFP Section Reference IV.I – Training RFP Page Number 78 This section states that "The Contractor will work with the State of Nebraska to upload all the required materials into the LINK Learning Management System (LMS) or other approved location/tool…" Because this is the only reference made to the LINK LMS, would the State please provide additional details on the LINK LMS as it relates to the Training requirement?	LINK is the portal to the Cornerstone On-Demand Learning Management System (LMS) that the State uses to deliver training to the workforce. The LMS provides the capability to upload training materials, so as part of the proposal Bidders should identify in what formats they can deliver the training materials.

QUESTIONS	ANSWERS
38. RFP Section Reference IV.N.2 – Equipment Summary RFP Page Number 84 This section states, "The Primary Data Center (PDC) shall be configured at the Tier IV – Fault Tolerant Site Infrastructure Level (as defined by the Uptime Institute)." Can the State be more specific about which Tier IV capabilities it's seeking for the EES solution (e.g., power, environmental and network connectivity levels)? Would an IT infrastructure hosting company which provides secure "tenant" Co-Lo for equipment suffice?	After further consideration, the State has determined that it is open to the use of a Tier III facility so long as the Bidder can identify those areas where cost drove the decision and the increased risk that it presents.
39. RFP Section Reference IV.N.3 – Network RFP Page Number 85 Does the State of Nebraska have any subsidized bandwidth options they would prefer to use for connectivity?	No.
40. RFP Section Reference IV.N.10 – Data Systems Access RFP Page Number 90 This section states that "The Contractor agrees to access the State of Nebraska data systems only through State supplied CITRIX access and encryption technology." Would the State consider other proposed options for access and encryption technology that may be better suited to the proposed EES solution? If not, would the State please provide additional details on how the State is leveraging CITRIX access and encryption technology?	Yes, the Department is open to considering other options as identified in the bidder's RFP response. Please include the proposed options in the Technical section of the RFP response. For reference: For applications hosted inside the DHHS network, the Department is using Citrix XenApp 6.5 to host virtual applications to Citrix clients. Citrix clients currently use the Citrix Web Interface and the Citrix Secure Gateway to launch and utilize the virtual applications. In the near future, DHHS will be replacing Citrix Web Interface and Citrix Secure Gateway with Citrix Netscaler appliance.
41. RFP Section Reference IV.N.14 – Hosting and Disaster Recovery Services RFP Page Number 94 What is the Recovery Point Objective (RPO) and Recovery Time Objective (RTO) required for the Disaster Recovery system?	The Department considers these to be Service Levels that fall within the scope of Section IV.P on page number 98. For the purposes of proposal, the Bidder should use the following. The Department considers the EES to be a Class 2 system. The RTO threshold is 24 hours, and the RPO goal would be zero data loss. The Department realizes that in extreme cases zero data loss may not be achievable so the Department is willing to accept 8 hours.

QUESTIONS	ANSWERS
42. RFP Section Reference V.A.3.b – Financial Statements RFP Page Number 103 If the bidder is not a publicly held corporation, would the State accept unaudited financial statements? In addition, how many years of financial statements are required to satisfy this requirement?	Please see Section V. A.3.b "If the bidder is not a publicly held corporation, either the reports and statements required of a publicly held corporation, or a description of the organization, including size, longevity, client base, areas of specialization and expertise, and any other pertinent information must be submitted in such a manner that proposal evaluators may reasonably formulate a determination about the stability and financial strength of the organization. Additionally, a non-publicly held firm must provide a banking reference." Please provide the most current financial statement.
43. RFP Section Reference V.A.3.h – Corporate Experience RFP Page Number 104-105 This section states, "Contractor and subcontractor(s) experience must be listed separately." How will subcontractors' experience narrative descriptions be evaluated?	The State of Nebraska will not disclose evaluation information at this time. All bidders should provide their best proposal to meet all requirements.
44. RFP Section Reference V.A.3.h – Corporate Experience RFP Page Number 104-105 This section states, "…In addition, subcontractors shall identify what share of contract costs, project responsibilities, and time period were performed as a subcontractor." Is this additional information required for both the narrative descriptions of Bidder's corporate experience (performed as a sub) AND subcontractor corporate experience (performed as a sub)?	Yes.
45. RFP Section Reference V.A.3.i – Proposed Personnel RFP Page Number 107 Are the three (3) references included in the three page limit for resumes?	No.

QUESTIONS	ANSWERS
46. RFP Section Reference V.4 – Technical Approach RFP Page Number 108 Sub-bullet “A” simply states ‘Understanding of the project requirements’ with no specific requirement cross-referenced in section IV of the RFP. Is it safe for the Bidder’s to assume that ‘Understanding of the project requirements’ is a free-form narrative to be provided as an overarching introduction for our proposed Technical Approach. If not, would the state please clarify the ‘Understanding of the projects requirements’ section for the Technical Approach?	Yes as described in RFP Section V.A.2 Executive Summary.
47. RFP Section Reference V.4 – Technical Approach RFP Page Number 108 Sub-bullet “C” simply states ‘Technical Considerations’ with no requirement cross-referenced in section IV of the RFP. Is it safe for the Bidder’s to assume that ‘Technical Considerations’ really means ‘Assumptions, Qualifiers, and Constraints’? If not, would the state please clarify the ‘Technical Considerations’ requirement for the Technical Approach?	Technical Considerations should be an explanation of the Bidder considerations made to develop their solution for the EES.
48. RFP Section Reference V.4 – Technical Approach RFP Page Number 108 Sub-bullet “F” simply states ‘Personnel Management and Planning’ with no requirement cross-referenced in section IV of the RFP. Is it safe for the Bidder’s to assume that ‘Personnel Management and Planning’ is already addressed in Sub-bullet “b.iv” ‘Project Planning and Management’, which already includes a summary of the Bidder’s proposed Personnel/Management Approach? If not, would the state please clarify the ‘Personnel Management and Planning’ requirement for the Technical Approach?	See RFP Section V.A.3.i Summary of Bidder Personnel/Management Approach for the response requirements for sub-bullet f.

QUESTIONS	ANSWERS
49. RFP Section Reference V.C – Payment Schedule RFP Page Number 110 This section states, “No invoice will be approved unless the associated deliverables have been approved.” What is the specific deliverable approval process that will be utilized by the State?	See RFP Section IV.Q Deliverable Approval Process.
50. RFP Section Reference Appendix B – Functional Requirements RFP Page Number B-3 GEN 016 states that “The EES shall support client facing services and documents in English and Spanish languages.” Would the State please define which functional requirements are considered to be “client facing services and documents” in Appendix B?	Many of requirements in Appendix B lead to direct or indirect system interaction with clients. Whenever there is interaction with the client, including but not limited to, documents, notices, Web screens, voice, email, text messages, or fax, the client shall have the option to choose English or Spanish for the interaction.
51. RFP Section Reference Appendix B – Functional Requirements RFP Page Number B-3 GEN 021 states that “The EES shall have the ability to interface with the LINKS Performance Management and Training System.” Because this interface isn’t listed in the Bidder Library, would the state please provide additional details surrounding the LINKS System?	LINK is the portal to the Cornerstone On-Demand Learning Management System (LMS) that the State uses to deliver training to the workforce. The LMS provides the capability to upload training materials, so as part of the proposal Bidders should identify in what formats they can deliver the training materials.
52. RFP Section Reference Appendix B – Functional Requirements RFP Page Number B-3 GEN 023 states that “The EES shall have the ability to interface with the NE Financial and Accounting system.” Because this interface isn’t listed in the Bidder Library, would the state please provide additional details surrounding the NE Financial and Accounting system?	The State Financial and Accounting system is JD Edwards Oracle Enterprise One.

QUESTIONS	ANSWERS
53. RFP Section Reference Appendix B – Functional Requirements RFP Page Number B-19 Appendix B contains two (2) separate requirements for ELG 020 and two (2) separate requirements for ELG 021. Will the State please confirm the numbering for these requirements and subsequently determine the impact and numbering of the remaining ELG requirements listed?	See the revised Appendix B Functional Requirements.
54. RFP Section Reference Appendix B – Functional Requirements RFP Page Number B-28 ELG 161 states that "The EES shall evaluate the resource/asset eligibility of an applicant when determining eligibility for those programs requiring a resource / asset test." Would the State please provide details regarding all resource/asset verification services/sources currently in place and available to the EES?	Currently the Department interfaces with Internal Revenue Services, Social Security Administration, and the Department of Motor Vehicles for data related to assets.
55. RFP Section Reference Appendix B – Functional Requirements RFP Page Number B-34 NOT 008 states that "The EES shall provide notices and forms in English and Spanish languages as required by the federal and State statutes, regulations and policies." Would the State please clarify specifically which notices and forms are to be provided? Also, would the State please clarify which federal and State statutes, regulations and policies are being referenced?	All client notices/forms must be in English or Spanish. The Department policy referenced is titled *Language Assistance for DHHS Service Recipients who are Limited English Proficient (LEP).* *http://dhhs.ne.gov/Pages/lep.aspx* Currently Spanish is the only language translated.

QUESTIONS	ANSWERS
56. RFP Section Reference Appendix C – Non-Functional Requirements 13. Data Integration & ETL Requirements RFP Page Number C-49 – C-51 General: What is the approximate volume of data or data capacities that are required to support the ETL/data integration environment? General: What technologies are required for source system connectivity, i.e. what relational databases, which packaged applications and which mainframe data structures. ETL013: Does the EES require a federated data access capability?	Please refer to the "Production Database by Table Size" for N-FOCUS table in Appendix A.Source system data is primarily stored in DB2 on the state mainframe (N-FOCUS). There may be relevant source system data on a smaller scale in Microsoft SQL Server data stores in the state server environment. Federated data access is a desirable capability
57. RFP Section Reference Appendix C – Non-Functional Requirements 14. Master Data Management RFP Page Number C-52 – C-55 General: What is the approximate number of providers and clients that need to be mastered? General: How many systems are the data sources for providers and/or clients? On average how many of these systems does a provider/client reside in (e.g., there are 5 source systems for providers, on average a provider will exist in three of these systems)?	Between N-FOCUS and the Nebraska child support system (CHARTS), there are approximately 2 million unduplicated persons in various program and case roles. These systems would be the major sources of person-level records for the State. Approximately 1.5 million of the 2 million are known to both N-FOCUS and CHARTS. In October 2013 there were 241,615 persons (clients) who were Medicaid eligible. There were another 82,599 persons with active involvements in Medicaid cases who were not Medicaid eligible but who are included in the case for purposes of determining eligibility, e.g. financially responsible parents or spouses and ineligible siblings. N-FOCUS is currently the single source for Medicaid client eligibility information. For the purposes of this project Providers are not expected to be mastered. That would be related other programs that may leverage the solution.

QUESTIONS	ANSWERS
58. RFP Section Reference Appendix C – Non-Functional Requirements 16. Business Intelligence and Reporting RFP Page Number C-57 – C-60 BIR021: Does the Metadata management tool need to perform impact analysis across different metadata sources? BIR023: Should the data quality tool be deployed and leveraged within the ETL environment and well as other environments (e.g. Data Conversion)?	BIR021: The ability to perform impact analysis across the metadata sources is a desirable capability. BIR023: The ability to leverage the data quality tool within the ETL and other environments is a desirable capability.
59. RFP Section Reference Appendix D – Requirements Gap Analysis RFP Page Number 127 The initial sentence makes reference to a *Compliant* field and the numbered list makes reference to *Availability.* This does not match up with the Ability Codes in Appendix B nor C, as neither contains *Compliant* or *Availability* fields. Will the State please clarify these instructions?	See the revised instructions for Appendices B, C and D.
60. RFP Section Reference Appendix D – Requirements Gap Analysis RFP Page Number 127 The first part of the paragraph above seems to indicate that only requirements where we specify 'N' needs to be in the Appendix D, Gap matrix. The numbered list seems to indicate N, M, F, C or O all need to be added to the gap matrix. Will the State please clarify which items must be included in the Fit Gap Analysis?	See the revised instructions for Appendices B, C and D.
61. RFP Section Reference III. TERMS AND CONDITIONS : 3.LL RFP Page Number 22 Regarding Section III.LL of the RFP: what are State audit exceptions?	"Exceptions" will be determined on a case by case basis.

QUESTIONS	ANSWERS
62. RFP Section Reference III. TERMS AND CONDITIONS: 3.Y(i) RFP Page Number 17 5.1. Section 3.Y(i) of the RFP states that Nebraska may terminate immediately for "second or subsequent documented "vendor performance report" form deemed **acceptable** by the State Purchasing Bureau." We assume that this is a typo and the state implied this to be 'form deemed un-acceptable'. Please confirm.	The reference to "acceptable" in this section refers to the State Purchasing Bureau accepting the documentation in the form of a vendor performance report from the agency as being valid, not that the vendor performance is acceptable.
63. RFP Section Reference III. TERMS AND CONDITIONS: 3.Y(i) RFP Page Number 17 What criteria would State Purchasing Bureau use for evaluation of acceptability?	"Acceptability" is determined on a case by case basis.
64. RFP Section Reference Appendix A : Proposed System Conceptual Architecture RFP Page Number Page 15 In the Business functions and processes, a high level process is determined to be 'Plan Management'. Should the vendor interpret this business process to manage for Medicaid Programs - both MAGI & NON MAGI?	Yes, this business process is for both MAGI and Non-MAGI.
65. RFP Section Reference Appendix B : ELG 010 RFP Page Number B-18 If an applicant applies for coverage through FFM, how will he/she be directed to EES system in case they are found eligible for Medicaid? Will there be a SSO redirect, or a service call, or both?	This is a question that ultimately falls within the domain of the Federally Facilitate Marketplace (FFM). Based on the current FFM model this occurs through an account transfer processed through the Federal Data Services Hub (FDSH).The Department is not aware of any plans on the part of CMS to change that method. It is important for the bidder to consider that the integration through the FDSH is not limited to the FFM but to the other Federal Trusted Data Sources like IRS, SSA, DHS, etc.

QUESTIONS	ANSWERS
66. RFP Section Reference Appendix B : ELG 011 RFP Page Number B-18 Please provide details of the existing mailroom infrastructure used for printing and mailing notices. Will the existing infrastructure be able to accommodate the requirements for EES?	The Department currently utilizes the State Print Shop for printing and mailing of notices. The Print Shop mails the correspondence the day after an action is taken. The existing structure can accommodate the needs of the EES.
67. RFP Section Reference Appendix B : Notification RFP Page Number B-34 Please provide an estimate for the number of Notices needed to be generated for this project	Approximately 108,000 pieces of correspondence is currently produced each month.
68. RFP Section Reference Appendix B : Reporting Requirements RFP Page Number B-9 Please provide an estimate for the number of Transactional and Analytical reports from the EES system	The Department currently has approximately 25 transactional and analytical reports available. However, the current system is not agile and many more reports are needed.
69. RFP Section Reference Appendix B Functional Requirements GEN 016 RFP Page Number 3 It is understood that the EES shall support client facing services and documents in English and Spanish languages. Is the non-client facing services also required to support both the languages?	No, non-client facing services should be in English only.
70. RFP Section Reference Appendix C : PRT 035 RFP Page Number C-70 For mobile device access, will generic browser based mobile access be sufficient?	At a minimum. If the Bidder provides capabilities beyond simply accessing a full web page from a browser, such as device-specific rendering or a mobile app, please provide details.
71. RFP Section Reference Appendix C Non-Functional Requirements 5.EES Performance Requirements RFP Page Number 12 Please share the average volumetric data and the expected performance service level requirement	The Department considers this to fall into the Service Levels within the scope of Section IV.P on page number 98. The Department would request the Bidder to include this in their proposed SLRs, and to include the data volume assumptions used to determine the proposed HW/SW.

QUESTIONS	ANSWERS
72. RFP Section Reference Appendix C: IER 034 RFP Page Number C-35 Please provide details of the existing IVR system used to support NFOCUS. Please elaborate if this system is extensible to accommodate requirements of the new EES	The existing IVR is an AVAYA MPS500. The Avaya MPS500 is extensible to accommodate the requirements of the new EES utilizing "Web Services".
73. RFP Section Reference Appendix-B RPT047 RFP Page Number B-12 Please elaborate on what are '**Branch Reports'?** Please share a template, if available.	In this context, a "Branch Report" simply means a more detailed, drill down of data contained in another summary level report. No template is currently available.
74. RFP Section Reference Appendix-B, ELG146, RFP Page Number B-27 Is there an existing infrastructure for scanning and uploading paper applications? If yes, will EES be expected to reuse these facilities to convert paper applications and scan documents?	Yes and reuse is highly encouraged.
75. RFP Section Reference Appendix-B: GEN012, ELG010 RFP Page Number B-3, B-18 How is N-FOCUS integrated with FFM? Should the vendor consider that the integration specifications currently managed between N-FOCUS and FFM would be replicated for integration between EES and FFM?	N-FOCUS is currently integrated with the Federally Facilitated Marketplace (FFM) via the services provided by the Federal Data Services Hub (FDSH). Since the EES will be required to integrate with the FFM, and the FDSH is the mandated integration method, it stands to reason that the integration will need to be replicated. It is important for the Bidder to consider that the integration through the FDSH is not limited to the FFM but to the other federal Trusted Data Sources like IRS, SSA, DHS, etc.
76. RFP Section Reference Appendix-C (GSR040) RFP Page Number C-5 This is with regards to GSR-041 from Appendix-C which states EES capability to support multi-agency. Is this in reference to Portal Technology Architecture which can host applications as virtual sites, but still can run on the same server?	That is one potential method of accomplishing this requirement. The State encourages the Bidder to indicate if they are able to support this requirement, and to describe their proposed method.

QUESTIONS	ANSWERS
77. RFP Section Reference Appendix-C (IOI012) RFP Page Number C-9 Are all interfaces in the interface-list (in procurement library) required for the new EES System? If not, please share a list of interfaces that are needed for EES. Also, please elaborate on your recommendation for any additional interfaces to be developed.	These are design details that the State considers to be the best developed in the course of executing the project.
78. RFP Section Reference Appendix-C (RSR085) RFP Page Number C-20 EES is expected to have its identity & access management. However when a request or message is routed to the N-FOCUS, then, the user credential will be propagated to N-FOCUS, which will be used to authenticate against RACF. Is this assumption correct?	The State is unclear on the basis for the question and request that the Bidder provide more clarification. Please restate your question in Round 2 of Q&A. Further, the design of the interface/integration with N-FOCUS is unknown at this time. The State anticipates this will be a work product of the project.
79. RFP Section Reference III. TERMS AND CONDITIONS: Bidder declaration and 3.R RFP Page Number 1 and 16 Bidder declaration on page 1 of the RFP states (in relevant part) "the bidder …agrees to the terms and conditions (see Section III)." Section 3.R "Deviation from Proposal" states that deviations from terms contained in Section 3 may be submitted. Can the State please clarify whether bidders may submit proposed deviations from terms and conditions contained within Section 3 of the RFP?	Yes, a Bidder can submit deviations. RFP Section III states "Bidders are expected to closely read the Terms and Conditions and provide a binding signature of intent to comply with the Terms and Conditions; provided, however, a bidder may indicate any exceptions to the Terms and Conditions by (1) clearly identifying the term or condition by subsection, (2) including an explanation for the bidder's inability to comply with such term or condition which includes a statement recommending terms and conditions the bidder would find acceptable. Rejection in whole or in part of the Terms and Conditions may be cause for rejection of a bidder's proposal." The State will not negotiate Terms and Conditions prior to award.
80. RFP Section Reference General RFP Page Number NA Please share the roadmap for ongoing maintenance and support for the N-FOCUS system. Will the state's incumbent team manage changes to N-FOCUS or are these expected from the contractor building the new EES.	The incumbent team will manage changes to N-FOCUS that do not impact the EES. Where the two systems interrelate then it is expected that the EES Contractor would support and collaborate on changes.

QUESTIONS	ANSWERS
81. RFP Section Reference General RFP Page Number NA Will Access Nebraska continue to be the User interface for end users for both Medicaid and Non Medicaid users?	No.
82. RFP Section Reference General RFP Page Number NA Please share a roadmap for keeping N-FOCUS in production. How long will N-FOCUS accept Medicaid eligibility transactions after EES goes live?	While the potential to migrate many of the programs currently supported by N-FOCUS exists, the Department does not anticipate completely retiring the system for the foreseeable future. The expectation is that upon completion of this project Medicaid eligibility will be performed solely by the EES.
83. RFP Section Reference General RFP Page Number NA Please provide your expected roadmap of enhancements to the EES system post go-live.	The State considers this to be premature to present such a roadmap. The focus at this time is on the successful implementation of the EES for the Medicaid program. Once the goal has been accomplished the State will better understand the capabilities and limitations of the solution and will be able to determine what should be on the roadmap (ex. more programs, richer functionality, etc.).
84. RFP Section Reference General RFP Page Number NA What is expected population year on year that will participate in Medicaid eligibility determination?	Nebraska's current average monthly enrollment is 225,000 individuals. This number does not include woodwork population. For projections of insurance switchers and the woodwork effect, please refer to a Milliman report prepared for the State. http://dhhs.ne.gov/medicaid/Documents/AffordableCareActFiscalAnalysis2013.pdf
85. RFP Section Reference General RFP Page Number NA With systems, other than EES, is the user expected to login via SSO?	While not a specific requirement for this implementation, the goal is to reduce the number of sign-ons the user must endure, and therefore would like to understand the Bidder's ability to support this goal.
86. RFP Section Reference General RFP Page Number NA Does the state's existing ECM Hyland OnBase support web content management or is it pure document management system? Is the existing state' web portal (ACCESSNebraska) integrated with Hyland OnBase?	No, the state's Hyland OnBase ECM solution is not currently supporting web content management. No, the existing ACCESSNebraska web applications and N-FOCUS are integrated with a different document management product that preceded the Hyland OnBase solution, called Spielberg FileDirector.

QUESTIONS	ANSWERS
87. RFP Section Reference General RFP Page Number NA Where are the existing policy manuals, training materials stored? Does that system provide search capabilities which can be integrated with the new EES?	The Department's policy manuals are available on the public and internal websites. The training materials are available on the internal website only. Search capabilities are very limited in the current system.
88. RFP Section Reference General RFP Page Number NA Is state planning to use the BPM solution and Rules engine enterprise-wide? Is the expectation that these can be leveraged for any new applications development in future?	The State plans to use these tools to support other applications within the State where feasible.
89. RFP Section Reference General RFP Page Number NA Please share details of integration between AccessNebraska/N-FOCUS and the existing enterprise content management system (Hyland OnBase).	There is no integration between ACCESSNebraska/N-FOCUS and the Hyland OnBase solution that is relevant to the EES.
90. RFP Section Reference General RFP Page Number NA What is the current process of storing and searching documents (including scanned documents) into the enterprise content management system (Hyland onbase)?	The Department utilizes a High Speed IBML Scanner for documents entering through the ACCESSNebraska Document Imaging Centers; the system also has 50 small Canon scanners located throughout the state for scanning of paper documents. Staff can transfer email and online documents into the Imaging system by utilizing a tool that is accessed through N-FOCUS. A web application is also available for clients to submit online. This web application is on the ACCESSNebraska.ne.gov website. Documents are connected to individuals and categorized by the content of the document. Document Imaging is an icon on N-FOCUS that staff utilize to search documents. Documents are searchable by person and categorized by date scanned and content of document such as income, expense, etc. A copy of the ACCESSNebraska Document Imaging Architecture showing the existing FileDirector-based solution is included in Appendix A Procurement Library documents.

QUESTIONS	ANSWERS
91. RFP Section Reference General RFP Page Number NA Does the current enterprise content management system use business process management feature of HYLand Onbase system? If so, please elaborate on the usage.	The current solution (FileDirector) does not use business process management.
92. RFP Section Reference General RFP Page Number NA Are there any existing interfaces published from the enterprise content management system (Hyland onbase) which can be reused in new EES system? If yes, please share these details	No.
93. RFP Section Reference General RFP Page Number NA What are the different content types supported by the existing content management system (i.e. *.jpeg, .Tiff, *.doc, .htm, .pdf etc.)?	The current solution (FileDirector) stores images in .tiff and .jpeg formats.
94. RFP Section Reference GLOSSARY OF TERMS RFP Page Number Page vii Conversion period is defined to be 6 months. Does this mean that data conversion activity should be completed within 6 months after project start?	No. While that timeframe may prove to be appropriate for data conversion, the definition refers specifically to conversion of “Operating System”.
95. RFP Section Reference Appendix-B - (RPT020) RFP Page Number B-10 This Requirements needs that state worker shall be able to save the reports in multiple industry standard formats. We propose to incorporate the following - Excel, PDF and CSV. Please confirm if these are acceptable.	Those are acceptable formats and would constitute the minimum set. Bidders should provide a list of formats that they can support.
96. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK RFP Page Number 71 Network Intrusion Testing and Security Audits: Do you have list of firms as approved by the State of Nebraska?	The State does not have a list of pre-qualified firms for this type of testing. The Bidder is responsible for identifying a firm which would then be submitted to the State for approval.

QUESTIONS	ANSWERS
97. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: A. PROJECT OVERVIEW RFP Page Number 43 Scenario - An applicant applies for coverage through EES and becomes eligible for non-QHP, non-Medicaid programs Question - In this case, is it expected to redirect the user to Access Nebraska? If not, should the EES system have interface with N-FOCUS for eligibility determination for respective non Medicaid programs?	While the State expects that the EES will someday handle more of the programs currently handled by N-FOCUS, the scope of this project is to implement Medicaid eligibility and enrollment only. Therefore, the EES will handle Medicaid and N-FOCUS will handle non-Medicaid programs. There should be no need to redirect the user.
98. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK : A. PROJECT OVERVIEW RFP Page Number NA After the new EES system goes into production, there could be members in the old system that might be eligible after couple of months of go-live. Are such users expected to re-enroll via EES or will N-FOCUS generate any automated triggers?	The answer should be defined in the implementation/conversion plan provided by bidders. N-FOCUS currently provides triggers. The State would like to minimize the amount of client interaction required due to an implementation/conversion.
99. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: A. PROJECT OVERVIEW RFP Page Number 43 Is EES expected to have a real time interface with N-FOCUS for non-Medicaid eligibility determination?	No, N-FOCUS does not currently support real time determination
100. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: Identity Management RFP Page Number 35 Do you want single sign on mechanism using Windows Native Authentication?	While not a specific requirement for this implementation, the goal is to reduce the number of sign-ons the user must endure, and therefore would like to understand the bidder's ability to support this goal.

QUESTIONS	ANSWERS
101. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK : Identity Management RFP Page Number 35 Please share details of the existing Identity management solution. What is the current user store (LDAP) for authentication and authorization?	The current user store (LDAP) for authentication and authorization is Microsoft Active Directory 2008 R2.
102. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: Identity Management RFP Page Number NA Is it expected the user-id in the RACF be ported to the new Identity & Access Management? The rules governing user-id creation in the new system may not be same as what is there in RACF.	No, it is not.
103. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: DEPLOYMENT RFP Page Number 51 Please describe your backup requirements based on existing data size and projected growth for next 2 years. Please share the current data classification, data size and frequency of backup Please share the volume of data available on site and off site using online, near line, and off line backups.	Please refer to the "Production Database by Table Size" for N-FOCUS table in Appendix A. Currently production mainframe DASD (including N-FOCUS data) is mirrored in real time to the state's disaster recovery site. For the N-FOCUS DB2 database, a full image copy is done twice per day, once before the batch schedule and once after the batch cycle is completed. The image copy is first written to virtual tape, then to physical tape. The disaster recovery (physical) tapes are kept on site for approximately 24 hours and then offsite data is kept for 7 days. These backups all encompass the entire N-FOCUS DB2 database. Currently, N-FOCUS database growth is projected at approximately 10% annually.
104. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: DISASTER RECOVERY/BACK UP PLAN RFP Page Number 39 Please provide your classification for business criticality of the EES system from the Disaster Recovery standpoint. What are the expected Recovery Time Objective (RTO) and Recovery Point Objective (RPO) for EES?	The Department considers these to be Service Levels that fall within the scope of Section IV.P on page number 98. For the purposes of proposal, the Bidder should use the following. The Department considers the EES to be a Class 2 system. The RTO threshold is 24 hours, and the RPO goal would be zero data loss. The Department realizes that in extreme cases zero data loss may not be achievable so The Department is willing to accept 8 hours.

QUESTIONS	ANSWERS
105. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: Identity Management RFP Page Number 35 Is it required to do provisioning for any other target system, or downstream application, using Identity Manager?	While not a specific requirement for this implementation, the goal is to reuse/leverage the investment where feasible, and therefore would like to understand the Bidder's ability to support this goal.
106. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: MIGRATION PLAN RFP Page Number 35 Please share details of volume of data, type of data (e.g. membership only) and number of tables to be migrated from NFOCUS to EES? Also, please elaborate on how many past years data should be migrated.	Please refer to the "Production Database by Table Size" for N-FOCUS table in Appendix A. N-FOCUS to EES conversion requirements have not been determined
107. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: RISK MANAGEMENT AND RESOLUTION RFP Page Number 56 Please share an estimate for the number of information assets in the existing N-FOCUS system to be covered under 'risk assessment' post implementation of the new EES System.	This section of the proposal refers to Risk Management during the execution of the project as opposed to the on-going EES, and therefore does not apply to post-implementation.
108. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: Section E Non-Functional requirements RFP Page Number 39 What functionalities from N-FOCUS need to be implemented in EES? For E.g. – If the eligibility system in the new portal determines the individual is eligible for other non-Medicaid program then it will route the request to the legacy system. Is the current legacy capable of reading the message coming in from the new system & take appropriate action? Or is there a need to build new business logic in the legacy system to determine appropriate action? Also provide an estimate on the number of legacy application that may be impacted?	These are design details that the State believes are best developed in the course of executing the project. The State anticipates that the Contractor will provide the necessary expertise to aid the State in determining the best option.

QUESTIONS	ANSWERS
109. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: PROVIDE POST IMPLEMENTATION SUPPORT RFP Page Number 91 Please elaborate on the scope of the 'reactive modifications' as covered by the warranty clause	Reactive modifications include, but are not limited to, system changes or development activities needed to remedy system faults and/or gaps in the system functionality which were to be delivered as part of the scope of the project.
110. RFP Section Reference IV. PROJECT DESCRIPTION AND SCOPE OF WORK: PROVIDE POST IMPLEMENTATION SUPPORT RFP Page Number 91 Will the State allow Contractor to offer 90 day warranty for Services and a 4 year warranty for Software, instead of 4 year warranty for both Services and Software if doing so would allow substantial cost savings to the State	The Department agrees to amend this requirement to 180 days of warranty for Services and 4 years of warranty for Software.
111. RFP Section Reference IV.8(Item C – IT Component Capacity Planning) RFP Page Number 38 *Please note: This question was previously submitted to the Department on 11/08/2013.* Can the Department please clarify the Department's objective in requiring a Tier IV datacenter which can result in a higher cost for the Department? Tier III + facilities can meet necessary uptime and redundancy requirements for a lower cost without restricting competition to a few data centers.	After further consideration, the State has determined that it is open to the use of a Tier III facility so long as the Bidder can identify those areas where cost drove the decision and the increased risk that it presents.

QUESTIONS	ANSWERS
112. RFP Section Reference IV.E.1. RFP Page Number 39-40 *Please note: This question was previously submitted to the Department on 11/08/2013.* The RFP states "The EES Contractor will be responsible for supporting the required modifications to N-FOCUS to integrate with the EES." Could the Department clarify the nature of the support expected? Is the contractor expected to perform modifications to N-FOCUS? If new (rather than modified) interfaces to N-FOCUS are required, is the development of these interfaces the responsibility of the Contractor, the Department, or both?	Successful integration of the two systems will require the involvement of both the State and the Contractor, and therefore will be the responsibility of both parties. While the Contractor will not be expected to perform the actual modifications to the N-FOCUS system, they will be expected to support the analysis, design, testing and implementation of those modifications, in addition to any and all changes needed in the EES to support the integration.

QUESTIONS	ANSWERS
113. RFP Section Reference V. A. 3. i. RFP Page Number 107 *Please note: This question was previously submitted to the Department on 11/08/2013.* RFP Section V. A. 3. i. (page 107) states that the State of Nebraska will provide workspace, equipment and conference telephone capabilities to house the EES Contractor staff in Lincoln, NE. However, RFP Section V, A. 3. d. (page 103) states "The bidder's office location responsible for performance pursuant to an award of a contract with the State of Nebraska must be identified." With the exception of the service desk and application support help desk which may be located anywhere within the United States and training facilities provided by the Department, could the Department please clarify who provides the primary place of performance for the main project office (i.e., the Department or the vendor)? If the place of performance is at a Department provided facility, will the Department provide office furniture and equipment and office supplies in addition to the workspace, equipment and conference telephone capabilities?	RFP Section V, A. 3. d. (page 103) refers to the Contractor's business office location responsible for the performance of the contract. This could be a regional, Divisional or Corporate office location. RFP Section V. A. 3. i. (page 107) refers to the work to be performed in Lincoln, NE. The State of Nebraska will provide workspace with office furniture, equipment and conference telephone capabilities to house the EES Contractor staff in Lincoln, NE. Basic office supplies will be provided.
114. RFP Section Reference IV.F.15 RFP Page Number 69 The RFP states: "Stress/Performance Testing is performed to ensure that the technical, application, data and network architectures are sufficiently designed and sized to meet the anticipated transaction volume or workload." Does the Department have defined exit criteria for quality and performance testing (i.e. page response time under load)? If so, can they be provided so that vendors can better estimate the level of effort needed for this project?	The State considers these to be Service Levels that fall within the scope of Section IV.P on page number 98. The Bidder is to include this in their proposed SLRs, and to include the assumptions used to determine the proposed solution.

QUESTIONS	ANSWERS
115. RFP Section Reference Appendix B ELG044 RFP Page Number B-21 The RFP states: "The EES shall refer cases with potentially fraudulent activity to appropriate agency." There are not requirements for fraud detection; Will the state please provide specific requirements for fraud detection?	Currently, fraud detection occurs when a worker refers a case to the Special Investigation Unit (SIU) for review. SIU utilizes the eligibility system when completing their investigating. Bidders should include recommendations to assist with fraud detection in their technical response.
116. RFP Section Reference V.A.3.i. RFP Page Number 109 Please confirm the tasks associated with system maintenance and systems changes (ref. page 109 and 110) will be proposed and invoiced based on a T&M basis utilizing the fixed hourly rates.	The State of Nebraska considers system maintenance and system changes are part of the responsibilities of operating the EES Solution. Some activities performed by Contractor staff will be considered system maintenance (e.g., operating system patching) and as such those activities are to be considered and budgeted as part of the annual fixed administrative fee.
117. RFP Section Reference Form C-2 RFP Page Number 117 Form C-2 Milestones and Deliverables Mapping and Schedule identifies the % of payment by milestone upon successful completion. RFP page 110 states: "Some activities performed by Contractor staff will be considered system maintenance (e.g., operating system patching) and as such those activities are to be considered and budgeted as part of the annual fixed administrative fee". Please confirm this milestone schedule (C-2) will not address the tasks associated with system maintenance and systems changes which are based on fixed hourly rates and only incurred when needed per RFP page 110 -111.	Form C-3 not C-2 identifies the % of payment by milestone. Bidders are responsible to ensure C-2 includes all milestones and deliverables identified in this RFP and any additional milestones or deliverables identified by the Bidder that are needed to successfully meet the goals of the project.
118. RFP Section Reference Appendix B RFP Page Number B-6, GEN 066 The RFP states "The EES shall provide the capability to defined and stored DDHS specific data. The ability to use the data to drive workflow or pre-populate forms." Could the Department further elaborate on this requirement so that the vendors can properly scope this requirement?	The Department is anticipating the system to be able to capture and store user-defined data fields that are specific to our State. In addition, it is expected that these fields will be available for display (on-line or print), or to be utilized as part of the system rules or business process.

QUESTIONS	ANSWERS
119. RFP Section Reference Appendix B RFP Page Number B-19, ELG 024 The RFP states "The EES shall identify and flag expedited benefit cases, with user configurable triggers for expedited cases." What program types are expedited? Please provide the requirements for the expedited process.	The Department currently doesn't have any expedited eligibility policies for Medicaid. However there is the potential for future populations. The Department envisions the EES to be able to handle implementation of a regulation that would require an expedited implementation date or process.
120. RFP Section Reference Appendix B RFP Page Number B-20, ELG 027 The RFP states "The EES shall accept complete applications from the Marketplace electronically and make Medicaid eligibility determination without requiring additional information from the applicant consistent with the policies set in the State Plan Amendment." Could the Department provide the referenced State Plan Amendment?	The referenced State Plan Amendment has not been submitted or approved yet by CMS.
121. RFP Section Reference Appendix B RFP Page Number B-21, ELG 045 The RFP states "The EES shall identify applications which are pending HUB Citizenship etc. verification." Please define "etc."	The EES shall identify any cases that have delays in any data returned by the HUB.
122. RFP Section Reference Appendix C RFP Page Number C-19, RSR 074 The RFP states "The EES shall provide the ability to prevent specified user(s) or groups from accessing confidential information such as a patient's chart." This is the only reference to a patient's chart in the requirements. Is the EES required to access/store patient charts which are typically not part of an eligibility system?	Supporting clinical information/medical information is submitted occasionally in order to determine Medicaid eligibility related to a disability determination. Medical records and other patient specific medical documents/information should not be viewable in client or provider accounts.

QUESTIONS	ANSWERS
123. RFP Section Reference Appendix B RFP Page Number B-19 Item ELG 017: "…The EES shall integrate with the existing or replace pre-application screening without entering any personal identifying information…" Would the Department be able to provide additional info to help better understand the functionality of the existing pre-application screening tool?	The Department has a Web-based tool called Am I Eligible on the website www.ACCESSNebraska.ne.gov . The Department would like to utilize a similar tool for Medicaid screening with the new EES system.
124. RFP Section Reference IV.N RFP Page Number 82 The RFP states: "Both the Service Desk and Application Support Help Desk must be integrated into the internal support structures within the State of Nebraska" Please define the requirements for this integration.	The details of this integration are best developed in the course of executing the project. The high-level expectation is that the Contractor Service Desk and Application Support Help Desk process will be integrated with the State Help Desk and Application support processes in a way that is seamless to the user
125. RFP Section Reference V.A.3.f. RFP Page Number 103 RFP Section V.A.3.f. states, "If any employee of any agency of the State of Nebraska is employed by the bidder or is a subcontractor to the bidder, as of the due date for proposal submission, identify all such persons by name, position held with the bidder, and position held with the State (including job title and agency)." Could the Department clarify that this is limited to Contractor and Subcontractor employees being proposed under this proposal?	Yes, this requirement is limited to the Contractor and Subcontractor employees being proposed under this proposal

QUESTIONS	ANSWERS
126. RFP Section Reference IV. I RFP Page Number 77 Can the Department provide the following information as relates to training: 1. The percentage breakout of the 400 staff to be trained i.e., percent of eligibility workers vs. percent of support staff 2. A map showing the disbursement of staff that would logically attend training by RFP-identified training center 3. A description of the facilities to be used for training to include the number of workstations to be used for hands-on training, available equipment, etc.	Of the 400 workers to be trained, 88.5% are eligibility workers, 11.5% are support staff. The Staff Training map in Appendix A shows the distribution of staff to be trained and the location of the training centers. Training centers contain equipment sufficient to meet training needs. Available training sites: a) Scottsbluff located in Scottsbluff County has two training rooms. Each room seats 20. b) Norfolk Veterans Home located in Madison County has 14 seats. c) Omaha located in Douglas County has two rooms; one room seats 18 and the other seats 16. d) Eastern Nebraska Veterans Home, located in Sarpy County has 14 seats. e) Grand Island Veterans Home located in Hall County has 12 seats. f) Hastings Regional Center located in Adams County has 12 seats. g) Lincoln, TAB located in Lancaster Country, Cottage 3 has 14 seats. h) Lexington CSC located in Dawson County has 18 seats. Lincoln CSC, two rooms; One room seats 10, one room seats 25.

QUESTIONS	ANSWERS
127. RFP Section Reference Appendix B RFP Page Number Gen 012 The RFP states: “The EES shall achieve the necessary degree of interoperability between technology components to determine eligibility for Medicaid or CHIP or if the customer is not eligible for Medicaid a transfer to the FFM” This requirement is only one, of very few, to reference CHIP. Since the Medicaid.gov website indicates that NE has a combined program model for CHIP, can the Department please clarify: Is unborn coverage the only separate CHIP coverage? Is this coverage in-scope for ESS?	Currently unborn coverage is the only separate CHIP. However, effective January 1, 2014 the State will implement the mandated 2101(f) CHIP. This coverage is in scope for the EES.
128. RFP Section Reference Appendix B RFP Page Number Gen 019 The RFP states: “The EES shall have the ability to schedule staff performing call center functions, back office functions, local office appointments, and be integrated with task manager” Does the Department already use separate task manager software and if so, can the Department identify/describe the product?	The Department currently does not have this software available.
129. RFP Section Reference Appendix B RFP Page Number Gen 024 The RFP states: “The EES shall accommodate phone application voice signature mechanism” Will the Department please clarify what the EES functionality is that is expected for this requirement?	The ACA requires Medicaid programs to accept applications with signatures via several mechanisms, including phone. Nebraska currently has a method to record voice signatures for phone applications. However, the State would like to see what alternatives exist in the market and would like to see how the voice signature is stored, indexed and retrieved with other eligibility information.

QUESTIONS	ANSWERS
130. RFP Section Reference Appendix B RFP Page Number Gen 068 The RFP states: "The EES shall provide the capability for presumptive eligibility as defined by the Department and include provider web access for application purposes." Please provide the presumptive eligibility workflow followed by Nebraska.	Hospital presumptive policies are currently under development. The State will work with the selected Contractor during JAD sessions to finalize workflows.
131. RFP Section Reference Appendix B RFP Page Number OPS 002 The RFP states: "The EES shall support integrated eligibility system and/or reduce errors associated with processing eligibility for more complex populations" Will the Department please clarify the programs and requirements as it relates to supporting integrated eligibility?	The programs to be supported are the Medicaid programs and may include MAGI and non-MAGI eligibility. Future integration could include Economic Assistance Programs such as Temporary Assistance for Needy Families, Child Care, Supplemental Nutrition Assistance Program, etc.
132. RFP Section Reference Appendix B RFP Page Number ELG 004 The RFP states: "The EES shall support the use of supplemental application for initial eligibility determinations, renewals or changes to existing Medicaid clients." Has the Department already created its alternative application and if so can the Department please make this available to the bidders? Is the EES vendor responsible for programming of the supplemental application in the EES?	The Supplemental Application is available as a fillable pdf application on the ACCESSNebraska website www.ACCESSNebraska.ne.gov ; it is called Supplemental Application for Insurance Affordability Programs. Yes, the EES vendor is responsible for the inclusion of this information as a part of online applications.

QUESTIONS	ANSWERS
133. RFP Section Reference Appendix B RFP Page Number ELG 021 The RFP states: "The EES shall provide informational fact sheets on programs for which the customer is potentially eligible." Is it the intent that these fact sheets be available to citizens via the web portal OR is the EES vendor responsible for distributing these sheets? If the later, is it the Department's intention to provide the vendor with the content for the fact sheets for printing and mailing purposes? If so, can the Department estimate monthly volumes as well as costs for postage?	The fact sheet should be part of the online screening tool and available in the web portal. It also could be content for client accounts and/or included on Department communication via letters, notices, etc. The EES vender is not responsible for distribution of information sheets.
134. RFP Section Reference Appendix B RFP Page Number ELG 073 The RFP states: "The EES shall allow users to apply disposition action holds on records" Since requirements regarding a "hold on benefits" vary considerably by state, will the Department please provide an example of a situation that requires a "hold" on a client record so we can more accurately assess our current system functionality against Nebraska's requirement?	Currently the Department does not apply any holds; the case is left in pending status. The State would like to explore options for holds during requirements JAD sessions. An example of when a hold could be used is resource spend down.
135. RFP Section Reference B. IV. 2.e.iii RFP Page Number 46 The RFP states, "Describe the approach to implementing the MDM technologies to build a Master Client Index/Enterprise Master Person Index to meet the Department's requirements in each phase of the implementation" Which systems of record and other systems will the EES need to interface with?	These are design details that the State believes are best developed in the course of executing the project. The State anticipates that the Contractor will provide the necessary expertise to aid the Department in determining the best option.

QUESTIONS	ANSWERS
136. Section IV. PROJECT DESCRIPTION AND SCOPE OF WORK E. NON-FUNCTIONAL REQUIREMENTS Page 39 Key Assumptions table - EES # 6: The EES Contractor will be responsible for supporting the required modifications to N-FOCUS to integrate with the EES. Could you please clarify this assumption and what is meant by "supporting the required modifications to N-FOCUS"?	Successful integration of the two systems will require the involvement of both the State and the Contractor, and therefore will be the responsibility of both parties. While the Contractor will not be expected to perform the actual modifications to the N-FOCUS system, they will be expected to support the analysis, design, testing and implementation of those modifications, in addition to any and all changes needed in the EES to support the integration.
137. RFP Section Reference Appendix B and Appendix C RFP Page Number Page B-1 and C-1 In responding to both the functional and technical Requirements Traceability Matrices (RTM), we have found that using multiple Ability Codes per requirement can give the State a better understanding of our ability to satisfy the requirement. For example, we may satisfy a requirement as a Standard Function (S) in our solution, but the functionality in the solution may be provided by a third party COTS product (O), (e.g., the rules in our solution are managed in an externalized third-party rules engine per CMS mandates). Will the State permit the use of multiple Ability Codes per requirement where we feel it will better describe our solution?	Multiple ability codes are not necessary. In your example the ability codes should be O, the requirement is satisfied through the use of a separate software package. The Bidder must identify those package(s) and describe how the functionality is integrated into the base system.
138. RFP Section Reference Appendix B RFP Page Number Multiple in Appendix B Within the Appendix B Functional Requirements, there are multiple instances of a requirement being duplicated across 2 different requirements. Some examples include ELG 078 and ELG 111, ELG 079 and ELG 112, APP 002 and APP 050, GEN 057 and APP 003, & ELG 075 and APP 044. Is it the State's intention to have different requirement text for these requirements or does the State desire the bidder to respond with the same response for these requirement sets?	See the revised Appendix B Functional Requirements. The following requirements have been deleted: ELG 075, ELG 111 and ELG 112 APP 003 and App 050

QUESTIONS	ANSWERS
139. RFP Section Reference Appendix B RFP Page Number B-19 On the Appendix B Functional Requirements, the Requirement IDs ELG 020 and ELG 021 have been assigned to two different requirements. Does the State desire to renumber the requirements so that each has a unique Requirement ID?	See the revised Appendix B Functional Requirements.
140. RFP Section Reference I.A.5 RFP Page Number 1 In RFP section I.A.5, the State intends to issue answers to Round Two questions on December 20. Given the short timeframe between December 20 and the actual due date of proposal responses of January 7, and the desire to fully incorporate the direction received from the State on these questions, would it be possible to have the State release responses periodically between December 6 and December 20, to allow vendor teams more time to incorporate the answers more thoroughly?	The State will not respond to questions as they are received. The State will respond to questions on the date presented in RFP Section I.A Schedule of Events.
141. RFP Section Reference IV.E.1.6 RFP Page Number 40 In the assumptions provided in Section IV.E, Assumption 6, the State assumes the EES Contractor will be responsible for supporting required modifications to N-FOCUS to integrate with the EES. Is it to be assumed that State staff will lead this effort? Is the vendor team required only to provide information and testing support on changes to the EES solution to interface with N-FOCUS? If not, and the vendor is required to direct the effort to modify N-FOCUS, what State staff will be provided to assist in that effort, at what level, and for what duration?	Successful integration of the two systems will require the involvement of both the State and the Contractor, and therefore will be the responsibility of both parties. While the Contractor will not be expected to perform the actual modifications to the N-FOCUS system, they will be expected to support the analysis, design, testing and implementation of those modifications, in addition to any and all changes needed in the EES to support the integration.

QUESTIONS	ANSWERS
142. RFP Section Reference IV.E.8 RFP Page Number 40 Section IV.E, Assumption 8 states that all technical support and system hosting must be provided by individuals residing in the continental United States. For other activities in scope of the RFP such as the build of the Solution, is Nebraska allowing work to be performed outside of the continental United States, providing non-domestic staff would have no access to production data?	No. The Department understands that many COTS solutions on the market are developed utilizing resources outside of the United States. For the purposes of this project, the Department will accept the use of systems and/or core components previously developed using non-domestic resources as part of the base system, but require that all work specific to the Nebraska solution be performed by individuals residing in the United States.
143. RFP Section Reference Section IV.N RFP Page Number 33, 83, 84, 95 Please clarify the scope of the vendor in relation to the Hosting of the Solution for Non-production and Production environments during the DDI phase and post-implementation. The RFP contains direction within page 33 and 83 that the EES Contractor will be responsible for Hosting during the DDI and post-implementation phases while pages 84 and 95 contain language around a potential transition of the hosting to a State Data Center and states that Hosting "may" be in scope. Please describe the desired hosting solution that should be included and priced by each vendor in order to get bids with the same hosting scope.	The Bidder should plan on hosting the environments for a minimum of six (6) years with the potential of ten (10) years. The first six years are comprised of the two (2) year initial period and the four (4) year Base M&O. The additional four (4) years represent the two optional two (2) year extensions. During the course of the contract the State may choose to move to an alternate data center as indicated in Section IV.O Turnover.
144. RFP Section Reference IV. H RFP Page Number 76-77 Should implementation of the Change Management Plan be included in the vendor's Solution and Pricing, or is the vendor expected to support implementation of the Plan by the State or an OCM vendor? If the State is expecting to participate in OCM implementation, please describe the types and quantity of State resources the vendor may assume will be participating.	Implementation of the Change Management Plan should be included in the Solution and pricing. The State will participate in OCM implementation as stakeholders and change leaders that can deliver messages as part of the plan; however the State is planning on the EES Contractor leading and performing the OCM implementation activities.

QUESTIONS	ANSWERS
145. RFP Section Reference Scope of Service - Cover Paqe RFP Page Number RFP Cover Page - Limit of Liability Restriction Our response and submission is dependent upon our ability to negotiate and reach mutual agreement upon critical industry standard terms and conditions applicable to similar Integrated Eligibility projects. Toward that end, will the State confirm whether the Department will negotiate and consider the inclusion of a limitation of liability on a contractor's performance that will be incorporated into the Final Contract? For purposes of clarity, this limitation is separate from the issue of any indemnification in favor of a contractor or supplier.	The State of Nebraska will not negotiate terms and conditions prior to the Award Process; however the State will be open to a discussion on this topic with the selected contractor only during contract negotiations.
146. RFP Section Reference I.A RFP Page Number 1 The RFP identifies the process by which a bidder can submit exceptions to the State's proposed Terms and Conditions. The Procurement timeline in the RFP, however, does not contain a specified time period in which the parties will negotiate to reach agreement on mutually acceptable Terms and Conditions. Can the State please clarify at what point in the Procurement process a bidder's proposed exceptions to the Contract Terms and Conditions will be discussed and negotiated?	Any Terms and Conditions that the bidder has taken exception to will be negotiated during the Award Process.

QUESTIONS	ANSWERS
147. RFP Section Reference IV.C.8; IV.N.1-2 RFP Page Number 40,85,86 The RFP currently asks for the Primary Data Center to be a Tier IV data center. A recent white paper by the Uptime Institute recommended a Tier IV level Data Center to be most appropriate for "Companies with an international market presence delivering "24 by forever" services in a highly competitive client-facing market space or where processes are continuous (international in- and outbound wire transfers, etc)". As a leading provider of Eligibility hosted solutions, we do not see the value of a Tier IV data center for the Nebraska hosted solution, especially considering the extra cost such centers typically add to the solution price, for features that are typically not necessary to meet the business requirements of an eligibility system. We kindly request that Nebraska consider going with a Tier III data center which is what other States' Eligibility solutions have been based upon.	After further consideration, the State has determined that it is open to the use of a Tier III facility so long as the Bidder can identify those areas where cost drove the decision and the increased risk that it presents.
148. RFP Section Reference III.DD RFP Page Number 19 In light of the anticipated value of the solution responses to this RFP, the $15 million Performance Bond appears to be well beyond the typical industry standard bond, which usually is 10% of total contract value at the maximum. To encourage bids from mature Eligibility Solution providers, would the State consider a reduction of the Performance Bond to 10% of contract value?	As referenced in the RFP, a Performance Bond or Certified Check will be required from the awarded contractor and at the dollar amount stated.

QUESTIONS	ANSWERS
149. RFP Section Reference IV.N.17 RFP Page Number 96 Within Section IV.N.17, the RFP states that off-site hardware will remain the property of the contractor. In order for contractor's to provide the most robust Infrastructure solutions at the most competitive pricing, would Nebraska be willing to take ownership of the hardware (in title) following the Contractor's purchase of the hardware?	The State will consider cost saving related to hardware purchase options that a Bidder can provide. Please provide details in Round 2 for further research and analysis.
150. RFP Section Reference IV.C.2 RFP Page Number 35 In Section IV.C.2, the State requests a "formal and highly tuned Data Warehouse and Data Mart Architecture". However, the RTM does not contain any requirements in regards to the State's expectation of the scope of the Data Warehouse or Data Marts. Can the State please elaborate on the expectations of the requested Data Warehouse and Data Marts to ensure contractor's bids assume the same scope?	In section IV.C.3, the Department identifies the need for "Analytics and Business Intelligence Tools and Repositories". The Data Warehouse and Data Mart would be considered part of the repositories. The State requests that Bidders provide the details of their capabilities in these areas and, if applicable, how they utilize them to satisfy the functional requirements of the proposed solution.
151. RFP Section Reference General RFP Page Number N/A Are there existing legacy systems that Nebraska DHS expects the contractor to resuse to meet the functionality described? If so, please specify the applications and versions.	From an applications perspective, the answer is no. To the degree possible, the Department would like to reuse/leverage existing standard infrastructure components. Some of which have already been identified, such as Hyland On-Base, the IVR, the document scanning platform, EDI gateway.
152. RFP Section Reference General RFP Page Number N/A After a bid is submitted, when is the deadline for withdrawing that bid?	Any bidder may withdraw their bid prior to the contract award.

QUESTIONS	ANSWERS
153. RFP Section Reference III Terms and Conditions RFP Page Number 19 CC. PENALTY states "Failure to meet the dates stipulated in the contract for the deliverables may result in an assessment of penalty due the State of $1,000 dollars per day, until the deliverables are approved." Please clarify the deliverable acceptance process and how the penalties would be applied in case of non-approval of a deliverable that is not priced or does not delay a milestone or another deliverable?	Please reference Section V. C "The payment schedule for the project is tied to specific dates and deliverables. Invoices may be submitted by the contractor on specific dates based on the completion and acceptance of related deliverables. No invoice will be approved unless the associated deliverables have been approved. The vendor will be given an opportunity to cure any defects prior to the penalty provision being utilized."
154. RFP Section Reference Appendix B RFP Page Number 125 Functional Requirement OPS006 states "The EES shall support workers to improve workflow and reduce errors including: … Logic Flags" What are "Logic flags"?	Logic Flags are the business rules that support notification of impossible condition, such as a pregnant male.
155. RFP Section Reference Appendix B RFP Page Number 125 Functional Requirement GEN025 states "The EES shall validate and return address information errors as entered in the system." Does the state currently have an address verification service that the contractor should incorporate into the EES or does the state intend the contractor to propose a service as part of the EES?	The Department does not have an address verification service. The Department requires this capability as part of the Bidder's Technical solution.
156. RFP Section Reference Appendix C RFP Page Number 126 Non-Functional Requirement PRT 016 states "The EES shall provide the capability to consume externally available mapping Web services." Does Nebraska DHS have a preferred mapping service? Does Nebraska DHS have available licenses?	No, the Department does not have a preferred mapping service or licenses. This is a desired capability, but it will most likely not be utilized in the initial implementation.

QUESTIONS	ANSWERS
157. RFP Section Reference Appendix C RFP Page Number 126 Non-Functional Requirement WEB009 states "Facilitate the use of Microsoft Office creation tools to submit content directly into the WCM repository" Is “WCM” an acronym for WebSpehere Content Manager?	No, it is an acronym for Web Content Management which is the heading of sub-section under which this requirement falls.
158. RFP Section Reference Appendix C RFP Page Number 126 Non-Functional Requirement MDM031 states The EES shall integrate with the Department’s Active Directory to provide authorization, e.g., role-based security." Is Active Directory hosted by the state or does the contractor need to link Active Directory into the system? Does this apply to internal and external users? Are all stored in Active Directory or just internal users?	The Department currently has an Active Directory infrastructure in place. It applies to both internal and external users of the system. Currently external users (who connect via Citrix) utilize the Department Active Directory for authentication. Both internal and external users are in Active Directory.

QUESTIONS	ANSWERS
159. RFP Section Reference Appendix B RFP Page Number B-19 Appendix B includes ELG 20 and ELG21 twice, with different values. The listing appears as follows: ELG 020 = The EES shall apply eligibility rules to identify and flag potential financial and non-financial eligibility. ELG 021 = The EES shall provide the customer information on eligibility and general verification requirements for Medicaid eligibility and timelines for applications and verification processes. ELG 020 = The EES shall access educational materials on functions of Medicaid and on other state programs. ELG 021 = The EES shall provide informational fact sheets on programs for which the customer is potentially eligible. Will the State please confirm the numbering for these requirements and subsequently determine the impact and numbering of the remaining ELG requirements listed?	See the revised Appendix B Functional Requirements.

QUESTIONS	ANSWERS
160. RFP Section Reference Appendix D RFP Page Number 140 The RFP states: Any requirements that the Bidder cannot attest to full compliance; i.e., provides a value of “N” in the Compliant field of the Appendix B Functional Requirements Traceability Matrix or Appendix C Non-Functional Requirements Traceability Matrix, must document the requirement gap as outlined in this Appendix. The Bidder must ensure that the Gap Analysis Matrix contains an entry for each requirement where one or more of these conditions are true: 1. The Bidder has indicated “N” to Compliant in either RTM 2. The Bidder has indicated “M”, “F”, “C” or “O” to Availability in either RTM 3. The Bidder has indicated that an extensive integration effort of more than 2,500 hours will be needed to meet the requirement as documented in the Key Features of the EES description in the RTM. a) The first sentence in this paragraph indicates that the vendor must document Appendix B and C RTM items marked “N” must be included as an entry in Appendix D Fit Gap Analysis. The numbers list seems to indicate that items scored as N, M, F, C or O must be included as items in the Fit Gap Analysis. Will the State please clarify which items must be included in the Fit Gap Analysis? b) Additionally the initial sentence also makes reference to a Compliant field and the numbered list makes reference to Availability. Neither Appendix B nor C contains Compliant or Availability fields. Will the State please clarify this statement?	See the revised instructions for Appendices B, C and D.

SCOPE OF ADDENDUM

Page numbers 125 through 128 of RFP 4544Z1 are hereby deleted in their entirety. All instructions for the appendices are incorporated into the individual documents (Appendix A, Appendix B, Appendix C, Appendix D) located at: http://das.nebraska.gov/materiel/purchasing/4544.htm

Page number 124 of RFP 4544Z1 is hereby replaced and superseded with the following:

Appendix A

Bidder Library Content

Request for Proposal Number 4544Z1

The Procurement Library contains information which should be of use to the vendor in developing their proposed solution.

Medicaid Eligibility and Enrollment System
MMIS Existing Infrastructure
N-FOCUS Overview
N-FOCUS Interface Documentation and Schedule
N-FOCUS Technical Overview
Technical Framework
Nebraska EES Analysis
EES IV&V RFP
Production Database Size by table for N-Focus
Staff in County
ANDI Full Architecture

This addendum will become part of the proposal and should be acknowledged with the RFP.

State of Nebraska (State Purchasing Bureau)
REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM

RETURN TO:
State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Phone: 402-471-2401
Fax: 402-471-2089

SOLICITATION NUMBER	RELEASE DATE
RFP 4544Z1	**October 31, 2013**
OPENING DATE AND TIME	PROCUREMENT CONTACT
January 7, 2014 2:00 p.m. Central Time	**Peter A. Kroll** **Robert Thompson**

This form is part of the specification package and must be signed and returned, along with proposal documents, by the opening date and time specified.

PLEASE READ CAREFULLY!

SCOPE OF SERVICE

The State of Nebraska, Administrative Services (AS), Materiel Division, Purchasing Bureau, is issuing this Request for Proposal, RFP Number 4544Z1 for the purpose of selecting a qualified contractor to replace the functionality of the current Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (EES) that meets the CMS Seven Standard and Conditions.

Written questions are due no later than November 12, 2013, and should be submitted via e-mail to as.materielpurchasing@nebraska.gov. Written questions may also be sent by facsimile to (402) 471-2089.

Bidder should submit one (1) original and one (1) hard copy of the Technical Proposal and one (1) original and one (1) hard copy of the Cost Proposal. In the event of any inconsistencies among the proposals, the language contained in the original proposal shall govern. Proposals must be submitted by the proposal due date and time.

PROPOSALS MUST MEET THE REQUIREMENTS OUTLINED IN THIS REQUEST FOR PROPOSAL TO BE CONSIDERED VALID. PROPOSALS WILL BE REJECTED IF NOT IN COMPLIANCE WITH THESE REQUIREMENTS.

1. Sealed proposals must be received in State Purchasing by the date and time of proposal opening indicated above. No late proposals will be accepted. No electronic, e-mail, fax, voice, or telephone proposals will be accepted.
2. This form "REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES" MUST be manually signed, in ink, and returned by the proposal opening date and time along with bidder's proposal and any other requirements as specified in the Request for Proposal in order to be considered for an award.
3. It is the responsibility of the bidder to check the website for all information relevant to this solicitation to include addenda and/or amendments issued prior to the opening date. Website address is as follows: http://das.nebraska.gov/materiel/purchasing/rfp.htm
4. It is understood by the parties that in the State of Nebraska's opinion, any limitation on the contractor's liability is unconstitutional under the Nebraska State Constitution, Article XIII, Section 3, and that any limitation of liability shall not be binding on the State of Nebraska despite inclusion of such language in documents supplied with the contractor's bid or in the final contract.

BIDDER MUST COMPLETE THE FOLLOWING

By signing this Request For Proposal For Contractual Services form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions (see Section III) and certifies bidder maintains a drug free work place environment.

_____ I hereby certify that I am a Resident disabled veteran or business located in a designated enterprise zone in accordance with Neb. Rev Stat §73-107 and wish to have preference, if applicable, considered in the award of this contract.

FIRM: _____

COMPLETE ADDRESS: _____

TELEPHONE NUMBER: _____ FAX NUMBER: _____

SIGNATURE: _____ DATE: _____

TYPED NAME & TITLE OF SIGNER: _____

TABLE OF CONTENTS

REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM i

TABLE OF CONTENTS ii

GLOSSARY OF TERMS v

ACRONYM LIST xii

I. SCOPE OF THE REQUEST FOR PROPOSAL 1

A. SCHEDULE OF EVENTS 1

II. PROCUREMENT PROCEDURES 2

A. PROCURING OFFICE AND CONTACT PERSON 2
B. GENERAL INFORMATION 2
C. COMMUNICATION WITH STATE STAFF 2
D. NOTIFICATION OF INTENT TO BID 3
E. WRITTEN QUESTIONS AND ANSWERS 3
F. ORAL INTERVIEWS/PRESENTATIONS AND/OR DEMONSTRATIONS 4
G. SUBMISSION OF PROPOSALS 4
H. PROPOSAL OPENING 5
I. LATE PROPOSALS 5
J. REJECTION OF PROPOSALS 5
K. EVALUATION OF PROPOSALS 5
L. EVALUATION COMMITTEE 7
M. MANDATORY REQUIREMENTS 7
N. REFERENCE CHECKS 8
O. SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS 8
P. VIOLATION OF TERMS AND CONDITIONS 8

III. TERMS AND CONDITIONS 9

A. GENERAL 9
B. AWARD 10
C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION 10
D. PERMITS, REGULATIONS, LAWS 10
E. OWNERSHIP OF INFORMATION AND DATA 11
F. INSURANCE REQUIREMENTS 11
G. COOPERATION WITH OTHER CONTRACTORS 13
H. INDEPENDENT CONTRACTOR 13
I. CONTRACTOR RESPONSIBILITY 13
J. CONTRACTOR PERSONNEL 14
K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION 14
L. CONFLICT OF INTEREST 15
M. PROPOSAL PREPARATION COSTS 15
N. ERRORS AND OMISSIONS 15
O. BEGINNING OF WORK 15
P. ASSIGNMENT BY THE STATE 15
Q. ASSIGNMENT BY THE CONTRACTOR 16
R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL 16
S. GOVERNING LAW 16
T. ATTORNEY'S FEES 16

U. ADVERTISING 16
V. STATE PROPERTY 17
W. SITE RULES AND REGULATIONS 17
X. NOTIFICATION 17
Y. EARLY TERMINATION 18
Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS 18
AA. BREACH BY CONTRACTOR 19
BB. ASSURANCES BEFORE BREACH 19
CC. PENALTY 19
DD. PERFORMANCE BOND 19
EE. FORCE MAJEURE 20
FF. PROHIBITION AGAINST ADVANCE PAYMENT 20
GG. PAYMENT 20
HH. INVOICES 21
II. AUDIT REQUIREMENTS 21
JJ. TAXES 21
KK. INSPECTION AND APPROVAL 21
LL. CHANGES IN SCOPE/CHANGE ORDERS 22
MM. SEVERABILITY 22
NN. CONFIDENTIALITY 22
OO. PROPRIETARY INFORMATION 23
PP. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING 23
QQ. PRICES 24
RR. BEST AND FINAL OFFER 24
SS. ETHICS IN PUBLIC CONTRACTING 24
TT. INDEMNIFICATION 25
UU. NEBRASKA TECHNOLOGY ACCESS STANDARDS 26
VV. ANTITRUST 26
WW. DISASTER RECOVERY/BACK UP PLAN 26
XX. TIME IS OF THE ESSENCE 26
YY. RECYCLING 26
ZZ. DRUG POLICY 26
AAA. EMPLOYEE WORK ELIGIBILITY STATUS 27
BBB. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY 27

IV. PROJECT DESCRIPTION AND SCOPE OF WORK 28

A. PROJECT OVERVIEW 30
B. SCOPE OF WORK 31
C. TECHNICAL ENVIRONMENT 33
D. FUNCTIONAL REQUIREMENTS 38
E. NON-FUNCTIONAL REQUIREMENTS 39
F. PROJECT PLANNING AND MANAGEMENT 51
G. BUSINESS PROCESS REENGINEERING 75
H. ORGANIZATIONAL CHANGE MANAGEMENT 76
I. TRAINING 77
J. KNOWLEDGE TRANSFER 79
K. REPORTING 81
L. DOCUMENTATION 81
M. IMPLEMENTATION 82
N. PROVIDE POST IMPLEMENTATION SUPPORT 83
O. TURNOVER 96
P. SERVICE LEVEL REQUIREMENTS 98

Q. DELIVERABLE APPROVAL PROCESS 98
R. VALUE ADDED OPTIONS 100

V. PROPOSAL INSTRUCTIONS 102

A. TECHNICAL PROPOSAL 102
B. COST PROPOSAL REQUIREMENTS 109
C. PAYMENT SCHEDULE 110

Form A Bidder Contact Sheet 111
Form B Notification of Intent to Bid 112
Form C Milestones & Deliverables 113
Form C-1 Nebraska Milestones & Deliverables 114
Form C-2 Milestones and Deliverables Mapping and Schedule 116
Form C-3 Milestones & Deliverables Payment Percentage 117
Form D Cost Proposal Forms 118
Form D-1: Fixed Price by Deliverable 119
Form D-2: Post Implementation Support 121
Form D-3: Total Cost and Fixed Price Summary Response 122
Appendix A Bidder Library Content 124
Appendix B Functional Requirements Traceability Matrix 125
Appendix C Non-Functional Requirements Traceability Matrix 126
Appendix D Requirements Gap Analysis 127

GLOSSARY OF TERMS

Assistance to the Aged, Blind and Disabled (AABD): Medicaid available to certain Nebraskans to assist with medical expenses. Nebraskans who are aged, blind or have a disability (as classified by the Social Security Administration) must meet established financial guidelines in order to be eligible. Some consumers in the AABD Medicaid program access services through managed care while the remaining population access care through a fee-for-service delivery system.

Acceptance Test Procedure: Benchmarks and other performance criteria, developed by the State of Nebraska or other sources of testing standards, for measuring the effectiveness of products or services and the means used for testing such performance.

Affordable Care Act (ACA): On March 23, 2010, President Obama signed into law the Patient Protection and Affordable Care Act. On March 30, 2010, the Health Care and Education Reconciliation Act of 2010 was signed into law. The two laws are collectively referred to as the Affordable Care Act (ACA). ACA is also referred to as the "health reform act" or "Patient Protection and Affordable Care Act (PPACA).

ACCESSNebraska Web Portal: The public application portal for various Nebraska public assistance benefit programs such as: Medicaid, Supplemental Nutritional Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), Assistance to Aged, Blind and Disabled, Energy Assistance, Kids Connection, and Child Care Subsidy.

Addendum: Something added or deleted.

Agency: Any state agency, board, or commission other than the University of Nebraska, the Nebraska State colleges, the courts, the Legislature, or any officer or agency established by the Constitution of Nebraska.

Agent: A person authorized by a superior or organization to act on their behalf.

Amend: To alter or change by adding, subtracting, or substituting. A contract can be amended only by the parties participating in the contract. A written contract can only be amended in writing.

Amendment: Written correction or alteration.

Appropriation: Legislative authorization to expend public funds for a specific purpose. Money set apart for a specific use.

Award: All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

Best and Final Offer (BAFO): A second-stage bid in a public procurement for services.

Bid: The executed document submitted by a bidder in response to a Request for Proposal.

Bid Bond: A bond given by a surety on behalf of the bidder to ensure that the bidder will enter into the contract as bid and is retained by the State from the date of the bid opening to the date of contract signing.

Bidder: Any person or entity submitting a competitive bid response to a solicitation.

Business: Any corporation, partnership, individual, sole proprietorship, joint-stock company, joint venture, or any other private legal entity.

Business Day: Any weekday, excepting public holidays.

Calendar Day: Every day shown on the calendar; Saturdays, Sundays and State/Federal holidays included. Not to be confused with "Work Day".

Centers for Medicare & Medicaid Services (CMS): The federal agency within the United States Department of Health and Human Services (DHHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program (CHIP), and health insurance portability standards.

Children's Health Insurance Program (CHIP): Enacted in 1997, CHIP is a federal-state program that provides health care coverage for uninsured low-income children who are not eligible for Medicaid. States have the option of administering CHIP through their Medicaid programs or through a separate program (or a combination of both). The federal government matches state spending for CHIP but federal CHIP funds are capped.

Collusion: A secret agreement or cooperation between two or more persons or entities to accomplish a fraudulent, deceitful or unlawful purpose.

Competition: The process by which two or more vendors vie to secure the business of a purchaser by offering the most favorable terms as to price, quality, delivery and/or service.

Confidential Information: Unless otherwise defined below, "Confidential Information" shall also mean proprietary trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Nebraska Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would provide.

Configure: Modification to software that does not require changes to the Source Code for such software. This includes rules-based, rules engine based, or parameter driven modification.

Contract: An agreement between two or more persons to perform a specific act or acts.

Contract Administration: The Management of various facets of contracts to assure that the contractors total performance is in accordance with the contractual commitments and obligations to the purchaser are fulfilled.

Contract Management: Includes reviewing and approving of changes, executing renewals, handling disciplinary actions, adding additional users, and any other form of action that could change the contract.

Contractor: Any person or entity that supplies goods and/or services.

Conversion Period: A period of time not to exceed six (6) months, during which the State converts to a new Operating System under "Conversion" as per this RFP.

Copyright: A grant to a writer/artist that recognizes sole authorship/creation of a work and protects the creator's interest(s) therein.

CPU: Any computer or computer system that is used by the State to store, process, or retrieve data or perform other functions using Operating Systems and applications software.

Critical Program Error: Any Program Error, whether or not known to the State, which prohibits or significantly impairs use of the Licensed Software as set forth in the documentation and intended in the contract.

Default: The omission or failure to perform a contractual duty.

Deviation: Any proposed change(s) or alteration(s) to either the contractual language or deliverables within the scope of this Request for Proposal.

Documentation: The user manuals and any other materials in any form or medium customarily provided by the contractor to the users of the Licensed Software which will provide the State with sufficient information to operate, diagnose, and maintain the Licensed Software properly, safely, and efficiently.

Evaluation Committee: A committee (or committees) appointed by the requesting agency that advises and assists the procuring office in the evaluation of proposals.

Evaluation of Proposal: The process of examining a proposal after opening to determine the bidder's responsibility, responsiveness to requirements, and to ascertain other characteristics of the proposal that relate to determination of the successful bidder.

Extension: A provision, or exercise of a provision, of a contract that allows a continuance of the contract (at the option of the State of Nebraska) for an additional time according to contract conditions. Not to be confused with "Renewals."

F.O.B. Destination: Free on Board. The delivery charges have been included in the quoted price and prepaid by the vendor. Vendor is responsible for all claims associated with damages during delivery of product.

Foreign Corporation: A foreign corporation is a corporation that was formed (i.e. incorporated) in another state but transacting business in Nebraska pursuant to a certificate of authority issued by the Nebraska Secretary of State.

Health Insurance Portability and Accountability Act of 1996 (HIPAA): The Standards for Security and Privacy of Individually Identifiable Health Information found in the Health Insurance Portability and Accountability Act of 1996, Public Law 104-91, as amended and related HIPAA regulations at 45 C.F.R. part 160-164, as in effect or as amended.

Installation Date: The date when the procedures described in "Installation by Contractor, and Installation by State", as found in the RFP, are completed.

Late Proposal: A proposal received at the place specified in the solicitation after the date and time designated for all proposals to be received.

Licensed Software: Any and all software and documentation by which the State acquires or is granted any rights under the contract.

Local Time: Central Time in Lincoln, NE.

Modified Adjusted Gross Income (MAGI): A definition of income from the tax system that will be used to determine eligibility for certain categories of Medicaid eligibility in addition to tax credits available to people buying insurance in exchanges.

Mandatory: Required, compulsory or obligatory.

May: Denotes discretion.

Medicaid Information Technology Architecture (MITA): An initiative of the Centers for Medicare and Medicaid Services (CMS), aligned with the National Health Infrastructure Initiative (NHII), and intended to foster integrated business and information technology transformation across the Medicaid enterprise to improve the administration of the Medicaid program.

Module: A collection of routines and data structures that perform a specific function of the Licensed Software.

Must: Denotes the imperative, required, compulsory or obligatory.

Nebraska Family Online Client User System (N-FOCUS): The Nebraska Department's software application used to support eligibility determinations for Nebraska Medicaid, Nebraska CHIP and various Economic Assistance Programs. This system also provides additional functionality such as case management, provider management and payment calculations.

Opening Date: Specified date and time for the public opening of received, labeled and sealed formal proposals. Not to be confused with "Release Date".

Operating System: The control program in a computer that provides the interface to the computer hardware and peripheral devices, and the usage and allocation of memory resources, processor resources, input/output resources, and security resources.

Outsourcing: Acquiring computing or related services from a source outside of the State of Nebraska which may include programming and/or executing the State's Licensed Software on the State's CPU's, programming, and/or executing the State's programs and Licensed Software on the contractor's CPU's or any mix thereof.

Outsourcing Company: A company that provides Outsourcing Services under contract to the State.

Performance Bond: A bond given by a surety on behalf of the contractor to ensure the timely and proper (in sole estimation of the State) performance of a contract.

Protected Health Information (PHI): Individually identifiable health information that is transmitted by, or maintained in, electronic media or any other form or medium. Individually identifiable health information is information that is a subset of health information, including demographic information collected from an individual, and 1) is created or received by a healthcare provider, health plan, employer, or healthcare clearinghouse; and 2) related to the past, present, or future physical or mental health or condition of an individual; the provision of healthcare to an individual; or the past, pre-sent, or future payment for the provision of healthcare to an individual; (i) that identifies the individual; or (ii) with respect to which there is a reasonable basis to believe the information can be used to identify the individual.

Personally Identifiable Information (PII): Information: 1) that directly identifies an individual (e.g., name, address, social security number or other identifying number or code, telephone number, email, address, etc.), or 2) by which an agency intends to identify specific individuals in conjunction with other data elements, e.g., indirect identification. (These data elements may include a combination of gender, race, birth date, geographic indicator, and other descriptors.)

Platform: A specific hardware and Operating System combination that is different from other hardware and Operating System combinations to the extent that a different version of the Licensed Software product is required to execute properly in the environment established by such hardware and Operating System combination.

Patient Protection and Affordable Care Act (PPACA): See ACA: Affordable Care Act.

Pre-Proposal Conference: A meeting scheduled for the purpose of providing clarification regarding a Request for Proposal and related expectations.

Product: A module, a system, or any other software-related item provided by the contractor to the State.

Program Error: Code in Licensed Software which produces unintended results or actions, or which produces results or actions other than those described in the specifications. A program error includes, without limitation, any “Critical Program Error.”

Program Set: The group of programs and products, including the Licensed Software specified in the RFP, plus any additional programs and products licensed by the State under the contract for use by the State.

Project: The total of all software, documentation, and services to be provided by the contractor under this contract.

Project Management Plan (PMP): A formal, approved document used to guide both project execution and project control. The primary uses of the Project Management Plan are to document planning assumptions and decisions, facilitate communication among stakeholders, and document approved scope, cost, and schedule baselines.

Proposal: The executed document submitted by a bidder in response to a Request for Proposal.

Proprietary Information: Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive.

Protest: A complaint about a governmental action or decision related to a Request for Proposal or the resultant contract, brought by a prospective bidder, a bidder, a contractor, or other interested party to AS Materiel Division or another designated agency with the intention of achieving a remedial result.

Public Proposal Opening: The process of opening proposals, conducted at the time and place specified in the Request for Proposal, and in the presence of anyone who wishes to attend.

Recommended Hardware Configuration: The data processing hardware (including all terminals, auxiliary storage, communication, and other peripheral devices) to the extent utilized by the State as recommended by the contractor.

Release Date: Date of release of the Request for Proposal to the public for submission of proposal responses. Not to be confused with “Opening Date”.

Renewal: Continuance of a contract for an additional term after a formal signing by the parties.

Representative: Includes an agent, an officer of a corporation or association, a trustee, executor or administrator of an estate, or any other person legally empowered to act for another.

Request for Proposal (RFP): All documents, whether attached or incorporated by reference, utilized for soliciting competitive proposals.

Responsible Bidder: A bidder who has the capability in all respects to perform fully all requirements with integrity and reliability to assure good faith performance.

Responsive Bidder: A bidder who has submitted a bid which conforms in all respects to the solicitation document.

Seven Standards and Conditions for Enhanced Funding: The Centers for Medicare & Medicaid Services (CMS) standards and conditions that must be met by the states in order for Medicaid technology investments (including traditional claims processing systems, as well as eligibility systems) to be eligible for enhanced match funding.

Shall: Denotes the imperative, required, compulsory or obligatory.

Should: Indicates an expectation.

Service Oriented Architecture (SOA): A set of principles and methodologies for designing and developing software in the form of interoperable services. These services are well-defined business functionalities that are built as software components (discrete pieces of code and/or data structures) that can be reused for different purposes. SOA design principles are used during the phases of systems development and integration.

Solicitation: The process of notifying prospective bidders or offerors that the State of Nebraska wishes to receive proposals for furnishing services. The process may consist of public advertising, posting notices, or mailing Request for Proposals and/or Request for Proposal announcement letter to prospective bidders, or all of these.

Solicitation Document: Request for Proposal.

Specifications: The information provided by or on behalf of the contractor that fully describes the capabilities and functionality of the Licensed Software as set forth in any material provided by the contractor, including the documentation and User's Manuals described herein.

System: Any collection or aggregation of two (2) or more Modules that is designed to function, or is represented by the contractor as functioning or being capable of functioning as an entity.

Termination: Occurs when either party pursuant to a power created by agreement or law puts an end to the contract. All obligations which are still executory on both sides are discharged but any right based on prior breach or performance survives.

Trademark: A distinguishing sign, symbol, mark, word, or arrangement of words in the form of a label or other indication, that is adopted and used by a manufacturer or distributor to designate its particular goods and which no other person has the legal right to use.

Trade Secret: Information, including, but not limited to, a drawing, formula, pattern, compilation, program, device, method, technique, code, or process that; (a) derives independent economic value, actual or potential, from not being known to, and not being ascertainable by proper means, other persons who can obtain economic value from its disclosure or use; and (b) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy (see Neb. Rev. Stat. §87-502(4)).

Upgrade: Any improvement or change in the Software that improves or alters its basic function.

Vendor: An actual or potential contractor; a contractor.

Will: Denotes the imperative, required, compulsory or obligatory.

ACRONYM LIST

AABD	Assistance to the Aged, Blind and Disabled
ACA	Affordable Care Act
APTC	Advanced Premium Tax Credit
ARRA	American Recovery and Reinvestment Act of 2009
BI	Business Intelligence
BU/R	Back Up and Recovery
CBT	Computer Based Training
CCIIO	Center for Consumer Information and Insurance Oversight
CFR	Code of Federal Regulation
CHIP	Children's Health Insurance Program
CMMI	Capability Maturity Model Integration
CMS	Centers for Medicare & Medicaid Services
CSR	Cost Sharing Reductions
DDI	Design, Develop and Implement
DED	Deliverables Expectations Document
DHHS	Nebraska Department of Health and Human Services
DMZ	Demilitarized Zone
DNS	Domain Name System
EDA	Event Driven Architecture
EDI	Electronic Data Interchange
EES	Eligibility and Enrollment Solution
ELC	Exchange Life Cycle
ELT	Extraction, Transformation & Load
ESB	Enterprise Service Bus
FAT	Final Acceptance Testing
FFM	Federally Facilitated Marketplace
FFP	Federal Financial Participation
FOA	Funding Opportunity Announcement
FPL	Federal Poverty Level
HIPAA	Health Insurance Portability and Accountability Act
HTTP	Hypertext Transfer Protocol
HVAC	Heating, Ventilation, Air Conditioning
IaaS	Infrastructure as a Service
ICMP	Internet Control Message Protocol
IEEE	Institute of Electrical and Electronic Engineers
ILT	Instructor Led Training
IS&T	Information Systems and Technology Division
ITIL	Information Technology Infrastructure Library
IV&V	Independent Verification and Validation
JAD	Joint Application Development
LAN	Local Area Network
MAGI	Modified Adjusted Gross Income
MDM	Master Data Management
MITA	Medicaid Information Technology Architecture
MLTC	Division of Medicaid and Long-Term Care

MMIS	Medicaid Management Information Systems
M&O	Maintenance and Operations
NE	Nebraska
N-FOCUS	Nebraska Family Online Client User System
NIST	National Institute of Standards and Technology
O-CIO	Office of the CIO
OCM	Organizational Change Management
ODS	Optional Data Store
OLAP	Online Analytical Processing
OLTP	Online Transaction Processing
ORR	Operational Readiness Review
PaaS	Platform as a Service
PDC	Primary Data Center
PDU	Power Distribution Units
PHI	Protected Health Information
PII	Personally Identifiable Information
PMBOK	Project Management Book of Knowledge
PMI	Project Management Institute
PMP	Project Management Plan
PPACA	Patient Protection and Affordable Care Act
RAID	Redundant Array of Independent Disks
RAM	Random Access Memory
REST	Representational State Transfer
RFP	Request for Proposal
RTM	Requirements Traceability Matrix
SAN	Storage Area Network
SAT	System Acceptance Testing
SDLC	Software Development Life Cycle
SHOP	Small Business Health Options Plan
SIT	System Integration Testing
SLR	Service Level Requirement
SNAP	Supplemental Nutrition Assistance Program
SNMP	Simple Network Management Protocol
SOA	Service Oriented Architecture
SOAP	Simple Object Access Protocol
SSL	Secure Socket Layer
TANF	Temporary Assistance for Needy Families
TCO	Total Cost of Ownership
UAT	User Acceptance Testing
UPS	Uninterrupted Power Source
VPN	Virtual Private Network
WAN	Wide Area Network
WBS	Work Breakdown Structure
WMI	Windows Management Instrumentation
WSDL	Web Service Description Language
XML	Extensible Markup Language
XSD	XML Schema Definition

I. SCOPE OF THE REQUEST FOR PROPOSAL

The State of Nebraska, Administrative Services (AS), Materiel Division, Purchasing Bureau (hereafter known as State Purchasing Bureau), is issuing this Request for Proposal, RFP Number 4544Z1 for the purpose of selecting a qualified contractor to replace the functionality of the current Medicaid Eligibility and Enrollment (E&E) System with a modern COTS-based Eligibility and Enrollment Solution (EES) that meets the CMS Seven Standard and Conditions.

A contract resulting from this Request for Proposal will be issued from the date of the award for six (6) years, with the option to renew for two (2) additional two-year renewal periods as mutually agreed upon by all parties. The initial period of the contract will be the Design, Development and Implementation (DDI) of the EES, with the expectation that it will be completed and approved by the State of Nebraska by December 31, 2015. The subsequent Base Maintenance and Operations (Base M&O) period shall be four (4) years from the projected date of January 1, 2016.
ALL INFORMATION PERTINENT TO THIS REQUEST FOR PROPOSAL CAN BE FOUND ON THE INTERNET AT: http://das.nebraska.gov/materiel/purchasing/rfp.htm

A. SCHEDULE OF EVENTS

The State expects to adhere to the tentative procurement schedule shown below. It should be noted, however, that some dates are approximate and subject to change.

	ACTIVITY	DATE/TIME
1.	Release Request for Proposal	October 31, 2013
2.	Last day to submit Round One written questions	November 12, 2013
3.	State responds to Round One written questions through Request for Proposal "Addendum" and/or "Amendment" to be posted to the Internet at: http://das.nebraska.gov/materiel/purchasing/rfp.htm	November 26, 2013
4.	Last day to submit Round Two written questions	December 6, 2013
5.	State responds to Round Two written questions through Request for Proposal "Addendum" and/or "Amendment" to be posted to the Internet at: http://das.nebraska.gov/materiel/purchasing/rfp.htm	December 20, 2013
6.	Last day to submit "Letter of Intent To Bid"	December 23, 2013
7.	Proposal opening Location: State Purchasing Bureau 1526 K Street, Suite 130 Lincoln, NE 68508	January 7, 2014 2:00 PM Central Time
8.	Review for conformance of mandatory requirements	January 7, 2014
9.	Evaluation period	January 8, 2014 to January 20, 2014
10.	"Oral Interviews/Presentations and/or Demonstrations" (if required)	January 27, 2014 To February 7, 2014
11.	Post "Letter of Intent to Contract" to Internet at: http://das.nebraska.gov/materiel/purchasing/rfp.htm	February 14, 2014
12.	Performance bond submission	February 21, 2014
13.	Contract award	February 21, 2014
14.	Contractor start date	March 3, 2014

II. PROCUREMENT PROCEDURES

A. PROCURING OFFICE AND CONTACT PERSON

Procurement responsibilities related to this Request for Proposal reside with the State Purchasing Bureau. The point of contact for the procurement is as follows:

Notice to Bidders: Department of Administrative Services, Materiel Division, State Purchasing is moving December 16 through 30. Effective Monday, December 30, 2013, all bid/proposal openings will be held at our new location, 1526 K Street, Suite 130, Lincoln, NE.

Name: Peter A. Kroll and Robert Thompson
Agency: State Purchasing Bureau
Address: 1526 K Street, Suite 130
Lincoln, NE 68508

OR

Address: P.O. Box 94847
Lincoln, NE 68509
Telephone: 402-471-2401
Facsimile: 402-471-2089
E-Mail: as.materielpurchasing@nebraska.gov

B. GENERAL INFORMATION

The Request for Proposal is designed to solicit proposals from qualified vendors who will be responsible for providing an EES at a competitive and reasonable cost. Proposals that do not conform to the mandatory items as indicated in the Request for Proposal will not be considered.

Proposals shall conform to all instructions, conditions, and requirements included in the Request for Proposal. Prospective bidders are expected to carefully examine all documentation, schedules and requirements stipulated in this Request for Proposal, and respond to each requirement in the format prescribed.

A fixed-price contract will be awarded as a result of this proposal. In addition to the provisions of this Request for Proposal and the awarded proposal, which shall be incorporated by reference in the contract, any additional clauses or provisions required by the terms and conditions will be included as an amendment to the contract.

C. COMMUNICATION WITH STATE STAFF

From the date the Request for Proposal is issued until a determination is announced regarding the selection of the contractor, contact regarding this project between potential contractors and individuals employed by the State is restricted to only written communication with the staff designated above as the point of contact for this Request for Proposal.

Once a contractor is preliminarily selected, as documented in the intent to contract, that contractor is restricted from communicating with State staff until a contract is signed. Violation of this condition may be considered sufficient cause to reject a contractor's proposal and/or selection irrespective of any other condition.

The following exceptions to these restrictions are permitted:

1. written communication with the person(s) designated as the point(s) of contact for this Request for Proposal or procurement;
2. contacts made pursuant to any pre-existing contracts or obligations; and
3. state-requested presentations, key personnel interviews, clarification sessions or discussions to finalize a contract.

Violations of these conditions may be considered sufficient cause to reject a bidder's proposal and/or selection irrespective of any other condition. No individual member of the State, employee of the State, or member of the Evaluation Committee is empowered to make binding statements regarding this Request for Proposal. The buyer will issue any clarifications or opinions regarding this Request for Proposal in writing.

D. NOTIFICATION OF INTENT TO BID

Bidders should hand deliver, return by facsimile, e-mail or delivery by US mail the "Notification of Intent to Bid Form" that accompanies this document (see Form B) to the contact person shown on the cover page of the Request For Proposal Form. This form should be filled out in its entirety and returned no later than the date shown in the Schedule of Events.

It is preferred that Form B, Notification of Intent To Bid, be sent via e-mail to as.materielpurchasing@nebraska.gov, but may be hand delivered, sent via facsimile to 402-471-2089 or delivery by US mail.

A list of vendors who submitted a Notification of Intent to Bid will be provided through an addendum to be posted on the Internet at http://das.nebraska.gov/materiel/purchasing/rfp.htm on or after the date shown in the Schedule of Events.

E. WRITTEN QUESTIONS AND ANSWERS

Any explanation desired by a bidder regarding the meaning or interpretation of any Request for Proposal provision must be submitted in writing to the State Purchasing Bureau and clearly marked "RFP Number 4544Z1; EES Questions". It is preferred that questions be sent via e-mail to as.materielpurchasing@nebraska.gov Questions may also be sent by facsimile to 402-471-2089, but must include a cover sheet clearly indicating that the transmission is to the attention of Buyer Name, showing the total number of pages transmitted, and clearly marked "RFP Number 4544Z1; EES Questions".

It is recommended that Bidders submit questions sequentially numbered, include the RFP reference and page number using the following format:

Question Number	RFP Section Reference	RFP Page Number	Question

Written answers will be provided through an addendum to be posted on the Internet at http://das.nebraska.gov/materiel/purchasing/rfp.htm on or before the date shown in the Schedule of Events.

F. ORAL INTERVIEWS/PRESENTATIONS AND/OR DEMONSTRATIONS

The Evaluation Committee(s) may conclude after the completion of the Technical and Cost Proposal evaluation that oral interviews/presentations and/or demonstrations are required in order to determine the successful bidder. All bidders may not have an opportunity to interview/present and/or give demonstrations; the State reserves the right to select only the top scoring bidders to present/give oral interviews in its sole discretion. The scores from the oral interviews/presentations and/or demonstrations will be added to the scores from the Technical and Cost Proposals. The presentation process will allow the bidders to demonstrate their proposal offering, explaining and/or clarifying any unusual or significant elements related to their proposals. Bidders' key personnel will be requested to participate in a structured interview to determine their understanding of the requirements of this proposal, their authority and reporting relationships within their firm, and their management style and philosophy. Bidders shall not be allowed to alter or amend their proposals. Only representatives of the State and the presenting bidders will be permitted to attend the oral interviews/presentations and/or demonstrations.

Once the oral interviews/presentations and/or demonstrations have been completed the State reserves the right to make a contract award without any further discussion with the bidders regarding the proposals received.

Detailed notes of oral interviews/presentations and/or demonstrations may be recorded and supplemental information (such as briefing charts, et cetera) may be accepted; however, such supplemental information shall not be considered an amendment to a bidders' proposal. Additional written information gathered in this manner shall not constitute replacement of proposal contents.

Any cost incidental to the oral interviews/presentations and/or demonstrations shall be borne entirely by the bidder and will not be compensated by the State.

G. SUBMISSION OF PROPOSALS

The following describes the requirements related to proposal submission, proposal handling and review by the State.

To facilitate the proposal evaluation process, one (1) original, clearly identified as such, and one (1) hard copy of the Technical proposal and one (1) original, clearly identified as such, and one (1) hard copy of the Cost Proposal should be submitted. The copy marked "original" shall take precedence over any other copies, should there be a discrepancy. Proposals must be submitted by the proposal due date and time. A separate sheet must be provided that clearly states which sections have been submitted as proprietary or have copyrighted materials. All proprietary information the bidder wishes the State to withhold must be submitted in accordance with the instructions outlined in Section III, Proprietary Information. Proposal responses should include the completed Form A, Bidder Contact Sheet.

Proposals must reference the request for proposal number and be sent to the specified address. Container(s) utilized for original documents should be clearly marked "ORIGINAL DOCUMENTS". Please note that the address label should appear as specified in Section II part A on the face of each container or bidder's bid response packet. Rejected late proposals will be returned to the bidder unopened, if requested, at bidder's expense. If a recipient phone number is required for delivery purposes, 402-471-2401 should be used. The request for proposal number must be included in all correspondence.

Emphasis should be concentrated on conformance to the Request for Proposal instructions, responsiveness to requirements, completeness and clarity of content. If the bidder's proposal is presented in such a fashion that makes evaluation difficult or overly time consuming, it is likely that points will be lost in the evaluation process. Elaborate and lengthy proposals are neither necessary nor desired.

The Technical and Cost Proposals should be packaged separately (loose-leaf binders are preferred) on standard 8 ½" by 11" paper, except that charts, diagrams and the like may be on fold-outs which, when folded, fit into the 8 ½" by 11" format. Pages may be consecutively numbered for the entire proposal, or may be numbered consecutively within sections. Figures and tables must be numbered and referenced in the text by that number. They should be placed as close as possible to the referencing text. The Technical Proposal must not contain any reference to dollar amounts. However, information such as data concerning labor hours and categories, materials, subcontracts and so forth, shall be considered in the Technical Proposal so that the bidder's understanding of the scope of work may be evaluated. The Technical Proposal shall disclose the bidder's technical approach in as much detail as possible, including, but not limited to, the information required by the Technical Proposal instructions.

H. PROPOSAL OPENING

The sealed proposals will be publicly opened and the bidding entities announced on the date, time and location shown in the Schedule of Events. Proposals will be available for viewing by those present after the proposal opening. Vendors may also contact the State to schedule an appointment for viewing proposals after the opening date.

I. LATE PROPOSALS

Proposals received after the time and date of the proposal opening will be considered late proposals. Rejected late proposals will be returned to the bidder unopened, if requested, at bidder's expense. The State is not responsible for proposals that are late or lost due to mail service inadequacies, traffic or any other reason(s).

J. REJECTION OF PROPOSALS

The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

K. EVALUATION OF PROPOSALS

All responses to this Request for Proposal which fulfill all mandatory requirements will be evaluated. Each category will have a maximum possible point potential. The State will conduct a fair, impartial and comprehensive evaluation of all proposals in accordance with the criteria set forth below. Areas that will be addressed and scored during the evaluation include:

1. Executive Summary;
2. Corporate Overview shall include but is not limited to;

- **a.** the ability, capacity and skill of the bidder to deliver and implement the system or project that meets the requirements of the Request for Proposal;
- **b.** the character, integrity, reputation, judgment, experience and efficiency of the bidder;

c. whether the bidder can perform the contract within the specified time frame;
d. the quality of bidder performance on prior contracts;
e. such other information that may be secured and that has a bearing on the decision to award the contract;

3. Technical Approach must include but is not limited to;

a. Understanding the Project requirements;
b. Proposed development approach;
c. Functional Requirements
d. Non-Functional Requirements
e. Requirements Traceability Matrices (RTM)

i. Functional RTM – Appendix B
ii. Non-Functional RTM – Appendix C
iii. Requirements Gap Analysis - Appendix D

f. Project Planning and Management;
g. Business Process Reengineering;
h. Organizational Change Management;
i. Training;
j. Knowledge Transfer;
k. Reporting
l. Documentation;
m. Implementation;
n. Post Implementation Support;
o. Turnover;
p. Technical Considerations;
q. Draft Project Work Plan;
r. Milestones and Deliverables (Forms C-1, C-2 and C-3); and
s. Personnel Management and Planning.

4. Cost Proposal (Forms D-1, D-2, D-3, and D-4).

State Statute 73-107 allows for a preference for a resident disabled veteran or business located in a designated enterprise zone. When a state contract is to be awarded to the lowest responsible bidder, a resident disabled veteran or a business located in a designated enterprise zone under the Enterprise Zone Act shall be allowed a preference over any other resident or nonresident bidder, if all other factors are equal.

Resident disabled veterans means any person (a) who resides in the State of Nebraska, who served in the United States Armed Forces, including any reserve component or the National Guard, who was discharged or otherwise separated with a characterization of honorable or general (under honorable conditions), and who possesses a disability rating letter issued by the United States Department of Veterans Affairs establishing a service-connected disability or a disability determination from the United States Department of Defense and (b)(i) who owns and controls a business or, in the case of a publicly owned business, more than fifty percent of the stock is owned by one or more persons described in subdivision (a) of this subsection and (ii) the management and daily business operations of the business are controlled by one or more persons described in subdivision(a) of this subsection. Any contract entered into without compliance with this section shall be null and void.

Therefore, if a resident disabled veteran or business located in a designated enterprise zone submits a bid in accordance with Neb. Rev. Stat. §73-107 and has checked "yes" requesting priority/preference to be considered in the award of this contract, the following will need to be submitted by the vendor within 10 business days of request:

a. Documentation from the United States Armed Forces confirming service,
b. Documentation of discharge or otherwise separated characterization of honorable or general (under honorable conditions),
c. Disability rating letter issued by the United States Department of Veterans Affairs establishing a service-connected disability or a disability determination from the United States Department of Defense; and
d. Documentation which shows ownership and control of a business or, in the case of a publicly owned business, more than fifty percent of the stock is owned by one or more persons described in subdivision (a) of this subsection; and the management and daily business operations of the business are controlled by one or more persons described in subdivision (a) of this subsection.

Failure to submit the requested documentation within 10 business days of notice will disqualify the bidder from consideration of the preference.

Evaluation criteria will become public information at the time of the Request for Proposal opening. Evaluation criteria and a list of respondents will be posted to the State Purchasing Bureau website at http://das.nebraska.gov/materiel/purchasing/rfp.htm Evaluation criteria will not be released prior to the proposal opening.

L. EVALUATION COMMITTEE

Proposals will be independently evaluated by members of the Evaluation Committee(s). The committee(s) will consist of staff with the appropriate expertise to conduct such proposal evaluations. Names of the members of the Evaluation Committee(s) will not become public information.

Prior to award, bidders are advised that only the point of contact indicated on the front cover of this Request For Proposal For Contractual Services Form can clarify issues or render any opinion regarding this Request for Proposal. No individual member of the State, employee of the State or member of the Evaluation Committee(s) is empowered to make binding statements regarding this Request for Proposal.

M. MANDATORY REQUIREMENTS

The proposals will first be examined to determine if all mandatory requirements listed below have been addressed to warrant further evaluation. Proposals not meeting mandatory requirements will be excluded from further evaluation. The mandatory requirement items are as follows:

1. Request For Proposal For Contractual Services form signed in ink;
2. Executive Summary;
3. Corporate Overview;
4. Technical Approach; and
5. Cost Proposal.

N. REFERENCE CHECKS

The State reserves the right to check any reference(s), regardless of the source of the reference information, including but not limited to, those that are identified by the company in the proposal, those indicated through the explicitly specified contacts, those that are identified during the review of the proposal, or those that result from communication with other entities involved with similar projects.

Information to be requested and evaluated from references may include, but is not limited to, some or all of the following: project description and background, job performed, functional and technical abilities, communication skills and timeliness, cost and schedule estimates and accuracy, problems (poor quality deliverables, contract disputes, work stoppages, et cetera), overall performance, and whether or not the reference would rehire the firm or individual. Only top scoring bidders may receive reference checks and negative references may eliminate bidders from consideration for award.

O. SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS

All bidders shall be authorized to transact business in the State of Nebraska. All bidders are expected to comply with all Nebraska Secretary of State registration requirements. It is the responsibility of the bidder to comply with any registration requirements pertaining to types of business entities (e.g. person, partnership, foreign or domestic limited liability company, association, or foreign or domestic corporation or other type of business entity). The Bidder who is the recipient of an Intent to Award will be required to certify that it has so complied and produce a true and exact copy of its current (within 90 days), valid Certificate of Good Standing or Letter of Good Standing; or in the case registration is not required, to provide, in writing, the reason as to why none is required. This must be accomplished prior to the award of the contract. Construction contractors are expected to meet all applicable requirements of the Nebraska Contractor Registration Act and provide a current, valid certificate of registration. Further, all bidders shall comply with any and all other applicable Nebraska statutes regarding transacting business in the State of Nebraska. Bidders should submit the above certification(s) with their bid.

P. VIOLATION OF TERMS AND CONDITIONS

Violation of the terms and conditions contained in this Request for Proposal or any resultant contract, at any time before or after the award, shall be grounds for action by the State which may include, but is not limited to, the following:

1. rejection of a bidder's proposal;
2. suspension of the bidder from further bidding with the State for the period of time relative to the seriousness of the violation, such period to be within the sole discretion of the State.

III. TERMS AND CONDITIONS

By signing the "Request For Proposal For Contractual Services" form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions and certifies bidder maintains a drug free work place environment.

Bidders are expected to closely read the Terms and Conditions and provide a binding signature of intent to comply with the Terms and Conditions; provided, however, a bidder may indicate any exceptions to the Terms and Conditions by (1) clearly identifying the term or condition by subsection, (2) including an explanation for the bidder's inability to comply with such term or condition which includes a statement recommending terms and conditions the bidder would find acceptable. Rejection in whole or in part of the Terms and Conditions may be cause for rejection of a bidder's proposal.

A. GENERAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract resulting from this Request for Proposal shall incorporate the following documents:

1. Amendment to Contract Award with the most recent dated amendment having the highest priority;
2. Contract Award and any attached Addenda;
3. The signed Request for Proposal form and the Contractor's Proposal;
4. Amendments to RFP and any Questions and Answers; and
5. The original RFP document and any Addenda.

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to Contract Award with the most recent dated amendment having the highest priority, 2) Contract Award and any attached Addenda, 3) the signed Request for Proposal form and the Contractor's Proposal, 4) Amendments to RFP and any Questions and Answers, 5) the original RFP document and any Addenda.

Any ambiguity in any provision of this contract which shall be discovered after its execution shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

Once proposals are opened they become the property of the State of Nebraska and will not be returned.

B. AWARD

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part, and at its discretion, may withdraw or amend the Request for Proposal at any time. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State. The Request for Proposal does not commit the State to award a contract. If, in the opinion of the State, revisions or amendments will require substantive changes in proposals, the due date may be extended.

By submitting a proposal in response to this Request for Proposal, the bidder grants to the State the right to contact or arrange a visit in person with any or all of the bidder's clients.

Once an intent to award decision has been determined, it will be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm

Grievance and protest procedure is available on the Internet at: http://www.das.state.ne.us/materiel/purchasing/agencyservicesprocurementmanual/ProtestGrievanceProcedureForServices.doc

Any protests must be filed by a vendor within ten (10) calendar days after the intent to award decision is posted to the Internet.

C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall comply with all applicable local, State and Federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits contractors of the State of Nebraska, and their subcontractors, from discriminating against any employee or applicant for employment, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin (Neb. Rev. Stat. §48-1101 to 48-1125). The contractor guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this Request for Proposal.

D. PERMITS, REGULATIONS, LAWS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall procure and pay for all permits, licenses and approvals necessary for the execution of the contract. The contractor shall comply with all applicable local, state, and federal laws, ordinances, rules, orders and regulations.

E. OWNERSHIP OF INFORMATION AND DATA

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State of Nebraska shall have the unlimited right to publish, duplicate, use and disclose all information and data developed or derived by the contractor pursuant to this contract.

The contractor must guarantee that it has the full legal right to the materials, supplies, equipment, and other rights or titles (e.g. rights to licenses transfer or assign deliverables) necessary to execute this contract. The contract price shall, without exception, include compensation for all royalties and costs arising from patents, trademarks and copyrights that are in any way involved in the contract. It shall be the responsibility of the contractor to pay for all royalties and costs, and the State must be held harmless from any such claims.

F. INSURANCE REQUIREMENTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall not commence work under this contract until he or she has obtained all the insurance required hereunder and such insurance has been approved by the State. If contractor will be utilizing any subcontractors, the contractor is responsible for obtaining the certificate(s) of insurance required herein under from any and all subcontractor(s). Contractor is also responsible for ensuring subcontractor(s) maintain the insurance required until completion of the contract requirements. The contractor shall not allow any subcontractor to commence work on his or her subcontract until all similar insurance required of the subcontractor has been obtained and approved by the contractor. Approval of the insurance by the State shall not limit, relieve or decrease the liability of the contractor hereunder.

If by the terms of any insurance a mandatory deductible is required, or if the contractor elects to increase the mandatory deductible amount, the contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

1. WORKERS' COMPENSATION INSURANCE

The contractor shall take out and maintain during the life of this contract the statutory Workers' Compensation and Employer's Liability Insurance for all of the contactors' employees to be engaged in work on the project under this contract and, in case any such work is sublet, the contractor shall require the subcontractor similarly to provide Worker's Compensation and Employer's Liability Insurance for all of the subcontractor's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the state in which the work is to be performed, including Occupational Disease. This policy shall include a waiver of subrogation in favor of the State. The amounts of such insurance shall not be less than the limits stated hereinafter.

2. COMMERCIAL GENERAL LIABILITY INSURANCE AND COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The contractor shall take out and maintain during the life of this contract such Commercial General Liability Insurance and Commercial Automobile Liability Insurance as shall protect contractor and any subcontractor performing work covered by this contract from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this contract, whether such operation be by the contractor or by any subcontractor or by anyone

directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than limits stated hereinafter.

The Commercial General Liability Insurance shall be written on an occurrence basis, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury and Contractual Liability coverage. The policy shall include the State, and others as required by the Contract Documents, as an Additional Insured. This policy shall be primary, and any insurance or self-insurance carried by the State shall be considered excess and non-contributory. The Commercial Automobile Liability Insurance shall be written to cover all Owned, Non-owned and Hired vehicles.

3. INSURANCE COVERAGE AMOUNTS REQUIRED

a. WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY

Coverage A	Statutory
Coverage B	
Bodily Injury by Accident	$100,000 each accident
Bodily Injury by Disease	$500,000 policy limit
Bodily Injury by Disease	$100,000 each employee

b. COMMERCIAL GENERAL LIABILITY

General Aggregate	$2,000,000
Products/Completed Operations Aggregate	$2,000,000
Personal/Advertising Injury	$1,000,000 any one person
Bodily Injury/Property Damage	$1,000,000 per occurrence
Fire Damage	$50,000 any one fire
Medical Payments	$5,000 any one person

c. COMMERCIAL AUTOMOBILE LIABILITY

Bodily Injury/Property Damage	$1,000,000 combined single limit

d. UMBRELLA/EXCESS LIABILITY

Over Primary Insurance	$1,000,000 per occurrence

4. EVIDENCE OF COVERAGE

The contractor should furnish the State, with their proposal response, a certificate of insurance coverage complying with the above requirements to the attention of Buyer Name, Administrative Services, State Purchasing Bureau, 1526 K Street, Suite 130, Lincoln, NE 68508 (facsimile 402-471-2089). These certificates or the cover sheet shall reference the RFP number, and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration and amounts and types of coverage afforded. If the State is damaged by the failure of the contractor to maintain such insurance, then the contractor shall be responsible for all reasonable costs properly attributable thereto.

Notice of cancellation of any required insurance policy must be submitted to Buyer Name, Administrative Services State Purchasing Bureau when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

G. COOPERATION WITH OTHER CONTRACTORS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may already have in place or choose to award supplemental contracts for work related to this Request for Proposal, or any portion thereof.

1. The State reserves the right to award the contract jointly between two or more potential contractors, if such an arrangement is in the best interest of the State.

2. The contractor shall agree to cooperate with such other contractors, and shall not commit or permit any act which may interfere with the performance of work by any other contractor.

H. INDEPENDENT CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

It is agreed that nothing contained herein is intended or should be construed in any manner as creating or establishing the relationship of partners between the parties hereto. The contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under the contract. The contractor's employees and other persons engaged in work or services required by the contractor under the contract shall have no contractual relationship with the State; they shall not be considered employees of the State.

All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination against the contractor, its officers or its agents) shall in no way be the responsibility of the State. The contractor will hold the State harmless from any and all such claims. Such personnel or other persons shall not require nor be entitled to any compensation, rights or benefits from the State including without limit, tenure rights, medical and hospital care, sick and vacation leave, severance pay or retirement benefits.

I. CONTRACTOR RESPONSIBILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor is solely responsible for fulfilling the contract, with responsibility for all services offered and products to be delivered as stated in the Request for Proposal, the contractor's proposal, and the resulting contract. The contractor shall be the sole point of contact regarding all contractual matters.

If the contractor intends to utilize any subcontractors' services, the subcontractors' level of effort, tasks and time allocation must be clearly defined in the contractor's proposal. The contractor shall agree that it will not utilize any subcontractors not specifically included in its proposal, in the performance of the contract, without the prior written authorization of the State. Following execution of the contract, the contractor shall proceed diligently with all services and shall perform such services with qualified personnel in accordance with the contract.

J. CONTRACTOR PERSONNEL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor warrants that all persons assigned to the project shall be employees of the contractor or specified subcontractors, and shall be fully qualified to perform the work required herein. Personnel employed by the contractor to fulfill the terms of the contract shall remain under the sole direction and control of the contractor. The contractor shall include a similar provision in any contract with any subcontractor selected to perform work on the project.

Personnel commitments made in the contractor's proposal shall not be changed without the prior written approval of the State. Replacement of key personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

The State reserves the right to require the contractor to reassign or remove from the project any contractor or subcontractor employee.

In respect to its employees, the contractor agrees to be responsible for the following:

1. any and all employment taxes and/or other payroll withholding;
2. any and all vehicles used by the contractor's employees, including all insurance required by state law;
3. damages incurred by contractor's employees within the scope of their duties under the contract;
4. maintaining workers' compensation and health insurance and submitting any reports on such insurance to the extent required by governing State law; and
5. determining the hours to be worked and the duties to be performed by the contractor's employees.

Notice of cancellation of any required insurance policy must be submitted to the State when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall not, at any time, recruit or employ any State employee or agent who has worked on the Request for Proposal or project, or who had any influence on decisions affecting the Request for Proposal or project.

L. CONFLICT OF INTEREST

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

By submitting a proposal, bidder certifies that there does not now exist any relationship between the bidder and any person or entity which is or gives the appearance of a conflict of interest related to this Request for Proposal or project.

The bidder certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its services hereunder or which creates an actual or appearance of conflict of interest.
The bidder certifies that it will not employ any individual known by bidder to have a conflict of interest.

M. PROPOSAL PREPARATION COSTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State shall not incur any liability for any costs incurred by bidders in replying to this Request for Proposal, in the demonstrations, or oral presentations, or in any other activity related to bidding on this Request for Proposal.

N. ERRORS AND OMISSIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The bidder shall not take advantage of any errors and/or omissions in this Request for Proposal or resulting contract. The bidder must promptly notify the State of any errors and/or omissions that are discovered.

O. BEGINNING OF WORK

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The bidder shall not commence any billable work until a valid contract has been fully executed by the State and the successful contractor. The contractor will be notified in writing when work may begin.

P. ASSIGNMENT BY THE STATE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State shall have the right to assign or transfer the contract or any of its interests herein to any agency, board, commission, or political subdivision of the State of Nebraska. There shall be no charge to the State for any assignment hereunder.

Q. ASSIGNMENT BY THE CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor may not assign, voluntarily or involuntarily, the contract or any of its rights or obligations hereunder (including without limitation rights and duties of performance) to any third party, without the prior written consent of the State, which will not be unreasonably withheld.

R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The requirements contained in the Request for Proposal become a part of the terms and conditions of the contract resulting from this Request for Proposal. Any deviations from the Request for Proposal must be clearly defined by the bidder in its proposal and, if accepted by the State, will become part of the contract. Any specifically defined deviations must not be in conflict with the basic nature of the Request for Proposal or mandatory requirements. “Deviation”, for the purposes of this RFP, means any proposed changes or alterations to either the contractual language or deliverables within the scope of this RFP. The State discourages deviations and reserves the right to reject proposed deviations.

S. GOVERNING LAW

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract shall be governed in all respects by the laws and statutes of the State of Nebraska. Any legal proceedings against the State of Nebraska regarding this Request for Proposal or any resultant contract shall be brought in the State of Nebraska administrative or judicial forums as defined by State law. The contractor must be in compliance with all Nebraska statutory and regulatory law.

T. ATTORNEY'S FEES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

In the event of any litigation, appeal or other legal action to enforce any provision of the contract, the contractor agrees to pay all expenses of such action, as permitted by law, including attorney's fees and costs, if the State is the prevailing party.

U. ADVERTISING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor agrees not to refer to the contract award in advertising in such a manner as to state or imply that the company or its services are endorsed or preferred by the State. News releases pertaining to the project shall not be issued without prior written approval from the State.

V. STATE PROPERTY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall be responsible for the proper care and custody of any State-owned property which is furnished for the contractor's use during the performance of the contract. The contractor shall reimburse the State for any loss or damage of such property, normal wear and tear is expected.

W. SITE RULES AND REGULATIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall use its best efforts to ensure that its employees, agents and subcontractors comply with site rules and regulations while on State premises. If the contractor must perform on-site work outside of the daily operational hours set forth by the State, it must make arrangements with the State to ensure access to the facility and the equipment has been arranged. No additional payment will be made by the State on the basis of lack of access, unless the State fails to provide access as agreed to between the State and the contractor.

X. NOTIFICATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

During the bid process, all communication between the State and a bidder shall be between the bidder's representative clearly noted in its proposal and the buyer noted in Section II, A. Procuring Office and Contact Person of this RFP. After the award of the contract, all notices under the contract shall be deemed duly given upon delivery to the staff designated as the point of contact for this Request for Proposal, in person, or upon delivery by U.S. Mail, facsimile, or e-mail. Each bidder should provide in its proposal the name, title and complete address of its designee to receive notices.

1. Except as otherwise expressly specified herein, all notices, requests or other communications shall be in writing and shall be deemed to have been given if delivered personally or mailed, by U.S. Mail, postage prepaid, return receipt requested, to the parties at their respective addresses set forth above, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or three (3) days following deposit in the mail.

2. Whenever the contractor encounters any difficulty which is delaying or threatens to delay its timely performance under the contract, the contractor shall immediately give notice thereof in writing to the State reciting all relevant information with respect thereto. Such notice shall not in any way constitute a basis for an extension of the delivery schedule or be construed as a waiver by the State of any of its rights or remedies to which it is entitled by law or equity or pursuant to the provisions of the contract. Failure to give such notice, however, may be grounds for denial of any request for an extension of the delivery schedule because of such delay.

Either party may change its address for notification purposes by giving notice of the change, and setting forth the new address and an effective date.

For the duration of the contract, all communication between contractor and the State regarding the contract shall take place between the contractor and individuals specified by the State in writing. Communication about the contract between contractor and individuals not designated as points of contact by the State is strictly forbidden.

Y. EARLY TERMINATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract may be terminated as follows:

1. The State and the contractor, by mutual written agreement, may terminate the contract at any time.

2. The State, in its sole discretion, may terminate the contract for any reason upon 30 days written notice to the contractor. Such termination shall not relieve the contractor of warranty or other service obligations incurred under the terms of the contract. In the event of cancellation the contractor shall be entitled to payment, determined on a pro rata basis, for products or services satisfactorily performed or provided.

3. The State may terminate the contract immediately for the following reasons:

- **a.** if directed to do so by statute;
- **b.** contractor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;
- **c.** a trustee or receiver of the contractor or of any substantial part of the contractor's assets has been appointed by a court;
- **d.** fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its contractor, its employees, officers, directors or shareholders;
- **e.** an involuntary proceeding has been commenced by any party against the contractor under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) days; or (ii) the contractor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the contractor has been decreed or adjudged a debtor;
- **f.** a voluntary petition has been filed by the contractor under any of the chapters of Title 11 of the United States Code;
- **g.** contractor intentionally discloses confidential information;
- **h.** contractor has or announces it will discontinue support of the deliverable;
- **i.** second or subsequent documented "vendor performance report" form deemed acceptable by the State Purchasing Bureau.

Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may terminate the contract, in whole or in part, in the event funding is no longer available. The State's obligation to pay amounts due for fiscal years following the current fiscal year is contingent upon legislative appropriation of funds for the contract. Should said funds not be appropriated, the State may terminate the contract with respect to those payments for the fiscal years for which such funds are not appropriated. The State will give the contractor written notice thirty (30) days prior to the effective date of any termination, and

advise the contractor of the location (address and room number) of any related equipment. All obligations of the State to make payments after the termination date will cease and all interest of the State in any related equipment will terminate. The contractor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date. In no event shall the contractor be paid for a loss of anticipated profit.

AA. BREACH BY CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may terminate the contract, in whole or in part, if the contractor fails to perform its obligations under the contract in a timely and proper manner. The State may, by providing a written notice of default to the contractor, allow the contractor to cure a failure or breach of contract within a period of thirty (30) days (or longer at State's discretion considering the gravity and nature of the default). Said notice shall be delivered by Certified Mail, Return Receipt Requested or in person with proof of delivery. Allowing the contractor time to cure a failure or breach of contract does not waive the State's right to immediately terminate the contract for the same or different contract breach which may occur at a different time. In case of default of the contractor, the State may contract the service from other sources and hold the contractor responsible for any excess cost occasioned thereby.

BB. ASSURANCES BEFORE BREACH

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

If any document or deliverable required pursuant to the contract does not fulfill the requirements of the Request for Proposal/resulting contract, upon written notice from the State, the contractor shall deliver assurances in the form of additional contractor resources at no additional cost to the project in order to complete the deliverable, and to ensure that other project schedules will not be adversely affected.

CC. PENALTY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

In the event that the contractor fails to perform any substantial obligation under the contract, the State may withhold all monies due and payable to the contractor, without penalty, until such failure is cured or otherwise adjudicated. Failure to meet the dates stipulated in the contract for the deliverables may result in an assessment of penalty due the State of $1,000 dollars per day, until the deliverables are approved. Contractor will be notified in writing when penalty will commence.

DD. PERFORMANCE BOND

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The selected contractor will be required to supply a certified check or a bond executed by a corporation authorized to contract surety in the State of Nebraska, payable to the State of Nebraska, which shall be valid for the life of the contract to include any renewal and/or

extension periods. The amount of the certified check or bond must be the dollar amount of $15,000,000.00. The check or bond will guarantee that the selected contractor will faithfully perform all requirements, terms and conditions of the contract. Failure to comply shall be grounds for forfeiture of the check or bond as liquidated damages. Amount of forfeiture will be determined by the agency based on loss to the State. The bond or certified check will be returned when the service has been satisfactorily completed as solely determined by the State, after termination or expiration of the contract.

EE. FORCE MAJEURE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Neither party shall be liable for any costs or damages resulting from its inability to perform any of its obligations under the contract due to a natural disaster, or other similar event outside the control and not the fault of the affected party ("Force Majeure Event"). A Force Majeure Event shall not constitute a breach of the contract. The party so affected shall immediately give notice to the other party of the Force Majeure Event. The State may grant relief from performance of the contract if the contractor is prevented from performance by a Force Majeure Event. The burden of proof for the need for such relief shall rest upon the contractor. To obtain release based on a Force Majeure Event, the contractor shall file a written request for such relief with the State Purchasing Bureau. Labor disputes with the impacted party's own employees will not be considered a Force Majeure Event and will not suspend performance requirements under the contract.

FF. PROHIBITION AGAINST ADVANCE PAYMENT

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Payments shall not be made until contractual deliverable(s) are received and accepted by the State.

GG. PAYMENT

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

State will render payment to contractor when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the contractor as solely determined by the State. Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408). The State may require the contractor to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any services provided by the contractor prior to the Effective Date, and the contractor hereby waives any claim or cause of action for any such services.

HH. INVOICES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Invoices for payments must be submitted by the contractor to the agency requesting the services with sufficient detail to support payment. Invoices must be submitted to: Medicaid and Long-Term Care Division, P.O. Box 95026, Lincoln, NE 68509. The terms and conditions included in the contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract.

II. AUDIT REQUIREMENTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All contractor books, records and documents relating to work performed or monies received under the contract shall be subject to audit at any reasonable time upon the provision of reasonable notice by the State. These records shall be maintained for a period of five (5) full years from the date of final payment, or until all issues related to an audit, litigation or other action are resolved, whichever is longer. All records shall be maintained in accordance with generally accepted accounting principles.

In addition to, and in no way in limitation of any obligation in the contract, the contractor shall agree that it will be held liable for any State audit exceptions, and shall return to the State all payments made under the contract for which an exception has been taken or which has been disallowed because of such an exception. The contractor agrees to correct immediately any material weakness or condition reported to the State in the course of an audit.

JJ. TAXES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State is not required to pay taxes of any kind and assumes no such liability as a result of this solicitation. Any property tax payable on the contractor's equipment which may be installed in a state-owned facility is the responsibility of the contractor.

KK. INSPECTION AND APPROVAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Final inspection and approval of all work required under the contract shall be performed by the designated State officials. The State and/or its authorized representatives shall have the right to enter any premises where the contractor or subcontractor duties under the contract are being performed, and to inspect, monitor or otherwise evaluate the work being performed. All inspections and evaluations shall be at reasonable times and in a manner that will not unreasonably delay work.

LL. CHANGES IN SCOPE/CHANGE ORDERS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may, at any time with written notice to the contractor, make changes within the general scope of the contract. Changes in scope shall only be conducted with the written approval of the State's designee as so defined by the State from time to time. (The State retains the right to employ the services of a third party to perform any change order(s)).

The State may, at any time work is in progress, by written order, make alterations in the terms of work as shown in the specifications, require the performance of extra work, decrease the quantity of work, or make such other changes as the State may find necessary or desirable. The contractor shall not claim forfeiture of contract by reasons of such changes by the State. Changes in work and the amount of compensation to be paid to the contractor for any extra work so ordered shall be determined in accordance with the applicable unit prices of the contractor's proposal.

Corrections of any deliverable services or performance of work required pursuant to the contract shall not be deemed a modification requiring a change order.

MM. SEVERABILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

NN. CONFIDENTIALITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All materials and information provided by the State or acquired by the contractor on behalf of the State shall be regarded as confidential information. All materials and information provided by the State or acquired by the contractor on behalf of the State shall be handled in accordance with Federal and State Law, and ethical standards. The contractor must ensure the confidentiality of such materials or information. Should said confidentiality be breached by a contractor; contractor shall notify the State immediately of said breach and take immediate corrective action.

It is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable to contractors by 5 U.S.C. 552a (m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

OO. PROPRIETARY INFORMATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Data contained in the proposal and all documentation provided therein, become the property of the State of Nebraska and the data becomes public information upon opening the proposal. If the bidder wishes to have any information withheld from the public, such information must fall within the definition of proprietary information contained within Nebraska's public record statutes. All proprietary information the bidder wishes the State to withhold must be submitted in a sealed package, which is separate from the remainder of the proposal. The separate package must be clearly marked PROPRIETARY on the outside of the package. Bidders may not mark their entire Request for Proposal as proprietary. Bidder's cost proposals may not be marked as proprietary information. Failure of the bidder to follow the instructions for submitting proprietary and copyrighted information may result in the information being viewed by other bidders and the public. Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, bidders submitting information as proprietary may be required to prove specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive. Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State's definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information.

PP. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

By submission of this proposal, the bidder certifies, that he or she is the party making the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham proposal, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the proposal price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the proposal are true; and further that the bidder has not, directly or indirectly, submitted his or her proposal price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

QQ. PRICES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All prices, costs, terms and conditions outlined in the proposal shall remain fixed and valid commencing on the opening date of the proposal until an award is made (and for bidder receiving award prices shall remain as bid for the duration of the contract unless otherwise so stated in the contract) or the Request for Proposal is cancelled.

Contractor represents and warrants that all prices for services, now or subsequently specified are as low as and no higher than prices which the contractor has charged or intends to charge customers other than the State for the same or similar products and services of the same or equivalent quantity and quality for delivery or performance during the same periods of time. If, during the term of the contract, the contractor shall reduce any and/or all prices charged to any customers other than the State for the same or similar products or services specified herein, the contractor shall make an equal or equivalent reduction in corresponding prices for said specified products or services.

Contractor also represents and warrants that all prices set forth in the contract and all prices in addition, which the contractor may charge under the terms of the contract, do not and will not violate any existing federal, state or municipal law or regulations concerning price discrimination and/or price fixing. Contractor agrees to hold the State harmless from any such violation. Prices quoted shall not be subject to increase throughout the contract period unless specifically allowed by these specifications.

RR. BEST AND FINAL OFFER

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State will compile the final scores for all parts of each proposal. The award may be granted to the highest scoring responsive and responsible bidder. Alternatively, the highest scoring bidder or bidders may be requested to submit best and final offers. If best and final offers are requested by the State and submitted by the bidder, they will be evaluated (using the stated criteria), scored and ranked by the Evaluation Committee. The award will then be granted to the highest scoring bidder. However, a bidder should provide its best offer in its original proposal. Bidders should not expect that the State will request a best and final offer.

SS. ETHICS IN PUBLIC CONTRACTING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

No bidder shall pay or offer to pay, either directly or indirectly, any fee, commission compensation, gift, gratuity, or anything of value to any State officer, legislator or employee based on the understanding that the receiving person's vote, actions or judgment will be influenced thereby. No bidder shall give any item of value to any employee of the State Purchasing Bureau.

Bidders shall be prohibited from utilizing the services of lobbyists, attorneys, political activists, or consultants to secure the contract. It is the intent of this provision to assure that the prohibition of state contact during the procurement process is not subverted through the use of lobbyists, attorneys, political activists, or consultants. It is the intent of the State that the process of evaluation of proposals and award of the contract be completed without external

influence. It is not the intent of this section to prohibit bidders from seeking professional advice, for example consulting legal counsel, regarding terms and conditions of this Request for Proposal or the format or content of their proposal.

If the bidder is found to be in non-compliance with this section of the Request for Proposal, they may forfeit the contract if awarded to them or be disqualified from the selection process.

TT. INDEMNIFICATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

1. GENERAL

The contractor agrees to defend, indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State, arising out of, resulting from, or attributable to the willful misconduct, negligence, error, or omission of the contractor, its employees, subcontractors, consultants, representatives, and agents, except to the extent such contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

2. INTELLECTUAL PROPERTY

The contractor agrees it will at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all claims, to the extent such claims arise out of, result from, or are attributable to the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the contractor or its employees, subcontractors, consultants, representatives, and agents; provided, however, the State gives the contractor prompt notice in writing of the claim. The contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the contractor has indemnified the State, the contractor shall at the contractor's sole cost and expense promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality. At the State's election, the actual or anticipated judgment may be treated as a breach of warranty by the contractor, and the State may receive the remedies provided under this RFP.

3. PERSONNEL

The contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any claim with respect to withholding taxes, worker's compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel provided by the contractor.

UU. NEBRASKA TECHNOLOGY ACCESS STANDARDS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Contractor shall review the Nebraska Technology Access Standards, found at http://nitc.nebraska.gov/standards/2-101.html and ensure that products and/or services provided under the contract comply with the applicable standards. In the event such standards change during the contractor's performance, the State may create an amendment to the contract to request that contract comply with the changed standard at a cost mutually acceptable to the parties.

VV. ANTITRUST

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

WW. DISASTER RECOVERY/BACK UP PLAN

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall have a disaster recovery and back-up plan, of which a copy should be provided to the State, which includes, but is not limited to equipment, personnel, facilities, and transportation, in order to continue services as specified under these specifications in the event of a disaster.

XX. TIME IS OF THE ESSENCE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Time is of the essence in this contract. The acceptance of late performance with or without objection or reservation by the State shall not waive any rights of the State nor constitute a waiver of the requirement of timely performance of any obligations on the part of the contractor remaining to be performed.

YY. RECYCLING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Preference will be given to items which are manufactured or produced from recycled material or which can be readily reused or recycled after their normal use as per state statute (Neb. Rev. Stat. §81-15, 159).

ZZ. DRUG POLICY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Contractor certifies it maintains a drug free work place environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State.

AAA. EMPLOYEE WORK ELIGIBILITY STATUS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a hired employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us.

2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

BBB. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor, by signature to this RFP, certifies that the contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from participating in transactions (debarred). The contractor also agrees to include the above requirements in any and all subcontracts into which it enters. The contractor shall immediately notify the State of Nebraska if, during the term of this contract, contractor becomes debarred. The State of Nebraska may immediately terminate this contract by providing contractor written notice if contractor becomes debarred during the term of this contract.

IV. PROJECT DESCRIPTION AND SCOPE OF WORK

In March 2010, the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act of 2010 were signed into law. The two laws are collectively referred to as the Affordable Care Act (ACA). Sections of the ACA, codified at 45 CFR 155, 156 and 157, require the creation of a health insurance exchange in each state, either by the state or by the federal government. The State of Nebraska will employ the Federally Facilitated Marketplace (Marketplace) option.

The ACA codified at 42 CFR 431, 435, and 437 calls for considerable change in the manner in which states manage their Medicaid programs. The final and interim final regulations call for implementation of a streamlined Medicaid eligibility process which collapses existing Medicaid categories, streamlines the application process and employs the simplified Modified Adjusted Gross Income (MAGI) standard for a significant proportion of the population. In addition, the regulations call for a coordinated process by which individuals may apply for and receive an eligibility determination for Medicaid on a MAGI, non-MAGI basis or for Advanced Premium Tax Credits (APTC)/Cost Sharing Reductions (CSR) of premium payments for insurance coverage purchased via an exchange.

The Nebraska Department of Health and Human Services (Department), Division of Medicaid and Long Term Care (MLTC) is responsible for Medicaid eligibility services. The Information Systems and Technology (IS&T) Division provides leadership, project management, planning, implementation, and support services for information technology for the Department. IS&T will provide support for the project, including the technical planning, implementation, testing and maintenance of the new solution.

The implementation of ACA has introduced new complexities and challenges for the State of Nebraska. An analysis was conducted by the State of Nebraska to determine the most desirable option for an eligibility and enrollment system that complies with ACA regulations and the CMS Seven Standards and Conditions. The analysis revealed that replacing the current Medicaid eligibility and enrollment system with a modern solution was the best course of action. The analysis criterion is available in the Procurement Library.

The purpose of this RFP is to procure the products and services of a Systems Integrator with an integrated Eligibility and Enrollment Solution (EES). Nebraska's existing Nebraska Family Online Client User System (N-FOCUS) Eligibility and Enrollment System, developed with client/server technology, is almost twenty years old. Medicaid eligibility will move out of the N-FOCUS system and into the EES that meets the CMS Seven Standard and Conditions and obtains ACA compliance. Nebraska intends to migrate Medicaid eligibility and enrollment off the existing N-FOCUS by the end of 2015 to leverage the enhanced federal matching funds that expire at that time.

The State of Nebraska will select one Contractor to fulfill all the EES responsibilities described herein. The EES described in this RFP must comply with regulatory requirements detailed in the ACA and all requirements for enhanced federal matching funds, including the CMS Seven Standards and Conditions. Although many details of the implementation of the new provisions have been defined, it is absolutely essential that the EES support not only the additional workflows, processes, and rules that will come about, but also the increase in the number of members that are served and the cultural change that will occur as a result of this implementation. The general functionality provided by the EES must also have sufficient flexibility to easily include the new processes and rules.

The Department will utilize the following values as guiding principles to aid decision-making and the work effort. The principles may be updated over time as new developments occur or as new information is discovered.

The Department will:

1. Meet federal and/or State of Nebraska compliance requirements;

2. Ensure fiscal responsibility by:
   a. Leveraging existing human resources;
   b. Fulfilling future business needs; and
   c. Maximize federal funding for the EES implementation and operations.

3. Ensure positive consumer experience through:
   a. No wrong door;
   b. Fully-automated (real-time) eligibility;
   c. Customer communications that meet and/or exceed all requirements;
   d. Enhanced system logic and workflow; and
   e. Consumer assistance to understand new or changed processes for application and enrollment.

4. Develop and utilize robust reporting capabilities;

5. Establish efficient and accountable eligibility management by:
   a. Retaining Department final eligibility determination; and
   b. Developing a separate Medicaid eligibility unit.

6. Leverage electronic data to the extent possible; and

7. Promote intra-agency, inter-agency and external communications to realize efficient and coordinated outcomes.

Independent Verification & Validation Contractor

The State of Nebraska has released an RFP to procure an Independent Verification and Validation (IV&V) Contractor. The purpose of that procurement was to contract for IV&V services to assist the State of Nebraska to ensure success of the EES project by facilitating early detection and correction of errors, enhance management insight into risks and ensure compliance with project performance, schedule, and budget requirements.

The State of Nebraska will award the IV&V contract to perform critical monitoring services throughout the course of the EES project. The Department and the IV&V Contractor will review all deliverables of the EES Contractor. The initial list of deliverables is defined in this RFP along with a description of the formal process to be used in the submission and review of the deliverables. The EES Contractor must produce and submit to the Department deliverables based on the dates that will be agreed upon in the project schedule.

In compliance with 45 CFR 95.626 and their contractual obligations, the IV&V Contractor will independently produce status reports on the progress of the project and submit them to the Department and CMS. This action will ensure a check and balance approach to assessment and allow the IV&V Contractor to maintain the independence it needs to do the job for which they were contracted. It will also ensure that CMS is getting necessary information in a timely and unedited manner. The Department will also initiate a standing monthly status update call with CMS the week following the status report to discuss the findings, recommendations, and corrective action, if required.

The contractor awarded the EES IV&V contract, their subcontractor(s) and third party vendor(s) are precluded from submitting an EES proposal, assisting another company in making a proposal, or otherwise materially participating in any subsequent contract related to the EES project.

The bidder must provide the following information in response to this Request for Proposal.

A. PROJECT OVERVIEW

The State of Nebraska is seeking proposals from qualified bidders with system integration and healthcare enrollment and eligibility expertise, project management expertise, and relevant past experience installing Medicaid or healthcare eligibility determination systems similar to the requirements defined in this RFP. The Bidder must have or team with a company with an Eligibility and Enrollment Solution and offer hosting capabilities defined in this RFP.

The current N-FOCUS eligibility/enrollment system and associated business processes have been in operation for approximately 20 years. The State of Nebraska wants to replace the current Medicaid eligibility and enrollment functionality in N-FOCUS with a modern Commercial off the Shelf (COTS) solution for the following business reasons:

1. The State of Nebraska is looking for a modern, integrated eligibility and enrollment solution that has been designed around a well thought-out, efficient set of business processes needed to support eligibility and enrollment in public benefit programs. The Department will modify its current business processes and retrain its staff to adopt the business processes built into the EES. Given the Department's willingness to adapt its core eligibility processes to the EES, the EES must be built around a strong, fundamentally sound set of eligibility and enrollment processes. That foundation should be easily demonstrated in the EES design, workflow, user interface and reports.

2. Like most states, Nebraska is working hard to maintain fiscal discipline at a time when the State of Nebraska is being asked to take on more responsibilities. Due to various ACA provisions, the State of Nebraska fully expects Medicaid enrollment to increase. In addition, the ACA required integration with the Marketplace increases program responsibilities. These issues, combine with an already heavy workload mandates some significant operational changes. The Department is hiring additional eligibility workers to handle the increased workload, but replacement of the eligibility system represents an opportunity to bring increased efficiency to systems and business processes. The State of Nebraska fully expects the EES to allow it to increase operational efficiency; to do more with less.

3. As part of the increased efficiency, the Department expects the EES to be highly configurable by administrative users (i.e. non-technical users). Allowing administrative users to easily update eligibility rules and other key system functions, without programming changes, will allow the Department to run a more nimble and responsive program at a lower cost than N-FOCUS.

4. N-FOCUS has the ability for customers to self-service their account, but there are limitations. The EES should provide an easy to use interface to allow self-service for customers who prefer to do as much as they can on their own via different modalities such as online and phone. All appropriate functions, forms, notices, documentation, help, etc., should be available to the customer in an interactive and easy to use format.

Equally important, the EES should not neglect those customers that do not or cannot

help themselves via self-service mechanisms. For these customers, the EES should facilitate easy access via methods such as, having a customer's representative act on their behalf; allowing an eligibility worker to provide application support; or allowing the customer to be serviced in person or via paper. The EES should fully support a range of options to make the eligibility/enrollment process as easy and friendly as possibly. The customer should not feel like their service is compromised due to the option they have chosen.

5. The EES should take full advantage of advances made in reporting and business intelligence over the last 20 years. The EES should provide the ability to produce "canned", parameter based reports on a routine schedule or on demand, as well as, ad-hoc reports as desired. The ability to produce reports of all kinds should be as easy as possible. A range of tools should be available to allow system users with data handling skills ranging from novice to expert the ability to extract data required to perform their job function. A newly trained eligibility worker, the Department's Executive Team and a seasoned data analyst should all be provided tools appropriate for their skill level without presenting barriers to obtaining desired information from the system. Users of the system should not have to wait for a data expert to extract critical information. Equally important is the ability of the solution to provide metrics and analysis that allows the Department to proactively manage programs in the EES. It is the Department's desire to be out in front, actively making policy and programmatic changes to benefit its enrolled customers and the citizens of Nebraska.

6. The Department currently invests a significant amount of time training its eligibility workers so they can provide the highest levels of customer service possible. The Department is looking for the EES and associated training materials to provide additional power for users, but with less training. Decreasing training time allows the Department to lower costs, more easily fill vacancies and make workers more productive.

7. As part of its fiscal responsibility, the State of Nebraska is looking for an EES with an overall lower Total Cost of Ownership (TCO) than its current systems. There are many factors that go into TCO, such as implementation costs, maintenance costs, modification costs, operational costs, etc. The EES should demonstrate a sound long term investment and efficient use of tax dollars for Nebraskans.

B. SCOPE OF WORK

The State of Nebraska seeks a Contractor who will bring experienced and knowledgeable project personnel, processes, approaches and tools to meet the requirements of the EES Project. The EES Contractor will perform all contractor responsibilities required of a Systems Integrator, will provide and implement a modern integrated COTS-based EES that is ACA compliant, meets the CMS Seven Standard and Conditions, and completes all modifications needed to meet the State of Nebraska's requirements outlined in this RFP.

The Contractor shall evaluate its proposed EES against the Medicaid Information Technology Architecture (MITA) Framework 3.0 Technical Capability Matrix. The Contractor shall deliver a system that supports MITA 3.0 for Eligibility which is expected to be finalized by CMS during the early months of this project.

The desired system design, development, and subsequent implementation of a new EES must meet the State of Nebraska’s goals and produce benefits that significantly improve and

simplify business processes or tasks. The Contractor's solution must not be cumbersome for eligibility staff and shall maximize business and system efficiencies as much as possible.

The following RFP sections focus on the "how" and "what" aspects of the various functions the Contractor services and technology solutions shall perform. Each section is not inclusive of every possible duty, task, or deliverable necessary to achieve success on this Contract. Bidders should not assume that any perceived lack of detail in a specific area indicates that the Contractor will have no duties in that area. Bidders shall develop a solution that fulfills the State of Nebraska's goals and requirements in a cost-effective manner, which may include details not specifically outlined in this RFP. Many objectives describe the end result, thus allowing Bidders flexibility in proposing the details of how their solution meets the Department's goals.

The State of Nebraska encourages responses that demonstrate a thorough understanding of the ACA requirements, applicable State of Nebraska and federal policies, Medicaid eligibility and enrollment, and the defined RFP requirements. The Bidder must provide a detailed description of its proposed approach and methodologies to all aspects of the project. The proposal should be as specific as possible in its responses to provide the State of Nebraska with an adequate understanding of the intent of the Bidder.

The RFP and appendices provide information for Bidders to evaluate the RFP and prepare a response. The following information is not meant to identify every detail but to lay the ground work. Bidders are strongly encouraged to review and understand the contents of the Bidders' Library (Appendix A) for more detail.

The core Functional components of the EES the State of Nebraska is seeking are as follows:

EES Functional Components		
1. Presumptive Eligibility 2. Registration 3. Application Intake and Processing 4. Determine MAGI and non-MAGI Medicaid Eligibility 5. Caseload Management 6. Spousal Impoverishment Assessment	1. Enrollment/Renewals 2. Case Review Quality Assurance 3. Outreach and Notifications 4. Workflow 5. Master Person Index 6. Reporting 7. Policy Management 8. Public Self-Service Portal	1. No Wrong Door Policy (Application Pathways) 2. Changes to Beneficiary Information 3. Performance Management 4. Audit Trail 5. Organizational Change Management 6. Business Process Reengineering 7. Documentation

The core Non-Functional components of the EES the State of Nebraska is seeking are as follows:

EES Non-Functional Components		
1. Infrastructure Design, Installation, Testing, Implementation 2. Software Installation, Testing, Implementation 3. Software Configuration, Testing, Implementation	1. Interface Design, Development, Testing, Implementation 2. System Integration, Testing, Implementation 3. Technical Support Services 4. User and Technical Training	1. Post-Implementation Maintenance and Operations 2. Data Conversion and System Migration 3. EES Pilot, if applicable 4. Turnover

C. TECHNICAL ENVIRONMENT

The State of Nebraska currently operates a legacy eligibility and enrollment system called N-FOCUS that resides on an IBM mainframe in the State of Nebraska's data center. N-FOCUS is an integrated system used to determine, track, and report eligibility for Medicaid as well as a number of other Department programs (TANF, SNAP, LIHEAP, Child Welfare, etc.).

Currently in N-FOCUS, Medicaid eligibility is determined, and enrollment information is forwarded to the State of Nebraska's internally developed and maintained Medicaid Management Information System (MMIS) for claims processing.

Due to the breadth of functionality provided by N-FOCUS, the system has numerous interfaces to other systems (batch and real-time). A graphic depiction of the key interfaces between N-FOCUS and other systems is provided in the Procurement Library along with a more comprehensive description of N-FOCUS and other key systems and technologies that will help in understanding the current environment.

1. PROPOSED SYSTEM APPROACH

The primary focus of the EES Contractor is to develop and deliver a fully functional EES for the business processes and functionality defined in this RFP, including shared business services that will provide an enterprise set of shared services. The EES Contractor will also deploy the entire hardware and software infrastructure needed to run a robust Service Oriented Architecture (SOA) infrastructure and application platform for the EES.

Through its response to this RFP, Bidders are expected to demonstrate an approach and solution that will provide a flexible and interoperable solution for the design, development, and implementation of an integrated eligibility solution that will fit within the vision for the State of Nebraska's enterprise approach to technology for Nebraska's Health and Human Services programs (See Technology Framework in the Procurement Library).

The EES must be a SOA web-based solution hosted at a secure location in the continental United States. This RFP seeks to procure hosting services for the EES during the project and post implementation.

The EES must be designed to maximize opportunities for automation and minimize the need for human input or intervention. The EES Contractor will design and configure the solution so that changes can be implemented quickly.

The solution should be capable of reusing components and capabilities from the federal government and other states, as well as, be reusable itself. The solution should include specific opportunities to reuse functional components, operational capacities, and/or business rules from other sources. In addition, the solution should leverage strategies to reduce build and operational costs by sharing components and capabilities with other sources.

2. SYSTEM ARCHITECTURE

The EES System must be designed with leverage and reuse in mind. A key goal of this initiative is to take advantage of common COTS applications and infrastructure to shorten development and deployment time wherever possible, while preserving the Department's ability to meet the required unique business, functional, and non-functional requirements.

The EES should leverage contemporary IT industry best practices and technology innovations such as Service Oriented and Event Driven Architectures (SOA and EDA), Component Based Development, Web Services Standards and the Internet to achieve its objectives in creating highly modular, reusable, configurable and agile systems with relatively lower maintenance and enhancement costs than the current solution or alternate architectures. The EES should also leverage innovative ways to engage the existing and future participants through the adoption of self-service technologies.

The EES must leverage Composite Application Architecture principles and techniques. A Composite Application Architecture approach will allow the State of Nebraska to leverage both internal investments in automation as well as solutions being developed by the contractor community to enable and drive its strategies. The State of Nebraska expects to create the infrastructure, the development approach, and discipline needed to have a true plug and play application assembly environment. The new environment should be able to take advantage of the development work completed by contractors in other states. The State of Nebraska wants new systems to be designed to provide feature rich applications that can be updated over the WAN and the Internet, and should deliver a consistent and appealing user experience to the Department's employees, contractors, participants, and partners. The interface between the Service Consumer and Service Provider modules must be bi-directional.

The State of Nebraska's strategic Web Services preferences include XML, SOAP, WSDL, and XSD, over HTTP. The Web Service Specifications (collectively referred to as "WS-*") and REST, industry-supported standards that provide the heterogeneity and interoperability for applications, are both required for this initiative.

The EES and platform, must deliver highly capable Business Intelligence (BI) and Reporting capabilities. The requirement for Business Intelligence Services is to build applications to provide capabilities in the following categories:

a. Analysis, such as Online Analytical Processing (OLAP)
b. Information delivery, such as reports and dashboards

These BI and Reporting capabilities should be delivered through a formal and highly tuned Data Warehouse and Data Mart Architecture.

3. TECHNICAL SERVICES

The EES will utilize a range of technical services to provide participants, Department staff, and external service providers with robust, secure access to information and functionality. The table below provides an overview of those services and capabilities.

Service	Description
Identity Management	Ensure individuals are identified across a permitted range of roles in the Medicaid area with whom they interact, and have access only to information and functionality for which they are authorized.
Consent Management	Ensure that appropriate information is shared only with individuals that are authorized and have a need for access to it.
Portal	Provide consistent user interface and access to information and functionality.
Enterprise Information Exchange	Also referred to as a gateway or service bus, which will provide a standards based mechanism for integrating with and sharing information among full range of human services and administrative applications.
Master Data Management	Includes Master Person Index, and may include Master Provider Index, etc. to ensure a common view and single version of the "truth" across the Department's programs.
Rules Engine	Define and manage the business rules which will drive eligibility assessment across human services programs.
Content Management	Allow management of and access to a wide range of information and media.
Analytics and Business Intelligence Tools and Repositories	Create reports and dashboards to demonstrate compliance, manage current operations, and develop analytical and predictive analyses for future planning and policy development.
Collaboration Capabilities	These include: Service Coordination, Client and Provider Look-up and Query, Referral Management, and Alerts and Notifications.
System Management	The capability to manage updates to the system software and hardware, schedule and execute non-intrusive back-ups, monitor system performance and other such systems management functionality.
Security/Privacy Management	The capability to manage access to the system (logins, passwords, access-level privileges), manage all security logging, generate security reports, manage privacy levels and other such functions.

4. MIGRATION PLAN

The EES Contractor must develop a Migration Plan to transition the State of Nebraska's Medicaid eligibility and enrollment functionality supported by N-FOCUS to the EES. The Migration Plan deliverable approved by the Department must detail the requirements for integration between the EES, N-FOCUS, the Marketplace, and other essential State of Nebraska systems. Additional information concerning other State of Nebraska systems is available in the Procurement Library.

The Migration Plan must include all touch points, along with appropriate roles and responsibilities to ensure that the systems are aligned and synchronized during the coexistence period of N-FOCUS, the Marketplace and the EES. The Plan needs to include robust consideration of the citizen (applicant, recipient and beneficiary) and worker/user experience to ensure that during the coexistence period the external users have a seamless and streamlined user interface, and that there is minimal impact on Department workers' productivity and workflow efficiency.

The Migration Plan must provide, at a minimum, a strategy for:

a. All integration, interface and data synchronization transactions;
b. Data Conversion plan;
c. Scheduling each of the migration activities;
d. Maintaining data integrity between the existing N-FOCUS system and the EES; and
e. Modification of N-FOCUS functions that will remain in N-FOCUS.

The Bidder is expected to propose an appropriate number of working sessions with the Department Project team to define the required integration between the systems and ensure a robust and seamless user experience.

5. DATA CONVERSION AND SYNCHRONIZATION

The Bidder's approach to data conversion should incorporate a sound methodology, careful project planning, a proven project management methodology, and the use of automated tools. The approach should provide a strong emphasis on data quality and close collaboration with the Department. The Bidder's proposed strategy shall result in high quality data in the EES, reduce risk, and ensure a predictable on-time, on-budget outcome.

The objective of the data conversion activity is to:

a. Retain relevant data from the existing system;
b. Prevent manual reentry of data to the EES; and
c. Allow users to function without interruption or loss of data.

6. REMOTE ACCESS

Remote Access will be necessary and require an end-user device, a transport network, and hardware and software within the enterprise to allow the establishment and use of applications and data by remote users. Mobile and Remote Access services will be used most often to support "nomadic" users – those who travel from location to location, and to support "telecommuters" – users who access enterprise resources from their home.

a. BROWSER ACCESS

The externally-exposed application must include a Remote Access Portal for workers, which will provide a common User Interface (UI) and integration for multiple native Web-based applications and gateways to non-Web-based applications.

b. VPN ACCESS

Any end user device with a Java or ActiveX-capable browser and appropriate endpoint protection should be able to access State of Nebraska resources by connecting to the State of Nebraska Demilitarized Zone (DMZ) SSL VPN server. Data communication between the client and the VPN server can take place across the Internet or other IP networks, and must be controlled by security mechanisms. Authentication services must be used to verify the identity of the end user before access is granted.

7. SECURITY AND PRIVACY

The EES must maintain the security of information in the environment elements under management and in accordance with the Nebraska Security Policy. The Nebraska Security Policy is available at http://www.nitc.nebraska.gov/standards/index.html, Section 8. The Contractor will implement information security policies and capabilities as set forth by the State of Nebraska. The Contractor's responsibilities with respect to security services must also include the following:

a. Support intrusion detection and prevention including prompt agency notification of such events, reporting, monitoring and assessing security events;

b. Provide vulnerability management services including support of remediation for identified vulnerabilities as agreed;

c. Support the State of Nebraska Security Policy that includes the development, maintenance, updates, and implementation of security procedures with the State of Nebraska's review and approval, including physical access strategies and standards, ID approval procedures and a breach of security action plan;

d. Manage and administer access to the systems, networks, operating software, systems files and State of Nebraska data;

e. Install and update State of Nebraska provided or approved system security software, assign and reset passwords per established procedures, provide the State of Nebraska access to create user IDs, suspend and delete inactive logon IDs, research system security problems, maintain network access authority, assist processing Department requested security requests, performing security audits to confirm that adequate security procedures are in place on an ongoing basis, with the State of Nebraska's assistance provide incident investigation support, and provide environment and server security support and technical advice; and

f. Develop, implement, and maintain a set of automated and manual processes so that the State of Nebraska data access rules, as they are made known are not compromised.

The EES will comply with State of Nebraska and federal confidentiality and information disclosure laws, rules and regulations applicable to this RFP including but not limited to:

a. United States Code 42 USC 1320d through 1320d-8 (HIPAA); and

b. Code of Federal Regulations, 42 CFR 431.300, 431.302, 431.305, 431.306, 435.945,45 CFR164.502 (e) and 164.504 (e).

The EES must be compliant with FedRAMP CSP, NIST-800-53 Rev 4 Federal Security controls, MARS-e requirements, and State of Nebraska Security and Privacy Policies.

8. CAPACITY PLANNING

The EES design and implementation approach must be responsive to three core dimensions of capacity planning.

a. BUSINESS CAPACITY PLANNING

Ensures that the future business capacity requirements (e.g., desired outcomes, anticipated number and type of Participants, etc.) are considered and understood; and that sufficient IT capacity to support the EES is planned and implemented within an appropriate timeframe.

b. SERVICE CAPACITY PLANNING

Helps estimate the end-to-end performance, usage, workloads and resources of the EES; and ensures that the performance of the EES as detailed in the capacity section of the Non-Functional requirements in Appendix C, is monitored and measured, and that the collected data is recorded, analyzed, and reported.

c. IT COMPONENT CAPACITY PLANNING

Helps predict the performance, utilization, and capability of individual IT technology components. It also ensures that all components within the required IT infrastructure with finite resources are monitored and measured and that the collected data can be recorded, analyzed, and reported.

The EES and its databases need to support the State of Nebraska's Medicaid caseloads (active and inactive participants and historical participant data) and future caseload increases. The current Medicaid caseload is 215,000 individuals.

The EES must also accommodate the anticipated number of users and devices at each location. There are approximately 700 internal users/300 concurrent users and 200 external users/25 concurrent users at this time, and all of the internal users/employees are expected to have a workstation that will access the EES.

The new shared infrastructure and functional capabilities need be designed to be operational 7x24x365. The centralized servers and resources and public facing website will be designed to be operational 7x24x365.

The EES is required to have the ability to support transparent failover capabilities using high-availability processor architectural options. The EES needs to be able to continue to operate at all State of Nebraska locations despite failure or availability of any single technology components such as a server platform or network connection.

It is imperative that the EES provides the highest level of control and responsiveness in meeting the Department’s business needs. The Bidder data center must be configured at the Tier IV – Fault Tolerant Site Infrastructure Level (as defined by the Uptime Institute).

D. FUNCTIONAL REQUIREMENTS

The EES’ Functional Requirements are contained in the narrative of the RFP and in Appendix B. Bidders must become familiar with and respond to both.

E. NON-FUNCTIONAL REQUIREMENTS

The Non-Functional Requirements defined in this section of the RFP were driven by the functional requirements, an understanding of the existing environment and the overarching goals of the IS&T organization.

The Contractor is required to review, validate and further define the non-functional requirements with the State of Nebraska. In addition, the Contractor is required to conduct a crosswalk of the requirements against the legacy N-FOCUS system functionality to validate and identify any possible gaps in the requirements.

The EES' non-functional requirements are contained in the narrative of the RFP and in Appendix C. Bidders must become familiar with and respond to both.

1. KEY ASSUMPTIONS

The assumptions in the following table are presented for Bidders to consider when proposing a viable approach to achieving the outcomes envisioned for the EES.

Assumption		Description
General	1	The EES Contractor is responsible for the deployment of the EES and its associated business processes underlying technologies and platforms for the Nebraska Medicaid program. The State of Nebraska has an expectation that the deployment and associated business processes will be completed and approved by December 31, 2015.
	2	N-FOCUS is anticipated to coexist alongside the EES for the foreseeable future to support other non-Medicaid programs. This will require the EES Contractor to support integration with the N-FOCUS legacy system to ensure a citizen centric approach to accessing and applying for Nebraska Health and Human Services programs and to manage updates and changes to eligibility status.
EES	1	The State of Nebraska through this RFP is selecting a Contractor to migrate the Medicaid eligibility and enrollment functions to the new COTS-based EES and N-FOCUS so that the two systems work together as an integrated eligibility solution.
	2	A key objective of the EES is to present a central and easy to use web presence for applicants and beneficiaries, while minimizing the operational and technological implementation risks.
	3	CMS and CCIIO are collaboratively defining a catalog of standardized web services that enable communications between the Marketplace and the Federal Data Services Hub. The EES Contractor will be responsible for leveraging CMS' Business Service definition efforts and implement similar integration between the EES and the existing N-FOCUS System.

Assumption		Description
	4	The EES Contractor will enable the State of Nebraska to comply with the new ACA rules related to automated verification, redetermination, and multi-channel support (i.e. on-line, phone, etc.).
	5	The EES Contractor will create and test business rules for the eligibility and enrollment functions in support of the Medicaid program. These business rules must be shareable within the State of Nebraska and/or the federal government.
	6	The EES Contractor will be responsible for supporting the required modifications to N-FOCUS to integrate with the EES.
	7	Non-Medicaid functionality of N-FOCUS will continue to reside in CA Gen/AION and on the IBM Mainframe after the migration of Medicaid eligibility related functionality to the EES. The retirement of N-FOCUS is not within the scope of this RFP.
	8	All technical support and system hosting must be provided by individuals residing in the continental United States.
EES Platform	1	The State of Nebraska has not chosen an SOA infrastructure or technology stack for the EES, and therefore expects the EES Contractor to include that as part of the RFP proposal.

2. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the EES requirements. The following requirements pertaining to the Non-functional Requirements for the EES and must be responded by the Bidder.

Bidders must provide specific details of the proposed approach to meeting the State of Nebraska's requirements in each area. Also, include one or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder's response must include:

a. ARCHITECTURE & POLICY

Describe the proposed approach to SOA. The approach must, at a minimum, take the following topics into consideration in the details:

1. Distribution of Services;
2. Integration of Services;

3. Ease of Maintenance;
4. Administrations and Security; and
5. Support for various Protocols.

i. Describe the system integration approach between the Bidder's solution, Interfaced Systems and any other proposed third party products. The approach must, at a minimum, provide details on the interoperability features and capabilities of the Bidder's proposed solution and how the EES intends to meet or exceed the Interoperability-Interface Requirements set forth in Appendix C;

ii. Describe the approach to scalability and extensibility of the proposed EES. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Ability to meet future growth;
b) Configurability;
c) Flexibility to keep up with changing technology and Regulatory needs; and
d) Ease of maintenance.

iii. Describe the approach for the proposed solution to meet Performance Standards. The approach must, at a minimum, provide details on how the EES intends to meet or exceed the Performance Requirements set forth in Appendix C;

iv. Describe the approach for the EES to adhere to or enable State of Nebraska and federal regulations;

v. Describe the approach for the proposed EES to meet Audit and Compliance requirements; and

vi. Describe the design approach and the characteristics of the user interface for the EES. The EES must be designed to utilize a browser based interface that can provide feature rich applications that can be updated over the Wide Area Network and the Internet, and should deliver a consistent user experience to participants, Department staff, contractors, and partners.

b. SYSTEM ADMINISTRATION AND SUPPORT

i. Describe the system administration tools and procedures that will be delivered for the ongoing support and maintenance, including customization of the EES.

ii. Describe the proposed overall management framework, including proposed tools for:

a) Application Management and Monitoring;
b) Web Services Management;
c) Systems Management and Monitoring;
d) Event Management;
e) Identity and Access Management;
f) Network Management and Monitoring;
g) Performance Monitoring;

h) Business Rules;
i) Print Prioritization and Management; and
j) Workload Management.

iii. Describe any proposed third-party off-the-shelf management tools and include detailed information regarding provider, product and version;
iv. Describe the audit trail capabilities of the EES;
v. Describe the processes used to archive and restore data from operational databases;
vi. Describe the technical documentation that comes delivered with the EES; and
vii. Describe the approach that will be taken to establish:

a) Multiple environments (e.g., sandbox, configuration/development, testing, quality assurance, production, training, and disaster recovery);
b) Procedures used to migrate software and system configuration (e.g. rules, workflows)from one environment to another; and
c) Steps needed to maintain the synchronization between environments.

c. SYSTEM SECURITY AND DISASTER RECOVERY

i. Describe the approach to support technical controls and technology solutions that must be secured to ensure the overall security of the EES, including:

a) Provide security-related input into IT infrastructure, system and application design;
b) Leverage published industry standards and models to apply security best practices;
c) Support, enable and extend the security policy by providing specific security-related guidance to decision makers;
d) Contain the capability to provide user and site authentication;
e) Support VPN access;
f) Include the ability to recover from a failure of any single element;
g) Be easily serviceable;
h) Support the establishment and active management of data sensitivity levels; and
i) Include application and system hardening processes.

ii. Describe the approach to support Identity and Access Management, including:

a) Compliance with all State of Nebraska and federal requirements for identity proofing including but not limited to, appropriate IRS regulations for identity proofing access to income tax data;
b) Enable the Department to identify users in different contexts so that the Department policies and user preferences can be applied consistently;

c) Deliver an integrated login experience for users across the State of Nebraska's systems and channels;
d) Enable coherent audit trails and chain of custody records needed for security forensics and compliance requirements;
e) Support the proactive management of user access to the State of Nebraska's resources including de-provisioning when needed;
f) Enable the State of Nebraska to consistently identify participants so that customer service can be more effective; and
g) Support the use of Microsoft Active Directory for identification and authorization.

iii. Describe the approach to support Application Encryption, including:

a) Encryption of database columns and indexes for data at rest;
b) Encryption of flat files at rest and in motion;
c) Network encryption at the session layer (or lower) to secure communication streams that traverse un-trusted networks, and to provide encryption for sensitive data in motion across any network;
d) Field-level encryption so custom applications can secure pertinent information within a communication stream; and
e) Key management for secure creation, storage, and retrieval of encryption keys.

iv. Describe the approach to support Privacy and Consent, including:

a) Role-based access within the EES must ensure that access to sensitive information will conform to State of Nebraska policies; and
b) The EES must be able to identify and delineate between internal and external users (users outside the State of Nebraska) and must give them different levels of visibility to EES data. When displaying data, identification information tying the records back to specific participants must be omitted where appropriate.

v. Describe the approach to support an audit trail of all pertinent events, giving due consideration to storage space and performance constraints. Examples of these events include:

a) System start-up and shutdown;
b) Successful and unsuccessful login attempts;
c) User actions to access files or applications (successful and unsuccessful);
d) Actions taken by system administrators and security personnel;
e) All administrative actions performed on the EES;
f) Permission changes;
g) Creation of users and objects;
h) Deletion and modification of system files;
i) Registry key/kernel changes;
j) Changes, additions or deletions to data (including operational and security data) sets identified by management; and

k) Out of normal EES operations usage or user access.

vi. Describe the approach to ensure the Confidentiality, Integrity and Availability (CIA) of the Database Management Systems responsible for managing data related to the proposed EES;

vii. Describe the approach to development and implementation of security measures that will provide security and protection for the system, including:

a) Server OS Security;
b) Client OS Security;
c) Mobile Devices Security;
d) Web Server Security;
e) Network security;
f) Browser Security; and
g) POS Terminal Security.

viii. Describe the approach to support Data Backup, including

a) Database and application backup procedures must be updated to include backups for the EES; and
b) Full online data backups must occur, as well as offline backups using tape storage.

ix. Describe the general approach to reestablishing operations in the event of a catastrophe, as well as its approach to providing the State of Nebraska with a Disaster Recovery Plan; and

x. Provide specifications on any hardware and software components utilized by the proposed security and disaster recovery solutions. Include the required components, configurations and procedures to enable a recovery.

d. SYSTEM PERFORMANCE, AVAILABILITY AND CAPACITY

i. Describe the ability of the proposed solution architecture to support:

a) Internal case workers, and external participants;
b) Mission-critical services/Service Level Requirements;
c) Ease of management;
d) Ability to upgrade (ease and compatibility);
e) Virtualization and resource management;
f) Network Performance Requirements;
g) Meeting System response time requirements; and
h) Data dashboard capabilities to facilitate real time graphical display of technology performance metrics with drill-down capability aligned with IT Operations user's role and permissions.

ii. Describe the approach to providing a highly available system. The Contractor is responsible for delivering a cost-effective, high-availability environment that minimizes the frequency and impact of system failures,

reduces downtime, and minimizes recovery time in the event of catastrophic failure.

iii. Describe the approach to planning, sizing and controlling the system as IT Component Capacity needs change:

a) Data Base Storage Capacity;
b) Real-time Integrated/Centralized Database;
c) Data Warehouse and Data Marts;
d) User Capacity;
e) Network Capacity;
f) Server Capacity;
g) Knowledge Base; and
h) Document Repository.

iv. Describe the methodology for monitoring and reporting system performance, as well as the approach to Technology Management. This includes the methods for centrally managing system resources such as servers, backup, archiving, and recovery equipment, databases and applications. Address methods for auditing, tracing and scanning the system. Provide details on the use of specialized tools the Contractor will use to automate and track monitoring and management activities.

e. TECHNICAL COMPONENTS

i. Describe the approach to meeting the Enterprise Service Bus (ESB) requirements as well as the messaging approach for server-to-server and client-to-server communications, if applicable. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) SOA Architecture;
b) Integration Mechanism;
c) Routing and Orchestration Mechanism;
d) Synchronous and Asynchronous Communication;
e) Reliability of Message Delivery;
f) Support for Industry Standard Messaging and Interfaces; and
g) Administration and Security.

ii. Describe the approach to Data Integration and supporting technologies for Data Extraction, Transformation and Load into appropriate target systems.

The State of Nebraska's requirement for Enterprise Data Management is to have a mixture of OLTP, Operational Data Store (ODS), Data Warehouse, and Data Mart technologies that support transaction processing systems, information integration and reporting, enterprise analysis and decision support, and functional analysis.

The design approach for the EES must take into account the following four major types of shared data:

a) Online Transaction Processing (OLTP) databases must be the read-write stores of the Department's transactional services and systems, and must be the primary point of data creation within the Department;

b) Operational Data Store (ODS) databases should be used to support operational and tactical data consolidation and data access needs of the Department. The data contained in an ODS must originate in one or more OLTP databases;

c) Data Warehouse databases should primarily support managerial and strategic decision making for the Department. A data warehouse may contain summarized data rather than detailed data as in an ODS; and

d) Data Mart databases should support departmental decision making for the Department. The scope of information stored within a data mart should be generally much smaller than within a data warehouse, and is limited to the needs of its audience.

iii. Describe the approach to implementing the MDM technologies to build a Master Client Index/Enterprise Master Person Index to meet the Department's requirements in each phase of the implementation;

iv. Describe the Security Architecture and Management approach supporting the EES;

v. Describe the approach to the Business Intelligence (BI) platform that should deliver a balanced set of capabilities across three areas: information delivery, analysis, and development and integration with certain fundamental capabilities that need to be provided as part of the shared analytics and a user-driven BI strategy;

vi. Describe the Reporting approach for both canned and ad-hoc reports and the ability of the proposed solution to provide Dashboarding capabilities. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) BI Infrastructure;
b) Scalable Data Architecture; and
c) Data Integration Tools.

vii. Describe the Business Rules Engine technology that will enable and support the EES for both Integrated Eligibility as well as support of other programs;

viii. Describe the approach the following topics that must be taken into consideration while providing the details:

a) Rules Engine Architecture;
b) Validation, Calculation, Decision and Generation Rules;
c) Performance Tuning and Debugging; and
d) Rule Storage and Versioning.

ix. Describe the approach to using the Portal technologies to enable access for the variety of internal and external end users of the proposed solution. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Multiple Channel Support;
b) Search Capabilities;
c) Accessibility considerations;
d) Personalization; and
e) Usability best practices and federal guidance.

x. Describe the Application Server technology and approach supporting the EES. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Enterprise Ready and Scalable;
b) Clustering;
c) Store-and-Forward;
d) Administration; and
e) Security.

xi. Describe the approach to database management, metadata management, load balancing and/or clustering for extended scalability and performance, performance in transaction processing and report processing, Security and Audit;

xii. Describe the design approach for the EES shall address three major sets of shared data:

a) Real-time Integrated/Centralized Database – Data regarding an applicant's status, participant's profile, benefits records/account, and financial records must be stored in a centralized operational database for real-time access and subsequent follow-up and reporting;

b) Data Warehouse and Data Marts – Data extracted from the Real-Time operational databases and other external sources must be integrated, aggregated and optimized into physical data warehouses and marts a timely fashion to support reporting and business intelligence needs; and

c) Document Repository – The EES must have the capability to connect to the State of Nebraska's Enterprise Content Management System to centrally manage all documents throughout their lifecycle and share documents between various stakeholders.

xiii. Describe the approach to designing and deploying the appropriate Service Oriented Governance infrastructure technologies supporting the EES. The EES and approach, at a minimum, must take the following technology sub-categories into consideration while providing the details:

a) SOA Policy Management;
b) Service Portfolio Management;
c) Compliance Engine;
d) Service Repository;
e) Service Registry;
f) SOA Monitoring; and
g) SOA Policy Enforcement.

xiv. Describe the Case Management and Business Process Management technologies and design approach supporting the EES. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Rules Engine;
b) Registry;
c) Process modeling support;
d) Workflow and task management; and
e) Administration.

xv. Describe the EES Monitoring and Logging capabilities. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Fault Monitoring;
b) Performance Monitoring;
c) Configuration Monitoring;
d) Network Monitoring;
e) Security Monitoring;
f) Management and Reporting; and
g) Root Cause Analysis.

xvi. Describe the approach to leveraging the State of Nebraska's Enterprise Content Management System technologies for Eligibility Determination process. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Store Electronic Forms;
b) Scan, Index and Store Imaged Documents;
c) Searching of Documents; and
d) Digital Rights Management Capabilities.

xvii. Describe the approach to Identity Management supporting the EES;

xviii. Describe the Shared Analytics approach supporting the EES. The approach, at a minimum, must take the following topics into consideration while providing the details:

a) Shared Analytics Architecture and Design;
b) Integration and Data Quality;
c) Metadata and Data Quality;
d) Availability and Security;
e) Performance;
f) Connectivity;
g) Scalability;
h) Compliance;
i) Deployment;
j) Application Support; and
k) Administration and Backup-Archiving.

xix. Describe the language environment(s), standards, relational databases, channels supported, hardware platforms supported, and other aspects of the technical direction for the EES; and

xx. Describe the timetable for migration of the EES to new technologies, product sets, or standards.

f. SOFTWARE AND HARDWARE COMPONENTS

i. Describe the supported OS platforms and Server Configurations for the EES. Include minimum recommended specifications to support the proposed solution in all required environments (e.g., sandbox, configuration/development, testing, quality assurance, production, training, and disaster recovery);

ii. Describe the client (desktop) architecture for the EES, including minimum recommended specifications (e.g., RAM, video RAM, disk space, processor speed) to support the EES, as well virtualized configurations to improve manageability and reduce operational costs;

iii. Describe the proposed data storage software and hardware components;

iv. Describe the tools and utilities used to design, build, test, deploy, report, monitor, and operate the EES and its components;

v. Describe the architecture of other devices such as printers, electronic signature pads, smart card reader/writer and attached disks, which are necessary or recommended for the EES, including minimum and recommended specifications to support the proposed solution; and

vi. Describe the proposed solution approach to network topology and hardware required to achieve this architecture (e.g., load balancing utilizing hardware and software based load balancers ahead of the web servers, Virtual Private Networks (VPNs), creation of DMZs by firewalls).

g. ENVIRONMENT INSTALLATION AND CONFIGURATION

i. Describe the Environment Installation strategy and approach and the specifications for all necessary hardware, software and tools for the seven (7) enterprise environments listed below. The Bidder may propose to combine certain environments, where appropriate. The environments include:

a) Sandbox

b) Configuration/Development;
c) Test;
d) Quality Assurance;
e) Production;
f) Training; and
g) Disaster Recovery.

ii. Describe the Environment Configuration strategy and approach by providing details on configuration of all hardware, software and tools proposed.

h. DESIGN, DEVELOPMENT AND CUSTOMIZATION

i. Describe the System Design Methodology. Include a description of the system Architecture and Design methodology and detailed Design Specifications;

ii. Describe the System Development Methodology (e.g., Waterfall model, Rapid Application Development etc.) for both the Contractor and the State of Nebraska during the implementation of the EES;

iii. Describe the process that ensures that the State of Nebraska's IT staff will be able to develop the required skills to support and maintain the EES configuration and integration after deployment into production;

iv. Describe the configuration and/or customization methodology for both the Contractor and the State of Nebraska during the implementation of the EES;

v. Describe the Data Conversion strategy and approach for supporting migration of data from N-FOCUS to the EES and EES Platform. Describe how the Contractor will ensure data integrity and consistency through all phases of the project;

vi. Describe the Data Transition strategy and approach during the roll-over of data from N-FOCUS to the EES; and

vii. Describe the Testing strategy and approach to ensure that the system is functioning and processing the data correctly. Address at a minimum the end-to-end application testing, stress tests, performance tests, UAT and Final Acceptance Testing (FAT) tests to ensure that the EES will meet performance requirements under expected user loads, backup and recovery, and installation.

i. DEPLOYMENT

i. Describe the methodology, tools, and techniques for implementation/rollout planning. Address specific staging, readiness and deployment techniques that the Contractor will use to determine the proper sequencing of deployment processes and functions required for successful implementation;

ii. Describe the implementation and deployment strategy. In addition, include a realistic implementation approach and timeframe for the implementation of the EES that meets the State of Nebraska's requirements. If some of the EES' Functional or Technical requirements and capabilities are not a part of the standard EES (available now or via configuration), describe a proposed phasing methodology to deliver to

the State of Nebraska's full requirements for the EES and EES Platform. Provide reference to the proposed work plan and WBS in the required work plan submission; and

iii. Describe how the Contractor will implement and comply with industry standard backup procedures and the State of Nebraska's backup requirements, as well as the State of Nebraska's record and document management policies. Describe the Contractor's backup processes and procedures.

F. PROJECT PLANNING AND MANAGEMENT

The focus of Project Planning and Management is the development of a comprehensive series of planning document deliverables that, when executed, ensure that the project maintains a high quality of products and deliverables, adheres to the development schedule and remains within budget.

The Contractor's Project Management approach must promote the development of a strong working relationship and facilitate open and timely communication with the Department, the IV&V Contractor, other contractors and stakeholders that will support achievement of the overall goal of satisfactory performance within budget.

The State of Nebraska considers the use of recognized methodologies to control all project activities to be critical to the success of the project. Bidders must describe what standard(s) proposed methodologies are based upon, or are consistent with, and how they are integrated into a Project Management methodology. The Contractor must develop and put into practice a series of plans (e.g., Project Management, Risk Management, Scope Management, and Configuration Management Plans) based on its proposed Project Management and Systems Development Lifecycle Methodologies. These Plans are deliverables and must be designed and developed to support all project phases.

The Bidder must provide a detailed description of its proposed approach and methodologies to the management of all aspects of the project. This section must contain a complete description of the Contractor's project management methodology and describe how its project management, quality management and software development methodologies are designed to work together and are based on industry best practices and recognized methodologies.

The IV&V Contractor will take an active role assessing the EES Project Management and Planning Deliverables and will submit comments to Department within a timeframe that allows inclusion of IV&V feedback in the Department's response to the EES Contractor. The EES Contractor will support the IV&V Contractor in their objective verification and validation activities. The IV&V Contractor will have access to all deliverables and visibility into the EES Contractor's processes to produce those deliverables.

1. PROJECT MANAGEMENT PLAN

Bidders' must develop a Project Management Plan (PMP) that is based upon its proposed Project Management methodology and describes its overall plan and activities required to successfully complete this project within budget and on schedule. The PMP deliverable must be in sufficient detail to demonstrate to the Department that the Bidder has a clear and concise understanding of the overall complexity of the project and all associated tasks to successfully implement the requirements in this RFP. The PMP must address both the technical and operational aspects of the project.

The final PMP deliverable must address all the major sections of this RFP and, once approved by the Department, must be continuously updated by the Contractor throughout the life of the project. Any system or operational enhancement activities must be added to the PMP in sufficient detail as to provide the Department with a clear understanding of the magnitude and steps necessary to implement the change and the tasks and resources that will be required.

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Project Management Plan requirements. Please provide specific details of the proposed approach to meeting the State of Nebraska's requirements. Also, include a sample of each Plan in your proposal.

Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe its proposed Project Management Methodology. This methodology will serve as the foundation for the PMP and must describe the Bidder's approach and plan for managing the project.

The Bidder's response must include:

- **i.** Describe in detail the Bidder's proposed Project Management Methodology and show how it provides an integrated approach to project management;
- **ii.** Describe how the proposed methodology is based on industry best practices;
- **iii.** Include a detailed narrative of your proposed PMP. This PMP narrative must be in sufficient detail to demonstrate to the State of Nebraska that the Bidder has a clear and concise understanding of project's overall complexity and all associated tasks to successfully implement the requirements in this RFP;
- **iv.** Describe how the Bidder's implementation of its proposed PMP will address and balance such factors as quality, scope, time and cost;
- **v.** Identify and describe all tasks and activities to be undertaken in the delivery of the EES and provide the associated timing of these activities;
- **vi.** Describe how the Bidder decomposes deliverables and projects into a WBS and work packages;
- **vii.** Describe the deliverables that will be produced at different milestones in the PMP;
- **viii.** Describe the Bidder's experience working with an IV&V Contractor; and
- **ix.** Include a high level Project Schedule. The proposed Project Schedule deliverable must be broken down into Work Breakdown Structures (WBS) and must include key tasks, resources, milestones, deliverables, and task dependencies.

2. SCOPE MANAGEMENT

Scope Management includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully. The State of Nebraska expects that a proactive approach to Scope Management will be adopted based on a Project Scope Management methodology that is integrated with the proposed Project Management Methodology. The Bidder must explain how using the methodology proposed will facilitate the management of scope expansion.

A Scope Management Plan deliverable documents how the project scope will be defined, verified, and controlled. The Contractor must develop and implement a Scope Management Plan that describes its approach to defining the project, creating WBS and controlling scope expansion while still allowing for progressive elaboration throughout the life of the contract.

The Contractor must show how, by subdividing the major project deliverables and project work into smaller, more manageable components, or WBS, the Contractor will be able to manage scope expansion. A Project Schedule deliverable approved by the Department must be developed and maintained throughout the life of the contract.

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Scope Management requirements. Please provide specific details of the proposed approach to meeting the State of Nebraska's requirements. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe its proposed Project Scope Management Methodology that will serve as the foundation for the Scope Management Plan deliverable for the project. The methodology must describe the Bidder's approach and plan for managing scope changes.

- **i.** Describe business processes and procedures for controlling the scope of the project and how they will differentiate between scope changes and progressive elaboration;
- **ii.** Describe how the business processes and procedures will control schedule, cost, time and effort;
- **iii.** Describe any tools that will be used to control scope;
- **iv.** Describe how the Scope Management Plan will be implemented into the overall PM approach including any and all tools that are used;
- **v.** Describe how changes in scope will be presented to the State of Nebraska, including but not limited to prioritization of changes, budget and schedule implications; and
- **vi.** Describe how the PMP will be used to control scope.

3. REQUIREMENTS TRACEABILITY AND MANAGEMENT

The Contractor must develop and implement a Requirements Management and Traceability Plan deliverable approved by the Department for all projects and any system enhancements to the EES. The Plan must be based upon the Requirements Management and Traceability Methodology proposed by the Bidder. This Plan will be

used to track requirements from the time they are defined by a stakeholder to the time they are implemented within the EES. The Contractor must use the approved methodology in tracing a requirement throughout all steps of the System Development Lifecycle (SDLC). The process for tracking and monitoring a requirement begins at the time a requirement is defined by a stakeholder.

The Bidder must propose a tool that will support a requirements repository that will be used for requirements management and traceability throughout the SDLC. The tracking must be done in a way that allows stakeholders to obtain the status of a particular requirement through the required tool. The Contractor must initially populate the requirements repository with those requirements listed in Appendix B Functional Requirements Traceability Matrix and Appendix C Non-Functional Requirements Traceability Matrix (RTM). Appendix D Gap Analysis will also become part of the Requirements Traceability Matrix. Each of these requirements will be tracked according to the proposed methodology.

Throughout the execution of projects and any system enhancement, the Contractor must use the proposed Requirements Management and Traceability Plan as approved by the Department, producing a weekly list of each requirement and its status.

The Requirements Management and Traceability methodology must include aggressive monitoring of requirements throughout the SDLC, including the status of requirement's documentation, the test scripts associated with a requirement, and the results of the testing of the requirement.

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Requirements Traceability and Management requirements. Please provide specific details of the proposed approach to meeting the Department's requirements. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe in detail its proposed methodology for Requirements Management and Traceability for the EES project. The methodology will become the foundation for the Requirements Management and Traceability Plan deliverable and must describe the Bidder's approach and plan for managing and tracing requirements.

- **i.** Describe how requirements derived from stakeholder needs, wants and expectations will be documented and categorized;
- **ii.** Describe how requirement changes will be analyzed and managed to ensure scope creep is identified and avoided;
- **iii.** Describe how requirements will be tracked, documented and versioned;
- **iv.** Describe in detail the documentation deliverables that will be produced as a result of the requirements analysis and provide samples of the documentation;
- **v.** Describe the tools and business processes that will be used to track requirements throughout the SDLC;

vi. Describe how the Requirements Management and Traceability Plan will be implemented into the overall PM approach including any and all tools that are used;

vii. Describe how requirements will be stored in a repository and how the State of Nebraska and stakeholders will access the information about a requirement; and

viii. Describe business processes and procedures that will be used for tracking requirements from design through configuration/coding, acceptance, unit, and integration testing, as well as promotion into production.

4. ISSUE RESOLUTION MANAGEMENT

A key component of Issue Resolution Management is the Issue Resolution Plan to be developed and implemented by the Contractor that describes its approach to issue resolution and provides the Department with the ability to monitor resolution of issues throughout the life of the contract. The primary goal of this Issue Resolution Plan deliverable is to ensure that issues are identified, evaluated, assigned for resolution, and monitored. In addition, issue resolutions or decisions must be documented and communicated to all affected parties.

The Bidder must propose a tool that will record and track issues. This tool must also be used for recording and tracking risks.

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Issue Resolution Management requirements. Please provide specific details of the proposed approach to meeting the Department's requirements. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe its proposed Issues Resolution Management methodology that will serve as the foundation for the Issues Resolution Management Plan deliverable for the EES project. The methodology must describe the Bidder's approach and plan for managing issues.

i. Describe business processes and procedures that will be used for the identification, definition and evaluation of project issues related to the EES;

ii. Describe how the processes and procedures will differentiate between an issue and a risk;

iii. Describe how the business processes and procedures will be used to resolve issues;

iv. Describe the tools that will be used to document, track and manage issues and document issue resolutions;

v. Describe how the Issue Resolution Management Plan will be implemented into the overall PM approach including any and all tools that are used; and

vi. Describe how the tools will be used to support State of Nebraska and stakeholder access to information about issue resolution.

5. RISK MANAGEMENT AND RESOLUTION

Like Issue Management, Risk Management also requires a proactive approach to analyzing and assessing the risks within all aspects of the EES. The Contractor must implement its Risk Management Plan across the broad spectrum of the EES, including but not limited to, manual and automated processes and the SDLC.

Throughout the execution of the EES project and any system enhancement, the Contractor must continually perform risk assessments, producing lists of identified risks. For each risk identified, the Contractor must evaluate and set the risk priority based on the likelihood the risk will occur and the potential impact of the risk, assign risk management responsibility, and create a risk mitigation strategy.

The Contractor must develop and implement a Risk Management Plan deliverable approved by the Department for the EES project and any system enhancement to address potential risks that may compromise the operational readiness and continued operation of the EES. The Plan must be based upon the Contractor's proposed Risk Management methodology. The proposed methodology must address, at a minimum, the process and timing for risk identification, the process for tracking and monitoring risks, the identification of the Contractor staff that will be involved in the risk management process, the identification of the tools and techniques that will be used in risk identification and analysis, a description of how risks will be quantified and qualified, and how the Contractor must perform risk mitigation and response planning.

The Risk Management methodology must include aggressive monitoring for risks, identify the frequency of risk reports, and describe the plan for timely notification to the State of Nebraska of any changes in risk or trigger of risk events.

The State of Nebraska recognizes the risk inherent in transferring the Nebraska requirements to a different system and at the same time moving to a new environment. The Contractor must identify the risks in the EES implementation and provide aggressive mitigation strategies, including how the Contractor will leverage a single or phased implementation to ensure a successful transition.

The proposed tool for tracking risks must also be used for tracking issues and their resolution.

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Risk Management and Resolution requirements. Please provide specific details of the proposed approach to meeting the Department's requirements. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe its proposed Risk Management and Resolution methodology that will be the foundation for the Risk Management Plan deliverable for the project. The methodology must describe the Bidder's approach and plan for managing risk.

i. Describe business processes and procedures that will be used for:

a) Identifying and defining risks;

b) Tracking and monitoring risks;
c) Quantifying, qualifying and prioritizing risks; and,
d) Mitigating of risks.

ii. Describe processes and procedures that will be used for risk assessment;
iii. Describe processes and procedures that will differentiate between an issue and a risk;
iv. Describe the tool(s) and techniques that will be used for:

a) Risk identification;
b) Risk documentation;
c) Risk management;
d) Risk analysis;
e) Risk logging; and,
f) Risk mitigation.

v. Describe how the Risk Management Plan will aggressively monitor risk and identify triggers to risk events;
vi. Describe how the Risk Management Plan will be implemented into the overall PM approach including any and all tools that are used; and
vii. Describe how the Risk Management Plan will address the risks of a single or phased EES implementation and provide aggressive mitigation strategies, including how the single or phased implementation will be leveraged to ensure a successful transition.

6. CONFIGURATION MANAGEMENT

Configuration Management is a process that the Contractor must employ to control the versions of software and hardware that will operate and support the EES across all environments. This applies to operating systems, applications, software, documentation, networks and all devices within the entire enterprise.

Configuration Management includes but is not limited to:

a. Software version control (e.g., operating system, application, and COTS);
b. Hardware version control; and,
c. Documentation, Training Materials, User and Policy Manual version control.

The Contractor must develop and implement a Configuration Management Plan deliverable that is approved by the Department that describes its approach to implementing the proposed Configuration Management methodology. As part of the Plan, the Contractor must clearly identify the process for approving and implementing new versions, including the organizational responsibility for each type of version control.

When new hardware or software becomes available or when subsequent releases to the current operating system, server(s), database management software, grouper software, COTS products, or other hardware/software supporting the EES become available, the Contractor must inform the State of Nebraska of the benefits that can be derived by implementing the newest version. If the State of Nebraska requires the Contractor to proceed with the implementation, the Contractor must determine the

impact of implementation and develop an Upgrade Plan. All such upgrades must be included under the fixed cost portion of the contract. The State of Nebraska shall review and approve the Upgrade Plan for implementation or return the Plan for modification. The Contractor must not operate software for the EES that is either not supported by the vendor or is more than two (2) versions behind the software vendor's current commercial offering without prior approval from the State of Nebraska.

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Configuration Management requirements. Please provide specific details of the proposed approach to meeting the Department's requirements. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe in detail its proposed Configuration Management methodology that will serve as the foundation for the Configuration Management Plan deliverable for the project. The methodology must describe the Bidder's approach and plan for managing configuration changes.

i. Describe how changes will be tracked, documented and versioned;

ii. Describe how changes will be synchronized and distributed when multiple activities are occurring simultaneously across multiple environments (e.g. sandbox, configuration/development, test, quality assurance, production, training, and disaster recovery);

iii. Describe any tools and business processes that will be used to control software development, including check in/check out procedures and a responsibility audit trail;

iv. Describe how the Configuration Management Plan will be implemented into the overall PM approach including any and all tools that are used;

v. Describe business processes and procedures that will be used for controlling the migration of code from design through coding, acceptance, unit, and integration testing, as well as promotion into production. Explain how proposed changes will be communicated to the stakeholder;

vi. Describe how changes to the environments will be controlled so that no changes to hardware, software or operational procedures will be implemented without the State of Nebraska's review and approval;

vii. Describe the software development management process that will be used, including the migration of code from design to production. This description shall include diagrams and other graphical representations to communicate the processes;

viii. Identify the types of configuration changes that can be made. Categorize the changes in terms of functionality, testing requirements, quality of change and the extent of the change in terms of immutability and retractability;

ix. Describe the organizational structure that will be in place to control changes; and

x. Describe how the Contractor will inform the State of Nebraska of the benefits that would realize from any and all announcements of a new version of hardware, software or COTS product.

7. PROJECT PERFORMANCE MANAGEMENT

The Contractor must develop and implement a Performance Management Plan deliverable approved by the Department with specific, measureable performance indicators. The Contractor must develop, and provide access through a web access to an EES Dashboard that will display (upon-demand) the Contractor's operational performance metrics and provide State of Nebraska Management with the latest statistics regarding those metrics.

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Project Performance Management requirements. Please provide specific details of the proposed approach to meeting the Department's requirements. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe in detail its proposed methodology for Project Performance Management for the project. This methodology will become the foundation for the Project Performance Management Plan deliverable that must describe the Bidder's approach and plan for managing performance.

- **i.** Describe the performance metrics that will be established for the project;
- **ii.** Describe the EES Dashboard that will be developed based upon the Contractor's previous experience;
- **iii.** Describe any tools that will be used to track its Project Performance;
- **iv.** Describe how the Performance Management Plan will be implemented into the overall PM approach including any and all tools that are used; and
- **v.** Describe the Contractor's organizational structure that will be used to track performance.

8. COMMUNICATIONS MANAGEMENT

Implementation of a project of this complexity requires daily collaboration and communication among all project stakeholders. Time is critical in communicating issues, solutions and decisions among the EES Contractor, the Department's programmatic, technical and management staff; and other stakeholders and the IV&V Contractor. Effective communication among the Department, the EES Contractor, members, the provider community and other stakeholders is essential to encourage continued participation in the Nebraska Medicaid program.

The Contractor must provide and implement a Communication Management Plan deliverable approved by the Department, describing how the Contractor will communicate with all the stakeholders. The Plan must define each stakeholder's communication needs, determine the method and frequency of communicating in order to meet those needs and allocate appropriate resources to meet the communication schedule. The schedule should address regular (on-going) communication as well as event-driven communication. This Plan must be updated regularly or at the direction of the Department.

The Bidder must propose a tool for Contact Management that will be used to track and report users written, electronic, and telephone inquiries.

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Communication Management requirements. Please provide specific details of the proposed approach to meeting the Department's requirements. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe in detail its proposed methodology for Communication Management for the EES project. This methodology will serve as the foundation for the Communication Management Plan deliverable that must describe the Bidder's approach and plan for managing communications.

i. Describe how communication with the different stakeholders will be accomplished;

ii. Describe the different communication channels that will be used;

iii. Describe how the Communications Management Plan will be implemented into the overall PM approach including any and all tools that are used; and

iv. Describe the Contact Management System that will be used to track and report written, electronic, and telephone inquiries from users and other stakeholders; and how it will be integrated with other EES functions and accessed by Department staff.

9. SYSTEM DEVELOPMENT LIFECYCLE (SDLC)

The State of Nebraska requires Bidders to propose a System Development Lifecycle (SDLC) process that will govern the initial development and implementation of the EES, as well as ongoing maintenance and enhancements. This SDLC must be a proven process that the Contractor has used in other EES or large scale application development efforts. Bidders must describe in detail their proposed SDLC.

During development and implementation, the Contractor will support and participate in the applicable Exchange Life Cycle (ELC) reviews with CMS/CCIIO including travel to CMS/CCIIO headquarters, as required. CMS requires a formal process for each review with required products and deliverables to determine project completeness. The Contractor shall generate and deliver all CMS required artifacts and supply all appropriate documentation to support the relevant project stage gate review. The CMS artifacts and supporting documentation shall be provided at least three (3) weeks prior to the CMS review. The Contractor will be required to assist in formal reviews and presentations to CMS personnel.

The State of Nebraska requires the Contractor to use at the core of their SDLC a suite of tools to manage the implementation and maintenance of the EES. This suite must be used at a minimum, during the following SDLC tasks: 1) Requirements Validation, 2) System Design, 3) System Development and 4) testing.

The goals of the SDLC are to:

a. Provide a framework for developing quality systems using an identifiable, measurable, and repeatable process;
b. Establish a project management structure to ensure that each system development project is effectively managed throughout its life cycle; and,
c. Ensure that system requirements are well defined, traceable throughout each phase of the SDLC and subsequently satisfied.

Through the use of the SDLC, the Contractor should achieve these goals by:

a. Establishing appropriate levels of management authority to provide timely direction, coordination, control, review, and approval of the system development project;
b. Ensuring project management accountability;
c. Documenting requirements and maintaining traceability of those requirements throughout the design, development, testing and implementation process;
d. Ensuring that projects are developed efficiently within the proposed technology infrastructure; and
e. Identifying project issues and risks early and managing them before they have a negative impact on the project.

The data development component of the SDLC must address the definition and management of conceptual, logical and physical data models in support of the EES data structures. It must contain logical data depictions or models of the EES that will support the business and technical requirements outlined in this RFP. The physical data models relating to the EES must also be depicted for each deployment environment (e.g., sandbox, configuration/development, test, quality assurance, production, training, disaster recovery and pilot, if applicable).

At a minimum the Contractor's SDLC process must produce the following deliverables for approval by the Department:

a. Business Design Documents;
b. Business Process Models;
c. Detailed Design Document;
d. Technical Design Document;
e. Architecture, Network and Data Modeling Diagrams;
f. Test Plans;
g. Disaster Recovery
h. Training Plan;
i. Knowledge Transfer Plan;
j. Canned and newly developed EES Reports;
k. Project Documentation; and
l. Implementation Plan.

The Bidder is required to describe in detail the artifacts and deliverables generated from each step within its proposed SDLC process and provide a sample of each of these artifacts and deliverable in the proposal.

The following topics are provided to assist Bidders responding to the specific proposal response requirements at the end of this section. The State of Nebraska understands that Bidders may use different terminology for these topics and deliverables however the EES project and outcomes must be the same.

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the EES requirements. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe in detail the SDLC it will use in the requirements analysis, design, development, testing, implementation and maintenance of the EES including a definition of the methodology for gathering and validating stakeholder requirements and the methodology it will follow in the design, development, testing, training and implementation of those validated requirements.

i. Describe the SDLC the Bidder will use in the requirements analysis, design, development, testing, implementation and maintenance of the EES;

ii. Describe the contents of all documents and artifacts deliverables produced within the SDLC including but not limited to:

- **a)** Business Design Document;
- **b)** Requirements Document (business, functional, non-functional, requirements traceability matrix; etc.);
- **c)** Business Process Models;
- **d)** Use Cases or User Stories;
- **e)** Detailed Design Document;
- **f)** Technical Design Document;
- **g)** Architecture, Network and Data Modeling Diagrams;
- **h)** Test Plans;
- **i)** Disaster Recovery;
- **j)** Training Plan; Knowledge Transfer Plan;
- **k)** Canned and newly developed EES Reports;
- **l)** Project Definition; and
- **m)** All artifacts required by the federal Enterprise Life Cycle.

iii. Include a sample of the documents and artifacts described above that the Contractor has produced for a previous EES engagement or engagement of similar size and scope;

iv. Describe the proposed estimation methodology;

v. Describe the organizational structure to control all system development and maintenance;

vi. Describe how the SDLC will be implemented and how it will be integrated into the overall Project Management approach, including but not limited to, Quality Management, Change Management, Data Governance;

vii. Describe the levels of management authority that will be used to ensure timely direction, coordination, control, review and approval of the SDLC process;

viii. Describe the process that will be used for developing and updating Business Process Models for the EES;

ix. Describe the data modeling tool that will be used to model the conceptual, logical, and physical EES data structures. Include how the models will be managed and versioned from a single tool and central control point. Discuss the solution in terms of its degree of integration, flexibility, scalability, extensibility, supportability/maintainability, and affinity/relationship with other proposed components; and

x. Describe the degree to which the physical model that is created from the tool can be used without augmenting physical characteristics after the data structure generation scripts are created.

10. PROJECT INITIATION

The foundation of every successful large-scale system implementation project is a solid set of methodologies that will be used in project planning and team orientation activities. The Bidder must propose a set of project initiation tasks that set the stage for the project, ensure all infrastructure needs are met and provide a detailed orientation for staff to begin the design and development efforts. A Project Orientation Plan deliverable approved by the Department shall capture the planned orientation tasks.

This is also the time within the project when the Contractor must implement the comprehensive series of planning documents that were developed in Project Planning. It is here that the Contractor lays the foundation for the project that when executed, will ensure that the project remains within budget, adheres to the development schedule and maintains a high quality of products and deliverables.

a. PROPOSAL REQUIREMENTS

Bidders must provide specific details of the proposed approach to meeting the Department's requirements for Project Initiation. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe its proposed methodology for the Project Initiation activities that will become the foundation for the Project Orientation Plan for the EES.

i. Describe the Project Initiation activities that detail the approach for orienting the Project Team (Department, IV&V Contractor, and other stakeholders);

ii. Describe the activities that will be necessary to secure and to prepare adequate facility space; and

iii. Describe the steps necessary to assemble other key staff, including specific plans for disseminating individual staff responsibilities.

11. REQUIREMENTS VALIDATION

Requirements Validation is a major component of the SDLC process which confirms that all requirements are correct, complete, consistent, and validated prior to the initiation of system design activities. This task results in a Business Process Gap

Analysis deliverable that includes, at a minimum, updated Business Process Models, an updated Requirements Traceability Matrix and a Gap Analysis Report. Upon approval by the Department, the updated Requirements Traceability Matrix and repository will be used to manage the scope of the EES development.

During Requirements Validation the Contractor shall confirm, document and elaborate the RFP requirements in sufficient detail to adequately support system design and development activities. This will be accomplished by conducting a series of Joint Application Design (JAD) sessions with Department staff and other stakeholders. The JAD session materials and JAD Session meeting minutes must be submitted to the Department as deliverables. The Contractor must supplement the requirements with any additional requirements that result from this task. The additional detail and definition is considered within the scope of the original RFP requirements and contract. The Contractor must also document and submit the Department's business rules as deliverables that support the Department's policies.

Bidders must clearly describe the Requirements Validation approach and process, and ensure it meets the Department's needs.

a. PROPOSAL REQUIREMENTS

Bidders must provide specific details of the proposed approach to meeting the State of Nebraska's requirements for Requirements Validation. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe in detail the Requirements Validation process which will be used to document and elaborate the RFP requirements in sufficient detail to adequately support system design and development activities. The Bidder must define the methodology for gathering and validating stakeholder requirements through a series of JAD sessions with the Department and other stakeholders.

i. Describe the proposed approach to Requirements Validation;

ii. Provide a detailed description of the Requirements Validation Methodology;

iii. Describe the methodology and analytical tools that will be used to complete the requirement validation tasks. Provide samples of templates;

iv. Describe how the proposed methodology and proposed tool(s) will enhance requirements validation and be supported by experienced staff;

v. At a minimum the Bidder's proposal must:

a) Define the goals, expectations, and output of the JAD sessions;

b) Define how the JAD sessions will be conducted;

c) Define how demonstrations of functionality will occur in the JAD sessions;

d) Define how the requirements will be identified and documented. Provide templates and samples;

e) Define how the Department's business processes will be identified and documented in the JAD sessions; and,

f) Define the documentation that will be provided to staff attending the JAD sessions.

vi. Describe how the Bidder has planned, organized and facilitated requirements sessions in the implementation and/or transfer, design and implementation of an EES or other health care systems;

vii. Describe how Department staff, IV&V Contractor and other stakeholders participating in JAD sessions will be oriented into the processes and trained to participate in the JAD sessions;

viii. Describe the documents that will be produced as a result of the JAD Sessions, i.e. business requirements, uses cases, etc.

ix. Describe any tools that will be used in these sessions and the orientation and training participants will receive in using these tools;

x. Describe how the documentation from the JAD Sessions (e.g., Department decisions, approved notes and updated requirements) will be collected and stored in the State of Nebraska's Document Repository. This description must include the process for collecting the data that will update the Requirements Traceability Matrix;

xi. Describe the process for finalizing requirements, documenting the results and incorporating information from the JAD Sessions, maintaining a Requirements Repository throughout the life of the project and ensuring the requirements continuously reflect the approved project scope. The requirement repository must reflect the current scope of the project;

xii. Describe the process that will be used to identify new requirements and describe how these will be presented to the Department;

xiii. Describe the process for developing the Business Process Gap Analysis including how changes to the Business Process Models and Requirements Traceability Matrix will be tracked, and the content of the Gap Analysis Report; and

xiv. Describe the interaction that will take place among the Contractor's staff and the Department's Business Analysts and Technical Review Teams during the Requirements Validation process.

12. BUSINESS RULES CONFIGURATION

The State of Nebraska anticipates that the EES will require expertise from the State and the Contractor. Department project staff has actively participated in CMS-sponsored webinars, weekly status meetings and providing written questions and updates to ensure a successful integration and program development. Our staff understands, knows and has experience in Medicaid eligibility and our current business processes.

The Contractor is responsible for collecting and documenting this knowledge and expertise during JAD sessions to configure the EES. Configuring the Business Rules correctly is upmost to the success of the EES. All Business Rules Configuration document deliverables must include a human-readable version.

The Contractor must lead the collection, configuration, and testing of the EES. The State of Nebraska expects the Contractor to work with and transfer business rules configuration knowledge to Department staff.

The State of Nebraska desires a Gap Analysis deliverable documenting the disposition of each functional requirement and the resolution of identified gaps (e.g., customization, workaround, eliminate requirement). The Contractor shall assist to identify appropriate business process improvement opportunities, document the recommended changes, and to plan and implement approved business process changes.

The Contractor shall facilitate JAD sessions to analyze, identify, validate, refine, and document business rules related to the EES. Prior to each session, the Contractor shall develop/update the proposed preliminary design and present it at the session. After the sessions, the Contractor shall summarize the results of the business rules in narrative format. Included in this task will be the identification of decision tables, appropriate parameters, and reference tables utilized by the business rules. JAD session documents are considered deliverables which requires Department approval.

a. PROPOSAL REQUIREMENTS

Bidders must provide specific details of the proposed approach to meeting the Department's requirements for Business Rules Configuration. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe in detail the Business Rules Configuration process that will be used to document in sufficient detail to adequately support system design and configure the EES. The Bidder must define the methodology for gathering and validating stakeholder Business Rules through a series of JAD sessions.

- **i.** Describe in detail the proposed approach to Business Rules Configuration;
- **ii.** Provide a detailed description of the Business Rules Configuration process;
- **iii.** Describe the methodology and analytical tools that will be used to complete the Business Rules Configuration tasks. Provide samples of templates;
- **iv.** Describe the interaction that will take place among the Contractor's staff and the Department's Business Analysts and Technical Review Teams during the Business Rules Configuration process; and
- **v.** Describe the skills and knowledge the Contractor's Business Rules Configuration Team members possess. The Department is interested in learning what skills will be needed to maintain and/or modify business rules.

13. SYSTEM DESIGN

System design, a major component of the overarching SDLC methodology, focuses on developing the business and technical design deliverables of the system, including the development of detailed stakeholder requirements; conceptual and detailed design documents; programming and technical specifications; technical architecture; security requirements; and workflow requirements. The foundation for the design task is approved and validated requirements.

System design also includes related activities that define changes in the current technical environment; set performance parameters; and set the baseline for the development and testing tasks to come.

a. PROPOSAL REQUIREMENTS

Bidders must provide specific details of the proposed approach to meeting the Department's requirements for System Design. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities. Also, include one or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

The Bidder must describe in detail the System Design Methodology that will be used in the design of the EES. Describe in detail the System Design Methodology which at a minimum must:

- **i.** Describe how the SDLC will be applied to accomplish the System Design Task;
- **ii.** Explain how Project Management, Quality Management and SDLC methodologies will be employed to control the development of deliverables;
- **iii.** Describe the format and medium that will be used for the design documents and demonstrate how the design will be presented in a fashion that can be understood by a wide range of users using the tool to cross reference requirements;
- **iv.** Describe the system design deliverables and artifacts, and provide samples;
- **v.** Describe the Technological Overview of the proposed architecture and clearly describe how the design and development approach will be specifically tailored to this technology;
- **vi.** Describe how the tool(s) will be configured to assist both Contractor and the Department staff in the system design tasks;
- **vii.** Describe the process that will be used for the review and walk-thru of the design documents; and
- **viii.** Describe the interface and interactions that will take place among the Contractor's staff and the Department's Business Analysts, Technical Review Teams and other stakeholders during the System Design process.

14. DEVELOPMENT

System Development, also a part of the overarching SDLC methodology, involves the construction of the system that will be implemented into production. It addresses system development activities, including establishing the development and testing environments; development of new programs, objects, services and processes; enhancement or modification of existing programs, objects, services and business processes; and unit testing. The Contractor must ensure that the development is based on State of Nebraska-approved system design deliverables and complies with all current State of Nebraska and federal requirements.

As part of the proposed SDLC, the Contractor must develop and implement a System Design methodology. The proposed methodology, as approved by the Department, must outline the processes and procedures that will be used in the system design

tasks, and must include a discussion of the use of the COTS product and how it will be integrated into those processes and procedures.

The key activities in this task are the construction and unit testing of the software, which is an iterative process of coding, testing and performing software quality control checks. System development activities must occur in a controlled environment governed by the Contractor's configuration management program, subject to a daily program of process and progress monitoring.

a. PROPOSAL REQUIREMENTS

Bidders must provide specific details of the proposed approach to meeting the Department's requirements for System Design. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities. Also, include one or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

The Bidder must describe in detail the System Development Methodology it will use in the development of the EES. Describe in detail the System Development Methodology which at a minimum must:

- **i.** Describe the relationship between the System Development Task and other SDLC tasks;
- **ii.** Provide an overview of software development activities that will be performed by the Contractor and the environment in which this work will be completed. This will include issues such as security, privacy, standards, and interdependencies in hardware and software development;
- **iii.** Describe the software development methods that will be used, including the use of iterative or phased development, if appropriate. This should include descriptions of manual and automated tools and procedures that will be used in support of these methods;
- **iv.** Specify development tools that will be used, and explain its specific roles;
- **v.** Describe the approach that will be used for unit and integration testing and the tools developers will have available to ensure testing is thorough and accurate;
- **vi.** Describe the approach that will be followed for tracking requirements during development;
- **vii.** Describe the approach that will be followed for allocating computer hardware resources and monitoring their utilization;
- **viii.** Describe the method to be followed for recording issues and information that will be useful for key decisions made during development activities;
- **ix.** Describe the quality assurance methodology and activities that will be used to ensure adherence to design requirements;
- **x.** Describe how developer performance will be monitored against defect tracking and the corrective measures taken to improve developer performance;
- **xi.** Describe the process that will be used for the review and walk-thru of the source code; and

xii. Describe how the tool(s) will be configured and assist in the system development tasks.

15. TESTING

Testing is also a part of the overarching SDLC methodology. In-depth, process driven, fully documented testing is required for the EES. The Contractor must provide and implement a Comprehensive Test Plan deliverable for the EES based upon the proposed Comprehensive Testing Methodology, which describes how the Contractor will perform testing of the EES.

The Contractor should automate the testing process where possible through the use of COTS product(s). To the extent possible test results should be automated, test scripts and test cases should be automatically generated, and results from regression tests should be automatically compared to previous regression test.

The Contractor must provide accurate test data while protecting privacy. The Contractor must deliver a comprehensive Test Report deliverable documenting all test results for Department approval prior to any software or COTS product being implemented in the production environment. The report will delineate the results of each testing phase, problems identified and the resolution.

The IV&V Contractor will have an active role during testing. Their responsibilities include assessing planned testing activities, results reporting, and error correction/resolution, including an appropriate change control and configuration management process, to ensure the following:

a. Test efforts and schedule are based on defined requirements priorities as well as project risk;
b. Test scenarios address the testable requirements;
c. Specific business cases and test verification efforts for each case has been defined; and
d. Conducting reviews of testing to ensure that critical elements of the EES are stable and comply with State of Nebraska requirements as detailed in the State of Nebraska's contract with the EES Contractor.

The methodology must include the testing that is performed at all stages of SDLC may include but are not limited to:

Unit Testing/Configuration Testing is done at the lowest level. It tests the basic unit of software, which is the smallest testable piece of software, and is often called "unit," "module," or "component" interchangeably. Unit testing is required during the initial construction of an EES module(s) and whenever any enhancements/modifications are made. Prior to the initiation of System Integration Testing, adequate unit testing must have been conducted to uncover defects.

Integration Testing is performed when two or more tested units are combined into a larger structure. This test is done on both the interfaces between the components and the larger structure being constructed. Integration testing is required during the initial construction of an EES module(s) and whenever any enhancements/modifications are made. Prior to the initiation of System Integration Testing, adequate integration testing must have been conducted to uncover defects.

System Integration Testing (SIT) is done when the system is handed over from the developers to the Testing Unit and tends to affirm the end-to-end quality of the entire system. SIT is often based on the functional/requirement specification of the system. Quality attributes, such as reliability, security, and maintainability, are also checked. SIT verifies that related groups of functionality are correct and that the EES is free from defects and functions as required by validated requirements and approved system design documents. SIT includes testing of functionality that is related because of the underlying business problem they solve or based on functionality that is technically related such as elemental utilities like data access, logging/auditing and error handling. The Contractor's Testing Unit must develop test plans, test cases and test scripts for SIT. The test plans must test all requirements for the release and all test cases and scripts must be tied back to requirements. Upon completion of SIT, the EES Contractor must ensure the EES functions as required by the approved design prior to initiation of User Acceptance testing.

User Acceptance Testing (UAT) is done when the completed project is released from the Testing Unit to the State of Nebraska. The purpose of UAT is for users to test the system in a pseudo environment to verify that the system is performing to specifications. UAT is the final phase before the EES is moved to production and begins after the Contractor successfully completes SIT. UAT provides the users of the system an opportunity to review and accept system components prior to production implementation of the EES. The acceptance test demonstrates that the system software meets the detailed functional requirements and specifications and that the system infrastructure works within the defined constraints. UAT is required throughout the life of the contract when enhancements or modifications to the EES have successfully completed SIT.

Stress/Performance Testing is performed to ensure that the technical, application, data and network architectures are sufficiently designed and sized to meet the anticipated transaction volume or workload. Stress and Performance Testing is intended to demonstrate that the software and hardware will provide the intended functionality and meet requirements under production conditions. Stress Testing introduces greater and greater loads on the hardware and software until it fails, while Performance Testing measures software response time under light, average and heavy loads.

Regression Testing allows a consistent, repeatable validation of each new release of the EES component(s) or COTS version. Such testing ensures reported defects have been corrected for each new release and that no new quality problems were introduced in the maintenance process. The Contractor must perform Regression Testing. This testing will demonstrate the EES functions properly by demonstrating that it produces the same result as the production system under the same conditions or that the difference is expected due to a known change from the existing system. The Contractor must compare the results and explain any differences; identify, track and resolve all problems; and conduct additional regression testing on any test cases or scripts that detected a system, data or programming error.

The Department and IV&V Contractor review Regression Testing outcomes. After review of the reports, the Department will determine if the EES functions properly by demonstrating that it produces the same result as the production system under the

same conditions or that the difference is expected due to a known change from the existing system.

System Recovery Testing is performed to ensure that the system will meet the business continuity requirements in this RFP. The Contractor must perform System Recovery Testing and must develop and execute test scripts or automated testing processes that are specifically designed to exercise both routine and non-routine system recovery processes. The Contractor is responsible for tracking and resolving any issues with their system recovery processes and updating system documentation as required.

Parallel Testing is performed prior to the Operations Phase of the system. During this period the Contractor may be responsible for conducting parallel testing with the existing Eligibility and Enrollment system. Prior to the start of the Operations Phase, the Contractor will work with Department staff, IV&V staff, and other stakeholders to develop a Parallel Test Plan and Acceptance Test cases. The Parallel Test Plan deliverable will be based upon the Contractor's proposed Parallel Test methodology that documents the approach to parallel testing the current Eligibility and Enrollment system and the EES and becomes the "blueprint" for conducting the parallel test. This Plan must be approved by the Department.

Determining the scope of the EES functionality that is to be parallel tested is the responsibility of the Department, and may range from testing all automated system functionality to testing only selected critical business functions; testing associated manual processes (e.g., call center and mail distribution); and testing provider support processes.

Acceptance test cases and supporting test scripts will be created to assist the Department with system validation ensuring the EES meets the approved requirements and functionality, and that the designed functionality is appropriately implemented in the EES. Test scripts are step-by-step instructions and data required to perform the test. The Acceptance Test Plan deliverable lists the test cases, as well as a procedure for developing and approving test scripts that implement the test cases. The scripts developed for the parallel test will become the basis for future regression testing.

The Department and IV&V Contractor will observe the Parallel Testing effort and document its observations in a report for the Department. After review of the report, the Department will determine if the EES and all the associated manual processes are ready for operations.

Network Intrusion Testing and Security Audits are performed to verify the integrity of the network security. The Contractor must contract with an independent firm, approved by the State of Nebraska, who will perform a Network Intrusion Test and Security Audit before EES Implementation and document its observations and findings in an independent report for the State of Nebraska. The independent firm must be made aware that the IV&V Contractor will participate in this audit. The Network Intrusion Testing and Security Audit will become an annual deliverable of the M&O. The Contractor must be responsible for correcting any and all deficiencies listed in the report without additional cost to the State of Nebraska.

a. PROPOSAL REQUIREMENTS

Bidders must provide specific details of the proposed approach to meeting the Department's requirements for System Design. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities. Also, include one or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

The Bidder must describe in detail its proposed Comprehensive Testing Methodology that will become the foundation for the Comprehensive Test Plan for the EES. This methodology must include a description of the testing that will be performed at all stages of SDLC.

i. Describe the Contractor's proposed methodology for executing the nine (9) required types of testing (Unit, Integration, System Integration, User Acceptance, Stress/ Performance, Regression, System Recovery, Parallel, and Network Intrusion,);

ii. Describe the tool that will be used by the Contractor, the rationale used to select the product and how the State of Nebraska will have access to it;

iii. Describe to what extent the tool being proposed will automate the testing process;

iv. Describe the tool that will be used for the automatic generation of test transactions;

v. Describe how test cases and test scripts will be tied back to requirements;

vi. Describe the methodology that will be used for Parallel Testing including the State of Nebraska's requirement for the IV&V Contractor oversight;

vii. Describe the approach to parallel testing and, based on past experience, identify potential risks and problem areas;

viii. Describe the methodology that will be used for the testing during the data conversion task;

ix. Describe how defects will be tracked and reported;

x. Describe the processes, procedures and tools that will be in place for problem identification and resolution;

xi. Describe how defect tracking will be used to identify organizational or procedural weaknesses and track the resulting corrective actions;

xii. Describe the Contractor's proposed organizational structure and management of the testing function;

xiii. Define how defects and other issues reported by the Department will be analyzed, tracked, resolved; required system changes implemented; and integrated with other project phases;

xiv. Describe how the Contractor will work with the Department and EES IV&V Contractor to develop the Acceptance Test Plan and Test Cases;

xv. Describe how the Contractor's testing methodology and tools will support the State of Nebraska's requirement to move to a SOA environment:

xvi. Describe how services that execute on the Enterprise Service Bus (ESB) will be unit, integrated and SIT tested;

xvii. Describe how performance and stress testing of services will be accomplished;

xviii. Describe how message-oriented interactions will be accomplished;

xix. Describe how the testing methodology will accommodate workflow testing;

xx. Describe the parallel testing strategy, methodology and schedule; including a description of the tool(s) for tracking and reporting of testing activities including, but not limited to, documentation of test scripts, test results, error resolution and re-testing; and

xxi. Describe the strategy for coordinating the parallel test, including the respective responsibilities of the Contractor, the Department and IV&V Contractor.

16. DATA CONVERSION TASK

The State of Nebraska considers the data conversion task critical to the success of the project. Conversion activities are often the source of failure in projects due to the volume of data; complexities inherent in defining the relationship between source and target data structures; the differences in the data required for processing between legacy and new systems; and the history of changes to processing requirements and valid codes that may result in data inconsistencies and missing data conditions.

The Data Conversion Plan deliverable must clearly identify and define the strategies and activities required by the data conversion task including those required for contingency planning in the event that it is determined that conversion cannot be accomplished as scheduled. The Data Conversion Plan deliverable approved by the Department will be based on the Data Conversion Methodology.

The objectives of Data Conversion Management include:

a. The accurate, timely, consistent, and complete conversion of data from N-FOCUS to the EES;

b. The validation of completeness by mapping data from N-FOCUS data structures to the EES data structures;

c. The verification of data conversion processes through systemic testing;

d. The effective and timely management of data conversion issues using procedures that track issues from identification through correction; and

e. Minimizing and mitigating data conversion risks with thorough and detailed contingency planning.

Medicaid data stored in N-FOCUS must be converted to the EES unless it is specifically identified as unnecessary during the requirements validation JAD sessions.

The State of Nebraska requires the Contractor to provide and use an Extraction, Transformation, and Load (ETL) tool for the conversion of the data from N-FOCUS to the EES and throughout the life of the contract.

a. PROPOSAL REQUIREMENTS

Bidders must provide specific details of the proposed approach to meeting the Department's requirements for System Design. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities. Also, include one or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

The Bidder must describe in detail its proposed Data Conversion Methodology that will become the foundation for the Data Conversion Plan deliverable. This Methodology must include a description of the processes, procedures and tools to be used to complete the conversion effort.

i. Describe the data conversion methodology and approach that will be used to convert data from N-FOCUS to the EES data structures including a description of the contents of the Data Conversion Plan. The methodology must include all technical components that comprise the proposed solution including all software (both COTS and custom-developed), hardware, and environments;

ii. Describe the solution in terms of its degree of integration, flexibility, scalability, extensibility, supportability/maintainability, and affinity/relationship with other proposed components;

iii. Describe the proposed solution by describing how the data conversion effort will be:

- **a)** Designed;
- **b)** Developed;
- **c)** Tested;
- **d)** Implemented;
- **e)** Documented;
- **f)** Managed; and
- **g)** Run in parallel with other EES project tasks.

iv. Describe the interdependencies between the conversion efforts and other development tasks;

v. Describe all data conversion methods and requirements, regardless of whether an automated or manual method is recommended;

vi. Describe the tools and how they will be used for converting the data; and

vii. Describe any tools and how they will be used for validating the data.

17. OPERATIONAL READINESS REVIEW TASK

This task includes completion of an Operational Readiness Review (ORR), a formal inspection of the EES conducted to determine if the system is ready for release into the production environment. The ORR includes verification of all EES components including operations, hardware, software, network, and telecommunications. All components of the EES must be evaluated against the ORR checklists.

The EES Contractor must work with the Department and IV&V Contractor who will observe the Operational Readiness Review effort, review manual processes and procedures, and other functions defined in the ORR, and document its observations in a report.. After review of the reports the State of Nebraska will determine if the EES and all associated manual operational processes are ready for operations.

a. PROPOSAL REQUIREMENTS

Bidders must provide specific details of the proposed approach to meeting the State of Nebraska's requirements for Operational Readiness Review. Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

The Bidder must describe in detail its proposed Operational Readiness Review methodology that will become the foundation for the Operational Readiness Plan deliverable. This methodology must include a description of the processes, procedures and tools to be used to complete the Operational Readiness Review effort.

i. Describe the approach to the Operational Readiness Review;
ii. Describe the systems, business processes and procedures included in the ORR to ensure the system is ready for operations; and
iii. Describe the methodology that will be used to fulfill the Department's requirement for working with the IV&V Contractor.

G. BUSINESS PROCESS REENGINEERING

The Contractor must perform a Business Process Reengineering Study of the current Eligibility and Enrollment system's business processes and work flows. The purpose of this Study is to provide a mechanism to examine the business processes that are an integral part of the current Eligibility and Enrollment system in order to identify changes that would improve the administrative efficiency and responsiveness of the program; improve quality control; and/or facilitate the State of Nebraska's attainment of the primary objectives for the EES. The Study must be documented and undertaken in close coordination with Department Management, staff and other stakeholders. The Study when completed is a deliverable that requires Department approval.

The Contractor must assess the effectiveness and efficiency of the reengineered business processes and workflows. The Contractor must refine and upgrade the business processes (including automated and manual processes) as necessary. New Business Models must be prepared and delivered to the Department for approval. The Contractor must provide Department users with complete and timely training on the refined and upgraded business processes and work flows.

1. PROPOSAL REQUIREMENTS

The Bidder must describe its proposed Business Process Reengineering Methodology, which will be the foundation for the Business Process Reengineering Plan and how it will fulfill the Department's requirements while minimizing the disruption to the organization during the implementation of the EES.

The Business Process Reengineering Methodology must have a set of defined processes designed to assist the Department's workforce and other stakeholders in managing change.

a. Describe the approach and methodology that will be employed to assess and reengineer the current business processes;
b. Describe the approach to conducting the Business Process Reengineering Study;

c. Describe the approach that will be utilized to develop recommendations for business process reengineering as part of the EES design;

d. Describe how the proposed methodology will measure the results of a change; and

e. Describe the approach the Bidder recommends for implementation of business process changes associated with the EES in a manner that ensures coordination with training and implementation activities and that ongoing operations are not disrupted.

H. ORGANIZATIONAL CHANGE MANAGEMENT

The implementation and introduction of the EES will produce significant changes to work processes and the overall work environment for all stakeholders. The purpose of organizational change is to provide a smooth transition from the current business environment to a new, more efficient and effective business environment. The Contractor must provide its expertise in business change management to address and mitigate the impact.

Transition also requires coordination of all information technology organizations and applications affected by the EES. Organizational Change Management (OCM) focuses on understanding the level of change that the EES will bring to the State of Nebraska, its staff, and its stakeholders.

The State of Nebraska is seeking services to assist with the OCM aspect of the streamlining and modernization of Medicaid eligibility and enrollment processes and procedures, as well as to support the rollout of EES. A primary objective is to determine the level of organizational support needed to promote the change, proactively develop strategies and action plans to manage the impact, and develop strategies to manage resistance to the changes. The results of this task will drive how the system will be designed and the content of the training materials.

The Contractor must develop and implement an Organizational Change Management Plan based upon its proposed Organizational Change Management Methodology. The Organizational Change Management Plan is a deliverable for Department approval.

1. PROPOSAL REQUIREMENTS

The Bidder must describe its proposed Organizational Change Management Methodology, which will be the foundation for the Organizational Change Management Plan and how it will fulfill the Department's requirements while minimizing the disruption to the organization during the implementation of the EES. This Organizational Change Management Methodology must have a set of defined processes designed to assist the State of Nebraska and other stakeholders in managing change.

a. Describe the approach to Organizational Change Management and the methodology that will be employed to assist the Department to envision the EES and document associated business processes;

b. Describe how the methodology will in:

i. Assessing the impact of change upon jobs, roles, workflows and skill requirements needed to ensure successful deployment;

ii. Performing the Business Process Gap Analysis;

iii. Performing organizational readiness assessments; and

iv. Planning and conducting workforce transition activities.

c. Describe identification of any potential organizational issues anticipated with the implementation of the EES and describe how these will be addressed through its Organizational Change Management Methodology;

d. Describe the plans to evaluate the changes necessary to the Department's business processes in order to benefit from the EES being proposed;

- **i.** How will business processes benefit from workflow, business rules engine and/or content management be identified;
- **ii.** How will recommendations be made regarding changes to these business processes; and
- **iii.** How will the Contractor's organization and staff be used to implement these recommendations;

e. Describe the staffing organization and how it will provide assistance to the stakeholders with regard to the identification and definition of their functional requirements;

f. Describe how the Organizational Change Management tasks integrate with Requirements Gathering, Business Process Gap Analysis and Training; and

g. Describe how the proposed methodology will measure the results of a change.

I. TRAINING

The State of Nebraska wishes to not simply have training delivered, but to have the required knowledge incorporated into its overall organizational environment, including on-going availability of innovative training materials, and the delivery of role-based items such as skill competency lists, job role descriptions, and job evaluation criteria that will help institutionalize the competencies that are being introduced to the organization. These things will be used to facilitate the State of Nebraska's expected transition to new staff and a greater level of organizational maturity in this area. The State of Nebraska views training and knowledge management as a key means to mitigating risk.

The Bidder must propose a Training Strategy that is the basis for the Training Plan deliverable. The Training Strategy must demonstrate that the Contractor has a clear and comprehensive understanding of the State of Nebraska's training requirements, the training-related tasks that are needed to support this project, and the Contractor and Department roles in those tasks.

The development of an effective training program for the EES is as important as the actual software product. The Department will have over 400 employees that perform Medicaid eligibility related duties throughout the state of Nebraska. The routine turnover of employees associated with an operation this large has resulted in a training program that is an ongoing, recurring process. The Department will work with the Contractor to define the number of employees who require training, by local office location and job category.

Bidders should assume that Department users are qualified and capable of performing their assigned duties; therefore the training requirements are specific to EES functionality, features and benefits. The courseware and curriculum must be competency based and assess the knowledge and skills learned. The Contractor must continually assess training materials and training delivery staff to ensure a minimum of 95% competency rate for each course delivered by training delivery site.

The training type will be dictated by the audience and will be scheduled far enough in advance to allow maximum participation. The Contractor will clearly define the specific duration for each

type of training. In order to successfully accomplish the training goal and specific objectives, a Contractor Training Coordinator will identify the different training audiences within the Department. The identification of training audiences will be incorporated in the Training Plan. It will include the targeted audience's roles and responsibilities with regard to the operation and/or support of the EES as well as the audiences' unique training requirements. The Contractor is expected to have training staff available at a minimum during the first month of Operations. The Department will work with the Contractor to determine where Contractor Training staff will be assigned.
The Contractor shall develop a Training Plan deliverable that addresses how the training needs of the EES users will be met, including but not limited to:

1. Different user groups;
2. Each user group's training needs;
3. The types of training proposed for each group;
4. The proposed delivery mechanisms;
5. The proposed training topics;
6. The proposed duration; and
7. Any prerequisites that need to be satisfied for users to be able to participate in training.

The Training Plan should provide training based on Department staff training needs including:

1. Instructor Led (ILT);
2. Web-based Training (WBT);
3. Computer–based Training (CBT); and
4. On-line Help, On-screen tips and Training Aids.

The Training Plan must include how the Contractor intends to provide training materials and guidance intended to last beyond the Contract end date, including but not limited to train-the-trainer sessions.

The Contractor is responsible for furnishing and maintaining appropriate hardware, software, and telecommunications to support the development, maintenance, and presentation of training program(s) and materials. The Contractor will create and support a separate and stable training environment, mirroring production or as specified by the State of Nebraska, that will be used to train Department staff and other system users.

The State of Nebraska currently has Training Centers available for the training delivery in Scottsbluff, Lexington, Fremont, Omaha and Lincoln. Additional trainings sites can be made available. The Contractor is responsible for printing and shipping costs of training materials to Training Centers.

The Contractor will develop and maintain all training documentation and tutorials, training schedules and meeting information, along with the capability to obtain associated maps and driving directions based on a data-entered location by the entity. The Contractor will work with the State of Nebraska to upload all the required materials into the LINK Learning Management System (LMS) or other approved location/tool. In addition, all training materials must be loaded and maintained in the State of Nebraska's Document Repository.

The Contractor shall create or modify existing training materials and supply master copies of all class materials, including Trainer guides, course books, exercise books, tests, evaluations, and quick reference guides for each training module. All training materials must be maintained

to reflect the latest version of the system. Training materials should include a cover page, table of contents, and a history of document changes that identifies each issuance date, version number, and the list of changes made compared to the previous document issuance. All EES courseware is a deliverable that must be approved by the Department prior to its use.

The Contractor is required to monitor and prepare weekly and monthly reports for the Department. The reports will include at a minimum the training classes planned for the next reporting period, training registration and training completion, the competency rate by office and trainer and the number of total training classes planned and delivered.

1. PROPOSAL REQUIREMENT

The Bidder must describe its proposed Training Strategy, which will be the foundation for the Training Plan and how it will fulfill the Department's requirements while minimizing the disruption to the organization during the implementation of the EES.

- **a.** Describe the proposed Training Strategy based on its understanding project goals, the Contractor's proposed solution, and the Contractor's own experience with comparable EES projects;
- **b.** Describe the proposed methods to be used to develop and deliver training to end users;
- **c.** Describe how the proposed Training Strategy will achieve the expected training outcomes detailed in this RFP;
- **d.** Describe how the Training Plan allows for a variety of pre-existing staff skills and minimizes the amount of time staff are away from the job;
- **e.** Describe the approach to transfer knowledge and the training mechanisms that will be put into place to not only ensure but to measure the knowledge transferred;
- **f.** Describe the Training Staffing model and the skill sets of the training development and delivery teams;
- **g.** Describe how the Contractor will assess their training materials and training delivery staff to achieve and maintain a 95% competency rate for each course delivered by training delivery site;
- **h.** Describe how the Contractor will collect and report information on training activities on a throughout the system implementation training effort, including progress to schedule (classes scheduled v. classes actually held, total planned to be trained v. number actually trained); number and category of staff trained; and material covered; and
- **i.** Provide a sample course map, training syllabus and courseware that demonstrates the quality of the current Bidder's training materials in the proposal.

J. KNOWLEDGE TRANSFER

The Contractor must develop a Knowledge Transfer Plan deliverable for transitioning knowledge and artifacts to the State of Nebraska. The Plan must address how knowledge will be transferred, length of time, and methodologies, without disrupting operations. The Plan must provide backup knowledge for a Department-determined period of time.

The EES Contractor's staff will work closely with the State of Nebraska in all phases of the EES contract and under the direction of designated State of Nebraska staff and/or Department contractor staff. The EES Contractor's staff will provide knowledge transfer to the State of Nebraska's technical and programmatic staff throughout the life of the contract. The State of

Nebraska requires that designated key and core staffs are full time, work at the primary State of Nebraska project site and are intermingled with State of Nebraska staff and contractor staff to enable direct interaction.

Approaches to Knowledge Transfer must be based on a working partnership with the State of Nebraska and result in a carefully orchestrated transfer of the knowledge and skills related to processes necessary to support implementation, operations and maintenance activities. The Contractor must provide staff knowledgeable in the Contractor's proposed EES, and must perform rules configuration, optimization, and management, and perform knowledge transfer to the appropriate State of Nebraska staff to assess and potentially assume these responsibilities at the conclusion of the contract.

The Contractor is required to create a knowledge-base that serves as a single "point of truth" for business rules and is complemented with a high level of integration to avoid duplication of costs, processes, data, and effort on the part of the State of Nebraska and beneficiaries.

The Knowledge Transfer Plan deliverable must be comprehensive and cover topics including but not limited to:

- **a.** The design of the overall system;
- **b.** Detailed System and Operations documentation in a format which is easily navigated and can be maintained;
- **c.** Descriptions of all COTS-based components and/or products developed for other states which were installed for Nebraska;
- **d.** Procedures for configuring the system and its components;
- **e.** The tools used for system maintenance and enhancement;
- **f.** How the knowledge base transfer will occur;
- **g.** How the knowledge transferred is measured and reported
- **h.** The expected period of time for the transfer; and
- **i.** The methodologies that will be used.

1. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Knowledge Transfer Plan requirements. Please provide specific details of the proposed approach to meeting the State of Nebraska's requirements. Also, include a sample of the Plan in your proposal.

- **a.** Describe the Knowledge Transfer Strategy based on its understanding of State of Nebraska's project goals, the Contractor's proposed solution, and the Contractor's own experience with comparable EES projects;
- **b.** Describe the methods to be used to develop and deliver knowledge transfer to State of Nebraska users;
- **c.** Describe how the proposed Knowledge Transfer Strategy will achieve the expected knowledge outcomes detailed in this RFP;
- **d.** Describe how the Knowledge Transfer Plan allows for a variety of staff skills and minimizes the amount of time staff are away from the job;
- **e.** Describe the approach to knowledge transfer that will be put into place to not only ensure but to measure and report the knowledge transferred;
- **f.** Describe in detail an overview of how the Bidder proposes to approach knowledge transfer for EES;

g. Describe the knowledge-base and how it will be maintained to serves as a single “point of truth” for business rules; and

h. Describe the methods which will be used to provide system documentation to the State of Nebraska and the methods which will be utilized to maintain the documentation.

K. REPORTING

Reporting is critical to the monitoring and performance analysis of the Medicaid program. The EES is expected to provide a robust reporting environment with capabilities that are founded on user friendliness and adaptability. The EES shall produce raw data and polished reports, from the individual- to summary-level, to conform to State of Nebraska and federal mandates in the present and in the long-term.

The Contractor must provide an easy-to-use report generation tool that meets the reporting requirements within this RFP and those defined in Appendix B Functional Requirements with one comprehensive tool suite. This reporting toolset will provide the capability to build and publish a library of canned reports, as well as provide State of Nebraska staff with ad-hoc reporting capability.

The State of Nebraska considers any CMS reporting requirement to be included in the Contractor’s canned reports. The Contractor must ensure that reports are produced in an accurate and timely manner, in accordance with State of Nebraska and federal requirements.

1. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Reporting requirements. Please provide specific details of the proposed approach to meeting the State of Nebraska’s requirements. Also, include a sample of reports in your proposal.

The Bidder must describe in detail its proposed Reporting tool and how it will be used for the creation of operational and ad-hoc reports.

a. Describes the mechanisms and methodologies that shall be built into the EES to allow the State of Nebraska to extract relevant information and build reports according to their specifications.

b. Describe the Reporting Tool being proposed for all operational and ad-hoc reporting;

c. Describe the tool’s scalability, ease of use, and features;

d. Describe in detail the conversion strategy that will be used to convert historical Eligibility and Enrollment System reports into either a canned report or a newly developed report; and

e. Describe the report tool training and knowledge transfer planned for State of Nebraska staff.

L. DOCUMENTATION

The Contractor shall establish and utilize documentation update procedures, including Meeting Status Reports to ensure that the EES documentation remains current at all times. The Contractor is responsible for the design, drafting and maintenance of all Department approved EES documentation deliverables. The Contractor is required to upload and maintain project, system, and operations documentation in the State of Nebraska Document Repository. The

Contractor must provide a complete copy of all system documentation prior to going live. At a minimum, the Contractor must provide the following documentation deliverables:

a. Data Dictionary;
b. COTS Manufacturers' Documentation;
c. COTS User Manuals;
d. Technical Operations Manual;
e. System Administration Manuals;
f. System Standards; and
g. Standard Operating Procedures.

1. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the Documentation requirements. Please provide specific details of the proposed approach to meeting the State of Nebraska's requirements. Also, include a sample of documentation in your proposal.

a. Describe how standards to be applied for the development of documentation will be identified;
b. Describe how document specification templates will be used to establish agreed-upon outlines for each document type;
c. Describe how documentation to be produced by the process will be identified;
d. Describe how design, content and publication of documentation will be consistent and standardized;
e. Describe how documentation will be kept current and that errors are found and corrected;
f. Describe how documentation will be stored in the State of Nebraska's Document Repository and available to authorized staff; and
g. Provide samples of current EES document in the proposal.

M. IMPLEMENTATION

The State of Nebraska is looking to the Bidder to describe in detail their recommendation for a single or multi-phase EES implementation.

1. PROPOSAL REQUIREMENT

a. Describe in detail your recommendation for a single or multi-phase EES implementation. The description must include the reasoning behind the recommendation, and the benefits of the Bidder's recommendation over the other implementation phase option.
b. Provide a description of a previous implementation or a current implementation project underway where the Bidder's implementation recommendation can be supported.
c. Provide a recommendation whether to include a Pilot EES. The Pilot recommendation should describe the value gained, duration, and parameters for a pilot.

N. PROVIDE POST IMPLEMENTATION SUPPORT

The EES Contractor must provide EES hosting, Disaster Recovery services and a dedicated Service Desk and Application Support Help Desk. The Service Desk will provide the single point of contact for systems related issues. The Application Support Help Desk, to be staffed during business hours (to be determined by the State of Nebraska), will provide support for issues related to the systems business functionality which need to be escalated for investigation and resolution. Both the Service Desk and Application Support Help Desk must be integrated into the internal support structures within the State of Nebraska. The Service Desk, the Application Support Help Desk, and associated staff must be physically located in the continental United States.

1. SYSTEM HOSTING

The EES Contractor will be responsible for hosting all systems during the DDI Period and must provide approach and costs for Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) for all environments. The EES must be hosted in a Tier IV data center with the provision of disaster recovery during the DDI Period. The Contractor shall provide, or utilize as applicable, the following hosted services by environment type. The Bidder is to propose, specify, implement and support as many environments or instances within each environment type as necessary to fully support the design, construction, delivery, operation and ongoing maintenance of the system as per this RFP. These environments are deliverables and are therefore required to be approved by the Department.

Sandbox: The sandbox environment is intended primarily for learning and experimentation of system features rather than for testing alterations to existing functionality. It isolates configuration changes and outright experimentation from the other environments within the systems landscape. Sandboxing protects "live" servers and their data, tested source code distributions, and other collections of code, data and/or content from changes that could be damaging. The Sandbox should replicate the minimal functionality needed to accurately test the functionality or configuration being exercised. This will be hosted by the Contractor in its facilities in the continental United States.

Configuration/Development: This environment will consist of the servers necessary to implement all the servers including Database, Application, Portal and other technical layers of the system stack. The environment will be used to support the daily software build cycle and to execute unit test to verify the continuous integration of the code base throughout the development cycle. This will be hosted by the Contractor in its facilities in the continental United States.

Testing: At scheduled intervals, specific builds of the code base will be placed into a “testing environment.” This environment will be overseen by the testing team who will use it to verify functionality that has been implemented. This will be hosted by the Contractor in its facilities in the continental United States.

Quality Assurance: This environment will be used to assess compliance to requirements, risk of release, and performance capacity. This environment may be a scaled replication of the production environment to minimize errors caused by incompatibility. This will be hosted by the Contractor in its facilities in the continental United States.

Production: This environment should scale to accommodate the proposed and future capacity of the system and will be built for flexibility, scalability and redundancy. This will be hosted with the Contractor, or potentially collocated with other mission critical HHS applications with another provider. This will be hosted by the Contractor in its facilities in the continental United States.

Training: This separate and stable environment, must mirror production or as specified by the State of Nebraska, for use to train staff and other system users. The environment must have a minimum daily refresh capability to allow Trainers to delete practice and assessment data. This will be hosted by the Contractor in its facilities in the continental United States.

Disaster Recovery: All required environments to support the ongoing operation of the production system in the event of a disaster or outage condition at the selected computing center(s).

Each environment should be on a logically and/or physically separate sub-network to safeguard access to configuration, data, and code. The EES Contractor will maintain tight control over the configuration of all code through the use of a source control tool. This tool will provide the Development Team with the ability to check out code for editing in developer workstation sandboxes and to maintain a common code repository. At the end of the implementation of the EES, the State of Nebraska will have access to all environments.

The EES Contractor will provide a System Maintenance, Support and System Transition Plan for transitioning the production environment to the State of Nebraska's Data Center if desired by the State.

2. EQUIPMENT SUMMARY

The proposed infrastructure and systems will be housed in a purpose-built and dedicated physical environment. It is imperative that the proposed infrastructure and systems provide the highest level of control and responsiveness in meeting the State of Nebraska's business needs. The Primary Data Center (PDC) shall be configured at the Tier IV – Fault Tolerant Site Infrastructure Level (as defined by the Uptime Institute).

The PDC will provide processing power, control data traffic, and will house and manage all participant and program data. The PDC will at a minimum house:

a. Web Server(s);
b. Application Server(s);
c. Integration Server(s);
d. Portal Server(s);
e. Database Server(s);
f. Analytics Server(s);
g. Report Server(s); and
h. Storage Area Network (SAN).

The proposed infrastructure and solution set shall explore the use of server virtualization technologies in the data center in order to optimize the investments in server infrastructure and accelerate the ability to provision and deploy new servers and applications. Virtualization shall help reduce the TCO during the life of the EES.

In addition to these servers, managed enterprise class switches and routers shall help direct data traffic. Other hardware equipment at the PDC include generators, Uninterruptible Power Supplies (UPS) to provide continuous power in the event of a power failure, backup devices (Tape, RAID, SAN, etc.), Power Distribution Units (PDUs), fire suppression system, HVAC, telecommunications lines and equipment (DS3 lines) as well as an enterprise hardware firewall. Where applicable, the UPS should have the ability for unattended graceful shutdowns and restarts in the case of a total power failure.

A secondary data center will need to be established to handle failovers in case of problems with the PDC. This failover site equipment will mirror the PDC equipment configuration and data needed to restore full data center operations within the agreed to Recovery Time Objectives.

3. NETWORK

The Contractor is expected to provide highly redundant connectivity to the State of Nebraska Data Center facilities located in Lincoln, NE for all communications between the systems at Contractor's facility and those at the State of Nebraska. All users will be using the existing network infrastructure and functionality of the State of Nebraska's WAN. The Contractor is expected to leverage the State of Nebraska's WAN and the Internet to provide connectivity to all State of Nebraska workers.

4. IT SERVICE DESK

The EES Contractor will be responsible for providing a professional IT Service Desk to be physically located in the continental United States. The IT Service Desk will enable the central management of service delivery and provides the functions and oversight of Contractor's support services including:

a. Incident Management;
b. Problem Management;
c. Change Management; and
d. Service Requests.

Service support management represents a core support center that handles and manages the resolution of Incidents, Problems and Changes. This set of services manages events as they occur, and assures escalation, ownership and closure of these events. The Service Desk should follow best practices based on ITIL v3 standards.

IT Service Desk approach should structure the engagement into four distinct stages:

a. Stage 1:
Service Initiation - This stage covers all initiation activities.

b. Stage 2:
Service Transition - This stage describes a process of transitioning the Service Desk into a full production environment.

c. Stage 3:

Service Operations - This stage is the full systems support of the Maintenance & Operations Phase, where the Contractor has assumed full operational responsibilities.

d. Stage 4:

Service Re-Transition - Upon written notification, if the State of Nebraska elects to assume operational responsibility for the Service Desk, this represents the stage where the Contractor will transfer knowledge and collateral to the State or a designated Service Provider.

During the above four staged approach, the following activities shall be addressed during Service Operations:

a. PRODUCTION SUPPORT

Supporting production, addressing system interruptions focusing on identifying and fixing system faults quickly or crafting workarounds enabling later root cause analysis and problem remediation.

b. MAINTENANCE SUPPORT

Making changes to existing functionality and features that are necessary to continue proper system operation. This includes routine maintenance, root cause analysis, applying change requirements, software upgrades, business need changes, rule changes, infrastructure policy impacts, and corrective, adaptive or perfective maintenance, as appropriate.

c. ENHANCEMENT SUPPORT ANALYSIS

Analyzing the functional and non-functional requirements for adding new functionality/features to the EES on prioritized requests from the user community. This includes interpreting any rules changes and other critical business needs from a technical and logistical standpoint.

d. USER SUPPORT

Providing application-specific support coordinated through the IT Service staff as well as conducting system research and inquiries.

e. HELPDESK PLATFORM

The IT Service Desk shall utilize a dedicated implementation of industry standard service desk software suite to be hosted and used by the State of Nebraska.

f. DATABASE SUPPORT

This includes both DB support as well as refactoring the EES to enhance database efficiency in storage and query response time and coordinating with system administrators to enable ideal hardware.

5. SOFTWARE CONFIGURATION MANAGEMENT

Software Configuration Management includes the identification and maintenance of System software components and the relationships and dependencies among them. These activities include:

a. Automatic capture and storage of IT Service to Application, Application-to-Component and Component-to-Component relationships; and

b. Maintenance of the history of those relationships and any transformation required to appropriately manage and document (e.g., source control, version control, profiles, security plans) configuration changes affecting the application and its processing environment.

Code Migration includes promoting new and modified code, configuration, and scripts, in support of new and existing applications through development, test, and production. These activities include:

c. Migrate code from development to test on an agreed upon basis;

d. Track migration status and notification;

e. Identify and resolve issues with the services delivery team and development teams;

f. Develop and document recommended operations and administration procedures related to code migration; and

g. Develop and document test-to-production turnover requirements and instructions for each project or release.

6. CHANGE AND RELEASE MANAGEMENT

Change and Release Management activities include services required to appropriately manage and document (e.g., impact analysis, version control, library management, turnover management, build management, parallel development) changes to the application and any of the constituent components being developed. Change and Release Management also includes services required to appropriately manage and document changes to the underlying application development environment components. These include the following:

a. Library Management the classification, control, and storage of the physical components of the application;

b. Version Control the maintenance, tracking, and auditing of modifications to an application's components over time, facilitating the restoration of an application to prior development stages; and

c. Turnover Management the automated promotion of software changes across different phases of the life cycle (e.g., development, unit test, systems test, and production), including management of the approval process, production turnover, and software migration control.

The EES shall utilize a centralized solution to automate and control the software change and release management process.

a. This software change and release management process will control migration patterns (i.e., how a given set of code moves from one environment to another); and

b. This software configuration management process will control versioning, access controls, data quality, etc., for each environment.

7. DATA RETENTION AND ARCHIVING

The EES should be designed to support multiple layers of data backup protection using a combination of both disk based and tape based technologies to meet the EES Backup and Recovery (BU/R) requirements.

The EES should leverage SAN replication and mirroring technologies to provide online, disk based system data protection. The EES should utilize SAN-based; block level data replication to protect both critical Database and Application components. Mission critical system components will also be mirrored synchronously to provide fast access to critical functions in the event of failure. In the event of catastrophic system failure at the primary site, clients can be redirected to the secondary site via DNS to utilize redundant systems present at the secondary site. Clients will then be able to retrieve application from replicated sources that will be up to date based on the last completed replication cycle.
Additionally, database replication should also be utilized to synchronize data between both primary and secondary databases. Finally, another layer of protection should be designed to provide traditional, versioned system data backup to tape storage. The implementation team shall create new backup job policies specific to the EES.

All EES database and application backup policies will utilize recommended schedules, and all policies will include at least one weekly full backup plus daily incremental backups to ensure data integrity and prevent data loss. Data on all tapes will also be encrypted to ensure security in the event tapes are taken to an offsite storage facility. The backup solution shall utilize on-line backup methodologies where possible that would enable quick backup and restore. Tape and off-site backups should be used to comply with long-term retention and meet the Nebraska Secretary of State Records Retention standards.

Documentation of all B/UR related processes and procedures will be generated during the course of the project, will be validated during system test, and will be presented t at project close. Additionally, processes and procedures that mandate routine testing and restoration of system backup data will also be developed. In this manner, the effectiveness and health of the proposed System B/UR solution will be continually validated.

8. SYSTEM PERFORMANCE MONITORING AND REPORTING

a. PERFORMANCE MONITORING

Operational performance monitoring begins with the tracking of each and every service request via a ticket tracking tool capable of capturing and providing detailed information regarding the Contractor's efforts associated with resolving each specific request. The Contractor must ensure that all data collected is accessible by appropriate stakeholders to ensure an "open book" approach to problem management and performance monitoring.

b. PERFORMANCE REPORTING

The Contractor's Service Delivery Manager is responsible for presenting the Monthly Performance Status deliverable against the SLR expectations. The

monthly report will include monthly progress for each support area as well as a rolling trend chart. Any deviations from expected performance will be reviewed and discussed with agreements toward corrective action plans defined jointly with the appropriate State of Nebraska management. Continued failure to meet or exceed committed targets should result in escalation of issues.

c. MONITORING TOOLS

The Contractor should propose one or more monitoring tool(s) to proactively monitor the performance of key infrastructure components of the EES. These tools should provide a flexible, well-rounded solution for monitoring server and network health. These should also monitor basic services and database connectivity, and perform advanced monitoring of Web-based applications through customizable monitoring scripts. These tools should have extensively customizable dashboards to provide availability and response time on devices, URLs, WAN links and services; besides providing health and performance statics of the servers, network devices, services and applications. These tools should utilize a combination of ICMP, SNMP, and WMI protocols that enables them to monitor almost any networked device. Automatic alerting and reporting in multiple formats including email, SMS text messages, and application pop-up windows should also be available.

9. COMPLIANCE WITH FEDERAL HIPAA, HI-TECH AND STATE OF NEBRASKA CONFIDENTIALITY LAW

The EES Contractor acknowledges its duty to become familiar with and comply, to the extent applicable, with all requirements of the Federal Health Insurance Portability and Accountability Act (HIPAA), 42 U.S.C. § 1320d et seq. and implementing regulations including 45 CFR Parts 160 and 164. The Contractor also agrees to comply with all State of Nebraska Privacy Policies.

The Contractor shall maintain the privacy and security of all individually identifiable health information acquired by or provided to it as a part of the performance of this contract. The Contractor shall follow federal and State of Nebraska law relating to privacy and security of individually identifiable health information as applicable, including the Health Insurance Portability and Accountability Act (HIPAA) and its federal regulations.

Protected Health Information as defined in the HIPAA regulations at 45 CFR 160.103 and 164.501 means information transmitted that is individually identifiable; that is created or received by a healthcare provider, health plan, public health authority, employer, life insurer, school or university, or healthcare clearinghouse; and that is related to the past, present, or future physical or mental health or condition of an individual, to the provision of healthcare to an individual, or to the past, present, or future payment for the provision of healthcare to an individual. The definition excludes certain education records as well as employment records held by a covered entity in its role as employer.

Based on the determination that the functions to be performed in accordance with this RFP constitute Business Associate functions as defined in HIPAA, the EES Contractor shall execute a Business Associate Agreement as required by HIPAA regulations at 45 CFR §164.501.

10. DATA SYSTEMS ACCESS

The Contractor agrees that all information accessed in the State of Nebraska computer systems is the sole property of the State of Nebraska; Contractor employees are granted access to this under the terms and conditions of this Contract. All information collected and compiled by the Contractor under the terms and conditions defined in this Contract is the sole property of the State of Nebraska and subject to all privacy and security safeguards defined by the State of Nebraska.

The Contractor agrees that under the terms and conditions of the contract resulting from this RFP, that the State of Nebraska computer system access will only be granted to employees or subcontractors approved by the Department.

The Contractor agrees that under the terms of this contract they are responsible for ensuring all State of Nebraska approved subcontractors understand and agree to abide by the same terms and conditions defined in this contract.

The Contractor agrees that unique access logon accounts into the State of Nebraska's data systems will be assigned to an individual and that logon account may only be used by the individual to which it is originally assigned.

The Contractor agrees to access the State of Nebraska data systems only through State supplied CITRIX access and encryption technology.

The Contractor agrees to meet compliance requirements for all applicable State of Nebraska and federal physical, administrative, and electronic safeguard standards (as per safeguard publications listed below) and abide by State of Nebraska Information Technology Policies that govern the appropriate use of disclosure of privacy of and security of information provided by the State under the terms and conditions defined in this Contract.

11. SAFEGUARD PUBLICATIONS

a. Health Information Portability Accountability Act of 1996 (HIPPA—privacy rule 45 CFR Part 160 and subparts A and B of Part 164)
b. HIPPA – Security Rules 45 CFR Part 160 and subpart A and C Part 164
c. Internal Revenue Service (IRS) Publication 1075
d. Social Security Administration (SSA) – Computer Match Agreement
e. DHHS Information Technology Policies

The Contractor agrees that the State of Nebraska or federal agencies with jurisdiction (i.e., OCR, IRS, SSA, DHHS, or State of Nebraska Auditor's Office) may conduct unannounced compliance inspections related to the physical administrative and electronic safeguards defined in the publications listed above.

The Contractor understands that it will be held responsible for all criminal and civil penalties for actions of the subcontractor as defined in the publications listed above.

The Contractor agrees to immediately notify the State of Nebraska's HIPPA privacy/security office of any suspected loss of, threat of, inappropriate disclosure of, unauthorized access of, or destruction of and/or corruption of Departmental information

obtained from Departmental computer systems and agree to comply with incident reporting criteria as defined in their BAA and the publication listed above.

The Contractor agrees to immediately notify the State of Nebraska of any lost or stolen computer hardware that may have been used to access, process, or store State of Nebraska information or State computer systems.

Contractor agrees to comply with State of Nebraska Breach Notification Law Revised Statute 87-802 any time there is a suspected loss of personal information as defined in the revised statute.

The Contractor agrees that no State of Nebraska information will be stored on a personal device and all State of Nebraska information stored, processed, or otherwise transmitted will be performed on State of Nebraska resources accessed through CITRIX or through the State of Nebraska secure e-mail system.

12. WARRANTY

The Contractor shall be responsible for fixing any errors that occur during the deployment and four (4) years into the operation of the entire solution at no additional cost. The four-year Software Warranty period starts after the full scope of the project is released into production.

The Contractor shall provide the four (4) years of Software Warranty following deployment of the full scope of the project at no additional cost. The Contractor shall provide the equipment needed to support its staff for duration of the project. The Contractor shall be responsible for the root cause analysis activities to demonstrate whether a defect is related to the scope of functionality delivered by the Contractor.
The four-year Software Warranty period applies to all “corrective” maintenance/reactive modification of the EES performed after completion of deployment to correct discovered faults with any functionality within the scope of original software development effort. All such fixes are required to occur in a reasonable timeframe (depending on severity as defined in the table below) and shall be produced at no additional cost to the State of Nebraska.

Production Defect Severity	Response Time
Severity 1 - The EES no longer functions at all, or a System component is unavailable to more than 20% of active production users.	4 Hours
Severity 2 - Any defect that affects less than 20% of the EES functionality or less than 20% of active production users.	8 Hours
Severity 3 - The EES is able to function with a temporary workaround.	72 Hours

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the EES requirements. The following response requirements pertaining to the Non-functional Requirements for the EES and must be responded by the Bidder.

Provide specific details of the proposed approach to meeting the State of Nebraska's requirements in each area. Also, include one or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

i. Describe the proposed approach to system warranty, including the type of warranty being offered. In addition, provide a summary of the Bidder's proposed strategy for supporting that warranty. Please address the following areas (at a minimum):

a) Four-Year Software Warranty;
b) Staff Resources and Supporting Equipment; and
c) Meeting Service Level Requirements (SLRs)

13. SOFTWARE MAINTENANCE AND OPERATIONS (M&O)

A contract resulting from this Request for Proposal will be issued from the date of the award for six (6) years, with the option to renew for two (2) additional two-year renewal periods as mutually agreed upon by all parties. The initial period of the contract will be the Design, Development and Implementation (DDI) of the EES, with the expectation that it will be completed and approved by the State of Nebraska by December 31, 2015. The subsequent Base Maintenance and Operations (Base M&O) period shall be four (4) years from the projected date of January 1, 2016.

The Base M&O period includes the "adaptive" maintenance/modification of the EES performed after completion of deployment to keep the EES usable in a changed or changing environment, and "perfective" maintenance which is modification of the EES after completion of deployment to improve performance or maintainability. During this period, the Contractor shall be in charge of Software Maintenance, and hosting and operating the EES platforms and underlying technologies, and providing Disaster Recovery services

Costs for this item must be clearly defined in the Cost Proposal. The Bidder shall communicate and document all software faults that are not a part of the scope of the original development effort during the Software Maintenance period.

At the expiration of the Base M&O period, the State of Nebraska may elect to enter optional renewal M&O Period(s). The scope of services covered under the optional renewal M&O Period(s) will be the same as the Base M&O period.

The Bidder agrees to propose two (2) two-year renewal M&O periods. The State of Nebraska shall be able to exercise its option to sign-up for the same services to those offered in the warranty and Base M&O period.

a. PROPOSAL REQUIREMENTS

This section defines Bidder requirements regarding the M&O Support approach (availability of staff, lead time for on-boarding of staff, staff due diligence process, knowledge transfer and documentation processes, etc.). The Bidder's proposal must provide information that can be used by the State of Nebraska to evaluate the Bidder's knowledge of, and intended approach to, the M&O Support requirements. This information must include at least the following:

i. Describe the approach for providing ongoing maintenance and support services, including a flexible and scalable approach to providing the various types of personnel, including:

a) Architect;
b) Business Analyst/Functional Lead;
c) Communication/Network Specialist;
d) Database Administrator;
e) Help Desk Specialist;
f) Hardware Specialist;
g) Operations Lead/Manager;
h) Project Manager;
i) Programmer;
j) Security Systems Engineer; and
k) Systems Administrator.

ii. Describe the approach to system operations support, including the levels of support offered and the process for requesting support. In addition, provide a summary of the strategy for maintaining and repairing the system. Please address the following areas (at a minimum):

a) Base Software Maintenance Period;
b) Incident and maintenance request reporting; and.
c) Optional Extension Software Maintenance Period.

iii. Describe the proposed approach to Defect Resolution and Solution Acceptance that shall incorporate methodologies and practices which will assist the State of Nebraska to successfully manage the enterprise's M&O lifecycle phase and shall address at least the following areas:

a) Support Model;
b) Triage Procedures;
c) Tools;
d) Roles and Responsibilities of support personnel;
e) Release Management;
f) Upgrades;
g) Maintenance;
h) On-going Operations;
i) Customer Support;
j) Specific support procedures for production;
k) Deliverables;
l) Capacity Management;

m) Technology Refresh;
n) Solution Security;
o) Backup and Recovery;
p) Disaster Recovery; and
q) Defect/Issue Management.

iv. Describe the approach to Solution Administration that shall incorporate methodologies and practices which will assist the State of Nebraska to successfully administrate the EES and shall address at least the following areas:

a) Archive/Purge of Log files;
b) Version control capabilities;
c) Logging and reporting for accessing errors and exceptions and unauthorized access;
d) Public key/private key encryption Secure Socket Layer (SSL) certificates;
e) Single sign-on capability and integration with Nebraska's Active Directory authentication and authorization;
f) Admin tools and maintenance routines;
g) Firewalls and DMZ for external access and remote access; and
h) Administration of User Accounts, User Roles, User Groups etc.

v. Describe the approach to Solution Management that shall incorporate methodologies and practices which will assist the State of Nebraska to successfully manage the EES and shall address at least the following areas:

a) Generate Administrative Alerts;
b) Updates to Distributed components;
c) SLR Monitoring;
d) Remote support;
e) Event Management and Monitoring using ITIL v3 or equivalent best practices; and
f) Application Performance Monitoring.

14. HOSTING AND DISASTER RECOVERY SERVICES

The State of Nebraska has requirements for the Contractor to host the environments associated with the development phases of the EES project (DDI period), provide support services to long term development environments, provide application support services for production environment(s), as well as provide disaster recovery site and technical services.

15. DEVELOPMENT ENVIRONMENTS

The Bidder must propose, provide and operate all required environments to support its proposal for the specification, design, development and implementation of the system including, but not limited to the following environments:

a. Sandbox;
b. Configuration/Development;
c. Test;
d. Quality Assurance;
e. Production
f. Training; and
g. Disaster Recovery

These environments should be sized in accordance with planned use and be inclusive of all hardware, storage, networking, backup/restore, database, file system, monitors and other items as required to comprehensively support the development effort.

16. PRODUCTION ENVIRONMENT

The State of Nebraska may choose to use the services of the Contractor for the EES and EES Platform Production hosting. In advance of use, and in consideration of the State of Nebraska procurement, installation and commissioning cycles, the Bidder will specify all required environments to support their proposal for the ongoing specification, design, development of the project associated with subsequent cycles including, but not limited to the following environments:

a. Full Production Operation;
b. Production Replica for Fault Resiliency/Onsite Disaster Recovery Purposes and debugging/issue resolution purposes;
c. Offsite Disaster Recovery Replication; and
d. Other environments deemed necessary by the Contractor to support production operations.

These environments should be sized in accordance with planned use and be inclusive of all hardware, storage, networking, backup/restore, database, file system, monitors and other items as required to comprehensively support the ongoing development operation of the EES as well as to support the debugging or resolution of issues within the production environment.

17. DISASTER RECOVERY ENVIRONMENTS

The State of Nebraska may choose to use the services of the Contractor for the EES and the EES Platform Disaster Recovery site hosting. The Bidder must specify all required environments to support their proposal for the ongoing operation of the production system in the event of a disaster or outage condition at the selected computing center(s) associated with the following environments:

a. Full Production Operation;
b. Systems Development inclusive of then current code bases and associated data associated with the development effort; and
c. Other environments deemed necessary by the Bidder to support production operations in the event of an outage or disaster.

These environments should be sized in accordance with planned use and be inclusive of all hardware, storage, networking, backup/restore, database, file system, monitors and other items as required to support limited development effort during the disaster or outage condition as well as to not adversely impact or jeopardize phases that are being developed.

Bidders must detail the proposed approach to system hosting and disaster recovery support services, including the type and levels of services offered and the process for requesting changes to the services. In addition, provide a summary of the Bidder's strategy for ensuring stable and uninterrupted operations. Specifically, describe any industry best practices employed (e.g. ITIL) or certifications achieved (e.g. ISO 20000) that would provide assurances that the Bidder shall be able to provide a consistent and high quality level of services.

The term for providing these environments shall commence upon execution of an agreement between the State of Nebraska and Contractor, and shall conclude upon the end of the term for this contract or upon notification from the State of Nebraska of the desire to host the system(s) elsewhere. During the term of this contract the off-site hardware used by the Contractor to provide the hosting service is and will remain the property of the contractor. The State of Nebraska will pay the Contractor an agreed upon fee for the use of the hosted environments.

Upon notification by the State of Nebraska of the availability or receipt of the hardware to support these environments in the State of Nebraska data center or an alternate data center, the Contractor shall install, configure and commission for ongoing use these environments within the State of Nebraska data center or alternate data center, if required.

Upon completion of this migration and direction from the State of Nebraska, the old non-production environment should be decommissioned by the Contractor, any Contractor hardware usage charges arising from the use of this equipment shall no longer be the responsibility of, nor billed to the State of Nebraska, and all State data or other artifacts resident on this hardware shall be destroyed or otherwise deleted.

O. TURNOVER

The Turnover Period represents a period of transition during which the EES and all related operational and technical support activities that have been maintained and operated by the Contractor must be turned over to the State of Nebraska or successor contractor(s).
During the Turnover Period the Contractor must provide turnover planning and the requisite services in support of the following State of Nebraska turnover objectives:

1. Provide for an orderly, complete, and controlled transition to the State of Nebraska or successor contractor(s);
2. Avoid disruptions of processing and services provided to members, providers, and operational users of the EES during the turnover period;
3. Maintain EES responsibility through the effective date of the transfer of responsibility and through the completion of the reconciliation of final day processing conducted by the Contractor, including data and report output; and
4. Provide technical and operational services and information as needed to facilitate an informed, coordinated, and complete transfer of activity.

The State of Nebraska will notify the Contractor in writing of its plans to take over the EES or to procure a new EES contract. The Contractor will be required to support the Department during the RFP development by providing contract performance reports; inventories of hardware/software, technical frameworks and/or schematics including EES interfaces; and other EES contract information defined by the State of Nebraska.

No later than thirty (30) days from notification, the Contractor must provide a draft Turnover Plan. The State of Nebraska will work with the Contractor to finalize the Turnover Plan deliverable. The Turnover Plan deliverable must include:

1. Proposed approach to turnover;
2. Turnover work plan, including detailed tasks and subtasks;
3. Schedule for turnover; and
4. Procedures to maintain up-to-date documentation during turnover.

Along with the Turnover Plan, the Contractor must submit a statement of the resources that would be required by the State of Nebraska or a successor contractor to take over operation of the EES. The Requirements Statement must be based on the Contractor's experience in the operations of an EES and must include actual Contractor resources devoted to the operation of the EES. The Requirements Statement deliverable must include:

1. An inventory of all application software used to perform the functions of all components of the EES;
2. An inventory of all hardware, system software, and other technical environment resources required to operate all components of the EES; and,
3. The number and type of personnel required to perform the functions under the contract, including both data processing staff and administrative support staff.

The Contractor must identify a dedicated Turnover Manager for the Turnover Period. The dedicated Turnover Manager will be responsible for all activities associated with the turnover of the EES to the State of Nebraska or successor contractor(s).
The Contractor must cooperate with the State of Nebraska and/or successor contractor while providing all required turnover services. This will include meeting with the State of Nebraska and/or successor and devising work schedules that are agreeable to all involved parties. The Bidder must state in its proposal a commitment to working with the State of Nebraska and/or successor contractor(s) in planning and performing the Turnover activities.

The Contractor will be paid at the end of the Turnover period when the final EES Contract Report deliverables have been approved by the Department.

1. PROPOSAL REQUIREMENTS

The Bidder must describe its proposed methodology for turning the system and full operations over to the State of Nebraska or a successor contractor. The methodology should describe the Contractor's approach and plan for turnover.

a. Describe the approach to system and operations turnover based on the Contractor's proposed solution, and the Contractor's own experience with comparable EES projects;
b. Describe the approach for training State of Nebraska staff, State contractor staff or the successor contractor;
c. Describe how the Contractor will manage the transition while maintaining production schedules;

d. Describe the staff responsible for transition; and

e. Include a statement that the Contractor is committed to working with the State of Nebraska and successor contractor(s) in planning and performing the Turnover activities.

P. SERVICE LEVEL REQUIREMENTS

The State of Nebraska will monitor the performance of the contract issued under this RFP. All services and deliverables under the contract shall be provided at an acceptable level of quality and in a manner consistent with acceptable industry standards, custom, and practice.

The Bidder must submit a list of their standard Service Level Requirements for the EES as part of the proposal. The final set of SLRs and the associated Liquated Damages for non-performance will be determined by the State of Nebraska and the selected Contractor.

Q. DELIVERABLE APPROVAL PROCESS

Once the detailed Project Plan is approved by the Department, the following sections detail the process for submission and review of deliverables during the life of the project/contract.

The Contractor must provide one electronic copy of each deliverable to the appropriate Department Project Manager and IV&V Contractor as identified in the contract. Once a deliverable is approved and accepted by Department, the Contractor must upload an electronic copy into the designated State of Nebraska Document Repository.

Deliverables will be evaluated by the Department and IV&V Contractor utilizing mutually agreed to acceptance/exit criteria.

1. DELIVERABLE SUBMISSION

Prior to development and submission of Department specified contract deliverable, a Deliverables Expectations Document (DED) containing a description of the format and content of each deliverable will be delivered to the Department for review and approval. The DED must contain, at a minimum, the following:

a. Cover letter;

b. Table of Contents with a brief description of the content of each section;

c. Anticipated number of pages; and

d. Identification of appendices/exhibits

The DED must contain an approval/rejection section that can be completed by the Department. The summary document will be returned to the Contractor within a mutually agreed upon time frame. Deliverables must be developed by the Contractor according to the approved format and content of the summary document for each specific deliverable.

At a mutually agreed to meeting, on or before the time of delivery to Department, the Contractor must provide a walkthrough of each deliverable. Deliverables must be submitted no later than 5:00 PM CST, per the approved contract deliverable schedule and must be accompanied by a deliverable sign-off form with the appropriate sections completed by the Contractor.

2. DELIVERABLE REVIEW

The Department's review time begins on the next business day following receipt of the deliverable. The Department's review time will be determined by the approved and accepted detailed project plan and the approved contract. The Department has up to five (5) working days to determine if a deliverable is complete and ready for review. In the case of large deliverables the Department will work with the EES Contractor and IV&V Contractor to determine a mutually agreeable review period. Unless otherwise negotiated, this is part of the Department's review time.

Any subsequent deliverable dependent upon the Department's acceptance of a prior deliverable will not be accepted for review until all issues related to the previous deliverable have been resolved. Deliverables determined to be incomplete and/or unacceptable for review will be rejected, not considered delivered and returned to the Contractor. After review of a deliverable, the Department will return to the Contractor the project deliverable sign-off form with the deliverable submission and review history section completed.

3. DELIVERABLES ACCEPTANCE

If the deliverable is accepted, the original deliverable sign-off form signed by the appropriate Department representatives will be returned to the Contractor.

4. COMMENTS/REVISIONS REQUESTED BY THE STATE OF NEBRASKA

If the Department has comments and/or revisions to a deliverable, the following will be provided to the Contractor:

- **a.** The original deliverable sign-off form with an updated entry to the deliverable submission and review history section.
- **b.** Attached to the deliverable sign-off form will be a detailed explanation of the revisions to be made and/or a marked up copy of the deliverable.
- **c.** The Department's first review and return with comments will be completed within the times specified in the contract.
- **d.** The EES Contractor will have five (5) working days, unless otherwise mutually agreed to, for review, acceptance and/or rejection of the Department's comments.

A meeting to resolve outstanding issues must be completed within three (3) business days after completion of the Contractor's review or a mutually agreed upon time frame. Agreements made during meetings to resolve issues must be documented separately. Once an agreement is reached regarding changes, the Contractor must incorporate them into the deliverable for resubmission to the Department. All changes must be easily identifiable by the Department.

Resubmission of the deliverable must occur within five (5) business days or a mutually agreed upon time frame of the resolution of any outstanding issues. The resubmitted deliverable must be accompanied by the original deliverable sign-off form. This review process continues until all issues have been resolved within a mutually agreed upon time frame.

During the re-review process, the Department will only comment on the original exceptions noted. All other items not originally commented on are considered to be accepted by the Department. Once all revisions have been accepted, the original

deliverable sign-off form signed by the appropriate MLTC representatives will be returned to the Contractor.

The Contractor must provide one (1) updated electronic copy of each deliverable after approval and acceptance by the Department.

5. REJECTED, NOT CONSIDERED DELIVERED

If the Department considers a deliverable not ready for review, the following will be returned to the Contractor:

- **a.** The original deliverable sign-off form with an updated entry to the deliverable submission and review history section.
- **b.** The original deliverable and all copies with a written explanation as to why the deliverable is being rejected, not considered delivered.
- **c.** The Contractor will have five (5) business days, unless otherwise mutually agreed to, for review, acceptance and/or rejection of the Department's comments.

A meeting to discuss the Department's position regarding the rejection of the deliverable must be completed within three (3) business days after completion of the Contractor's review or a mutually agreed upon time frame. Resubmission of the deliverable must occur within a mutually agreed upon time frame. The resubmitted deliverable must be accompanied by the original deliverable sign-off form.

Upon resubmission of the completed deliverable, the Department will follow the steps outlined in this process.

Bidders are required to complete and submit Form D, which lists EES Project Deliverables. The submission dates for the PMP have been entered and cannot be changed without Department approval prior to the requested change. The Bidder should enter the projected dates for the other deliverables. The Deliverables dates entered in this form must match the dates in the Bidder Project Plan. The Bidder is responsible for ensuring this form includes all deliverables identified in this RFP and any additional deliverables identified by the Bidder.

R. VALUE ADDED OPTIONS

The State of Nebraska has attempted to identify and incorporate the requirements necessary to successfully procure and install the Nebraska EES. We recognize that Bidders may have completed an installation in another state or for a commercial client. The Bidder is requested to convey any other considerations, products or services which they believe the State of Nebraska may have overlooked or not requested.

1. PROPOSAL REQUIREMENT

- **a.** Provide a list and description of requirements, products or services necessary to successfully install and implement the Nebraska EES. This requirement does not include necessary products or services specific to a Bidder's solution; and
- **b.** Provide a list and description of requirements, products or services necessary to successfully install and implement the Bidder's solution.

The Bidder may also submit Value Added Options that have not been requested in this RFP, but are based on a Bidder's market knowledge and experience. The Value Added Options will not be evaluated to determine the EES Contractor; however the State of Nebraska may determine to contract for an option after the Contractor selection has been made. Bidders must include a cost for each Value Added Option in their Cost proposal.

a. Describe each Value Added Option. The description should include:

- **i.** How the Value Added Option could enhance the EES;
- **ii.** How the State of Nebraska could benefit from the Value Added Option;
- **iii.** How the Medicaid eligibility effort could benefit from the Value Added Option; and
- **iv.** Where and when the recommended Value Added Option(s) has been implemented.

b. Describe the EES' current mobility (e.g. smartphone, tablet, etc.) capabilities and/or plans for mobility in upcoming version(s).

V. PROPOSAL INSTRUCTIONS

This section documents the mandatory requirements that must be met by bidders in preparing the Technical and Cost Proposal. Bidders should identify the subdivisions of "Project Description and Scope of Work" clearly in their proposals; failure to do so may result in disqualification. Failure to respond to a specific requirement may be the basis for elimination from consideration during the State's comparative evaluation.

Proposals are due by the date and time shown in the Schedule of Events. Content requirements for the Technical and Cost Proposal are presented separately in the following subdivisions:

A. TECHNICAL PROPOSAL

The Technical Proposal shall consist of four (4) sections:

1. SIGNED in ink "State of Nebraska Request For Proposal For Contractual Services" form;
2. Executive Summary;
3. Corporate Overview; and
4. Technical Approach.

1. REQUEST FOR PROPOSAL FORM

By signing the "Request For Proposal For Contractual Services" form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the Terms and Conditions stated in this Request for Proposal and certifies bidder maintains a drug free work place environment.

The Request For Proposal For Contractual Services form must be signed in ink and returned by the stated date and time in order to be considered for an award. Please include "Form A" in combination with the "Terms and Conditions" from Section III.

2. EXECUTIVE SUMMARY

The Executive Summary shall condense and highlight the contents of the solution being proposed by the bidder in such a way as to provide the Evaluation Committee with a broad understanding of the Contractor's Technical Proposal.

Bidders must present their understanding of the problems being addressed by implementing a new system, the objectives and intended results of the project, and the scope of work. Bidders shall summarize how their Technical Proposal meets the requirements of the Request for Proposal, and why they are best qualified to perform the work required herein.

3. CORPORATE OVERVIEW

The Corporate Overview section of the Technical Proposal must consist of the following subdivisions:

a. BIDDER IDENTIFICATION AND INFORMATION

The bidder must provide the full company or corporate name, address of the company's headquarters, entity organization (corporation, partnership, proprietorship), state in which the bidder is incorporated or otherwise organized to do business, year in which the bidder first organized to do business, whether

the name and form of organization has changed since first organized, and Federal Employer Identification Number and/or Social Security Number.

b. FINANCIAL STATEMENTS

The bidder must provide financial statements applicable to the firm. If publicly held, the bidder must provide a copy of the corporation's most recent audited financial reports and statements, and the name, address and telephone number of the fiscally responsible representative of the bidder's financial or banking organization.

If the bidder is not a publicly held corporation, either the reports and statements required of a publicly held corporation, or a description of the organization, including size, longevity, client base, areas of specialization and expertise, and any other pertinent information must be submitted in such a manner that proposal evaluators may reasonably formulate a determination about the stability and financial strength of the organization. Additionally, a non-publicly held firm must provide a banking reference.

The bidder must disclose any and all judgments, pending or expected litigation, or other real or potential financial reversals, which might materially affect the viability or stability of the organization, or state that no such condition is known to exist.

c. CHANGE OF OWNERSHIP

If any change in ownership or control of the company is anticipated during the twelve (12) months following the proposal due date, the bidder must describe the circumstances of such change and indicate when the change will likely occur. Any change of ownership to an awarded vendor(s) will require notification to the State.

d. OFFICE LOCATION

The bidder's office location responsible for performance pursuant to an award of a contract with the State of Nebraska must be identified.

e. RELATIONSHIPS WITH THE STATE

The bidder shall describe any dealings with the State over the previous five (5) years. If the organization, its predecessor, or any party named in the bidder's proposal response has contracted with the State, the bidder shall identify the contract number(s) and/or any other information available to identify such contract(s). If no such contracts exist, so declare.

f. BIDDER'S EMPLOYEE RELATIONS TO STATE

If any party named in the bidder's proposal response is or was an employee of the State within the past twenty-four (24) months, identify the individual(s) by name, State agency with whom employed, job title or position held with the State, and separation date. If no such relationship exists or has existed, so declare.

If any employee of any agency of the State of Nebraska is employed by the bidder or is a subcontractor to the bidder, as of the due date for proposal submission, identify all such persons by name, position held with the bidder,

and position held with the State (including job title and agency). Describe the responsibilities of such persons within the proposing organization. If, after review of this information by the State, it is determined that a conflict of interest exists or may exist, the bidder may be disqualified from further consideration in this proposal. If no such relationship exists, so declare.

g. CONTRACT PERFORMANCE

If the bidder or any proposed subcontractor has had a contract terminated for default during the past five (5) years, all such instances must be described as required below. Termination for default is defined as a notice to stop performance delivery due to the bidder's non-performance or poor performance, and the issue was either not litigated due to inaction on the part of the bidder or litigated and such litigation determined the bidder to be in default.

It is mandatory that the bidder submit full details of all termination for default experienced during the past five (5) years, including the other party's name, address and telephone number. The response to this section must present the bidder's position on the matter. The State will evaluate the facts and will score the bidder's proposal accordingly. If no such termination for default has been experienced by the bidder in the past five (5) years, so declare.

If at any time during the past five (5) years, the bidder has had a contract terminated for convenience, non-performance, non-allocation of funds, or any other reason, describe fully all circumstances surrounding such termination, including the name and address of the other contracting party.

h. SUMMARY OF BIDDER'S CORPORATE EXPERIENCE

The bidder shall provide a summary matrix listing the bidder's previous projects similar to this Request for Proposal in size, scope and complexity. The State will use no more than three (3) narrative project descriptions submitted by the bidder during its evaluation of the proposal
The bidder must address the following:

i. Bidder must provide narrative descriptions to highlight the similarities between their experience and this Request for Proposal. These descriptions must include:

a) the time period of the project;
b) the scheduled and actual completion dates;
c) the contractor's responsibilities;
d) for reference purposes, a customer name (including the name of a contact person, name of the State, federal or commercial client and Project Name, a current telephone number, a facsimile number and e-mail address); and
e) each project description shall identify whether the work was performed as the prime contractor or as a subcontractor. If a bidder performed as the prime contractor, the description must provide the originally scheduled completion date and budget, as well as the actual (or currently planned) completion date and actual (or currently planned) budget.

ii. Contractor and subcontractor(s) experience must be listed separately. Narrative descriptions submitted for subcontractors must be specifically identified as subcontractor projects.

iii. If the work was performed as a subcontractor, the narrative description shall identify the same information as requested for the contractors above. In addition, subcontractors shall identify what share of contract costs, project responsibilities, and time period were performed as a subcontractor.

i. SUMMARY OF BIDDER'S PROPOSED PERSONNEL/MANAGEMENT APPROACH

The bidder must present a detailed description of its proposed approach to the management of the project.

The bidder must identify the specific professionals who will work on the State's project if their company is awarded the contract resulting from this Request for Proposal. The names and titles of the team proposed for assignment to the State project shall be identified in full, with a description of the team leadership, interface and support functions, and reporting relationships. The primary work assigned to each person should also be identified.

A major factor in the success of the Project is the degree of collaboration between EES Contractor, EES IV&V Contractor and State of Nebraska staff. The EES Contractor is expected to work with stakeholders, management and subject matter experts throughout the business and technology enterprise when conducting the project activities and developing the work products and deliverables. The EES Contractor is expected to propose a project approach that incorporates the involvement of State of Nebraska business and technology staff in order to obtain information and feedback necessary to produce quality work products and deliverables.

The Bidder must provide resume(s) for the key personnel proposed for this project. The Bidder is required to demonstrate that their consultant(s) or employee(s) have the skills necessary to meet the objectives of this project as listed below. The named Key Personnel include:

Key Personnel	Recommended Qualifications
Project Manager	1. Minimum of five years of project management and account management experience for a government or private sector project of similar size and complexity. 2. Minimum of three (3) referenced projects of similar size and complexity. 3. Health care industry or health and human services implementation experience preferred.
Technical Architecture Lead	1. Minimum of five (5) years of web-based, solution design, development, implementation, and governance life cycle experience 2. Minimum of two (2) referenced projects of similar size and scope in which this role was performed.

Key Personnel	Recommended Qualifications
	3. Demonstrated experience with the proposed solution to design and develop an EES. 4. Health care industry or health and human services implementation experience preferred.
Test Lead	1. Must have at least three (3) years of experience coordinating, conducting and operating functional, system, acceptance and performance tests. 2. Minimum of two (2) referenced, web-based projects of similar size and scope in which this role was performed. 3. Health care industry or health and human services implementation experience (including a major health plan or claims processing environment) preferred.
Data Conversion Lead	1. At least three (3) years of experience with the conversion effort on other large-scale system implementation project. 2. Minimum of one (1) referenced data conversion project of similar size and scope in which this role was performed. 3. Health care industry or health and human services implementation experience (including a major health plan or claims processing environment) preferred.
Integration Lead	1. At least three (3) years of experience with the integration effort on other large-scale system implementation project. 2. Minimum of one (1) referenced integration project of similar size and scope in which this role was performed. 3. Health care industry or health and human services implementation experience (including a major health plan or claims processing environment) preferred.
Eligibility Policy SME (Part Time)	1. At least three (3) years of experience with eligibility determination for State-and federally assisted programs, specifically Medicaid, CHIP, or waiver populations. 2. At least three (3) years of experience with other covered State or federally assisted populations such as Medicaid, CHIP, waiver populations, etc. 3. Expert knowledge of PPACA, MITA, and other federal mandates

Resumes should not be longer than three (3) pages. The resumes must include:

i. Educational qualifications;
ii. Summary of employment experience;
iii. Specific experience with the service areas for which they are being proposed;
iv. Previous work assignments in a similar role for this type of engagement demonstrating ability to meet the objectives listed below:

a) Proven experience with Consulting, Project Administration and Technical Assistance for Commercial or State Government Eligibility Solutions for a period of at least two years within the last four years;

b) Experience in the design, development, testing, and implementation of Medicaid or Commercial eligibility system;
c) Government or public sector experience;
d) In-depth knowledge of ACA Regulations; and
e) Highly developed written and verbal communication skills.

In addition, at least three (3) references (name, address, and telephone number) who can attest to the competence and skill level of the individual.

The Bidder must describe policies, plans and intentions with regard to maintaining continuity of key personnel and the implementation team assigned to the project to avoid and minimize the impact of necessary staff changes. Any changes in proposed personnel shall only be implemented after written approval from the State of Nebraska.
The State of Nebraska will provide workspace, equipment and conference telephone capabilities to house the EES Contractor staff in Lincoln, NE. Additionally, the EES Contractor will be assigned State of Nebraska Document Repository capabilities for all EES Contractor project documents and deliverables.

In order to ensure the success of this project, it is important that there is a continuity of Key Staff assigned to the project. The Bidder's proposal must:

i. Describe policies, plans, and intentions with regard to maintaining continuity of personnel assignments throughout the performance of any agreement resulting from this RFP.
ii. Discuss the Bidder's plans to avoid and minimize the impact of personnel changes.
iii. Identify planned backup personnel assignments.
iv. Commit to using the personnel identified in the proposal and agree to the State of Nebraska's right to approve proposed personnel changes during the term of the contract.
v. Agree that the Bidder's proposed project personnel may not be reassigned, replaced, or added during the project without the prior written consent of the Department's Project Manager. Should a key staff position be vacated, the IV&V Contractor must give the Department resumes of and an opportunity to interview and approve, potential replacements for that employee.
vi. Agree that the Bidder's proposed key project personnel may not be assigned new or additional contract assignments outside the State of Nebraska contract, without the prior written consent of the Department Project Manager.
vii. Agree that the Department Project Manager reserves the right to require a change in the IV&V Contractor's project personnel at the Department Project Manager's discretion and that the Department must be given an opportunity to interview and approve potential replacements for that employee. However, the Department will not unreasonably exercise this option and will take reasonable steps to work with the IV&V Contractor toward a solution.

State of Nebraska Staffing
A risk to the success of any large project like the EES is inadequate staffing, either from the number of staff to the knowledge and experience. The State of Nebraska wants to ensure adequate staff is available for the EES Project. Bidders must detail the number of State of Nebraska staff by job title, with a description of the tasks associated with each title. The Bidder is required to estimate the hours and include State of Nebraska staff in the draft Work Plan.

The State of Nebraska will review the information provided and will endeavor to meet State staffing levels defined by the Bidder. The State of Nebraska, however is not agreeing to staff to the defined levels.

j. SUBCONTRACTORS
If the bidder intends to subcontract any part of its performance hereunder, the bidder must provide:

i. name, address and telephone number of the subcontractor(s);
ii. specific tasks for each subcontractor(s);
iii. percentage of performance hours intended for each subcontract; and
iv. total percentage of subcontractor(s) performance hours.

4. TECHNICAL APPROACH
The technical approach section of the Technical Proposal must consist of the following subsections:

a. Understanding of the project requirements;
b. Proposed development approach;

i. Functional Requirements
ii. Non-Functional Requirements
iii. Requirements Traceability Matrices (RTM)

a) Functional RTM – Appendix B
b) Non-Functional RTM – Appendix C
c) Requirements Gap Analysis - Appendix D

iv. Project Planning and Management
v. Business Process Reengineering
vi. Organizational Change Management
vii. Training
viii. Knowledge Transfer
ix. Reporting
x. Documentation
xi. Implementation
xii. Post Implementation Support
xiii. Turnover

c. Technical considerations;
d. Draft project work plan;
e. Milestones and Deliverables (Forms C-1, C-2, and C-3) and
f. Personnel Management and Planning.

B. COST PROPOSAL REQUIREMENTS

This section describes the requirements to be addressed by bidders in preparing the Cost Proposal (Forms D1, D-2, D-3, and D-4). The bidder must submit the Cost Proposal in a section of the proposal that is a separate section or is packaged separately as specified in this RFP from the Technical Proposal section.

The component costs of the fixed price proposal for providing the services set forth in the Request for Proposal must be provided by submitting forms substantially equivalent to those described below.

1. PRICING SUMMARY

This summary shall present the total fixed price to perform all of the requirements of the Request for Proposal. The bidder must include details in the Cost Proposal supporting any and all costs. These details must include, at a minimum, detailed descriptions and/or specifications of the goods and/or services to be provided, quantities, and timing and unit costs, if applicable.

The State reserves the right to review all aspects of the Cost Proposal for reasonableness and to request clarification of any proposal where the cost component shows significant and unsupported deviation from industry standards or in areas where detailed pricing is required.

2. PRICES

Prices quoted shall be net, including transportation and delivery charges fully prepaid by the bidder, F.O.B. destination named in the Request for Proposal. No additional charges will be allowed for packing, packages, or partial delivery costs. When an arithmetic error has been made in the extended total, the unit price will govern.

3. FIXED HOURLY RATES

The State of Nebraska believes that system maintenance and system changes are part of the responsibilities of operating the EES Solution. Some activities performed by Contractor staff will be considered system maintenance (e.g., operating system patching) and as such those activities are to be considered and budgeted as part of the annual fixed administrative fee.

The State of Nebraska expects the Contractor will also provide support for solution change projects. The Department requires the following pricing approach be used when addressing Change Management tasks and activities:

a. The State of Nebraska requires the Contractor to support projects to change the system in each year of operations through the annual provision of 1000 hours of work performed by Change Management staff. The annual Change Management pricing and budgets must be developed in these schedules using this 1000 annual allotment of hours;

b. The 1000 annual allotments of hours are to be used only for time the Change Management staff spend directly on State of Nebraska approved projects. All other Change Management staff time (e.g., vacation, sick leave, training, etc.) shall not be applied against this allotment of hours;

c. Tracking and reporting of hours spent on individual system change projects by staff paid through the fixed administrative fees is mandatory. These hours are

to be considered in each system change project's estimated and expended hours.

d. Time spent on State of Nebraska system change projects must also be included in each project's estimated and expended hours. Time spent by these staff resources working on a change project will be paid upon State of Nebraska-approved completion of that project based on the appropriate hourly rates; and

e. If during the operations of the EES the State of Nebraska determines that the change workload and associated project deadlines necessitate additional Contractor staff resources, the State may develop a contract amendment to acquire the additional staff using the contracted hourly rates submitted in the Cost Proposal.

C. PAYMENT SCHEDULE

The payment schedule for the project is tied to specific dates and deliverables. Invoices may be submitted by the contractor on specific dates based on the completion and acceptance of related deliverables. No invoice will be approved unless the associated deliverables have been approved.

Form A

Bidder Contact Sheet

Request for Proposal Number 4544Z1

Form A should be completed and submitted with each response to this Request for Proposal. This is intended to provide the State with information on the bidder's name and address, and the specific person(s) who are responsible for preparation of the bidder's response.

Preparation of Response Contact Information	
Bidder Name:	
Bidder Address:	
Contact Person & Title:	
E-mail Address:	
Telephone Number (Office):	
Telephone Number (Cellular):	
Fax Number:	

Each bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Communication with the State Contact Information	
Bidder Name:	
Bidder Address:	
Contact Person & Title:	
E-mail Address:	
Telephone Number (Office):	
Telephone Number (Cellular):	
Fax Number:	

Form B

Notification of Intent to Bid

Request for Proposal Number 4544Z1

Bidder Name:	
Bidder Address:	
Contact Person:	
E-mail Address:	
Telephone Number:	
Fax Number:	

The "Notification of Intent to Bid" form should be submitted to the State Purchasing Bureau via e-mail (matpurch.dasmat@nebraska.gov), facsimile (402-471-2089), hand delivered or US Mail by the date shown in the Schedule of Events.

Form C

Milestones & Deliverables

Request for Proposal Number 4544Z1

Bidders are required to complete all forms provided in this section. Forms C-1, C-2 and C-3 are to be included as part of the Technical Proposal. Bidders are cautioned not to enter dollar amounts in these forms.

The State of Nebraska recognizes that Bidders may have different methodologies or Best Practices to deliver a large project like the EES. The State of Nebraska wishes to allow each potential Bidder to bring its industry-best-practice system development methodologies and tailor them to the State's needs.

To encourage this, the State of Nebraska has defined a list of minimum EES milestones and deliverables. The purpose of Forms C-1, C-2 and C-3 is to collect the Bidder's defined milestones and deliverables, the scheduled delivery of the milestones and deliverables and finally to understand the percentage of the fixed price contract required to deliver the milestones and deliverables.

Form C-1: Nebraska Milestones & Deliverables

Form C-2: Milestones and Deliverables Mapping and Schedule

Form C-3: Milestones & Deliverables Payment Percentage

Form C-1 Nebraska Milestones & Deliverables

Request for Proposal Number 4544Z1

This form lists the minimum set of project Milestones & Deliverables, identified by the State of Nebraska that the Bidder must address in their proposed Milestones & Deliverables (Form C-2).

Bidders are required to validate that each Nebraska identified Milestone or Deliverable is mapped to one or more of the Bidder's defined deliverables in Form C-2 Milestones and Deliverables Mapping and Schedule by adding a check mark in the confirmation column.

Form C-1		
Number	**Nebraska Milestone/Deliverable**	**Confirmation**
Example	Project Management Services (Weekly/Monthly Project Status Meetings, Weekly/Monthly Status Written Reports, CMS Gate Reviews, etc.)	✓
1.	Project Management Services (Weekly/Monthly Project Status Meetings, Weekly/Monthly Status Written Reports, CMS Gate Reviews, etc.)	
2.	Project Management Plan	
3.	Project Schedule	
4.	Scope Management Plan	
5.	Requirements Management & Traceability Plan	
6.	Issue Resolution Plan	
7.	Risk Management Plan	
8.	Configuration Management Plan	
9.	Performance Management Plan	
10.	Communications Management Plan	
11.	Project Orientation Plan	
12.	Acquisition Plan	
13.	Quality Management Plan	
14.	Change Management Plan	
15.	Staff Management Plan	
16.	Financial Management Plan	
17.	Concept of Operations	
18.	Migration Plan	
19.	Sandbox Environment	
20.	Configuration/Development Environment	
21.	Test Environment	
22.	Quality Assurance Environment	
23.	Production Environment	
24.	Training Environment	
25.	Disaster Recovery Environment	
26.	Detailed Design Documents	
27.	Technical Design Documents	
28.	Architectural Diagrams and Design Documents	
29.	Network Diagrams	
30.	Data Management Plan	
31.	Data Model Diagrams	
32.	JAD Sessions	
33.	Data Conversion Plan	

Form C-1		
Number	**Nebraska Milestone/Deliverable**	**Confirmation**
34.	Requirements Traceability Matrix	
35.	Gap Analysis Report	
36.	Interface Control Documents (ICD)	
37.	Business Rules Configuration Documents	
38.	Operational Readiness Plan	
39.	Test Plans	
40.	Testing Results (Unit, Integration, etc.)	
41.	Annual Penetration Tests	
42.	Release Plan	
43.	Information Security Risk Assessment (ISRA)	
44.	Data Use/Data Exchange/ Interconnection Security Agreements	
45.	Service Level Agreements/Memorandum of Understandings	
46.	System Security Plan (SSP, Workbook, etc.)	
47.	IRS Safeguard Procedures Report (SPR)	
48.	Security Assessment Report (SAR)	
49.	Plan of Action and Milestones (POA&M)	
50.	User Cases or User Stories	
51.	Business Process Reengineering Plan	
52.	Business Design Documents	
53.	Business Process Models	
54.	Organization Change Management Plan	
55.	Business Process Gap Analysis	
56.	Training Plan	
57.	Courseware	
58.	Training Delivery	
59.	Training Competency Reports	
60.	Training Assessment Reports	
61.	Knowledge Transfer Plan	
62.	Knowledge Transfer Competency Reports	
63.	Business Intelligence and Analytics documents	
64.	EES Canned Reports	
65.	EES Standardized Reports	
66.	Data Dictionary	
67.	COTS Manufacturer Documentation	
68.	COTS User Manuals	
69.	Technical Operations Manuals	
70.	Systems Administration Manuals	
71.	Systems Standards Manuals	
72.	Implementation Plan	
73.	Contingency/Recovery Plan	
74.	Systems Maintenance, Support & Systems Transfer Plan	
75.	Post-Implementation Support Plan	
76.	Disaster Recovery Plan	
77.	Monthly Performance Status Reports	
78.	Service Level Requirements	
79.	Turnover Plan	
80.	Final Contract Reports	

Form C-2 Milestones and Deliverables Mapping and Schedule

Request for Proposal Number 4544Z1

Bidders are required to identify their proposed project phases and the corresponding project milestones and deliverables in the table below. The bidder must then map each of the Nebraska Milestones and Deliverables to one or more of the bidder defined Milestones and Deliverables. Bidders are responsible to ensure this form includes all milestones and deliverables identified in this RFP and any additional milestones or deliverables identified by the Bidder that are needed to successfully meet the goals of the project. Bidders may add additional lines with new milestones or deliverables.

All milestones and deliverables defined in RFP Section IV - Project Description and Scope of Work must be accomplished within a timetable proposed by the Bidder and approved by the Department. The Deliverable dates entered in this form must match the dates in the Bidder Project Plan. Bidder's may specify exact dates (e.g., 1/31/2014) or the number of months post-project initiation (e.g., Month 5).

Form C-2			
Phase	**Bidder Milestone/Deliverable**	**Mapping Nebraska Milestone/Deliverable**	**Schedule**
Example 1: Project Kick-off	Project Management Plan	2. Project Management Plan	Month 1
Example 2: Planning	Project Management Plan	2. Project Management Plan 3. Project Schedule 10. Communication Plan 11. Project Orientation Plan	4/1/2014

Form C-3 Milestones & Deliverables Payment Percentage

Request for Proposal Number 4544Z1

The Bidder should enter the percent (%) of the Fixed Price for the payment of the milestones below. Bidders are cautioned not to include any cost data in their Technical Proposal.

Form C-3	
Key Payment Milestones	**% Of Payment Upon Successful Completion**
Example: Project Kick-off	5%
Example: Phase 1	5%
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder

Form D

Cost Proposal Forms

Request for Proposal Number 4544Z1

Bidders are required to complete all forms provided in this section. Forms D-1, D-2, D-3 and D-4 make up the Cost Proposal. Bidders are cautioned not to include any cost data in their Technical Proposal.

Total Cost and Fixed Price Summary

The Bidder must provide an overview of the Cost Proposal that describes any pricing approaches, discounts, and reasons why the Bidder's combined technical and cost approach is the best value to the State of Nebraska. Bidders must provide their methodology and financial breakdown of how they arrived at their costs.

The Cost Proposal Sheet(s) must include the Bidder's Name and be completed per the request for RFP instructions. The RFP Cost Proposal Sheet must be submitted in a separately sealed package.

Form D-1: Fixed Price by Deliverable

Form D-2: Post Implementation Support

Form D-3: Total Cost and Fixed Price Summary Response

Form D-4: Value Added Options

As noted in the RFP, the State of Nebraska, at its option, may request a "Best and Final Offer."

Form D-1: Fixed Price by Deliverable

Request for Proposal Number 4544Z1

The Bidder must submit the fixed price of each Milestone and Deliverable defined in Form C-2. The following instructions define the content for the columns.

Bidder Milestone/Deliverable: Use the Bidder defined Milestone/Deliverable from Form C-2 Milestones & Deliverables Schedule.

Labor: Define the fixed price for the staff assigned to each Bidder defined Phase. Bidders must submit a Total Cost that includes all tasks, activities and deliverables defined in the RFP and supplied on the embedded spreadsheet. The cost for each category must be complete and include all expenses, including travel, per diem and out-of-pocket expenses as well as administrative and/or overhead expenses.

Hardware: For those deliverables that require hardware, the Bidder must list the itemized costs associated with providing the required hardware specifying the required cache servers, web servers, application servers, database servers, and all other associated devices. Bidder must include all environments included in the RFP but not limited to Sandbox, Configuration/Development, Test, Quality Assurance, Productions, Training and Disaster Recovery environments to be used to develop, maintain, and operate the solution, including the details on the process of code promotion.

Base Software: For those deliverables that require system software all third-party products (middleware, database management software, operating system software, compilers, job schedulers, security-related packages, etc.) required to successfully install and operate the proposed EES must be identified, describing the cost, quantities, release levels, etc. of each of these products.

EES License: The Bidder must provide the licensing cost for each individual application module and third-party tool included as part of the proposed software solution. Software components that are necessary to operate and maintain the proposed COTS software system, or COTS components, must be included. The costs for each item are to be quoted separately unless bundled pricing is offered. If licenses are associated with the Bidder's proposed environments then the Bidder must include all environments included in the RFP but not limited to Sandbox, Configuration/Development, Test, Quality Assurance, Productions, Training and Disaster Recovery environments to be used to develop, maintain, and operate the EES, including the details on the process of code promotion.

Other: Bidders may include other cost but the items must be defined and pertain to the EES list of milestones and deliverables define in Form C-2.

Bidder Name:

D-1 Fixed Price by Deliverable						
Bidder Milestone/Deliverable	**Date**	**Labor**	**Hardware**	**Base Software**	**EES License**	**Other**
Example 1: Project Management Plan	*Month 1*	*<enter amount>*	*<enter amount>*	*<enter amount>*	*<enter amount>*	*<enter amount>*
Example 2: Project Management Plan	*1/31/2014*	*<enter amount>*	*<enter amount>*	*<enter amount>*	*<enter amount>*	*<enter amount>*

Other: Enter an description or explanation of Other.

Form D-2: Post Implementation Support

Request for Proposal Number 4544Z1

Bidders must submit fixed pricing for the ongoing costs associated with the support, maintenance, and hosting of the EES after the production system is brought on-line and stabilized. The bidder must provide the annual fees related to ongoing support, maintenance, and hosting of the system, including but not limited to staffing for maintenance and support, software maintenance and support, hardware maintenance and support and software licensing maintenance and support, as well as any discounts offered.

Bidder Name: _____

D.2 Post Implementation Support			
Year	Warranty	M&O	Hosting & Disaster Recovery
2014			
2015			
2016		*<enter amount>*	*<enter amount>*
2017			
2018			
2019			
2020	*<enter amount>*		
2021			
2022			
2023			

Form D-3: Total Cost and Fixed Price Summary Response

Request for Proposal Number 4544Z1

The content of the Total Cost and Fixed Price Summary Response must be the Bidder's total cost charged to the State of Nebraska for all products and services during the respective year for the entire EES in the Bidder's proposal. The costs for years 2014-2019 represent the per year costs to State of Nebraska for the initial RFP. The following years of 2020-2023 represent the optional renewals at the discretion of the State of Nebraska for the Bidder continuing to be renewed to support the EES.

Bidder Name:		
D-3 Total Cost and Fixed Price Summary		
Year	Total Cost	Fixed Price for RFP
2014	<Enter Amount>	
2015	<Enter Amount>	
2016	<Enter Amount>	
2017	<Enter Amount>	
2018	<Enter Amount>	
2019	<Enter Amount>	<Enter Amount>
2020	<Enter Amount>	
2021	<Enter Amount>	<Enter Amount>
2022	<Enter Amount>	
2023	<Enter Amount>	<Enter Amount>

Form D-4: Value Added Options

Request for Proposal Number 4544Z1

The Value Added Options will not be evaluated to determine the EES Contractor; however the State of Nebraska may determine to contract for an option after the Contractor selection has been made.

Bidders must submit the fixed price for each Value Added Option identified in the Technical Proposal.

Value Added Option: Enter the Bidder defined Value Added Option Name identified and described in the Technical Proposal.

Schedule: Enter the date proposed by the Bidder to realize the maximum benefit of the Value Added Option.

Cost: Enter the fixed price for the Value Added Option.

Bidder Name:

D-4 Value Added Options		
Value Added Option	**Schedule**	**Cost**
	<enter date>	*<enter amount>*

Appendix A

Bidder Library Content

Request for Proposal Number 4544Z1

The Procurement Library contains information which should be of use to the vendor in developing their proposed solution.

Medicaid Eligibility and Enrollment System
MMIS Existing Infrastructure
N-FOCUS Overview
N-FOCUS Interface Documentation and Schedule
N-FOCUS Technical Overview
Technical Framework
Nebraska EES Analysis
EES IV&V RFP

Appendix B

Functional Requirements Traceability Matrix

Request for Proposal Number 4544Z1

The Functional Requirements Traceability Matrix (RTM) is used to document and track the project requirements from the proposal through to testing to verify that the requirement has been completely fulfilled. The Contractor will be responsible for maintaining the set of Baseline Requirements directly related to the configuration of the EES. Additions, modifications, and deletions to these requirements will be added and modified throughout the project so it is imperative that a current version of the matrix be maintained at all times.

Bidders must provide an initial RTM as part of its proposal. The RTM shall follow the instructions below. **The Bidder must state requirements exactly as they are provided in this RFP.** The Bidder must indicate how it will achieve full compliance (i.e., requirement fulfilled 100%). Any requirements that the Bidder cannot attest to full compliance must be documented as outlined in Appendix D: Gap Analysis.

Bidders are required to provide a response, using the appropriate codes provided in the tables below, for each requirements listed in the Functional Requirements Response Matrix. Scoring for each requirement will directly relate to the ability code indicated by the bidder.

Ability Code	Condition	Description
S	Standard Function	The proposed EES fully satisfies the requirement as stated. The Bidder must describe how the requirement is satisfied by the EES.
W	Workflow or System Configuration Required	Current functionality of the proposed EES exists in the EES and can be modified by a system administrator to meet this requirement.
M	Modification Required	The proposed EES requires a modification to existing functionality to meet this requirement which requires a source code modification. The EES will be modified to satisfy the requirements as stated or in a different format. The Bidder must describe the modifications.
F	Planned for Future Release	This functionality is planned for a future release. The Bidder must describe how the requirement will be satisfied by the EES and when the release will be available.
C	Custom Design and Development	The proposed EES requires new functionality to meet this requirement which requires a source code addition. The Bidder must describe the feature and its value.
N	Cannot Meet Requirement	The proposed EES will not satisfy the requirement. The Bidder must explain why the requirement cannot be satisfied.
O	Other Software	If the requirement is to be satisfied through the use of a separate software package(s), the Bidder must identify those package(s) and describe how the functionality is integrated into the base system.

Appendix C

Non-Functional Requirements Traceability Matrix

Request for Proposal Number 4544Z1

The Non-Functional Requirements Traceability Matrix (RTM) is used to document and track the project requirements from the proposal through to testing to verify that the requirement has been completely fulfilled. The Contractor will be responsible for maintaining the set of Baseline Requirements directly related to the configuration of the EES. Additions, modifications, and deletions to these requirements will be added and modified throughout the project so it is imperative that a current version of the matrix be maintained at all times.

Bidders must provide an initial RTM as part of its proposal. The RTM shall follow the instructions below. **The Bidder must state requirements exactly as they are provided in this RFP.** The Bidder must indicate how it will achieve full compliance (i.e., requirement fulfilled 100%). Any requirements that the Bidder cannot attest to full compliance must be documented as outlined in Appendix D: Gap Analysis.

Bidders are required to provide a response, using the appropriate codes provided in the tables below, for each requirements listed in the Functional Requirements Response Matrix. Scoring for each requirement will directly relate to the ability code indicated by the Bidder.

Ability Code	Condition	Description
S	Standard Function	The proposed EES fully satisfies the requirement as stated. The Bidder must describe how the requirement is satisfied by the EES.
W	Workflow or System Configuration Required	Current functionality of the proposed EES exists in the EES and can be modified by a system administrator to meet this requirement.
M	Modification Required	The proposed EES requires a modification to existing functionality to meet this requirement which requires a source code modification. The EES will be modified to satisfy the requirements as stated or in a different format. The Bidder must describe the modifications.
F	Planned for Future Release	This functionality is planned for a future release. The Bidder must describe how the requirement will be satisfied by the EES and when the release will be available.
C	Custom Design and Development	The proposed EES requires new functionality to meet this requirement which requires a source code addition. The Bidder must describe the feature and its value.
N	Cannot Meet Requirement	The proposed EES will not satisfy the requirement. The Bidder must describe why the requirement cannot be satisfied.
O	Other Software	If the requirement is to be satisfied through the use of a separate software package(s), the Bidder must identify those package(s) and describe how the functionality is integrated into the base system.

Appendix D

Requirements Gap Analysis

Request for Proposal Number 4544Z1

Any requirements that the Bidder cannot attest to full compliance; i.e., provides a value of "N" in the Compliant field of the Appendix B Functional Requirements Traceability Matrix or Appendix C Non-Functional Requirements Traceability Matrix, must document the requirement gap as outlined in this Appendix. The Bidder must ensure that the Gap Analysis Matrix contains an entry for each requirement where one or more of these conditions are true:

1. The Bidder has indicated "N" to Compliant in either RTM
2. The Bidder has indicated "M", "F", "C" or "O" to Availability in either RTM
3. The Bidder has indicated that an extensive integration effort of more than 2,500 hours will be needed to meet the requirement as documented in the Key Features of the EES description in the RTM.

For each requirement gap, the Bidder must follow the instructions in this Appendix. The Bidder must copy, exactly, the Identifier, Requirement Description, and Availability from the RTM to ensure linkage between the RTM and the Requirement Gap Analysis Matrix.

The Bidder must provide an assessment of the requirement gap, including an estimate of its impact or severity if not compliant, and the steps necessary to close the gap and achieve full compliance. For system and/or product features that will support the requirement and close the gap, the Bidder must also provide an estimated date when the capability will be available as part of the Bidder's baseline capability.

Bidders are required to use the following Gap Analysis instructions:

Column Description	Bidder Responsibility
Identifier	The unique identifier of the requirement which does not have a compliant solution according to the criteria established in either Appendix B Functional Requirements Traceability Matrix or Appendix C Non-Functional Requirements Traceability Matrix. Copy the requirement identifier from the applicable RTM.
Requirement Description	Copy the requirement description from the applicable RTM for the requirement identified above.
Availability	Copy from the RTM for the requirement identified above.
Impact/Severity (Product development or integration effort to fulfill the requirement)	**High** (H)= >2500 hours **Medium** (M)=>1000 hours to <2500 hours **Low** (L)=<1000 hours
Gap Analysis	Description and analysis of gap as provided by the Bidder.
Recommendation for Closure	Recommended steps provided by the Bidder to close the gap and achieve full compliance with the State of Nebraska's requirement.
Date Available	Date to be published or released.

Appendix D Gap Analysis Matrix						
Identifier	**Description**	**Availability**	**Impact Severity**	**Gap Description**	**Recommendation for Closure**	**Date**

Form C-1 Milestones and Deliverables

Request for Proposal Number 4544Z1

This form lists the minimum set of project Milestones & Deliverables, identified by the State of Nebraska that the Bidder must address in their proposed Milestones & Deliverables (Form C-2).

Bidders are required to validate that each Nebraska identified Milestone or Deliverable is mapped to one or more of the Bidder's defined deliverables in Form C-2 Milestones and Deliverables Mapping and Schedule by adding a check mark in the confirmation column.

Bidder Name:	

Form C-1		
Number	**Deliverable**	**Confirmation**
Example	*Project Management Services (Weekly/Monthly Project Status Meetings, Weekly/Monthly Status Written Reports, CMS Gate Reviews, etc.)*	✓
1.	Project Management Services (Weekly/Monthly Project Status Meetings, Weekly/Monthly Status Written Reports, CMS Gate Reviews, etc.)	
2.	Project Management Plan	
3.	Project Schedule	
4.	Scope Management Plan	
5.	Requirements Management & Traceability Plan	
6.	Issue Resolution Plan	
7.	Risk Management Plan	
8.	Configuration Management Plan	
9.	Performance Management Plan	
10.	Communications Management Plan	
11.	Project Orientation Plan	
12.	Acquisition Plan	
13.	Quality Management Plan	
14.	Change Management Plan	
15.	Staff Management Plan	
16.	Financial Management Plan	
17.	Concept of Operations	
18.	Migration Plan	
19.	Sandbox Environment	
20.	Configuration/Development Environment	
21.	Test Environment	
22.	Quality Assurance Environment	
23.	Production Environment	
24.	Training Environment	
25.	Disaster Recovery Environment	
26.	Detailed Design Documents	
27.	Technical Design Documents	
28.	Architectural Diagrams and Design Documents	
29.	Network Diagrams	
30.	Data Management Plan	
31.	Data Model Diagrams	
32.	JAD Sessions	
33.	Data Conversion Plan	
34.	Requirements Traceability Matrix	

Form C-1		
Number	**Deliverable**	**Confirmation**
35.	Gap Analysis Report	
36.	Interface Control Documents (ICD)	
37.	Business Rules Configuration Documents	
38.	Operational Readiness Plan	
39.	Test Plans	
40.	Testing Results (Unit, Integration, etc.)	
41.	Annual Penetration Tests	
42.	Release Plan	
43.	Information Security Risk Assessment (ISRA)	
44.	Data Use/Data Exchange/ Interconnection Security Agreements	
45.	Service Level Agreements/Memorandum of Understandings	
46.	System Security Plan (SSP, Workbook, etc.)	
47.	IRS Safeguard Procedures Report (SPR)	
48.	Security Assessment Report (SAR)	
49.	Plan of Action and Milestones (POA&M)	
50.	User Cases or User Stories	
51.	Business Process Reengineering Plan	
52.	Business Design Documents	
53.	Business Process Models	
54.	Organization Change Management Plan	
55.	Business Process Gap Analysis	
56.	Training Plan	
57.	Courseware	
58.	Training Delivery	
59.	Training Competency Reports	
60.	Training Assessment Reports	
61.	Knowledge Transfer Plan	
62.	Knowledge Transfer Competency Reports	
63.	Business Intelligence and Analytics documents	
64.	EES Canned Reports	
65.	EES Standardized Reports	
66.	Data Dictionary	
67.	COTS Manufacturer Documentation	
68.	COTS User Manuals	
69.	Technical Operations Manuals	
70.	Systems Administration Manuals	
71.	Systems Standards Manuals	
72.	Implementation Plan	
73.	Contingency/Recovery Plan	
74.	Systems Maintenance, Support & Systems Transfer Plan	
75.	Post-Implementation Support Plan	
76.	Disaster Recovery Plan	
77.	Monthly Performance Status Reports	
78.	Service Level Requirements	
79.	Turnover Plan	
80.	Final Contract Reports	

Form C-2 Milestones and Deliverables Mapping and Schedule

Request for Proposal Number 4544Z1

Bidders are required to identify their proposed project phases and the corresponding project milestones and deliverables in the table below. The bidder must then map each of the Nebraska Milestones and Deliverables to one or more of the bidder defined Milestones and Deliverables. Bidders are responsible to ensure this form includes all milestones and deliverables identified in this RFP and any additional milestones or deliverables identified by the Bidder that are needed to successfully meet the goals of the project. Bidders may add additional lines with new milestones or deliverables.

All milestones and deliverables defined in RFP Section IV - Project Description and Scope of Work must be accomplished within a timetable proposed by the Bidder and approved by the Department. The Deliverable dates entered in this form must match the dates in the Bidder Project Plan. Bidder's may specify exact dates (e.g., 1/31/2014) or the number of months post-project initiation (e.g., Month 5).

Bidder Name:	

Form C-2		
Phase	**Milestone & Deliverable**	**Schedule**
Example: Project Kick-off	*2. Project Management Plan* *3. Project Schedule* *10. Communication Plan* *11. Project Orientation Plan*	*Month 1*
Example: Phase 1	*2. Project Management Plan* *3. Project Schedule* *10. Communication Plan* *11. Project Orientation Plan*	*4/1/2014*

Form C-3 Milestones & Deliverables Payment Percentage

Request for Proposal Number 4544Z1

The Bidder should enter the percent (%) of the Fixed Price for the payment of the milestones below. Bidders are cautioned not to include any cost data in their Technical Proposal.

Bidder Name:	

Form C-3	
Key Payment Milestones	% Of Payment Upon Successful Completion
Example: Project Kick-off	*5%*
Example: Phase 1	*5%*
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder
	% To Be Proposed by Bidder

Form D-1: Fixed Price by Deliverable

Request for Proposal Number 4544Z1

The Bidder must submit the fixed price of each Milestone and Deliverable defined in Form C-2. The following instructions define the content for the columns.

Bidder Milestone/Deliverable: Use the Bidder defined Milestone/Deliverable from Form C-2 Milestones & Deliverables Schedule.

Labor: Define the fixed price for the staff assigned to each Bidder defined Phase. Bidders must submit a Total Cost that includes all tasks, activities and deliverables defined in the RFP and supplied on the embedded spreadsheet. The cost for each category must be complete and include all expenses, including travel, per diem and out-of-pocket expenses as well as administrative and/or overhead expenses.

Hardware: For those deliverables that require hardware, the Bidder must list the itemized costs associated with providing the required hardware specifying the required cache servers, web servers, application servers, database servers, and all other associated devices. Bidder must include all environments included in the RFP but not limited to Sandbox, Configuration/Development, Test, Quality Assurance, Productions, Training and Disaster Recovery environments to be used to develop, maintain, and operate the solution, including the details on the process of code promotion.

Base Software: For those deliverables that require system software all third-party products (middleware, database management software, operating system software, compilers, job schedulers, security-related packages, etc.) required to successfully install and operate the proposed EES must be identified, describing the cost, quantities, release levels, etc. of each of these products.

EES License: The Bidder must provide the licensing cost for each individual application module and third-party tool included as part of the proposed software solution. Software components that are necessary to operate and maintain the proposed COTS software system, or COTS components, must be included. The costs for each item are to be quoted separately unless bundled pricing is offered. If licenses are associated with the Bidder's proposed environments then the Bidder must include all environments included in the RFP but not limited to Sandbox, Configuration/Development, Test, Quality Assurance, Productions, Training and Disaster Recovery environments to be used to develop, maintain, and operate the EES, including the details on the process of code promotion.

Other: Bidders may include other cost but the items must be defined and pertain to the EES list of milestones and deliverables define in Form C-2.

Bidder Name: _____

D-1 Fixed Price by Deliverable						
Bidder Milestone/Deliverable	**Date**	**Labor**	**Hardware**	**Base Software**	**EES License**	**Other**
Example 1: Project Management Plan	*Month 1*	*<enter amount>*	*<enter amount>*	*<enter amount>*	*<enter amount>*	*<enter amount>*
Example 2: Project Management Plan	*1/31/2014*	*<enter amount>*	*<enter amount>*	*<enter amount>*	*<enter amount>*	*<enter amount>*

Other: Enter an description or explanation of Other.

Appendix A

Bidder Library Content

Request for Proposal Number 4544Z1

The Procurement Library contains information which should be of use to the vendor in developing their proposed solution.

Medicaid Eligibility and Enrollment System
MMIS Existing Infrastructure
N-FOCUS Overview
N-FOCUS Interface Documentation and Schedule
N-FOCUS Technical Overview
Technical Framework
Nebraska EES Analysis
EES IV&V RFP

Medicaid Eligibility and Enrollment System

Request for Proposal Number 4544Z1

There are two existing systems that Nebraska will be modifying for ACA compliance.

Nebraska's current functional environment is called ACCESSNebraska. ACCESSNebraska provides service delivery for Nebraska Medicaid and the Economic Assistance Programs (Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), Low Income Home Energy Assistance Program (LIHEAP) and several smaller programs. The environment contains the following components:

1. Web site
2. Customer Service Centers
3. Local Offices
4. Universal and Assigned Case Management model
5. Functional Case Management Assignments
6. Document Imaging

The web site ACCESSNebraska.ne.gov contains the following: Do I Qualify? (screening tool), Application, Change Reporting, Benefit Accounts, Submit Documents and information on Community Partners, Local Offices, etc. The Benefit Accounts contains information on benefit eligibility and copies of correspondence sent to the account holder. The accounts require a PIN authentication process and security questions to set up.

ACCESSNebraska has four (4) Customer Service Centers with a total of 400 staff. The Customer Service Centers utilize a single 800 telephone number for access with local calling available in Lincoln. With ACA implementation, a new phone number is being set up for Medicaid. Two of the Customer Service Centers will begin taking these calls for a total of 150 staff. The phone system utilizes an Integrated Voice Response System that retrieves customer data from N-FOCUS and is available 24 hours a day, seven days a week. They system is connected to an Automated Call Distribution System which directs callers to specific routing with case managers who have knowledge and expertise to answer the question. The system utilizes Call Quality Recording and Monitoring (CQRM) to store data. The voice signature will be stored as a part of this. It is currently envisioned that a staff member will take the application over the telephone. Eventually the application process will be moved to the IVR with the data transmitted to the new EES. The system is managed utilizing Contact Center Manager software that allows for reporting.

Nebraska has local offices throughout the state where customers can walk in. The local offices accept applications, conduct interviews, determine eligibility and have kiosks available for customers to utilize the web site and contact the Customer Service Center.

ACCESSNebraska utilizes a Universal Case Management system for most of its case management. In the Universal Case Management System, work tasks are created for staff to act on the cases as the need arises. Work is prioritized inside the work queues. Work queues in use include: Document Imaging, Application Management, Interviewing, Eligibility Processing, and Change Management. Some cases are assigned to a case manager and processed with the single case manager completing all case actions.

Staff is assigned to work out of queues according to functions. Staff complete all tasks for the function assigned. Staff is also divided into Service Delivery Groups known as adult and family. With ACA implementation, staff will now be divided by MAGI, Non-MAGI and Combined. Combined is a case with both MAGI and Non-MAGI eligible people.

The system is supported by two Document Imaging Centers. These centers contain two high speed IBML scanners that scan documents. In addition, documents can be moved electronically to be stored in the system. All documents are indexed by person and category. Local offices have Canon Scanners to scan documents received locally. The Document Imaging System is integrated and viewable through N-FOCUS.

MMIS Existing Infrastructure

Request for Proposal Number 4544Z1

The foundation of the current MMIS technical architecture was developed in 1973. The current MMIS has been fully operational since 1978 and became HIPAA compliant in October 2003. The MMIS consists of batch and online CICS mainframe components and a front-end HIPAA compliant Sybase Translator.

The Nebraska MMIS currently consists of the following 16 subsystems:

1. Data Management – The Nebraska DHHS currently contracts with Truven Health Analytics for data management, housing ten years of Medicaid claims and provider and client information used to facilitate management reporting, including the Management & Administrative Reporting Subsystem (MARS), the Surveillance and Utilization Review Subsystem (SURS) and the Medicaid Statistical Information System (MSIS) reporting.
2. Drug Claims Processing – The Nebraska DHHS currently contracts with Magellan Medicaid Administration (MMA) for drug claims receipt and adjudication. MMA's Point of Service (POS) system supports the National Council for Prescription Drug Programs standards, including currently D.0 and 1.1 (batch) formats. The POS sends processed pharmacy claims to the State's MMIS on a daily basis, where the claims are passed into the MMIS weekly payment cycle for final adjudication, payment, and reporting.
3. Management & Administrative Reporting Subsystem (MARS) – Provides system generated reports. The Nebraska DHHS also contracts with Truven Health Analytics to provide management information.
4. Medicaid Drug Rebate (MDR) – A PC-based extract from MMIS claims history to prepare quarterly invoices for drug rebates from manufacturers.
5. Medical Claims Processing (MCP) – Edits claims and calculates reimbursement amounts.
6. Medical Non-Federal (MNF) – Ensures that Title XIX Federal matching funds are not used to pay for health care services otherwise available through Title XVIII (Medicare) funding.
7. Medical Provider Subsystem (MPS) – Maintains demographic, eligibility, and licensing data for all enrolled Medicaid providers.
8. Nebraska Aging Management Information System (NAMIS II) – This application supports the activities of the State Unit on Aging. It was developed to enter, edit, monitor, and report services provided by Area Agencies on Aging in Nebraska, track services required by the U.S. Administration on Aging (AoA), and to compile information required by the AoA for NAPIS, the National Aging Program Information System. It is also used to manage programs, track costs in certain services, track program usage, and analyze client demographics.
9. Nebraska Disability Program (NDP) – Accounts for the separate funding of health care services for disabled persons who do not meet the SSI disability duration requirements but are eligible for the same medical services as Medicaid.
10. Nebraska Managed Care System (NMC) – Provides plan and PCP enrollment of Medicaid clients into managed care, and documentation of communications between the client, the enrollment broker, and the managed care plans. The NMC offers basic case management functionality.

11. Nebraska Medicaid Eligibility System (NMES) – An automated voice response system used to verify client Medicaid or managed care eligibility for Nebraska Medicaid. The current Interactive Voice Response Unit also supports the Nebraska's Child Support system, known as Children Have A Right To Support (CHARTS), which serves as Nebraska's statewide Child Support Enforcement (CSE) system.
12. Recipient File Subsystem (RFS) – Uses and maintains Medicaid client eligibility data obtained from N-FOCUS.
13. Reference File Subsystem (RSS) – A database containing various reference information that includes but is not limited to, procedure, diagnosis and drug codes, and fee schedules.
14. Screening Eligible Children (SEC) – Facilitates comprehensive, preventative health care and early detection and treatment of health problems in Medicaid eligible children.
15. Surveillance and Utilization Review Subsystem (SURS) – Provides system generated reports. MLTC also contracts with Truven Health Analytics for reports and tools to support the investigation of potential provider fraud, abuse, or misuse.
16. Third Party Liability (TPL) – Stores information on Medicaid clients with private insurance; contains edits and produces reports for coordination of benefits and recovery.

Current System

Current System Overview

- Current solution is comprised of two primary components
  - N-FOCUS and ACCESSNebraska

- Nebraska Family Online Client User System (N-FOCUS)
  - Integrated service delivery and case management system
  - Supports over 30 programs overseen by the Nebraska Department of Health and Human Services (DHHS)
  - Functions include client/case intake, eligibility determination, case management, service authorization, benefit payments, claims processing and payment, provider contract management, and government and management reporting.
  - Supports Medicaid Eligibility, as well as other programs such as SNAP and TANF
  - Statewide Automated Child Welfare Information System (SACWIS)
  - Interfaces with Medicaid Management Information System (MMIS)

Current System Overview

- ACCESSNebraska
  - Public facing web front-end
  - Provides the public a means to apply on-line for public aid
  - Supports subset of programs in N-FOCUS
  - Umbrella Application which includes the following functions:
    - Screening – survey that assists applicants in understanding their potential eligibility
    - E-App – electronic application for benefits
    - Change Reporting – update name, address other demographic data
    - Inquiry – check status of benefits
  - Call Centers
    - Operate in conjunction with the AccessNebraska system
    - Four centers located across the state
    - Functions include conducting interviews, taking customer changes, and providing information and referral services via the telephone

Current System Architecture

- N-FOCUS
  - Highly integrated client/server application built in 1996
  - On-line system
    - Client
      - Windows 7/XP
      - developed using CA Gen and AION to generate windows and C code
      - some custom developed C code
      - External Call Interface (ECI) used to connect to server components
      - 475 windows, 490 +client procedures
    - Server components
      - Z/OS
      - CICS transactions
      - CA Gen generated and in house developed COBOL
      - 470 server procedures
    - AION
      - Supports complex eligibility data gathering
      - Automated determination and noticing processes

Current System Architecture

- N-FOCUS On-line System (continued)
  - Web components
    - Java Server Faces and Facelets developed using Eclipse IDE
    - Tomcat WAS on Linux

- Batch System
  - Z/OS COBOL
    - 700+ procedures, 640+ programs, 220+ stored procedures
  - Crystal Reports
    - 540+ reports distributed via Business Objects Enterprise

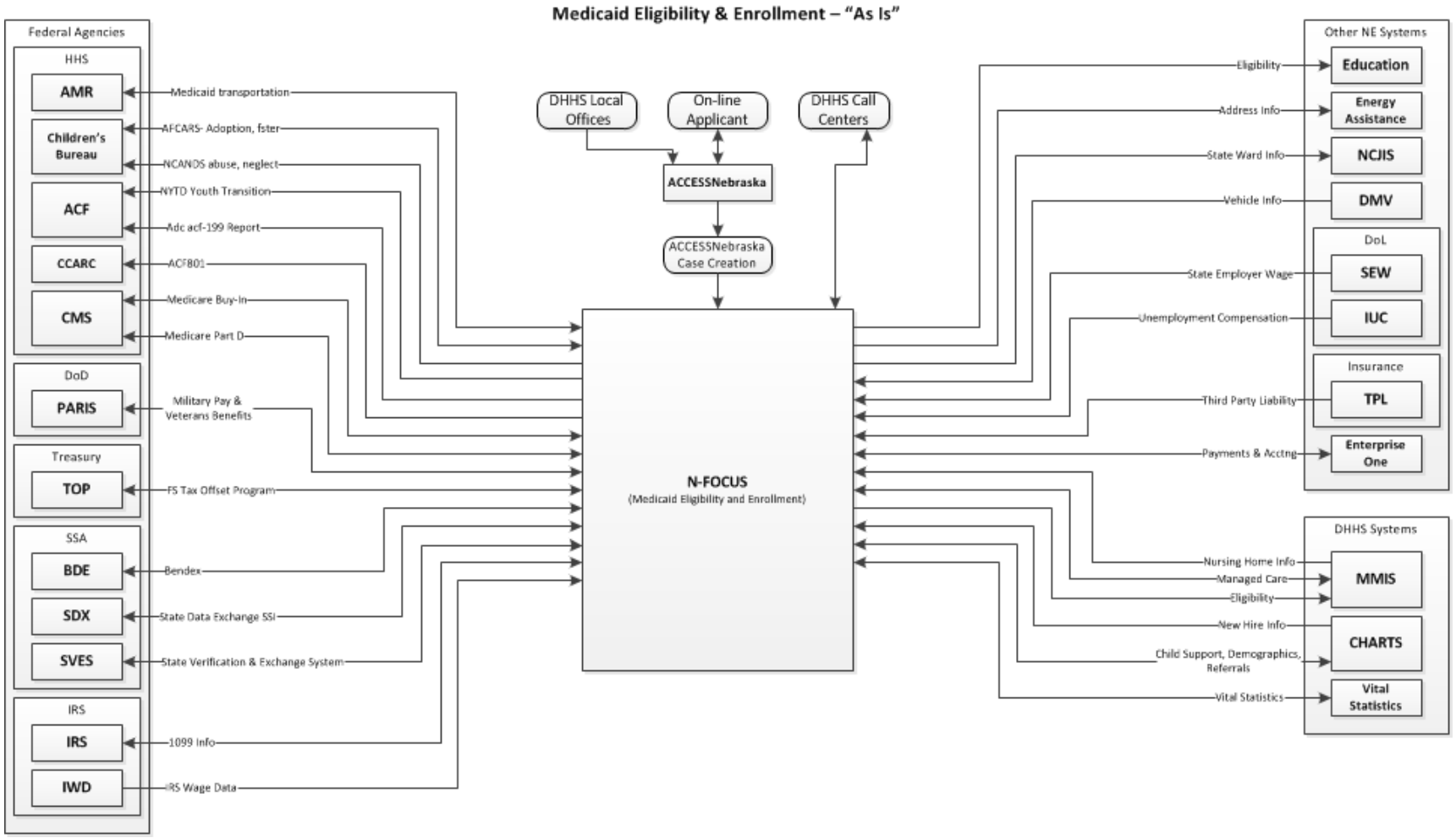
- Database
  - Z/OS based DB2 database
  - 500+ tables, 550+ table relationships, 935 indexes, 8700+ attributes
  - Over 1.3 billion rows, largest table exceeds 200 million rows

Current System Architecture

- ACCESSNebraska
  - Established in 2008
  - Web-Based Java application
  - Utilizes SQL server for temporary data and DB2 for long terms storage
  - Call Center Telephony Components
    - Interactive Voice Response System (IVR)
    - Automated Call Distribution (ACD)
    - Dashboard Client – provide CTI capabilities
    - Contact Recording and Quality Monitoring (CRQM) – provides call recording and playback capabilities
    - Dashboard Manager Shortcut – provides ability to review call statistics in real time

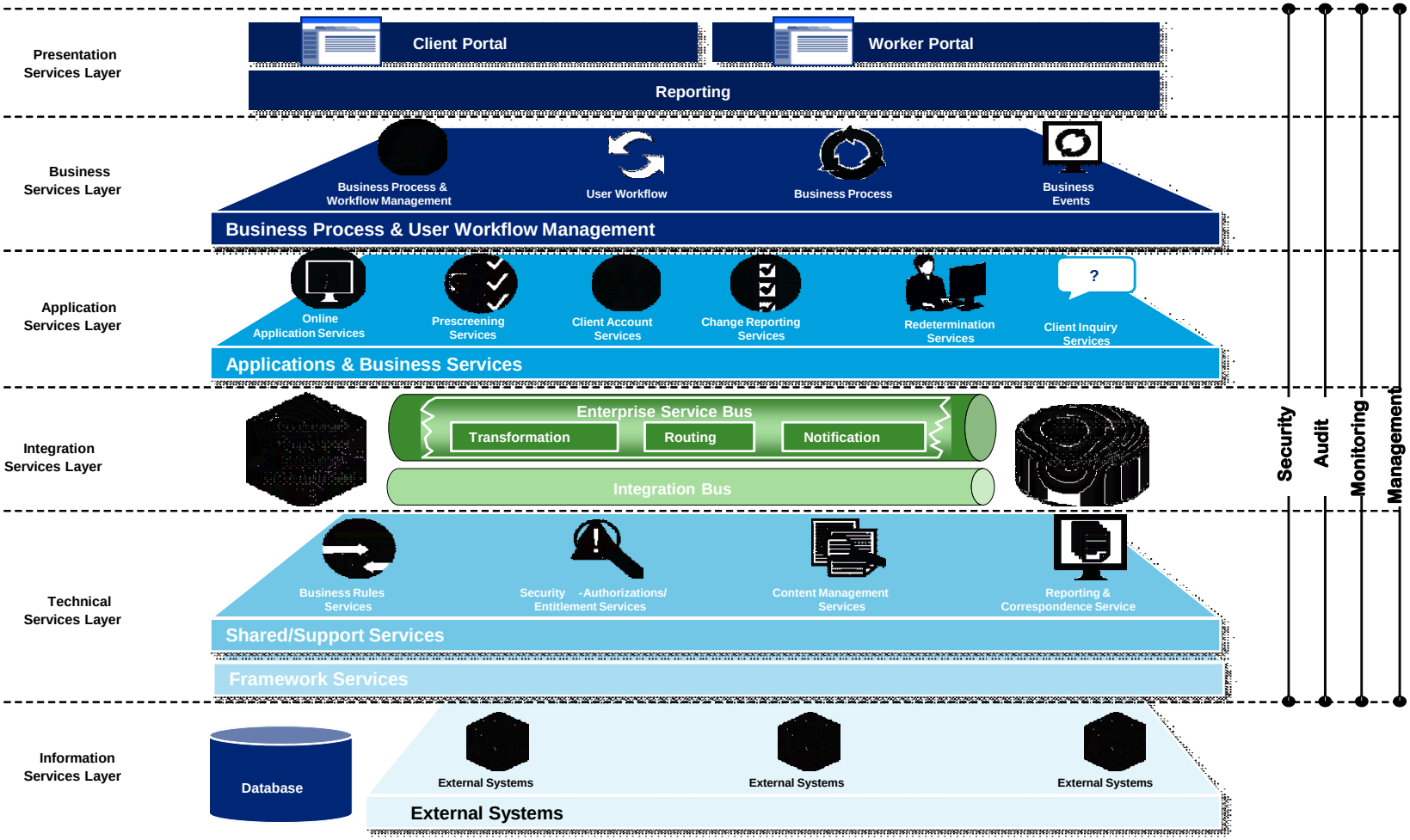
- N-FOCUS and ACCESSNebraska are not currently integrated electronically, therefore information is manually re-entered into N-FOCUS to initiate the eligibility process.

Current System



Proposed System

Proposed System
Conceptual Architecture



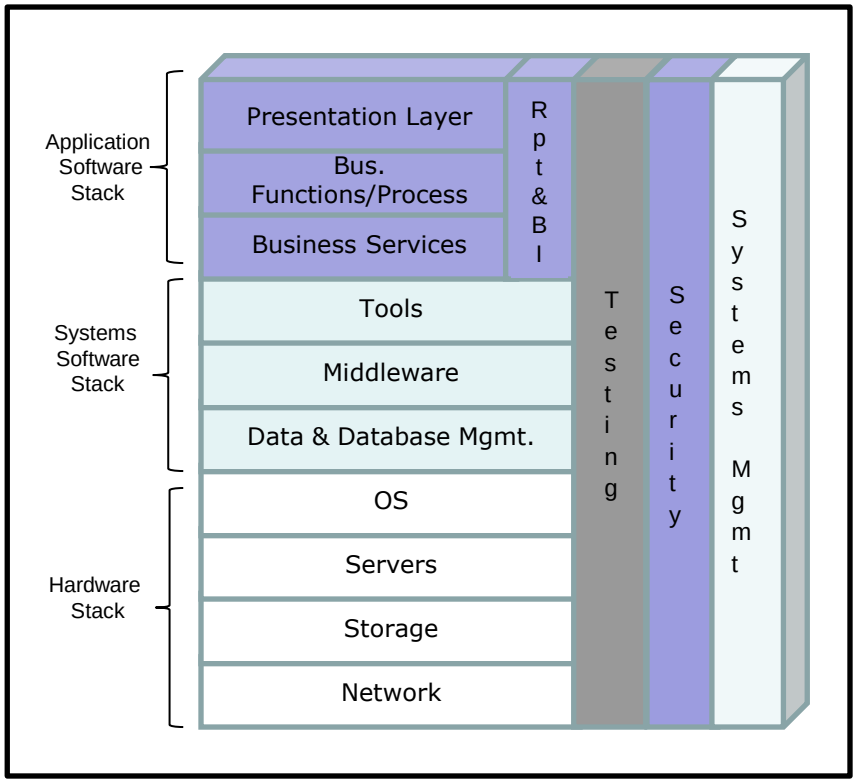
Proposed System Conceptual Architecture

Presentation Layer includes:
- User Interface(s)
  - Lightweight
  - Role based
  - Access Method based
- Data Entry validation
  - Complete
  - Type
  - Logical
- Help screens/prompts
- Standards compliant

Business Functions/Processes:
- Predefined Business processes/workflows like:
  - Eligibility
  - Enrollment
  - Plan Selection
  - Change of Circumstances
  - Renewal
- Configurable through external rules and/or business process/workflow definitions

Business Services:
- Predefined services used to construct Business Functions:
  - Determine Medicaid Eligibility
  - Conduct Verification
  - Verify Citizenship
  - Determine MAGI Eligibility
  - Calculate MAGI
  - Transfer Account
  - Check Exchange Enrollment
- Configurable through external rules

Data & Database Management includes:
- Enterprise Content Management (ECM)
- Document Management & Imaging (DM)
- Extraction, Transformation, Load (ETL)
- Data Conversion
- Data Migration & Transfer
- Data Quality (DQ)
- Database Management Software (DBMS)
- Database Management & Monitoring
- Database Backup & Recovery
- Data Archival & Retrieval



Middleware includes:
- Business Process Management/Workflow (BPM/WF)
- Business Rules Management/Rules Engine (BRM/RE)
- Enterprise Service Bus/Message Broker (ESB/MB)
- Enterprise Application Integration (EAI)
- Electronic Data Integration (EDI)
- Web Application Server (WAS)
- Web Server (WS)
- Interactive Voice Response System (IVR)
- Computer Telephony Integration (CTI)

Tools includes:
- Integrated Development Environment (IDE)
- Source code control (check in/out, versioning, etc)
- Debuggers
- Report Development and Generation
- Ad-hoc Query & Reporting
- On-line Analytical Processing (OLAP, ROLAP,MOLAP,OOLAP)
- Data Mining

Systems Management includes:
- Performance Monitoring & Reporting
- Business Activity Monitoring (BAM)
- Workload/Job Scheduling
- System Backup & Recovery
- Configuration Management
- Release Management
- Change Management
- Event/Incident Management
- Problem Management
- Capacity Management
- Financial Management/Cost Allocation

Security includes:
- Identity Management
  - Authentication
  - Authorization
  - Access Control
  - Single Sign-On (SSO)
- Non-Repudiation
- Auditability
- Data Integrity
- Data Protection & Confidentiality
- Encryption (static and in motion)
- Intrusion Detection System (IDS)
- Firewalls
- Virus and Malware Detection

Testing includes:
- Test Management
- Functional/Regression Test
- Load & Performance Test
- Test Case Development
- Test Data Generator
- Capture & Playback
- Web App/UI
- Standards Compliance

N-FOCUS Interfaces

Interface Name	Incoming / Outgoing / Both	Recipient / Sender	Frequency	Transfer	Function
ADC ACF-199 Reporting	Both	Administration of Children and Families (ACF), Federal	Quarterly	Connect/Direct	ADC ACF-199 federal reports.
Child Care ACF-801 Reporting	Outgoing	Child Care Automation Resource Center (CCARC), Federal	Monthly	Connect/Direct	Child Care ACF-801 federal report.
Child Support (CHARTS)	Both	CHARTS State Application	Daily	State Mainframe File	Child Support data interface including eligibility, demographic, referral information. CHARTS also directly accesses some N-FOCUS table information.
Child Welfare AFCARS Reporting	Both	HHS Children's Bureau, Federal	Semiannual	Tibco Managed File Transfer (formerly named Cyberfusion)	Child Welfare AFCARS adoption and foster care information; incoming files are not automatically processed.
Child Welfare CONNECT	Outgoing	CONNECT State Application	Weekly	Invoked DB2 Stored Procedure	EDN and CAPTA referrals.
Child Welfare Court (JUSTICE)	Outgoing	JUSTICE State Application	Daily	FTP	Child Welfare state ward information for county courts.
Child Welfare Criminal Justice (NCJIS)	Outgoing	NCJIS State Application	Hourly, Daily	Hourly: invoked DB2 stored procedure; daily FTP	Child Welfare Nebraska Crime Commission information for state wards and law enforcement.
Child Welfare NCANDS Reporting	Outgoing	HHS Children's Bureau, Federal	Annual	Upload to NCANDS Portal	Child Welfare NCANDS (National Child Abuse and Neglect Data System) information.
Child Welfare Project Impact	Outgoing	Project Impact - Juvenile Accountability Impact Block Grant (Omaha)	Monthly	SFTP	Child Welfare Project Impact state ward information.
Child Welfare Quality Assurance	Outgoing	Child Welfare Quality Assurance State Application	Monthly	State Mainframe File	Child Welfare case information.
Debit Card (Reliacard)	Both	US Bank	Daily	Connect/Direct	Electronic payment debit card information.
Developmental Disabilities Therap	Outgoing	Therap vendor	Daily	SFTP	Client eligibility information. Future phases in 2012 will include Provider information as well as incoming service authorization/claim information.
Education	Outgoing	Department of Education, State	Daily	FTP	Client eligibility information.
Energy Assistance	Outgoing	Energy Assistance State Application	Monthly	Direct Data Access	Energy Assistance directly accesses N-FOCUS address information. LIHEAP is scheduled to be incorporated into N-FOCUS July 2012.
Enterprise One (NIS)	Both	Enterprise One (NIS) State Application	Daily	FTP	Payment and accounting information for clients and providers.
Interactive Voice Response (IVR)	Both	HHS Voice Response Unit	Real Time	Invoked DB2 Stored Procedure	Client and provider eligibility information.
IRS 1099	Both	Internal Revenue Service, Federal	Monthly	Axway Secure Transport (formerly named Tumbleweed)	IRS 1099 information.
Labor Employment	Incoming	State Department of Labor	Daily	State Mainframe File	Labor employer wage information (SEW).
Labor Unemployment	Incoming	State Department of Labor	Daily	State Mainframe File	Labor unemployment benefit information.
Labor Unemployment Compensation Tax	Both	State Department of Labor	Weekly, Quarterly	SFTP	Labor unemployment compensation tax information and reporting.

N-FOCUS Interfaces

Interface Name	Incoming / Outgoing / Both	Recipient / Sender	Frequency	Transfer	Function
Medicaid Cards	Outgoing	Lasermark Vendor	Daily	SFTP	Medicaid card information for printing/mailing.
Medicaid (MMIS)	Outgoing	MMIS State Application (RFS, SEC)	Daily	State Mainframe File; Direct Data Access	Medicaid data interface including eligibility, demographic information. MMIS also directly accesses some N-FOCUS table information.
Medicaid Long Term Care (MMIS)	Incoming	MMIS State Application (RFS)	Daily	State Mainframe File	Medicaid nursing home per diem rate information (Long Term Care interface)
Medicaid Managed Care (MMIS)	Both	MMIS Managed Care State Application (NMC)	Daily	State Mainframe File; Direct Data Access	Medicaid managed care information. Managed Care also directly accesses some N-FOCUS table information.
Medicaid Transportation Broker	Both	American Medical Response (AMR) Vendor	Daily	SFTP	Medicaid transportation and authorization information.
Medicare Buy-In	Both	Centers for Medicare and Medicaid Services (CMS), Federal	Monthly	Connect/Direct	Medicare buy-in information exchange.
Medicare Part D	Both	Centers for Medicare and Medicaid Services (CMS), Federal	Monthly	Connect/Direct	Medicare Part D information.
Motor Vehicles	Incoming	Department of Motor Vehicles (DMV) State Application	Real Time	Direct Data Access	Motor vehicle registration information.
New Hire	Incoming	CHARTS State Application	Daily	State Mainframe File	New Hire employment information which originates federally and is transmitted to N-FOCUS via CHARTS.
NTAP	Outgoing	Public Service Commision	Monthly	FTP	Nebraska Telephone Assistance Program (NTAP).
NYTD	Outgoing	Administration of Children and Families (ACF), Federal	Semiannual	Tibco Managed File Transfer (formerly named Cyberfusion)	National Youth Transition Database (NYTD)
OnBase Claims & Service Authorizations	Both	Enterprise Content Manager (ECM), State	Daily, Real Time	SFTP, invoked DB2 stored procedure	Child Care provider and client claims and service authorization information (will be expanded to other programs later in 2012).
PARIS	Both	Department of Defense, Federal	Quarterly / Request	Connect/Direct	PARIS military benefits information; matches from other states.
Provider Rating and Review Reporting	Outgoing	Center for Children, Family, and the Law (CCFL) Answer 4 Families, University	Monthly	SFTP	Client, provider, and service authorization information.
SNAP EBT	Both	JP Morgan Electronic Financial Services, EBT Vendor	Daily	Connect/Direct	SNAP electronic benefits transfer.
SNAP Treasury Offset	Both	Financial Management Services (FMS) Treasury Offset Program, Federal	Weekly	Connect/Direct	SNAP Treasury Offset Program.
Social Security (Bendex)	Both	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security beneficiary and earnings data exchange (BENDEX/SVES).
Social Security (LIS)	Incoming	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security medicaid applications for Low Income Subsidy (LIS)
Social Security (SDX)	Both	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security supplemental security income information (SDX/SVES).
Social Security (SVES)	Both	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security verification exchange system (SVES); includes SNAP forty quarters information and citizenship verifications.
Third Party Liability (TPL)	Incoming	TPL State Application	Daily	State Mainframe File	Third Party Liability insurance information.
Vital Statistics	Both	Vital Statistics State Application	Daily	Connect/Direct	Vital Statistics information (passed on to the CHARTS application too)

N-FOCUS Technical Overview

Request for Proposal Number 4544Z1

N-FOCUS (Nebraska Family Online Client User System) is an integrated system that automates benefit/service delivery and case management for more than 30 Nebraska Department of Health and Human Services (DHHS) programs, including Child Welfare, Aid to Dependent Children, Supplemental Nutrition Assistance Program, and Medicaid. N-FOCUS functions include client/case intake, eligibility determination, case management, service authorization, benefit payments, claims processing and payments, provider contract management, interfacing with other private, state and federal organizations, and management and government reporting. N-FOCUS was implemented in production in mid-1996 and is operational statewide.

The typical N-FOCUS user is a DHHS or contracted employee. N-FOCUS daily supports over 2500 workers, operating from offices around the State as well as from 4 customer service centers and 2 hub scanning facilities. Some cases are assigned to specific workers; however the majority of cases are managed via a universal caseload methodology coordinated by the customer service centers.

The application has both batch and online components and stores data in DB2, V9. The DB2 database has over 500 tables, some with a corresponding archive table. There are over 642 relationships between tables, 1054 indexes, and over 7839 attributes. There are over 1.6 billion rows of production data with over 206 million rows in one table with an average table size of 2.8 million rows.

The batch system is coded in Z/OS COBOL and executes in a Z/OS environment. There are more than 660 procedures, over 720 programs, and over 230 stored procedures. The application generates over 540 reports using Crystal Reports that are published to a web portal through Business Objects Enterprise software. Another 100 reports generated independently are published to the portal for viewing.

The online system is an integrated client/server based software system. The client software executes on Windows 7 and resides on Windows 2008 servers located throughout the State. Computer Associates Gen and AION toolsets are used to generate windows and C code, along with custom in-house architecture code written in C. The server components are Z/OS CICS transactions. The CICS programs are Gen-generated COBOL, along with in-house written COBOL and Assembler externals. The CICS programs access DB2 on the Z/OS mainframe. The Gen clients use External Call Interface (ECI), IBM's CICS Universal Client to connect to the Z/OS CICS using TCP/IP protocol. The Gen online system consists of over 570 client procedures, 555 server procedures, 550 windows, and 1450 dialog boxes. The AION online system supports the complex eligibility data gathering and automated determination and noticing processes.

N-FOCUS web applications consist of public applications, including dashboard applications, and applications launched directly from N-FOCUS. Eclipse is the IDE used to generate the Java Server Faces and Facelets code. These Java applications run on Tomcat application servers on the Linux Operating System. The Java applications call stored procedures to access DB2 data and SQL to access SQL server data.

The primary role of the N-FOCUS team today is to maintain and enhance the N-FOCUS application. This includes providing users with technical and business support to keep the system current with government policy and industry technology, both of which continue to change at a rapid pace. The N-FOCUS team works in the Nebraska State Office Building in Lincoln. Business and technical contract and full-time State team members are organized into teams that are involved in application development (Gen, AION, COBOL, Web, Reporting), technical architecture (workstation communications, mainframe communications, print architecture, reporting architecture administration, document imaging administration), database administration, configuration management, project management, business requirements and testing, application and production support, and training. Approximately 40 technical and 30 business team members are assigned to the N-FOCUS team.

Technology Framework

Request for Proposal Number 4544Z1

1.1 General

As part of this RFP procurement process the Department is looking for systems and technologies that can form the basis for an Enterprise Architecture that can be utilized and leveraged across Divisions and/or Programs. As such, we are looking for a solution that is built upon a technology framework that will support and promote this goal. The remaining sections of this document describe what the Department considers a "technology framework".

1.2 Definitions

Architecture - the fundamental organization of a system embodied in its components, their relationships to each other, and to the environment, and the principles guiding its design and evolution.

Service-Oriented Architecture – an architecture that aims to enhance efficiency, agility, and productivity of an enterprise by positioning services as the primary means through which solution logic is represented. Services act as containers of related capabilities. High-quality service-oriented architectures are consistent with the following principles:

- Standardized service contract – services within the same service inventory are in compliance with the same contract design standards.
- Service loose coupling – service contracts impose low consumer coupling requirements and are themselves decoupled from their surrounding environment.
- Service abstraction – service contracts only contain essential information, and information about services is limited to what is publish in the service contracts.
- Service reusability – services contain and express agnostic logic and can be positioned as reusable enterprise resources.
- Service autonomy – services exercise a high level of control over their underlying runtime execution environment.
- Service statelessness – services minimize resource consumption by deferring the management of state information when necessary.
- Service discoverability – services are supplemented with communicative meta data by which that can be effectively discovered and interpreted.
- Service composability – services are effective composition participants, regardless of the size and complexity of the composition.

Framework – for the purposes of this RFP, a framework is an extensible software platform providing general purpose and domain-specific services in the context of a uniform, reusable, service-oriented architecture with consistent abstractions. A framework may include the ability to both directly instantiate end-user capabilities and to provide developer-centric capabilities.

1.3 MITA Technical Principles

The Framework should support the MITA technical principles:

- **Business driven.** Technology will only be used when it supports a business goal or objective; technology will not be used for technology's sake alone.
- **Implementation neutral.**
- **Platform independent.** Application software and infrastructure components should be developed for reusability and platform independence.
- **Adaptable, extensible, and scalable.**
- **Open technology and standards based.** The advantages of standardization (e.g., data sharing and interoperability) should be leveraged.
- **Security and privacy** must be integrated into a system.
- **Interoperability standards** are established and followed.
- **Quality data** are enabled to support good decision making.
- **Current and proven technology** is selected.

1.4 Seven Conditions and Standards

In order to receive enhanced Federal financial participation (FFP), the Department must implement solutions that are consistent with 42 CFR 433.112 and related guidance from the Centers for Medicare and Medicaid Services (CMS), e.g., *Medicaid IT Supplement MITS-11-01-V1.0*, commonly referred to as the seven conditions and standards ("Seven Conditions"). The Framework must allow the Department to satisfy, to the greatest extent practical, those portions of the Seven Conditions that are system-related. The Seven Conditions are:

- Modularity Standard
- MITA Condition
- Industry Standards Condition
- Leverage Condition
- Business Results Condition
- Reporting Condition
- Interoperability Condition

1.5 Framework Attributes, and Areas of Commonality

1.5.1 Attributes

The following attributes are required in the proposed framework:

The Framework for the Solution must be consistent. A framework is not merely a random or semi-related set of utilities or generic services. Various services, tools, and data structures should use a unified design paradigm and design patterns (service calls; service arguments and return values; data types, etc.) to improve productivity and reduce defects driven by "impedance mismatches." Frameworks encourage the use of helpful design patterns, but don't force developers into deep levels of abstraction that detract from their productivity (e.g., factories of factories of factories). Database schema are normalized; data are stored in only one place within the framework and its resulting applications; and these data are accessible only by service calls to the services "owning" the data.

The Framework for the Solution must promote interoperability. The use of standards (where standards exist) and the use of well-documented information interchange specifications (where standards do not exist) assist the using organization in producing and consuming information and services that are interoperable with other systems and organizations. Frameworks should make using interoperable standards easier than creating homegrown interface solutions.

The Framework for the Solution must externalize parameters that are prone to frequent change. These include:

- Business rules
- Workflows
- Configuration, environment, and startup parameters
- Localization resources
- Security roles
- User interface elements

The Framework for the Solution must be service-oriented. The Framework should provide a discoverable service inventory containing service contracts having granularity that is neither so coarse as to result in performance and governance issues nor so fine as to result in excessive developer burden and poor reuse. Service orientation principles may be compromised to the extent necessary to meet performance standards.

The Framework for the Solution must enable functional build out by configuration rather than customization as much as is practical. This likely requires that the base functionality, as delivered, has been used and is configured to support the Medicaid and health insurance domains.

The Framework for the Solution should have a standard, domain-specific base data model. This data model should be consistent, normalized, and incorporate the common data elements used in Medicaid eligibility, enrollment, and member management. The data model must be extensible via documented processes, and must not have any proprietary restrictions on the State's use or extension of the data model.

The Framework for the Solution must encourage reuse. Areas of reuse may include:

- Intra-application. Developers on a single team should find it easy to reuse base framework services or custom services built by other team members.
- Inter-application. Developers on different teams within the same organization should find it easy to reuse base framework services to promote commonality and to discover and use services created by other application teams.
- Inter-enterprise. Developers in sister human and social services agencies and in sister states should find it easy to reuse base framework services to promote commonality and to discover and use services created by other agencies.

The Framework for the Solution must have a security architecture that supports standard security principles. These principles are:

- **Confidentiality** – prevent disclosure to unauthorized persons or systems.
- **Integrity** – data cannot be modified undetectably.

- **Availability** – access is not inappropriately blocked or denied.
- **Authenticity** – validation that the parties to a transaction are who they say they are and that their communications are genuine.
- **Non-repudiation** – parties to a transaction cannot deny their participation in the transaction.
- **Auditability** – track and log data changes including the user or system making the change. Track and log any inquires, views or access of data that may require such tracking as a result of law, policy or data use agreements including user or system making inquiry, doing the viewing or accessing the data along with the data and time of the inquiry, view or access.

The Framework for the Solution must be architecturally-rich. A framework should have a thoughtful architecture that is better than one in which an organization would normally invest for a single project. Because a framework is intended to be reusable, the framework developer must ensure that the breadth and depth of the services extend to cover the uses that can be reasonably foreseen. Other attributes of the architecture are:

- The functional and structural abstractions chosen to implement the architecture are intuitive, robust, and consistent. Confusing, frail, or inconsistent architectures can destroy using development organization productivity and induce high defect rates.
- The framework is easily extensible. Lacking extensibility, a framework is merely an incomplete software application.
- The framework supports scalable, high-performance applications.
- Security and privacy are built into the architecture as primary considerations rather than as afterthoughts.

The Framework for the Solution must enhance the productivity of the using organization. An important reason for an organization to use a framework is to improve productivity. The increase in productivity should enable an organization to deliver needed capabilities more rapidly and at a lower cost. It should also enable the organization to respond to life-cycle changes in business needs with greater agility. Frameworks enhance productivity by:

- Providing tools that assist the using organization in performing common, redundant, or complex tasks with ease.
- Providing pre-constructed features, services, and capabilities with default behavior that shorten the time from inception to deployment while allowing fine-grained control to avoid the need for workarounds.
- Being supported by a long-term maintenance concept that continues to improve the features and usability of the framework, reduces the burden of workarounds (particularly security workarounds), and minimizes "reinventing the wheel" by the using organization.
- Using self-documenting tools (e.g., maintaining the official business process diagrams in the business process management system) to avoid having to maintain business and technical design artifacts in multiple locations.

The Framework for the Solution should be multi-platform unless user or enterprise needs require targeting specific hardware/operating system platforms. As the use of specific CPUs, hardware architectures, and operating systems change rapidly, the Department prefers not to be tightly bound to a particular platform. Support for various platforms such as Windows,

z/OS, Linux, and various UNIX is desirable. In addition, the Department strongly prefers the use of products that can be run in virtualized environments while recognizing that some components may have performance needs that preclude or contraindicate the use of virtualization.

Additionally, the current migration towards mobile platforms is likely to continue for the foreseeable future. A framework should assist with and automate activities needed to optimize applications for mobile devices as well as desktop devices, including addressing touch interfaces; limited display sizes; limited bandwidth and intermittent network connectivity; limited processor capabilities; and the movement towards standards-based Web technologies, such as HTML 5.

Frameworks should minimize the number of programming languages necessary for their use, consistent with developer need and balanced against other principles. The Department has the following goals for various types of programming languages:

- General – the Department prefers using open, standards-defined programming languages to the greatest extent practical. The Department understands that there are some domains today (particularly business rules and business process management) where standards are still emerging and permeating the market.
- Object-oriented – the Department prefers the use of a single object-oriented language, that uses automated memory management, to create the majority of custom services and to extend the Framework. While it would consider other languages, the Department prefers Java.
- Procedural – the Department prefers little or no use of procedural languages (e.g., C) in the Framework.
- Declarative – the Department prefers that declarative languages (e.g., HTML) largely be limited to displaying Web-based user interfaces. Even when building user interfaces, the Department prefers to substantially limit the amount of hand-coding necessary by using graphical design and construction tools.
- Scripting – the Department prefers that scripting languages be limited to functions such as user interface code , build management, system startup, and integration with non-service based external systems. Even when performing these functions, the Department prefers to substantially limit the amount of hand-coding necessary by using graphical design and construction tools.
- Business rules – the Department prefers that business rules are represented in English-like statements that are easy to interpret by business users and business analysts. While the Department is not currently planning to allow business analysts to make changes directly to a production system, the ability for these analysts to create and interpret the business rules in the Framework's native rules language will substantially improve productivity and agility in managing business rules. Based on the Department of the market, the Department would be willing to accept rules languages that are more developer-focused.
- Business Process Management System (BPMS) – the Department prefers the use of Business Process Execution Language (BPEL) for executing managed business processes. Direct consumption of Business Process Model and Notation models (perhaps via the XML Process Definition Language format) is also acceptable. As this area is still maturing, the Department would accept other languages for BPMS process execution, particularly if they are transformable to BPEL for forward compatibility. While the

Department would like direct access to the process execution files for manipulation, including the ability to "round trip" modifications through the Integrated Development Environment, the BPMS must have graphical design and construction tools as directly coding BPEL and other related languages would likely result in substantial productivity reductions and an increase in defects.

- Database – the Department prefers the use of standards-based Structured Query Language (SQL) for database queries. Based on the use of other languages and general purpose frameworks within the Framework (e.g., Java), programming language-specific query languages may also be acceptable (either for relational or object queries). The Department discourages the use of database stored procedures or DBMS specific functionality other than in those instances where needed performance can only be obtained with such use.
- XML-based – the Department encourages the use of XML-based documents for purposes such as system configuration and messaging. The Framework should generate documents without requiring the developer to hand-code XML; however, direct access to the XML documents for manipulation is desirable, including the ability to "round trip" modifications through the Integrated Development Environment.
- Proprietary languages – while there may be specific needs for using proprietary programming languages, the Department prefers to avoid proprietary languages to the greatest extent practical.

1.5.2 Areas of Commonality

In the list below, the Department has identified the areas of commonality it expects to be supplied by the Framework or supplied by the Department to supplement the Framework. These have been identified using common product-oriented terminology, but that does not mean that each capability must be satisfied by a separate, self-contained product. While the Department has a preference for using general purpose COTS products to perform major functions (where Framework capabilities and performance are not compromised), it is not mandating that the functions of the major capabilities be supplied by general purpose COTS products nor is it mandating that the functions are even performed by standalone software services partitioned as listed below. For example, while the Department prefers the use of general purpose COTS business process management and business rules management components, it would be willing to accept an integrated business process/business rules capability as part of the Contractor's COTS suite. The Department does not intend the list of capabilities to be all-inclusive. Bidders must propose a complete suite of capabilities to comprise the Framework.

1.5.2.1 Framework Areas of Commonality

The following areas of commonality and capabilities are consistent with the State's goals for the Framework and should be addressed in system solutions:

- **Unified data source/database** – this is a capability to store/persist information using a unified data model on a common database product. The unified data source should support the use of effective time segments and a "never delete a record" approach to enable maintaining complete historical data and referential integrity.
- **Business Process Management** – this is a capability to design and execute business processes enabled by automation for the purposes of orchestration (automated execution

of a workflow) and choreography (coordinated interaction between two or more independent parties or services). While these may include steps executed synchronously, business process management tools excel at automating processes where most or all tasks are executed asynchronously, potentially over extended periods of time.

- **Business Activity Monitoring (BAM)** – this is a capability to monitor and manage business processes, transaction volumes, and quality indicators, in real time and retrospectively. This capability may include statistical analyses of the execution of the indicators being monitored.
- **Business Rules Management** – this is a capability to design and manage the business rules logic within the system and is supported by a repository for the rules.
- **Interaction Management** – this is a capability that allows an organization to manage information about and interactions with stakeholders or clients via multiple channels including easy access to historical data.
- **Case Management** – this is a capability that allows an organization to manage information and transactional activities over time relative to a specific entity.
- **Correspondence** – this is a capability to generate and manage communications with stakeholders via multiple channels, and includes the ability to generate canned, semi-custom, and custom messages.
- **Service Integration/Enterprise Service Bus** – this is a capability that allows the discovery and interaction of distributed services via synchronous and asynchronous messaging in a service-oriented architecture. Through adapters, service integration should also allow interaction with non-service based capabilities.
- **Web Portal** – this is a capability that allows for configurable Web access to backend services. While any sort of Web page could conceivably allow access, a Web portal automates the access, security, and configuration of Web access, and is configurable by not only the developers, but to a limited extent by the end users (e.g., what information is shown and where on the page is it shown).
- **Reporting/Business Intelligence** – this is a capability that allows for textual, tabular, and graphical representations of data needed to answer questions, monitor/control parameters, and make decisions and querying to gather data to fill these reports.
- **Call Center Integration** – this is a capability for the Framework (and resulting system) to integrate with common call center technology to be able to link telephone calls to records, automatically call up useful information for the call center operator, etc.
- **Integrated Development Environment** – this is a capability to develop, integrate, build, test, deploy, and control configuration of software using a unified, integrated, and coherent suite of tools.
- **Security** – while security is an attribute that should apply across the suite of capabilities in the Framework, in this particular case it is a capability to manage authentication, authorization, and access to the system, including a single sign-on capability.
- **Data Management Tools** - This is the capability of collecting, aggregating, matching, consolidating, persisting, securing and distributing data and its meta data to ensure consistency and control in the ongoing maintenance and use of the information.
- **Online Help** – this is the capability to manage, produce, and publish help files, training, and reference information that is integrated in a context-sensitive fashion with the Framework and resulting applications.

- **Document Management*** - this is a capability to store, index, and access electronic documents and images of paper documents in a structured and scalable manner. The capability may have standalone uses or be integrated into an enterprise system via documented interfaces or services.

  *Note that the State has designated and procured Hyland OnBase as the enterprise document management system. The preference would be to leverage OnBase as part of the Framework, therefore the Bidder should provide details regarding how their proposed Framework could integrate seamlessly with OnBase.

Nebraska EES Analysis

Request for Proposal Number 4544Z1

1. Summary of the Alternatives Analysis

As part of the systems strategy development process for the Medicaid Eligibility & Enrollment and Information Systems project, we considered a number of system options for delivering integrated eligibility, enrollment and case management functionality which satisfies the requirements of the ACA. The options were ultimately consolidated into four primary alternatives for comparison and evaluation purposes. Those options were:

1. Maintain Status Quo

2. Ground Up Development

3. Incremental Modernization

4. Transfer/COTS System

2. Evaluation Criteria and Results

The set of criteria that was used to evaluate these alternatives was primarily based upon the architectural principles set forth by the Centers for Medicare & Medicaid Services (CMS), which are presented and described in the following table.

Table 2-1: Description of Evaluation Criteria Used	**Description**
System Integration	Applies a modular, flexible approach to systems development, including the use of open interfaces and exposed application programming interfaces, and the separation of business rules from core programming, available in both human and machine readable formats. Ensures seamless coordination between Medicaid, DHCP, and the Exchange, and allows interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services.
Service-Oriented Architecture (SOA)	Employs common authoritative data sources and data exchange services such as but not limited to, federal and state agencies or other commercial entities.
Isolation of Business Rules	Uses standards-based business rules and a technology-neutral business rules repository. Enables the business rules to be accessible and adaptable by other states.

State of Nebraska

REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM

RETURN TO:
State Purchasing Bureau
301 Centennial Mall South, 1st Fl
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Phone: 402-471-2401
Fax: 402-471-2089

SOLICITATION NUMBER	RELEASE DATE
RFP 4468Z1	**August 16, 2013**
OPENING DATE AND TIME	PROCUREMENT CONTACT
September 24, 2013 2:00 p.m. Central Time	**Peter A. Kroll** **Robert Thompson**

This form is part of the specification package and must be signed and returned, along with proposal documents, by the opening date and time specified.

PLEASE READ CAREFULLY!

SCOPE OF SERVICE

The State of Nebraska, Administrative Services (AS), Materiel Division, Purchasing Bureau, is issuing this Request for Proposal, RFP Number 4468Z1 for the purpose of selecting a qualified contractor to provide Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services.

.

Written questions are due no later than August 30, 2013, and should be submitted via e-mail to as.materielpurchasing@nebraska.gov. Written questions may also be sent by facsimile to (402) 471-2089.

Bidder should submit one (1) original and six (6) hardcopies of the entire proposal. In the event of any inconsistencies among the proposals, the language contained in the original proposal shall govern. Proposals must be submitted by the proposal due date and time.

PROPOSALS MUST MEET THE REQUIREMENTS OUTLINED IN THIS REQUEST FOR PROPOSAL TO BE CONSIDERED VALID. PROPOSALS WILL BE REJECTED IF NOT IN COMPLIANCE WITH THESE REQUIREMENTS.

1. Sealed proposals must be received in State Purchasing by the date and time of proposal opening indicated above. No late proposals will be accepted. No electronic, e-mail, fax, voice, or telephone proposals will be accepted.
2. This form "REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES" MUST be manually signed, in ink, and returned by the proposal opening date and time along with bidder's proposal and any other requirements as specified in the Request for Proposal in order to be considered for an award.
3. It is the responsibility of the bidder to check the website for all information relevant to this solicitation to include addenda and/or amendments issued prior to the opening date. Website address is as follows: http://das.nebraska.gov/materiel/purchasing/rfp.htm
4. It is understood by the parties that in the State of Nebraska's opinion, any limitation on the contractor's liability is unconstitutional under the Nebraska State Constitution, Article XIII, Section 3, and that any limitation of liability shall not be binding on the State of Nebraska despite inclusion of such language in documents supplied with the contractor's bid or in the final contract.

BIDDER MUST COMPLETE THE FOLLOWING

By signing this Request for Proposal For Contractual Services form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions (see Section III) and certifies that bidder maintains a drug free work place environment.

FIRM: _____

COMPLETE ADDRESS: _____

TELEPHONE NUMBER: _____ FAX NUMBER: _____

SIGNATURE: _____ DATE: _____

TYPED NAME & TITLE OF SIGNER: _____

TABLE OF CONTENTS

REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM i

TABLE OF CONTENTS ii

GLOSSARY OF TERMS iv

ACRONYM LIST xi

I. SCOPE OF THE REQUEST FOR PROPOSAL 1

A. SCHEDULE OF EVENTS 1

II. PROCUREMENT PROCEDURES 2

A. PROCURING OFFICE AND CONTACT PERSON 2
B. GENERAL INFORMATION 2
C. COMMUNICATION WITH STATE STAFF 2
D. WRITTEN QUESTIONS AND ANSWERS 3
E. ORAL INTERVIEWS/PRESENTATIONS AND/OR DEMONSTRATIONS 3
F. SUBMISSION OF PROPOSALS 4
G. PROPOSAL OPENING 4
H. LATE PROPOSALS 5
I. REJECTION OF PROPOSALS 5
J. EVALUATION OF PROPOSALS 5
K. EVALUATION COMMITTEE 5
L. MANDATORY REQUIREMENTS 6
M. REFERENCE CHECKS 6
N. SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS 6
O. VIOLATION OF TERMS AND CONDITIONS 6

III. TERMS AND CONDITIONS 8

A. GENERAL 8
B. AWARD 9
C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION 9
D. PERMITS, REGULATIONS, LAWS 9
E. OWNERSHIP OF INFORMATION AND DATA 10
F. INSURANCE REQUIREMENTS 10
G. COOPERATION WITH OTHER CONTRACTORS 12
H. INDEPENDENT CONTRACTOR 12
I. CONTRACTOR RESPONSIBILITY 12
J. CONTRACTOR PERSONNEL 12
K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION 13
L. CONFLICT OF INTEREST 13
M. PROPOSAL PREPARATION COSTS 14
N. ERRORS AND OMISSIONS 14
O. BEGINNING OF WORK 14
P. ASSIGNMENT BY THE STATE 14
Q. ASSIGNMENT BY THE CONTRACTOR 14
R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL 14
S. GOVERNING LAW 15
T. ATTORNEY'S FEES 15
U. ADVERTISING 15

V. STATE PROPERTY 15
W. SITE RULES AND REGULATIONS 15
X. NOTIFICATION 15
Y. EARLY TERMINATION 16
Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS 17
AA. BREACH BY CONTRACTOR 17
BB. ASSURANCES BEFORE BREACH 17
CC. PENALTY 18
DD. FORCE MAJEURE 18
EE. PROHIBITION AGAINST ADVANCE PAYMENT 18
FF. PAYMENT 18
GG. INVOICES 19
HH. AUDIT REQUIREMENTS 19
II. TAXES 19
JJ. INSPECTION AND APPROVAL 19
KK. CHANGES IN SCOPE/CHANGE ORDERS 20
LL. SEVERABILITY 20
MM. CONFIDENTIALITY 20
NN. PROPRIETARY INFORMATION 21
OO. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING 21
PP. PRICES 21
QQ. BEST AND FINAL OFFER 22
RR. ETHICS IN PUBLIC CONTRACTING 22
SS. INDEMNIFICATION 23
TT. NEBRASKA TECHNOLOGY ACCESS STANDARDS 23
UU. ANTITRUST 24
VV. DISASTER RECOVERY/BACK UP PLAN 24
WW. TIME IS OF THE ESSENCE 24
XX. RECYCLING 24
YY. DRUG POLICY 24
ZZ. NEW EMPLOYEE WORK ELIGIBILITY STATUS 24
AAA. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY 25

IV. PROJECT DESCRIPTION AND SCOPE OF WORK 26

A. PROJECT OVERVIEW 27
B. PROJECT REQUIREMENTS 27
C. BUSINESS REQUIREMENTS 34
D. SCOPE OF WORK 35
E. EES TECHNOLOGY REVIEW 35
F. PROJECT PLANNING AND MANAGEMENT 36
G. DELIVERABLES 36
H. REPORTING REQUIREMENTS 39

V. PROPOSAL INSTRUCTIONS 40

A. TECHNICAL PROPOSAL 40
B. COST PROPOSAL REQUIREMENTS 46
C. PAYMENT SCHEDULE 46

Form A Bidder Contact Sheet 47

GLOSSARY OF TERMS

AABD (Assistance to the Aged, Blind and Disabled): Medicaid available to certain Nebraskans to assist with medical expenses. Nebraskans who are aged, blind or have a disability (as classified by the Social Security Administration) must meet established financial guidelines in order to be eligible. Some consumers in the AABD Medicaid program access services through managed care while the remaining population access care through a fee-for-service delivery system.

Acceptance Test Procedure: Benchmarks and other performance criteria, developed by the State of Nebraska or other sources of testing standards, for measuring the effectiveness of products or services and the means used for testing such performance.

ACA (Affordable Care Act): On March 23, 2010, President Obama signed into law the Patient Protection and Affordable Care Act. On March 30, 2010, the Health Care and Education Reconciliation Act of 2010 was signed into law. The two laws are collectively referred to as the Affordable Care Act (ACA). ACA is also referred to as the "health reform act" or "Patient Protection and Affordable Care Act (PPACA).

ACCESSNebraska Web Portal: The public application portal for various Nebraska public assistance benefit programs such as: Medicaid, Supplemental Nutritional Assistance Program (SNAP), Aid to Dependent Children (ADC), Aid to Aged, Blind and Disabled, Energy Assistance, Kids Connection, and Child Care Subsidy.

Addendum: Something added or deleted.

Agency: Any state agency, board, or commission other than the University of Nebraska, the Nebraska State colleges, the courts, the Legislature, or any officer or agency established by the Constitution of Nebraska.

Agent: A person authorized by a superior or organization to act on their behalf.

Amend: To alter or change by adding, subtracting, or substituting. A contract can be amended only by the parties participating in the contract. A written contract can only be amended in writing.

Amendment: Written correction or alteration.

Appropriation: Legislative authorization to expend public funds for a specific purpose. Money set apart for a specific use.

Award: All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

Best and Final Offer (BAFO): A second-stage bid in a public procurement for services.

Bid: The executed document submitted by a bidder in response to a Request for Proposal.

Bid Bond: A bond given by a surety on behalf of the bidder to ensure that the bidder will enter into the contract as bid and is retained by the State from the date of the bid opening to the date of contract signing.

Bidder: Any person or entity submitting a competitive bid response to a solicitation.

Business: Any corporation, partnership, individual, sole proprietorship, joint-stock company, joint venture, or any other private legal entity.

Business Day: Any weekday, excepting public holidays.

Calendar Day: Every day shown on the calendar; Saturdays, Sundays and State/Federal holidays included. Not to be confused with "Work Day".

Centers for Medicare & Medicaid Services (CMS): is a federal agency within the United States Department of Health and Human Services (DHHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program (CHIP), and health insurance portability standards.

CHIP (Children's Health Insurance Program): Enacted in 1997, CHIP is a federal-state program that provides health care coverage for uninsured low-income children who are not eligible for Medicaid. States have the option of administering CHIP through their Medicaid programs or through a separate program (or a combination of both). The federal government matches state spending for CHIP but federal CHIP funds are capped.

Collusion: A secret agreement or cooperation between two or more persons or entities to accomplish a fraudulent, deceitful or unlawful purpose.

Competition: The process by which two or more vendors vie to secure the business of a purchaser by offering the most favorable terms as to price, quality, delivery and/or service.

Confidential Information: Unless otherwise defined below, "Confidential Information" shall also mean proprietary trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Nebraska Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would provide.

Configure: Modification to software that does not require changes to the Source Code for such software. This includes rules-based, rules engine based, or parameter driven modification.

Contract: An agreement between two or more persons to perform a specific act or acts.

Contract Administration: The Management of various facets of contracts to assure that the contractors total performance is in accordance with the contractual commitments and obligations to the purchaser are fulfilled.

Contract Management: Includes reviewing and approving of changes, executing renewals, handling disciplinary actions, adding additional users, and any other form of action that could change the contract.

Contractor: Any person or entity that supplies goods and/or services.

Conversion Period: A period of time not to exceed six (6) months, during which the State converts to a new Operating System under "Conversion" as per this RFP.

Copyright: A grant to a writer/artist that recognizes sole authorship/creation of a work and protects the creator's interest(s) therein.

CPU: Any computer or computer system that is used by the State to store, process, or retrieve data or perform other functions using Operating Systems and applications software.

Critical Program Error: Any Program Error, whether or not known to the State, which prohibits or significantly impairs use of the Licensed Software as set forth in the documentation and intended in the contract.

Default: The omission or failure to perform a contractual duty.

Deviation: Any proposed change(s) or alteration(s) to either the contractual language or deliverables within the scope of this Request for Proposal.

Documentation: The user manuals and any other materials in any form or medium customarily provided by the contractor to the users of the Licensed Software which will provide the State with sufficient information to operate, diagnose, and maintain the Licensed Software properly, safely, and efficiently.

Evaluation Committee: A committee (or committees) appointed by the requesting agency that advises and assists the procuring office in the evaluation of proposals.

Evaluation of Proposal: The process of examining a proposal after opening to determine the bidder's responsibility, responsiveness to requirements, and to ascertain other characteristics of the proposal that relate to determination of the successful bidder.

Extension: A provision, or exercise of a provision, of a contract that allows a continuance of the contract (at the option of the State of Nebraska) for an additional time according to contract conditions. Not to be confused with "Renewals."

FOA (Funding Opportunity Announcement): A publicly available document by which a U.S. Federal agency makes known its intentions to award discretionary grants or cooperative agreements, usually as a result of competition for funds. Funding opportunity announcements may be known as program announcements, requests for applications, notices of funding availability, solicitations, or other names depending on the agency and type of program

F.O.B. Destination: Free on Board. The delivery charges have been included in the quoted price and prepaid by the vendor. Vendor is responsible for all claims associated with damages during delivery of product.

Foreign Corporation: A foreign corporation is a corporation that was formed (i.e. incorporated) in another state but transacting business in Nebraska pursuant to a certificate of authority issued by the Nebraska Secretary of State.

HIPAA (Health Insurance Portability and Accountability Act of 1996): The Standards for Security and Privacy of Individually Identifiable Health Information found in the Health Insurance Portability and Accountability Act of 1996, Public Law 104-91, as amended and related HIPAA regulations at 45 C.F.R. part 160-164, as in effect or as amended.

Installation Date: The date when the procedures described in "Installation by Contractor, and Installation by State", as found in the RFP, are completed.

Late Proposal: A proposal received at the place specified in the solicitation after the date and time designated for all proposals to be received.

Licensed Software: Any and all software and documentation by which the State acquires or is granted any rights under this contract

Local Time: Central Time in Lincoln, NE.

MAGI (Modified Adjusted Gross Income): A definition of income from the tax system that will be used to determine eligibility for certain categories of Medicaid eligibility in addition to tax credits available to people buying insurance in exchanges.

Mandatory: Required, compulsory or obligatory.

May: Denotes discretion.

MITA (Medicaid Information Technology Architecture): an initiative of the Centers for Medicare and Medicaid Services (CMS), aligned with the National Health Infrastructure Initiative (NHII), and intended to foster integrated business and information technology transformation across the Medicaid enterprise to improve the administration of the Medicaid program.

Module: A collection of routines and data structures that perform a specific function of the Licensed Software.

Must: Denotes the imperative, required, compulsory or obligatory

N-FOCUS: (Nebraska Family Online Client User System) The Department's software application used to support eligibility determinations for Nebraska Medicaid, Nebraska CHIP and various Economic Assistance Programs. This system also provides additional functionality such as case management, provider management and payment calculations.

Opening Date: Specified date and time for the public opening of received, labeled and sealed formal proposals. Not to be confused with "Release Date".

Operating System: The control program in a computer that provides the interface to the computer hardware and peripheral devices, and the usage and allocation of memory resources, processor resources, input/output resources, and security resources.

Outsourcing: Acquiring computing or related services from a source outside of the State of Nebraska which may include programming and/or executing the State's Licensed Software on the State's CPU's, programming, and/or executing the State's programs and Licensed Software on the contractor's CPU's or any mix thereof.

Outsourcing Company: A company that provides Outsourcing Services under contract to the State.

Performance Bond: A bond given by a surety on behalf of the contractor to ensure the timely and proper (in sole estimation of the State) performance of a contract.

PHI (Protected Health Information): Individually identifiable health information that is transmitted by, or maintained in, electronic media or any other form or medium. Individually identifiable health information is information that is a subset of health information, including demographic information collected from an individual, and 1) is created or received by a healthcare provider, health plan, employer, or healthcare clearinghouse; and 2) related to the past, present, or future physical or

mental health or condition of an individual; the provision of healthcare to an individual; or the past, pre-sent, or future payment for the provision of healthcare to an individual; (i) that identifies the individual; or (ii) with respect to which there is a reasonable basis to believe the information can be used to identify the individual.

PII (Personally Identifiable Information): Information: 1) that directly identifies an individual (e.g., name, address, social security number or other identifying number or code, telephone number, email, address, etc.), or 2) by which an agency intends to identify specific individuals in conjunction with other data elements, e.g., indirect identification. (These data elements may include a combination of gender, race, birth date, geographic indicator, and other descriptors.)

Platform: A specific hardware and Operating System combination that is different from other hardware and Operating System combinations to the extent that a different version of the Licensed Software product is required to execute properly in the environment established by such hardware and Operating System combination.

PPACA (Patient Protection and Affordable Care Act): See ACA: Affordable Care Act.

Pre-Proposal Conference: A meeting scheduled for the purpose of providing clarification regarding a Request for Proposal and related expectations.

Product: A module, a system, or any other software-related item provided by the contractor to the State.

Program Error: Code in Licensed Software which produces unintended results or actions, or which produces results or actions other than those described in the specifications. A program error includes, without limitation, any "Critical Program Error."

Program Set: The group of programs and products, including the Licensed Software specified in the RFP, plus any additional programs and products licensed by the State under this contract for use by the State.

Project: The total of all software, documentation, and services to be provided by the contractor under this contract.

Proposal: The executed document submitted by a bidder in response to a Request for Proposal.

Proprietary Information: Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive.

Protest: A complaint about a governmental action or decision related to a Request for Proposal or the resultant contract, brought by a prospective bidder, a bidder, a contractor, or other interested party to AS Materiel Division or another designated agency with the intention of achieving a remedial result.

Public Proposal Opening: The process of opening proposals, conducted at the time and place specified in the Request for Proposal, and in the presence of anyone who wishes to attend.

Recommended Hardware Configuration: The data processing hardware (including all terminals, auxiliary storage, communication, and other peripheral devices) to the extent utilized by the State as

recommended by the contractor.

Release Date: Date of release of the Request for Proposal to the public for submission of proposal responses. Not to be confused with "Opening Date".

Renewal: Continuance of a contract for an additional term after a formal signing by the parties.

Representative: Includes an agent, an officer of a corporation or association, a trustee, executor or administrator of an estate, or any other person legally empowered to act for another.

Request for Proposal (RFP): All documents, whether attached or incorporated by reference, utilized for soliciting competitive proposals.

Responsible Bidder: A bidder who has the capability in all respects to perform fully all requirements with integrity and reliability to assure good faith performance.

Responsive Bidder: A bidder who has submitted a bid which conforms in all respects to the solicitation document.

Seven Standards and Conditions for Enhanced Funding: The Centers for Medicare & Medicaid Services (CMS) issued standards and conditions that must be met by the states in order for Medicaid technology investments (including traditional claims processing systems, as well as eligibility systems) to be eligible for enhanced match funding.

Shall: Denotes the imperative, required, compulsory or obligatory.

Should: Indicates an expectation.

SOA (Service Oriented Architecture): A set of principles and methodologies for designing and developing software in the form of interoperable services. These services are well-defined business functionalities that are built as software components (discrete pieces of code and/or data structures) that can be reused for different purposes. SOA design principles are used during the phases of systems development and integration.

Solicitation: The process of notifying prospective bidders or offerors that the State of Nebraska wishes to receive proposals for furnishing services. The process may consist of public advertising, posting notices, or mailing Request for Proposals and/or Request for Proposal announcement letter to prospective bidders, or all of these.

Solicitation Document: Request for Proposal.

Specifications: The information provided by or on behalf of the contractor that fully describes the capabilities and functionality of the Licensed Software as set forth in any material provided by the contractor, including the documentation and User's Manuals described herein.

System: Any collection or aggregation of two (2) or more Modules that is designed to function, or is represented by the contractor as functioning or being capable of functioning as an entity.

Termination: Occurs when either party pursuant to a power created by agreement or law puts an end to the contract. All obligations which are still executory on both sides are discharged but any right based on prior breach or performance survives.

Trademark: A distinguishing sign, symbol, mark, word, or arrangement of words in the form of a label

or other indication, that is adopted and used by a manufacturer or distributor to designate its particular goods and which no other person has the legal right to use.

Trade Secret: Information, including, but not limited to, a drawing, formula, pattern, compilation, program, device, method, technique, code, or process that; (a) derives independent economic value, actual or potential, from not being known to, and not being ascertainable by proper means, other persons who can obtain economic value from its disclosure or use; and (b) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy (see Neb. Rev. Stat. §87-502(4)).

Upgrade: Any improvement or change in the Software that improves or alters its basic function.

Vendor: An actual or potential contractor; a contractor

Will: Denotes the imperative, required, compulsory or obligatory.

ACRONYM LIST

AABD	Assistance to the Aged, Blind and Disabled
ACA	Affordable Care Act
ADC	Aid to Dependent Children
ARRA	American Recovery and Reinvestment Act of 2009
CCIIO	Center for Consumer Information and Insurance Oversight
CFR	Code of Federal Regulation
CHIP	Children's Health Insurance Program
CMMI	Capability Maturity Model Integration
CMS	Centers for Medicare & Medicaid Services
DDI	Design, Develop and Implement
DED	Deliverables Expectation Document
EDI	Electronic Data Interchange
EES	Eligibility and Enrollment Solution
FPL	Federal Poverty Level
FFM	Federal Financial Management
FFP	Federal Financial Participation
FOA	Funding Opportunity Announcement
DHHS	Nebraska Department of Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act
IEEE	Institute of Electrical and Electronic Engineers
IS&T	Information Systems and Technology Division
IV&V	Independent Verification and Validation
JAD	Joint Application Development
MAGI	Modified Adjusted Gross Income
MITA	Medicaid Information Technology Architecture
MLTC	Division of Medicaid and Long-Term Care
MMIS	Medicaid Management Information Systems
NE	Nebraska
N-FOCUS	Nebraska Family Online Client User System
O-CIO	Office of the CIO
PHI	Protected Health Information
PII	Personally Identifiable Information
PMI	Project Management Institute
PMBOK	Project Management Book of Knowledge
PMP	Project Management Plan
PPACA	Patient Protection and Affordable Care Act
RFP	Request for Proposal
RTM	Requirements Traceability Matrix
SDLC	Software Development Life Cycle
SHOP	Small Business Health Options Plan
SOA	Service Oriented Architecture
WBS	Work Breakdown Structure

I. SCOPE OF THE REQUEST FOR PROPOSAL

The State of Nebraska, Administrative Services (AS), Materiel Division, Purchasing Bureau, is issuing this Request for Proposal, RFP Number 4468Z1 for the purpose of selecting a qualified contractor to provide Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services.

The IV&V contractor awarded the IV&V contract for the EES project, their subcontractor(s) and vendor(s) are precluded from submitting an EES proposal, assisting another company in making a proposal, or otherwise materially participating in any subsequent contract related to the EES project.

A contract resulting from this Request for Proposal will be issued from the date of the award through December 31, 2015, with the option to renew for one (1) additional six-month period as mutually agreed upon by all parties.

ALL INFORMATION PERTINENT TO THIS REQUEST FOR PROPOSAL CAN BE FOUND ON THE INTERNET AT**:** http://www.das.state.ne.us/materiel/purchasing/rfp.htm

A. SCHEDULE OF EVENTS

The State expects to adhere to the tentative procurement schedule shown below. It should be noted, however, that some dates are approximate and subject to change.

	ACTIVITY	DATE/TIME
1.	Release Request for Proposal	August 16, 2013
2.	Last day to submit written questions	August 30, 2013
3.	State responds to written questions through Request for Proposal "Addendum" and/or "Amendment" to be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm	September 6, 2013
4.	Proposal opening Location: Nebraska State Office Building State Purchasing Bureau 301 Centennial Mall South, Mall Level Lincoln, NE 68508	September 24, 2013 2:00 PM Central Time
5.	Review for conformance of mandatory requirements	September 24, 2013
6.	Evaluation period	September 25, 2013 To October 11, 2013
7.	"Oral Interviews/Presentations and/or Demonstrations" (if required)	October 11, 2013 To November 1, 2013
8.	Post "Letter of Intent to Contract" to Internet at: http://www.as.materielpurchasing@nebraska.gov/rfp.htm	November 4, 2013
9.	Performance bond submission	November 11, 2013
10.	Contract award	November 11, 2013
11.	Contractor start date	November 15, 2013

II. PROCUREMENT PROCEDURES

A. PROCURING OFFICE AND CONTACT PERSON

Procurement responsibilities related to this Request for Proposal reside with the State Purchasing Bureau. The point of contact for the procurement is as follows:

Name: Peter Kroll/Robert Thompson
Agency: State Purchasing Bureau
Address: 301 Centennial Mall South, Mall Level
Lincoln, NE 68508

OR

Address: P.O. Box 94847
Lincoln, NE 68509
Telephone: 402-471-2401
Facsimile: 402-471-2089
E-Mail: as.materielpurchasing@nebraska.gov

B. GENERAL INFORMATION

The Request for Proposal is designed to solicit proposals from qualified vendors who will be responsible for providing Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services at a competitive and reasonable cost. Proposals that do not conform to the mandatory items as indicated in the Request for Proposal will not be considered.

Proposals shall conform to all instructions, conditions, and requirements included in the Request for Proposal. Prospective bidders are expected to carefully examine all documentation, schedules and requirements stipulated in this Request for Proposal, and respond to each requirement in the format prescribed.

A fixed-price contract will be awarded as a result of this proposal. In addition to the provisions of this Request for Proposal and the awarded proposal, which shall be incorporated by reference in the contract, any additional clauses or provisions required by the terms and conditions will be included as an amendment to the contract.

C. COMMUNICATION WITH STATE STAFF

From the date the Request for Proposal is issued until a determination is announced regarding the selection of the contractor, contact regarding this project between potential contractors and individuals employed by the State is restricted to only written communication with the staff designated above as the point of contact for this Request for Proposal.

Once a contractor is preliminarily selected, as documented in the intent to contract, that contractor is restricted from communicating with State staff until a contract is signed. Violation of this condition may be considered sufficient cause to reject a contractor's proposal and/or selection irrespective of any other condition.

The following exceptions to these restrictions are permitted:

1. written communication with the person(s) designated as the point(s) of contact for this Request for Proposal or procurement;
2. contacts made pursuant to any pre-existing contracts or obligations; and

3. state-requested presentations, key personnel interviews, clarification sessions or discussions to finalize a contract.

Violations of these conditions may be considered sufficient cause to reject a bidder's proposal and/or selection irrespective of any other condition. No individual member of the State, employee of the State, or member of the Evaluation Committee is empowered to make binding statements regarding this Request for Proposal. The buyer will issue any clarifications or opinions regarding this Request for Proposal in writing.

D. WRITTEN QUESTIONS AND ANSWERS

Any explanation desired by a bidder regarding the meaning or interpretation of any Request for Proposal provision must be submitted in writing to the State Purchasing Bureau and clearly marked "RFP Number 4468Z1; Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services Questions". It is preferred that questions be sent via e-mail to as.materielpurchasing@nebraska.gov Questions may also be sent by facsimile to 402-471-2089, but must include a cover sheet clearly indicating that the transmission is to the attention of Buyer, showing the total number of pages transmitted, and clearly marked "RFP Number 4468Z1; Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services Questions".

It is recommended that Bidders submit questions sequentially numbered, include the RFP reference and page number using the following format:

Question Number	RFP Section Reference	RFP Page Number	Question

Written answers will be provided through an addendum to be posted on the Internet at http://das.nebraska.gov/materiel/purchasing/rfp.htm on or before the date shown in the Schedule of Events.

E. ORAL INTERVIEWS/PRESENTATIONS AND/OR DEMONSTRATIONS

The Evaluation Committee(s) may conclude after the completion of the Technical and Cost Proposal evaluation that oral interviews/presentations and/or demonstrations are required in order to determine the successful bidder. All bidders may not have an opportunity to interview/present and/or give demonstrations; the State reserves the right to select only the top scoring bidders to present/give oral interviews in its sole discretion. The scores from the oral interviews/presentations and/or demonstrations will be added to the scores from the Technical and Cost Proposals. The presentation process will allow the bidders to demonstrate their proposal offering, explaining and/or clarifying any unusual or significant elements related to their proposals. Bidders' key personnel will be requested to participate in a structured interview to determine their understanding of the requirements of this proposal, their authority and reporting relationships within their firm, and their management style and philosophy. Bidders shall not be allowed to alter or amend their proposals. Only representatives of the State and the presenting bidders will be permitted to attend the oral interviews/presentations and/or demonstrations.

Once the oral interviews/presentations and/or demonstrations have been completed the State reserves the right to make a contract award without any further discussion with the bidders regarding the proposals received.

Detailed notes of oral interviews/presentations and/or demonstrations may be recorded and supplemental information (such as briefing charts, et cetera) may be accepted; however, such supplemental information shall not be considered an amendment to a bidders' proposal.

Additional written information gathered in this manner shall not constitute replacement of proposal contents.

Any cost incidental to the oral interviews/presentations and/or demonstrations shall be borne entirely by the bidder and will not be compensated by the State.

F. SUBMISSION OF PROPOSALS

The following describes the requirements related to proposal submission, proposal handling and review by the State.

To facilitate the proposal evaluation process, one (1) original, clearly identified as such, and six (6) hardcopies of the entire proposal should be submitted. The copy marked "original" shall take precedence over any other copies, should there be a discrepancy. Proposals must be submitted by the proposal due date and time. A separate sheet must be provided that clearly states which sections have been submitted as proprietary or have copyrighted materials. All proprietary information the bidder wishes the State to withhold must be submitted in accordance with the instructions outlined in Section III, Proprietary Information. Proposal responses should include the completed Form A, Bidder Contact Sheet. Proposals must reference the request for proposal number and be sent to the specified address. Container(s) utilized for original documents should be clearly marked "ORIGINAL DOCUMENTS". Please note that the address label should appear in Section II part A as specified on the face of each container or bidder's bid response packet. Rejected late proposals will be returned to the bidder unopened, if requested, at bidder's expense. If a recipient phone number is required for delivery purposes, 402-471-2089 should be used. The request for proposal number must be included in all correspondence.

Emphasis should be concentrated on conformance to the Request for Proposal instructions, responsiveness to requirements, completeness and clarity of content. If the bidder's proposal is presented in such a fashion that makes evaluation difficult or overly time consuming, it is likely that points will be lost in the evaluation process. Elaborate and lengthy proposals are neither necessary nor desired.

The Technical and Cost Proposals should be packaged separately (loose-leaf binders are preferred) on standard 8 ½" by 11" paper, except that charts, diagrams and the like may be on fold-outs which, when folded, fit into the 8 ½" by 11" format. Pages may be consecutively numbered for the entire proposal, or may be numbered consecutively within sections. Figures and tables must be numbered and referenced in the text by that number. They should be placed as close as possible to the referencing text. The Technical Proposal must not contain any reference to dollar amounts. However, information such as data concerning labor hours and categories, materials, subcontracts and so forth, shall be considered in the Technical Proposal so that the bidder's understanding of the scope of work may be evaluated. The Technical Proposal shall disclose the bidder's technical approach in as much detail as possible, including, but not limited to, the information required by the Technical Proposal instructions.

G. PROPOSAL OPENING

The sealed proposals will be publicly opened and the bidding entities announced on the date, time and location shown in the Schedule of Events. Proposals will be available for viewing by those present after the proposal opening. Vendors may also contact the State to schedule an appointment for viewing proposals after the opening date.

H. LATE PROPOSALS

Proposals received after the time and date of the proposal opening will be considered late proposals. Rejected late proposals will be returned to the bidder unopened, if requested, at bidder's expense. The State is not responsible for proposals that are late or lost due to mail service inadequacies, traffic or any other reason(s).

I. REJECTION OF PROPOSALS

The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

J. EVALUATION OF PROPOSALS

All responses to this Request for Proposal which fulfill all mandatory requirements will be evaluated. Each category will have a maximum possible point potential. The State will conduct a fair, impartial and comprehensive evaluation of all proposals in accordance with the criteria set forth below. Areas that will be addressed and scored during the evaluation include:

1. Executive Summary;
2. Corporate Overview shall include but is not limited to;

- **a.** the ability, capacity and skill of the bidder to deliver and implement the system or project that meets the requirements of the Request for Proposal;
- **b.** the character, integrity, reputation, judgment, experience and efficiency of the bidder;
- **c.** whether the bidder can perform the contract within the specified time frame;
- **d.** the quality of bidder performance on prior contracts;
- **e.** such other information that may be secured and that has a bearing on the decision to award the contract;

3. Technical Approach

- **a.** Program Management/IV&V Project Plan
- **b.** Deliverables Review and Acceptance
- **c.** Quality Assurance
- **d.** Contract Compliance

4. Cost Proposal.

Evaluation criteria will become public information at the time of the Request for Proposal opening. Evaluation criteria and a list of respondents will be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm. Evaluation criteria will not be released prior to the proposal opening.

K. EVALUATION COMMITTEE

Proposals will be independently evaluated by members of the Evaluation Committee(s). The committee(s) will consist of staff with the appropriate expertise to conduct such proposal evaluations. Names of the members of the Evaluation Committee(s) will not become public information.

Prior to award, bidders are advised that only the point of contact indicated on the front cover of this Request For Proposal For Contractual Services Form can clarify issues or render any

opinion regarding this Request for Proposal. No individual member of the State, employee of the State or member of the Evaluation Committee(s) is empowered to make binding statements regarding this Request for Proposal.

L. MANDATORY REQUIREMENTS

The proposals will first be examined to determine if all mandatory requirements listed below have been addressed to warrant further evaluation. Proposals not meeting mandatory requirements will be excluded from further evaluation. The mandatory requirement items are as follows:

1. signed Request For Proposal For Contractual Services form in ink;
2. Executive Summary;
3. Corporate Overview;
4. Technical Approach; and
5. Cost Proposal.

M. REFERENCE CHECKS

The State reserves the right to check any reference(s), regardless of the source of the reference information, including but not limited to, those that are identified by the company in the proposal, those indicated through the explicitly specified contacts, those that are identified during the review of the proposal, or those that result from communication with other entities involved with similar projects.

Information to be requested and evaluated from references may include, but is not limited to, some or all of the following: project description and background, job performed, functional and technical abilities, communication skills and timeliness, cost and schedule estimates and accuracy, problems (poor quality deliverables, contract disputes, work stoppages, et cetera), overall performance, and whether or not the reference would rehire the firm or individual. Only top scoring bidders may receive reference checks and negative references may eliminate bidders from consideration for award.

N. SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS

All bidders shall be authorized to transact business in the State of Nebraska. All bidders are expected to comply with all Nebraska Secretary of State registration requirements. It is the responsibility of the bidder to comply with any registration requirements pertaining to types of business entities (e.g. person, partnership, foreign or domestic limited liability company, association, or foreign or domestic corporation or other type of business entity). The Bidder who is the recipient of an Intent to Award will be required to certify that it has so complied and produce a true and exact copy of its current (within 90 days), valid Certificate of Good Standing or Letter of Good Standing; or in the case registration is not required, to provide, in writing, the reason as to why none is required. This must be accomplished prior to the award of the contract. Construction contractors are expected to meet all applicable requirements of the Nebraska Contractor Registration Act and provide a current, valid certificate of registration. Further, all bidders shall comply with any and all other applicable Nebraska statutes regarding transacting business in the State of Nebraska. Bidders should submit the above certification(s) with their bid.

O. VIOLATION OF TERMS AND CONDITIONS

Violation of the terms and conditions contained in this Request for Proposal or any resultant contract, at any time before or after the award, shall be grounds for action by the State which may include, but is not limited to, the following:

1. rejection of a bidder's proposal;

2. suspension of the bidder from further bidding with the State for the period of time relative to the seriousness of the violation, such period to be within the sole discretion of the State.

III. TERMS AND CONDITIONS

By signing the "Request For Proposal For Contractual Services" form, the Bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions and certifies bidder maintains a drug free work place environment.

Bidders are expected to closely read the Terms and Conditions and provide a binding signature of intent to comply with the Terms and Conditions; provided, however, a bidder may indicate any exceptions to the Terms and Conditions by (1) clearly identifying the term or condition by subsection, (2) including an explanation for the bidder's inability to comply with such term or condition which includes a statement recommending terms and conditions the bidder would find acceptable. Rejection in whole or in part of the Terms and Conditions may be cause for rejection of a bidder's proposal.

The Contractor awarded the IV&V contract for the EES project, their subcontractor(s) and vendor(s) are precluded from submitting an EES proposal, assisting another company in making a proposal, or otherwise materially participating in any subsequent contract related to the EES project.

A. GENERAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract resulting from this Request for Proposal shall incorporate the following documents:

1. Amendment to Contract Award with the most recent dated amendment having the highest priority;
2. Contract Award and any attached Addenda;
3. The signed Request for Proposal form and the Contractor's Proposal;
4. Amendments to RFP and any Questions and Answers; and
5. The original RFP document and any Addenda.

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to Contract Award with the most recent dated amendment having the highest priority, 2) Contract Award and any attached Addenda, 3) the signed Request for Proposal form and the Contractor's Proposal, 4) Amendments to RFP and any Questions and Answers, 5) the original RFP document and any Addenda.

Any ambiguity in any provision of this contract which shall be discovered after its execution shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

Once proposals are opened they become the property of the State of Nebraska and will not be returned.

B. AWARD

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part, and at its discretion, may withdraw or amend the Request for Proposal at any time. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State. The Request for Proposal does not commit the State to award a contract. If, in the opinion of the State, revisions or amendments will require substantive changes in proposals, the due date may be extended.

By submitting a proposal in response to this Request for Proposal, the bidder grants to the State the right to contact or arrange a visit in person with any or all of the bidder's clients.

Once an intent to award decision has been determined, it will be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm

Grievance and protest procedure is available on the Internet at: http://www.das.state.ne.us/materiel/purchasing/agencyservicesprocurementmanual/ProtestGrievanceProcedureForServices.doc

Any protests must be filed by a vendor within ten (10) calendar days after the intent to award decision is posted to the Internet.

C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall comply with all applicable local, State and Federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits contractors of the State of Nebraska, and their subcontractors, from discriminating against any employee or applicant for employment, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin (Neb. Rev. Stat. §48-1101 to 48-1125). The contractor guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this Request for Proposal.

D. PERMITS, REGULATIONS, LAWS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall procure and pay for all permits, licenses and approvals necessary for the execution of the contract. The contractor shall comply with all applicable local, state, and federal laws, ordinances, rules, orders and regulations.

E. OWNERSHIP OF INFORMATION AND DATA

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State of Nebraska shall have the unlimited right to publish, duplicate, use and disclose all information and data developed or derived by the contractor pursuant to this contract.

The contractor must guarantee that it has the full legal right to the materials, supplies, equipment, and other rights or titles (e.g. rights to licenses transfer or assign deliverables) necessary to execute this contract. The contract price shall, without exception, include compensation for all royalties and costs arising from patents, trademarks and copyrights that are in any way involved in the contract. It shall be the responsibility of the contractor to pay for all royalties and costs, and the State must be held harmless from any such claims.

F. INSURANCE REQUIREMENTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall not commence work under this contract until he or she has obtained all the insurance required hereunder and such insurance has been approved by the State. If contractor will be utilizing any subcontractors, the contractor is responsible for obtaining the certificate(s) of insurance required herein under from any and all subcontractor(s). Contractor is also responsible for ensuring subcontractor(s) maintain the insurance required until completion of the contract requirements. The contractor shall not allow any subcontractor to commence work on his or her subcontract until all similar insurance required of the subcontractor has been obtained and approved by the contractor. Approval of the insurance by the State shall not limit, relieve or decrease the liability of the contractor hereunder.

If by the terms of any insurance a mandatory deductible is required, or if the contractor elects to increase the mandatory deductible amount, the contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

1. WORKERS' COMPENSATION INSURANCE

The contractor shall take out and maintain during the life of this contract the statutory Workers' Compensation and Employer's Liability Insurance for all of the contactors' employees to be engaged in work on the project under this contract and, in case any such work is sublet, the contractor shall require the subcontractor similarly to provide Worker's Compensation and Employer's Liability Insurance for all of the subcontractor's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the state in which the work is to be performed, including Occupational Disease. This policy shall include a waiver of subrogation in favor of the State. The amounts of such insurance shall not be less than the limits stated hereinafter.

2. COMMERCIAL GENERAL LIABILITY INSURANCE AND COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The contractor shall take out and maintain during the life of this contract such Commercial General Liability Insurance and Commercial Automobile Liability Insurance as shall protect contractor and any subcontractor performing work covered by this contract from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this contract, whether such operation be by the contractor or by any subcontractor or by anyone

directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than limits stated hereinafter.

The Commercial General Liability Insurance shall be written on an occurrence basis, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury and Contractual Liability coverage. The policy shall include the State, and others as required by the contract documents, as an Additional Insured. This policy shall be primary, and any insurance or self-insurance carried by the State shall be considered excess and non-contributory. The Commercial Automobile Liability Insurance shall be written to cover all Owned, Non-owned and Hired vehicles.

3. INSURANCE COVERAGE AMOUNTS REQUIRED

a. WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY

Coverage A	Statutory
Coverage B	
Bodily Injury by Accident	$100,000 each accident
Bodily Injury by Disease	$500,000 policy limit
Bodily Injury by Disease	$100,000 each employee

b. COMMERCIAL GENERAL LIABILITY

General Aggregate	$2,000,000
Products/Completed Operations Aggregate	$2,000,000
Personal/Advertising Injury	$1,000,000 any one person
Bodily Injury/Property Damage	$1,000,000 per occurrence
Fire Damage	$50,000 any one fire
Medical Payments	$5,000 any one person

c. COMMERCIAL AUTOMOBILE LIABILITY

Bodily Injury/Property Damage	$1,000,000 combined single limit

d. UMBRELLA/EXCESS LIABILITY

Over Primary Insurance	$1,000,000 per occurrence

4. EVIDENCE OF COVERAGE

The Contractor should furnish the State, with their proposal response, a certificate of insurance coverage complying with the above requirements, which shall be submitted to the Buyer, Administrative Services, State Purchasing Bureau, 301 Centennial Mall S, 1st Fl., Lincoln, NE 68508 (facsimile 402-471-2089). These certificates or the cover sheet shall reference the RFP number, and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration and amounts and types of coverage afforded. If the State is damaged by the failure of the contractor to maintain such insurance, then the contractor shall be responsible for all reasonable costs properly attributable thereto.

Notice of cancellation of any required insurance policy must be submitted to Buyer, Administrative Services, State Purchasing Bureau, 301 Centennial Mall S, 1st Fl, Lincoln, NE 68508 (facsimile 402-471-2089 when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

G. COOPERATION WITH OTHER CONTRACTORS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may already have in place or choose to award supplemental contracts for work related to this Request for Proposal, or any portion thereof.

1. The State reserves the right to award the contract jointly between two or more potential contractors, if such an arrangement is in the best interest of the State.
2. The contractor shall agree to cooperate with such other contractors, and shall not commit or permit any act which may interfere with the performance of work by any other contractor.

H. INDEPENDENT CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

It is agreed that nothing contained herein is intended or should be construed in any manner as creating or establishing the relationship of partners between the parties hereto. The contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under the contract. The contractor's employees and other persons engaged in work or services required by the contractor under the contract shall have no contractual relationship with the State; they shall not be considered employees of the State.

All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination against the contractor, its officers or its agents) shall in no way be the responsibility of the State. The contractor will hold the State harmless from any and all such claims. Such personnel or other persons shall not require nor be entitled to any compensation, rights or benefits from the State including without limit, tenure rights, medical and hospital care, sick and vacation leave, severance pay or retirement benefits.

I. CONTRACTOR RESPONSIBILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor is solely responsible for fulfilling the contract, with responsibility for all services offered and products to be delivered as stated in the Request for Proposal, the contractor's proposal, and the resulting contract. The contractor shall be the sole point of contact regarding all contractual matters.

If the contractor intends to utilize any subcontractors' services, the subcontractors' level of effort, tasks and time allocation must be clearly defined in the contractor's proposal. The contractor shall agree that it will not utilize any subcontractors not specifically included in its proposal, in the performance of the contract, without the prior written authorization of the State. Following execution of the contract, the contractor shall proceed diligently with all services and shall perform such services with qualified personnel in accordance with the contract.

J. CONTRACTOR PERSONNEL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor warrants that all persons assigned to the project shall be employees of the contractor or specified subcontractors, and shall be fully qualified to perform the work required

herein. Personnel employed by the contractor to fulfill the terms of the contract shall remain under the sole direction and control of the contractor. The contractor shall include a similar provision in any contract with any subcontractor selected to perform work on the project.

Personnel commitments made in the contractor's proposal shall not be changed without the prior written approval of the State. Replacement of key personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

The State reserves the right to require the contractor to reassign or remove from the project any contractor or subcontractor employee.

In respect to its employees, the contractor agrees to be responsible for the following:

1. any and all employment taxes and/or other payroll withholding;
2. any and all vehicles used by the contractor's employees, including all insurance required by state law;
3. damages incurred by contractor's employees within the scope of their duties under the contract;
4. maintaining workers' compensation and health insurance and submitting any reports on such insurance to the extent required by governing State law; and
5. determining the hours to be worked and the duties to be performed by the contractor's employees.

Notice of cancellation of any required insurance policy must be submitted to the State when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall not, at any time, recruit or employ any State employee or agent who has worked on the Request for Proposal or project, or who had any influence on decisions affecting the Request for Proposal or project.

L. CONFLICT OF INTEREST

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

By submitting a proposal, bidder certifies that there does not now exist any relationship between the bidder and any person or entity which is or gives the appearance of a conflict of interest related to this Request for Proposal or project.

The bidder certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its services hereunder or which creates an actual or appearance of conflict of interest.

The bidder certifies that it will not employ any individual known by bidder to have a conflict of interest.

M. PROPOSAL PREPARATION COSTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State shall not incur any liability for any costs incurred by bidders in replying to this Request for Proposal, in the demonstrations, or oral presentations, or in any other activity related to bidding on this Request for Proposal.

N. ERRORS AND OMISSIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The bidder shall not take advantage of any errors and/or omissions in this Request for Proposal or resulting contract. The bidder must promptly notify the State of any errors and/or omissions that are discovered.

O. BEGINNING OF WORK

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The bidder shall not commence any billable work until a valid contract has been fully executed by the State and the successful contractor. The contractor will be notified in writing when work may begin.

P. ASSIGNMENT BY THE STATE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State shall have the right to assign or transfer the contract or any of its interests herein to any agency, board, commission, or political subdivision of the State of Nebraska. There shall be no charge to the State for any assignment hereunder.

Q. ASSIGNMENT BY THE CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor may not assign, voluntarily or involuntarily, the contract or any of its rights or obligations hereunder (including without limitation rights and duties of performance) to any third party, without the prior written consent of the State, which will not be unreasonably withheld.

R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The requirements contained in the Request for Proposal become a part of the terms and conditions of the contract resulting from this Request for Proposal. Any deviations from the Request for Proposal must be clearly defined by the bidder in its proposal and, if accepted by the State, will become part of the contract. Any specifically defined deviations must not be in conflict with the basic nature of the Request for Proposal or mandatory requirements. “Deviation”, for the purposes of this RFP, means any proposed changes or alterations to either the contractual language or deliverables within the scope of this RFP. The State discourages deviations and reserves the right to reject proposed deviations.

S. GOVERNING LAW

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract shall be governed in all respects by the laws and statutes of the State of Nebraska. Any legal proceedings against the State of Nebraska regarding this Request for Proposal or any resultant contract shall be brought in the State of Nebraska administrative or judicial forums as defined by State law. The contractor must be in compliance with all Nebraska statutory and regulatory law.

T. ATTORNEY'S FEES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

In the event of any litigation, appeal or other legal action to enforce any provision of the contract, the contractor agrees to pay all expenses of such action, as permitted by law, including attorney's fees and costs, if the State is the prevailing party.

U. ADVERTISING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor agrees not to refer to the contract award in advertising in such a manner as to state or imply that the company or its services are endorsed or preferred by the State. News releases pertaining to the project shall not be issued without prior written approval from the State.

V. STATE PROPERTY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall be responsible for the proper care and custody of any State-owned property which is furnished for the contractor's use during the performance of the contract. The contractor shall reimburse the State for any loss or damage of such property, normal wear and tear is expected.

W. SITE RULES AND REGULATIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall use its best efforts to ensure that its employees, agents and subcontractors comply with site rules and regulations while on State premises. If the contractor must perform on-site work outside of the daily operational hours set forth by the State, it must make arrangements with the State to ensure access to the facility and the equipment has been arranged. No additional payment will be made by the State on the basis of lack of access, unless the State fails to provide access as agreed to between the State and the contractor.

X. NOTIFICATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

During the bid process, all communication between the State and a bidder shall be between the bidder’s representative clearly noted in its proposal and the buyer noted in Section II, A. Procuring Office and Contact Person of this RFP. After the award of the contract, all notices under the contract shall be deemed duly given upon delivery to the staff designated as the

point of contact for this Request for Proposal, in person, or upon delivery by U.S. Mail, facsimile, or e-mail. Each bidder should provide in its proposal the name, title and complete address of its designee to receive notices.

1. Except as otherwise expressly specified herein, all notices, requests or other communications shall be in writing and shall be deemed to have been given if delivered personally or mailed, by U.S. Mail, postage prepaid, return receipt requested, to the parties at their respective addresses set forth above, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or three (3) days following deposit in the mail.

2. Whenever the contractor encounters any difficulty which is delaying or threatens to delay its timely performance under the contract, the contractor shall immediately give notice thereof in writing to the State reciting all relevant information with respect thereto. Such notice shall not in any way constitute a basis for an extension of the delivery schedule or be construed as a waiver by the State of any of its rights or remedies to which it is entitled by law or equity or pursuant to the provisions of the contract. Failure to give such notice, however, may be grounds for denial of any request for an extension of the delivery schedule because of such delay.

Either party may change its address for notification purposes by giving notice of the change, and setting forth the new address and an effective date.

For the duration of the contract, all communication between contractor and the State regarding the contract shall take place between the contractor and individuals specified by the State in writing. Communication about the contract between contractor and individuals not designated as points of contact by the State is strictly forbidden.

Y. EARLY TERMINATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract may be terminated as follows:

1. The State and the contractor, by mutual written agreement, may terminate the contract at any time.

2. The State, in its sole discretion, may terminate the contract for any reason upon 30 days written notice to the contractor. Such termination shall not relieve the contractor of warranty or other service obligations incurred under the terms of the contract. In the event of cancellation the contractor shall be entitled to payment, determined on a pro rata basis, for products or services satisfactorily performed or provided.

3. The State may terminate the contract immediately for the following reasons:

- **a.** if directed to do so by statute;
- **b.** contractor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;
- **c.** a trustee or receiver of the contractor or of any substantial part of the contractor's assets has been appointed by a court;

d. fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its contractor, its employees, officers, directors or shareholders;

e. an involuntary proceeding has been commenced by any party against the contractor under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) days; or (ii) the contractor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the contractor has been decreed or adjudged a debtor;

f. a voluntary petition has been filed by the contractor under any of the chapters of Title 11 of the United States Code;

g. contractor intentionally discloses confidential information;

h. contractor has or announces it will discontinue support of the deliverable;

i. second or subsequent documented "vendor performance report" form deemed acceptable by the State Purchasing Bureau.

Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may terminate the contract, in whole or in part, in the event funding is no longer available. The State's obligation to pay amounts due for fiscal years following the current fiscal year is contingent upon legislative appropriation of funds for the contract. Should said funds not be appropriated, the State may terminate the contract with respect to those payments for the fiscal years for which such funds are not appropriated. The State will give the contractor written notice thirty (30) days prior to the effective date of any termination, and advise the contractor of the location (address and room number) of any related equipment. All obligations of the State to make payments after the termination date will cease and all interest of the State in any related equipment will terminate. The contractor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date. In no event shall the contractor be paid for a loss of anticipated profit.

AA. BREACH BY CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may terminate the contract, in whole or in part, if the contractor fails to perform its obligations under the contract in a timely and proper manner. The State may, by providing a written notice of default to the contractor, allow the contractor to cure a failure or breach of contract within a period of thirty (30) days (or longer at State's discretion considering the gravity and nature of the default). Said notice shall be delivered by Certified Mail, Return Receipt Requested or in person with proof of delivery. Allowing the contractor time to cure a failure or breach of contract does not waive the State's right to immediately terminate the contract for the same or different contract breach which may occur at a different time. In case of default of the contractor, the State may contract the service from other sources and hold the contractor responsible for any excess cost occasioned thereby.

BB. ASSURANCES BEFORE BREACH

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

If any document or deliverable required pursuant to the contract does not fulfill the requirements of the Request for Proposal/resulting contract, upon written notice from the State, the contractor shall deliver assurances in the form of additional contractor resources at

no additional cost to the project in order to complete the deliverable, and to ensure that other project schedules will not be adversely affected.

CC. PENALTY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

In the event that the contractor fails to perform any substantial obligation under the contract, the State may withhold all monies due and payable to the contractor, without penalty, until such failure is cured or otherwise adjudicated. Failure to meet the dates stipulated in the contract for the deliverables may result in an assessment of penalty due the State of $1000.00 dollars per day, until the deliverables are approved. Contractor will be notified in writing when penalty will commence.

DD. FORCE MAJEURE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Neither party shall be liable for any costs or damages resulting from its inability to perform any of its obligations under the contract due to a natural disaster, or other similar event outside the control and not the fault of the affected party ("Force Majeure Event"). A Force Majeure Event shall not constitute a breach of the contract. The party so affected shall immediately give notice to the other party of the Force Majeure Event. The State may grant relief from performance of the contract if the contractor is prevented from performance by a Force Majeure Event. The burden of proof for the need for such relief shall rest upon the contractor. To obtain release based on a Force Majeure Event, the contractor shall file a written request for such relief with the State Purchasing Bureau. Labor disputes with the impacted party's own employees will not be considered a Force Majeure Event and will not suspend performance requirements under the contract.

EE. PROHIBITION AGAINST ADVANCE PAYMENT

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Payments shall not be made until contractual deliverable(s) are received and accepted by the State.

FF. PAYMENT

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

State will render payment to contractor when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the contractor as solely determined by the State. Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408). The State may require the contractor to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any services provided by the contractor prior to the Effective Date, and the contractor hereby waives any claim or cause of action for any such services.

GG. INVOICES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Invoices for payments must be submitted by the contractor to the agency requesting the services with sufficient detail to support payment. Invoices must be submitted to: Medicaid and Long-Term Care Division, P.O. Box 95026, Lincoln, NE 68509. The terms and conditions included in the contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract.

HH. AUDIT REQUIREMENTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All contractor books, records and documents relating to work performed or monies received under the contract shall be subject to audit at any reasonable time upon the provision of reasonable notice by the State. These records shall be maintained for a period of five (5) full years from the date of final payment, or until all issues related to an audit, litigation or other action are resolved, whichever is longer. All records shall be maintained in accordance with generally accepted accounting principles.

In addition to, and in no way in limitation of any obligation in the contract, the contractor shall agree that it will be held liable for any State audit exceptions, and shall return to the State all payments made under the contract for which an exception has been taken or which has been disallowed because of such an exception. The contractor agrees to correct immediately any material weakness or condition reported to the State in the course of an audit.

II. TAXES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State is not required to pay taxes of any kind and assumes no such liability as a result of this solicitation. Any property tax payable on the contractor's equipment which may be installed in a state-owned facility is the responsibility of the contractor.

JJ. INSPECTION AND APPROVAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Final inspection and approval of all work required under the contract shall be performed by the designated State officials. The State and/or its authorized representatives shall have the right to enter any premises where the contractor or subcontractor duties under the contract are being performed, and to inspect, monitor or otherwise evaluate the work being performed. All inspections and evaluations shall be at reasonable times and in a manner that will not unreasonably delay work.

KK. CHANGES IN SCOPE/CHANGE ORDERS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may, at any time with written notice to the contractor, make changes within the general scope of the contract. Changes in scope shall only be conducted with the written approval of the State's designee as so defined by the State from time to time. (The State retains the right to employ the services of a third party to perform any change order(s)).

The State may, at any time work is in progress, by written order, make alterations in the terms of work as shown in the specifications, require the performance of extra work, decrease the quantity of work, or make such other changes as the State may find necessary or desirable. The contractor shall not claim forfeiture of contract by reasons of such changes by the State. Changes in work and the amount of compensation to be paid to the contractor for any extra work so ordered shall be determined in accordance with the applicable unit prices of the contractor's proposal.

Corrections of any deliverable services or performance of work required pursuant to the contract shall not be deemed a modification requiring a change order.

LL. SEVERABILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

MM. CONFIDENTIALITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All materials and information provided by the State or acquired by the contractor on behalf of the State shall be regarded as confidential information. All materials and information provided by the State or acquired by the contractor on behalf of the State shall be handled in accordance with Federal and State Law, and ethical standards. The contractor must ensure the confidentiality of such materials or information. Should said confidentiality be breached by a contractor; contractor shall notify the State immediately of said breach and take immediate corrective action.

It is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable to contractors by 5 U.S.C. 552a (m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

NN. PROPRIETARY INFORMATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Data contained in the proposal and all documentation provided therein, become the property of the State of Nebraska and the data becomes public information upon opening the proposal. If the bidder wishes to have any information withheld from the public, such information must fall within the definition of proprietary information contained within Nebraska's public record statutes. All proprietary information the bidder wishes the State to withhold must be submitted in a sealed package, which is separate from the remainder of the proposal. The separate package must be clearly marked PROPRIETARY on the outside of the package. Bidders may not mark their entire Request for Proposal as proprietary. Bidder's cost proposals may not be marked as proprietary information. Failure of the bidder to follow the instructions for submitting proprietary and copyrighted information may result in the information being viewed by other bidders and the public. Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, bidders submitting information as proprietary may be required to prove specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive. Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State's definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information.

OO. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

By submission of this proposal, the bidder certifies, that he or she is the party making the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham proposal, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the proposal price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the proposal are true; and further that the bidder has not, directly or indirectly, submitted his or her proposal price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

PP. PRICES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All prices, costs, terms and conditions outlined in the proposal shall remain fixed and valid commencing on the opening date of the proposal until an award is made (and for bidder

receiving award prices shall remain as bid for the duration of the contract unless otherwise so stated in the contract) or the Request for Proposal is cancelled.

Contractor represents and warrants that all prices for services, now or subsequently specified are as low as and no higher than prices which the contractor has charged or intends to charge customers other than the State for the same or similar products and services of the same or equivalent quantity and quality for delivery or performance during the same periods of time. If, during the term of the contract, the contractor shall reduce any and/or all prices charged to any customers other than the State for the same or similar products or services specified herein, the contractor shall make an equal or equivalent reduction in corresponding prices for said specified products or services.

Contractor also represents and warrants that all prices set forth in the contract and all prices in addition, which the contractor may charge under the terms of the contract, do not and will not violate any existing federal, state or municipal law or regulations concerning price discrimination and/or price fixing. Contractor agrees to hold the State harmless from any such violation. Prices quoted shall not be subject to increase throughout the contract period unless specifically allowed by these specifications.

QQ. BEST AND FINAL OFFER

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State will compile the final scores for all parts of each proposal. The award may be granted to the highest scoring responsive and responsible bidder. Alternatively, the highest scoring bidder or bidders may be requested to submit best and final offers. If best and final offers are requested by the State and submitted by the bidder, they will be evaluated (using the stated criteria), scored and ranked by the Evaluation Committee. The award will then be granted to the highest scoring bidder. However, a bidder should provide its best offer in its original proposal. Bidders should not expect that the State will request a best and final offer.

RR. ETHICS IN PUBLIC CONTRACTING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

No bidder shall pay or offer to pay, either directly or indirectly, any fee, commission compensation, gift, gratuity, or anything of value to any State officer, legislator or employee based on the understanding that the receiving person's vote, actions or judgment will be influenced thereby. No bidder shall give any item of value to any employee of the State Purchasing Bureau.

Bidders shall be prohibited from utilizing the services of lobbyists, attorneys, political activists, or consultants to secure the contract. It is the intent of this provision to assure that the prohibition of state contact during the procurement process is not subverted through the use of lobbyists, attorneys, political activists, or consultants. It is the intent of the State that the process of evaluation of proposals and award of the contract be completed without external influence. It is not the intent of this section to prohibit bidders from seeking professional advice, for example consulting legal counsel, regarding terms and conditions of this Request for Proposal or the format or content of their proposal.
If the bidder is found to be in non-compliance with this section of the Request for Proposal, they may forfeit the contract if awarded to them or be disqualified from the selection process.

SS. INDEMNIFICATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

1. GENERAL

The contractor agrees to defend, indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State, arising out of, resulting from, or attributable to the willful misconduct, negligence, error, or omission of the contractor, its employees, subcontractors, consultants, representatives, and agents, except to the extent such contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

2. INTELLECTUAL PROPERTY

The contractor agrees it will at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all claims, to the extent such claims arise out of, result from, or are attributable to the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the contractor or its employees, subcontractors, consultants, representatives, and agents; provided, however, the State gives the contractor prompt notice in writing of the claim. The contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the contractor has indemnified the State, the contractor shall at the contractor's sole cost and expense promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality. At the State's election, the actual or anticipated judgment may be treated as a breach of warranty by the contractor, and the State may receive the remedies provided under this RFP.

3. PERSONNEL

The contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any claim with respect to withholding taxes, worker's compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel provided by the contractor.

TT. NEBRASKA TECHNOLOGY ACCESS STANDARDS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Contractor shall review the Nebraska Technology Access Standards, found at http://nitc.nebraska.gov/standards/2-101.html and ensure that products and/or services provided under the contract comply with the applicable standards. In the event such standards change during the contractor's performance, the State may create an amendment to

the contract to request that contract comply with the changed standard at a cost mutually acceptable to the parties.

UU. ANTITRUST

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

VV. DISASTER RECOVERY/BACK UP PLAN

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall have a disaster recovery and back-up plan, of which a copy should be provided to the State, which includes, but is not limited to equipment, personnel, facilities, and transportation, in order to continue services as specified under these specifications in the event of a disaster.

WW. TIME IS OF THE ESSENCE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Time is of the essence in this contract. The acceptance of late performance with or without objection or reservation by the State shall not waive any rights of the State nor constitute a waiver of the requirement of timely performance of any obligations on the part of the contractor remaining to be performed.

XX. RECYCLING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Preference will be given to items which are manufactured or produced from recycled material or which can be readily reused or recycled after their normal use as per state statute (Neb. Rev. Stat. §81-15, 159).

YY. DRUG POLICY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Contractor certifies that it maintains a drug free work place environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State.

ZZ. NEW EMPLOYEE WORK ELIGIBILITY STATUS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security

or other federal agency authorized to verify the work eligibility status of a newly hired employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us.

2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

AAA. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor, by signature to this RFP, certifies that the contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from participating in transactions (debarred). The contractor also agrees to include the above requirements in any and all subcontracts into which it enters. The contractor shall immediately notify the Department if, during the term of this contract, contractor becomes debarred. The Department may immediately terminate this contract by providing contractor written notice if contractor becomes debarred during the term of this contract.

IV. PROJECT DESCRIPTION AND SCOPE OF WORK

In March 2010, PPACA and the Health Care and Education Reconciliation Act of 2010 were signed into law. The two laws are collectively referred to as the Affordable Care Act (ACA). Sections of the ACA, codified at 42 CFR 431, 435, and 437, require the creation of a health insurance exchange in each state, either by the state or by the federal government. The State of Nebraska will employ the Federally Facilitated Marketplace (Marketplace) option.

An analysis was conducted by the Nebraska Department of Health and Human Services' (Department) to determine the most desirable option for meeting ACA compliance, and CMS Seven Standards and Conditions as defined in Medicaid IT Supplement (MITS-11-01-v1.0). The analysis revealed that replacing the current Medicaid eligibility and enrollment system with a modern solution was the best course of action given the project constraints The same analysis revealed there was not enough time to procure and implement a solution by the ACA mandated deadline of October 1, 2013.

The purpose of this RFP is to select a Contractor who is responsible for performing Independent Verification and Validation (IV&V) services for implementing a new Eligibility and Enrollment Solution (EES). The Department plans to release an RFP to procure an Eligibility and Enrollment Solution. The RFP will procure the products and services of a Systems Integrator with an Eligibility and Enrollment Solution.

Nebraska's existing Eligibility and Enrollment System is almost twenty years old. The current system was developed with client/server technology. Nebraska intends to complete replacement of the existing Medicaid Eligibility and Enrollment System in order to access the enhanced federal matching funds for these legacy system replacements since the enhanced funding expires at the end of 2015.

The Department will award one Contractor to fulfill all the IV&V responsibilities described herein. The awarded IV&V Contractor shall review EES related artifacts defined by the Department to gain sufficient understanding of the EES project.

The IV&V services described in this RFP must comply with IV&V regulatory requirements detailed in 45 CFR 95.626, which requires that IV&V efforts be conducted by an entity that is independent. The IV&V contractor is required to:

1. Develop an IV&V Workplan. The plan must be provided directly to the Centers for Medicare and Medicaid (CMS) at the same time it is given to the Department.
2. Review and make recommendations on both the management of the EES project (Department and Contractor), and the technical aspects of the project. The IV&V Contractor must provide the results of its analysis directly to CMS at the same time it reports to the State.
3. Consult with all stakeholders and assesse the user involvement and buy-in regarding system functionality and the system's ability to support program business needs.
4. Conduct an analysis of past project performance sufficient to identify and make recommendations for improvement.
5. Provide EES risk management assessment.
6. Develop EES performance metrics which allow tracking project completion against milestones set by the Department.

The bidder must provide the following information in response to this Request for Proposal.

A. PROJECT OVERVIEW

The purpose of this procurement is to contract for the IV&V services to assist the Department to ensure the success of the EES project by facilitating early detection and correction of errors, enhance management insight into risks and ensure compliance with project performance, schedule, and budget requirements. The Information Systems and Technology (IS&T) Division provides leadership, project management, planning, implementation, and support services for information technology for the Department. IS&T will provide support for the project, including the technical planning, implementation, testing and maintenance of the new solution.

The Department is seeking proposals from qualified bidders with IV&V expertise, project management expertise, and relevant past experience performing IV&V work for Medicaid eligibility determination systems similar to the system that will be developed for the State.

The Department seeks an IV&V contractor who will bring project personnel, processes, approaches and tools to meet the requirements of the IV&V services for the EES Project.

The IV&V scope of work includes:

1. Program Management
2. Deliverables Review and Acceptance
3. Quality Assurance
4. Contract Compliance

The contractor awarded the IV&V contract for the EES project, their subcontractor(s) and vendor(s) are precluded from submitting an EES proposal, assisting another company in making a proposal, or otherwise materially participating in any subsequent contract related to the EES project.

B. PROJECT REQUIREMENTS

The IV&V Contractor will perform all IV&V responsibilities defined in this RFP throughout the life of the contract including the optional renewal period. The IV&V Contractor is expected to actively participate in meetings and to contribute IV&V expertise to all phases of the EES Project to ensure that the EES Contractor activities result in successful project completion.

The IV & V project requirements are outlined in the following sections. The tasks and activities within this section are not necessarily listed in the order that they should be completed. Bidders must reflect within their proposal and preliminary project plan their recommended approach to scheduling and accomplishing the tasks and activities identified within this RFP.

1. PROGRAM MANAGEMENT

Perform a review of IV&V project activities for the EES Project which shall be documented and submitted in the appropriate Management Briefing, EES Management, Project Status or Deliverable Review Report. Activities shall include but not be limited to:

a. Delivery of an Initial Project Assessment Report that includes the initial status of each activity shown on the IV&V Management Plan for the EES project.
b. A review of the EES Contractor's analysis of risk areas of the implementation of the EES Component and the risk mitigation plan for those identified risks. The IV&V Contractor shall include recommendations for any deficiencies it finds during its review of the risk mitigation plans. The results and recommendation

of the analysis shall be written and presented as part of the Risk Assessment Report.

c. Hosting the Monthly Management Briefings at times approved by the Department.

d. Attendance at all status meetings between the Department and the EES Contractor, which will occur on at least a monthly basis and may occur more regularly based on the phase and stage of the implementation of the EES.

e. Assessment of the methodology for maintaining requirements traceability throughout the transfer and development process.

f. A review all MITA documentation, guidance and rules promulgated by CMS..

g. A review all ACA Regulations documentation, guidance and rules promulgated by CMS.

h. Notification to the Department if any MITA documentation, guidance and rules, or any changes to those items, will impact the implementation of any EES Component or the work performed by any EES Contractor.

i. Notification to the Department if any ACA Regulation documentation, guidance and rules, or any changes to those items, will impact the implementation of any EES Component or the work performed by any EES Contractor.

j. Performance of program management services for all EES activities. These program management services shall include, at a minimum, all of the following:

- **i.** Assess the progress of the implementation of the entire EES project, and recommend improvements as necessary.
- **ii.** Verify that lines of reporting and associated responsibility within the EES Contractor to ensure adequate technical and managerial oversight of the project.
- **iii.** Verify the EES Contractor and the State are not independently duplicating effort toward the same end.
- **iv.** Evaluate project progress, resources, budget, schedules, work flow and reporting.
- **v.** Verify the EES Contractor has created a project management plan and that the EES Contractor is following the approved project management plan.
- **vi.** Evaluate the project management plans and procedures to verify that they are developed, communicated, implemented, monitored and complete.
- **vii.** Evaluate project reporting plan and actual project reports to verify project status is accurately traced using project metrics.
- **viii.** Verify milestones and completion dates contained in the EES Contractor's project management plan and contract are planned, monitored and met.
- **ix.** Verify the EES Contractor has created and implemented an appropriate project issue tracking mechanism that documents issues as they arise, enables communication of issues to proper stakeholders, documents a mitigation strategy as appropriate, and tracks the issue to closure.
- **x.** Evaluate the EES Contractor's planned life-cycle development methodology or methodologies (e.g. waterfall, evolutionary spiral, rapid prototyping, or incremental) to see if they are appropriate for the EES component that EES Contractor is developing.
- **xi.** Verify that all business process reengineering recommendations are strategic, have management backing, resources, skills and incentives necessary for effective change.

xii. Verify that the EES Contractor has a change management plan and that the change management plan and procedures to verify them are developed, communicated, implemented, monitored and complete.

xiii. Verify that the EES Contractor has a communication plan and that that plan is being followed.

xiv. Evaluate the EES Contractor's communication plans and procedures to verify that they support communications and work product sharing between all project stakeholders and that the communication plans and strategies are effective, implemented, monitored and complete.

k. Manage the identification, resolution and tracking of stakeholder concerns, both internal and external.

l. All documentation and deliverables produced in the performance by the IV&V Contractor must be stored in a central repository to be designated by the Department.

2. DELIVERABLE REVIEW AND ACCEPTANCE

As part of the Deliverable Review Report, the IV&V Contractor shall assess the EES Deliverables based upon quality attributes including:

a. Adherence to Requirements;
b. Clarity;
c. Completeness;
d. Consistency;
e. Traceability: and
f. Adherence to laws, rules and guideline.

Deliverable review shall be performed by identified IV&V resources that are experienced and/or certified in the related technical, functional, and federal requirements of the deliverable under review, and comments shall be submitted to Department as part of the Deliverable Review Report within a timeframe that allows inclusion of IV&V feedback in Department's response to the EES Contractor.

The IV&V Contractor shall perform the following Deliverable Review and Acceptance tasks:

a. Develop and submit a Performance Metrics Document to track project completion against milestones set by the Department using Department approved performance metrics.

b. Review each deliverable and report submitted by the EES Contractor, as directed by the Department, for content, quality and timeliness.

c. Notify the Department of any EES Contractor submitted management reports that do not contain the content required for that report, are of not sufficient quality or were not submitted in a timely manner.

d. Participate in walk-through of EES Contractor deliverables as requested by the Department.

e. Assess each reviewed deliverable and recommend a corrective action plan for each deliverable that fails to achieve the standards or timelines in that EES Contractor's contract with the Department.

f. The IV&V Contractor will work with the Department to define criteria for a Critical Incident which could adversely affect the outcome of the EES Project.

g. Notify the Department immediately when the IV&V Contractor discovers any Critical Incident. Provide an EES Contractor Critical Incident Report for each Critical Incident that summarizes the incident, how it may affect the project, notes any discrepancies found by the IV&V Contractor and provides a proposed action plan to resolve the incident and mitigate its impact.

3. QUALITY ASSURANCE

The IV&V Contractor shall perform the following Quality Assurance tasks:

a. Write and verbally present Management Briefings on a monthly basis regarding the performance of the EES Contractor and the monitoring performed by the IV&V Contractor. This Management Briefing shall include, at a minimum, all of the following:

- **i.** The current general status of the EES Contractor in relation to the EES Contractor's work plans and implementation plans.
- **ii.** Any flaws or issues with the system design for each EES Component that may negatively impact the implementation of the EES with recommendations to mitigate or eliminate those flaws or issues.
- **iii.** Any flaws or issues regarding system security for each EES component that may negatively impact the implementation of the EES with recommendations to mitigate or eliminate those flaws or issues.
- **iv.** The results of any system testing or retesting performed during the prior month and recommendations on how to resolve any flaws or issues identified as a result of that system testing or retesting.
- **v.** Any flaws or issues with the interfaces within each EES Component, between each of the EES Components or between the EES Components and external systems that may negatively impact the implementation of the EES with recommendations to mitigate or eliminate those flaws or issues.
- **vi.** Any delays or issues with the transition from the Department's current Eligibility and Enrollment System to any EES Contractor and recommendations to mitigate or eliminate those delays or issues.
- **vii.** The results of all acceptance testing performed during the prior month and recommendations on how to resolve any flaws or issues identified as a result of that testing.
- **viii.** The status of the overall implementation and operation of each EES Component and any flaws or issues that are negatively impacting the operation of any EES Component with recommendations on how to resolve those issues or flaws.
- **ix.** Any recommendations regarding training provided by the EES Contractor to system users.
- **x.** Any recommendations regarding the EES Contractors' progress and procedures for managing requirements.
- **xi.** Any recommendations regarding each EES Contractor's policies and procedures for ensuring that each EES Component is secure and that the privacy of Client data is maintained.

4. CONTRACT COMPLIANCE

The IV&V Contractor shall perform the following EES Contract Compliance tasks which shall be documented and submitted in the appropriate Management Briefing, EES Management, Project Status or Deliverable Review Report:

a. As part of developing and submitting the Estimating and Schedule Review Recommendation Report evaluate and make recommendations on the estimating and scheduling process of the EES Project to ensure that the project budget and EES resources are adequate for the work break-down structure and schedule.

b. Review EES schedules to verify that adequate time and resources are assigned for planning, development, review, testing and rework.

c. Perform ongoing assessments of EES Contractor staffing, which include key and non-key personnel, to ensure adequate staffing for the EES Contractor to comply with their contract and maintain service levels defined throughout the EES contract.

d. Examine the job assignments, skills, training and experience of the EES Contractor personnel involved in program development to verify that they are adequate for the development task.

e. Verify that the EES Contractor's organizational structure supports training, process definition, independent Quality Assurance, Configuration Management, product evaluation, and any other functions critical for the project's success.

f. Monitor the performance of the EES Contractor to ensure that EES Contractor is in compliance with its contract with the Department and that the solution that EES Contractor is developing meets all requirements of its contract with the Department. This shall include, but is not limited to, monitoring all of the following:

- **i.** EES Contractor work plans.
- **ii.** EES Contractor implementation plans.
- **iii.** General Solution design for each EES Component.
- **iv.** Detailed Solution design for each EES Component.
- **v.** Solution security for each EES Component.
- **vi.** Solution testing for each EES Component.
- **vii.** EES Contractor transition from the Department's existing NE Eligibility and Enrollment System.
- **viii.** Acceptance Testing for each EES Component.

g. The IV&V Contractor shall evaluate the EES Contractor's progress and procedures for managing requirements. This shall include at minimum all of the following:

- **i.** Verify that system requirements are well-defined, understood and documented.
- **ii.** Verify that software requirements can be traced through design, code and test phases to verify that the system performs as intended and contains no unnecessary software elements.
- **iii.** Verify that requirements are under formal configuration control.
- **iv.** Evaluate on the EES Contractor's policies and procedures for ensuring that each EES Component is secure and that the privacy of Client data is maintained. This shall include all of the following:

a) Evaluate the restrictions on system and data access.
b) Evaluate the system security plan to ensure it meets Department standards.

v. Verify that EES processes and equipment are in place to back up client and project data files and archive them safely at appropriate levels.

vi. The IV&V Contractor shall verify that the EES Contractor has performed an adequate requirements analysis for that EES Contractor's deliverables. This shall include a verification of all of the following:

a) An analysis of client, State, and Federal needs and objectives has been performed to verify that requirements of the system are well understood, well defined and satisfy federal regulations.
b) All stakeholders have been consulted to the desired functionality of the system, and that users have been involved in prototyping of the user interface.

vii. All stakeholders have bought-in to all changes with impact project objectives, cost and schedule.
viii. EES Performance requirements satisfy user needs.
ix. User's maintenance requirements for the system are completely specified.

h. The IV&V Contractor shall verify that the EES Contractor has described all system interfaces for each EES Component exactly, by medium and by function, including input/output control codes, data format, polarity, range, units and frequency. The IV&V Contractor shall also verify that all approved interface documents are available and that appropriate relationships are in place with all agencies and organizations supporting the interfaces.
i. The IV&V Contractor shall verify that there is a well-defined plan for transferring data from the legacy system to the new EES.

5. EES SOFTWARE DEVELOPMENT

The IV&V Contractor shall evaluate both the high level and detailed design of any custom software developed or used by the EES Contractor for any EES component. The Design and Analysis Review Report shall include at minimum all of the following:

a. Evaluate all high-level design products to verify the design is workable, efficient, and satisfies all system and system interface requirements.
b. Evaluate all detail design products to verify that the design is workable, efficient, and satisfies all high level design requirements.
c. Evaluate the design products for adherence to the project design methodology and standards.
d. Evaluate the design and analysis process used to develop the design and make recommendations for improvements.
e. Evaluate design standards, methodology and CASE tools used.
f. Verify that design requirements can be traced back to system requirements.
g. Verify that all design products are under configuration control and formally approved before detailed design begins.
h. Verify that all design products are under configuration control and formally approved before coding begins.

i. The IV&V Contractor shall evaluate the plans, requirements, environment, tools, and procedures used for unit testing system modules as well as the level of test automation, interactive testing, and interactive debugging available in the test environment.

j. The IV&V Contractor shall review all unit testing to ensure that an appropriate level of test coverage was achieved by the test process, that test results were verified, that the correct code configuration was tested, and that the tests were appropriately documented. The IV&V Contractor shall develop and submit a Unit Testing Review Report documenting the results of all unit testing reviews and evaluations.

6. SYSTEM TESTING

The IV&V Contractor shall review all system testing performed on each EES component and submit all findings as part of the Management Briefing, Unit Testing or Critical Incident Reports. This review shall include the following:

a. Assess planned testing activities, results reporting, and error correction/resolution, including an appropriate change control and configuration management process, to include all of the following:

- **i.** Assess test efforts and schedules are based on defined requirements priorities as well as project risk.
- **ii.** Assess test scenarios address the testable requirements.
- **iii.** Assess specific business cases and test verification efforts for each case has been defined.
- **iv.** Conduct reviews of testing to ensure that critical elements of the EES are stable and comply with Department requirements as detailed in the Department's contract with the EES Contractor.
- **v.** Evaluate the plans, requirements, environment, tools, and procedures used for system testing.
- **vi.** Evaluate the level of automation and the availability of the system test environment.

b. Verify that an appropriate level of test coverage is achieved by the test process, that test results are verified, that the correct code configuration has been tested, and that the tests are appropriately documented, including formal logging of errors found in testing.

c. Verify that the individuals conducting the test have an appropriate level of independence from those completing the development.

d. Verify that a sufficient number and type of case scenarios are used to ensure comprehensive but manageable testing and those tests are run in a realistic, real-time environment.

e. Verify that test scripts are complete, with step-by-step procedures, required pre-existing events or triggers and expected results.

7. DATA MANAGEMENT

The IV&V Contractor shall evaluate the EES Contractors' proposed plans, procedures and software for data conversion and submit a Data Conversion Process Review Report. This evaluation shall include, at a minimum, all of the following:

a. Verify that procedures are in place and are being followed to review the completed data for completeness and accuracy and to perform data clean-up as required.

b. As part of developing the Data Conversion Error Report, determine conversion error rates and if the error rates are manageable.

c. Make recommendations on the conversion process to make it more efficient and on maintain the integrity of data during the conversion.

d. The IV&V Contractor shall evaluate all EES Contractor database designs and system processes/workflows to determine if they meet system requirements contained in the EES Contractor's contract with the Department. This shall include an evaluation of all of the following:

i. The design for maintainability, scalability, refresh-ability, concurrence, normalization and any other factors affecting performance and data integrity.

ii. The process for administering the database, including backup, recovery, performance analysis and control of data item creation.

C. BUSINESS REQUIREMENTS

The IV&V Contractor shall develop a comprehensive Project Management Plan (IV&V Project Management Plan) for Department approval, and shall manage and carry out the IV&V services in accordance with the IV&V Project Management Plan. The IV&V Project Management Plan (PMP) must include at a minimum the following elements:

1. Description of how the IV&V Contractor plans to carry out the IV&V services. This description should include methodologies, strategies, standards, and approaches employed by the IV&V Contractor for executing each of the IV&V activities within this Scope of Work.

2. High level IV&V services schedule which aligns with the EES Master Project Schedule.

3. Detailed schedule that includes activities, tasks, task work effort estimates, estimated start and end dates, durations, deliverables, and assigned resources.. Coordinate and align the IV&V deliverable schedule with the Department and the EES Contractors.

4. Organizational structure which reflects, among other things, the need to coordinate activities among the Department, IV&V, and EES Contractor.

5. Description of resources assigned to activities, tasks and the IV&V deliverable creation.

6. Assigned personnel dedicated to the IV&V reviews on the EES project.

7. Description of the deliverables produced as a result of IV&V activities.

The IV&V Contractor shall perform ongoing program monitoring activities and shall review and validate issues/deficiencies/risks identified with the Department Project Management Team and the EES Contractor. Project monitoring tasks include but are not limited to:

1. Review and validate all project work plans and schedules, including staffing levels.

2. Develop and submit an EES Project Status and Milestone Report to monitor all project milestones and costs.

3. Perform ongoing assessments of project staffing levels (key and non-key personnel) and report on the ability to meet project schedule and milestones.

4. Provide Risk Assessment Reports for all project risks, with proposed mitigation strategies.

5. Monitor the Department's ACA project management office practices, processes and deliverables.

The IV&V Contractor shall conduct verification and validation reviews of the quality and completeness of critical path deliverables produced by the awarded contractor for the EES Project to help ensure they meet the requirements and expectations of the Department, CMS, and internal and external stakeholders.

D. SCOPE OF WORK

The following Scope of Work sections focus on the key IV&V activities and requirements for the Eligibility and Enrollment Solution project. Specifically:

1. Program Management - Oversight and acceptance of PMP Deliverables, Executive Committee Participation and Monthly Status Reporting
2. Deliverables Review and Acceptance
3. Quality Assurance
4. Contract Compliance

E. EES TECHNOLOGY REVIEW

The IV&V Contractor shall develop and submit a Technical Recommendations Report as part of performing the following defined EES Technology Review tasks:

1. EES Operating Environment

The IV&V Contractor will evaluate each EES Component for all of the following:

a. System hardware configurations to determine if their performance is adequate to meet proposed system requirements as defined in the EES contract.
b. Compatibility with the State's existing processing environment, if it is maintainable, and if it is easily upgradeable. This evaluation will include, but is not limited to Central Processing Units (CPUs) and other processors, memory, network connections, and bandwidth, communication controllers, telecommunications systems (Local Area Network/Wide Area Network [LAN/WAN]), terminals, printers, and storage devices.
c. System software to determine if its capabilities are adequate to meet proposed system requirements.
d. Whether the software is maintainable and easily upgradeable.
e. Projected service provider support of the hardware and software.
f. Database products to determine if their capabilities are adequate to meet proposed system requirements.
g. The database's data format to determine if it is easily convertible to other formats, if it supports the addition of new data items, if it is scalable, if it is easily refreshable and if it is compatible with the State's existing hardware and software, including any on-line transaction processing environment.
h. Processing capacity of the system to determine if it is adequate for current statewide needs for both batch and on-line processing.
i. The system's capacity to support future growth.

The Contractor shall make recommendations on changes in processing hardware, storage, network systems, operating systems, consumer off the shelf software, and software design to meet future growth and improve system performance.

F. PROJECT PLANNING AND MANAGEMENT

The IV&V Contractor shall ensure that staff attending meetings between the Department and the IV&V Contractor has the authority to represent and commit the IV&V Contractor regarding work planning, problem resolution and program development.

At the Department's direction, the Contractor shall make its Key Personnel and other personnel assigned to the Contract available to attend meetings as subject matter experts with stakeholders both within the State government and external or private stakeholders. The IV&V Contractor shall be present at all scheduled status meetings between the Department and EES Vendor, unless the Department provides permission otherwise.

All of the IV&V Contractor's personnel that attend any meeting with the Department or other Department stakeholders shall be physically present at the location of the meeting, unless the Department gives prior, written permission to attend by telephone or video conference. In the event that the Contractor has any personnel attend by telephone or video conference and are the only entity not at the location of the meeting, the IV&V Contractor shall be responsible for providing the conference line or virtual meeting place.

The IV&V Contractor shall respond to all telephone calls, voicemails and emails from the Department within one (1) Business Day of receipt by the IV&V Contractor.

G. DELIVERABLES

The IV&V Contractor must provide the deliverables required by CMS and defined in the IV&V activities.

1. THE IV&V DELIVERABLES INCLUDE

- **a.** Initial Project Assessment Report
- **b.** IV&V Project Management Plan
- **c.** IV&V Project Status Report
- **d.** IV&V Project Schedule
- **e.** Performance Standards Planning Document
- **f.** Performance Metrics Document
- **g.** Monthly Management Briefing Report
- **h.** Risk Assessment Report
- **i.** EES Estimating and Schedule Review Recommendations Report
- **j.** EES Deliverable Review Report
- **k.** Critical Incident Report
- **l.** EES Project Milestone and Cost Status Report
- **m.** EES Estimating and Schedule Review Recommendations Report
- **n.** EES Design and Analysis Review Report
- **o.** Unit Testing Review Report
- **p.** EES Technical Recommendations Report
- **q.** Data Conversion Process Review Report
- **r.** Data Conversion Error Report

Once the detailed IV&V Project Plan is approved by the Department, the following sections detail the process for submission and review of deliverables during the life of the project/contract.

The IV&V Contractor must provide one electronic copy of each deliverable to the appropriate Department Project manager as identified in the contract. Once a deliverable is approved and

accepted by Department, the IV&V Contractor must upload an electronic copy into the designated Department SharePoint site.

Deliverables will be evaluated by the Department utilizing mutually agreed to acceptance/exit criteria.

2. DELIVERABLE SUBMISSION

Prior to development and submission of Department specified contract deliverable, a Deliverables Expectations Document (DED) containing a description of the format and content of each deliverable will be delivered to the Department for review and approval. The DED must contain, at a minimum, the following:

a. Cover letter;
b. Table of Contents with a brief description of the content of each section;
c. Anticipated number of pages; and
d. Identification of appendices/exhibits

The DED must contain an approval/rejection section that can be completed by the Department. The summary document will be returned to the IV&V Contractor within a mutually agreed upon time frame. Deliverables must be developed by the IV&V Contractor according to the approved format and content of the summary document for each specific deliverable.

At a mutually agreed to meeting, on or before the time of delivery to Department, the IV&V Contractor must provide a walkthrough of each IV&V deliverable. IV&V Deliverables must be submitted no later than 5:00 PM CST, per the approved contract deliverable schedule and must be accompanied by a deliverable sign-off form with the appropriate sections completed by the IV&V Contractor.

3. DELIVERABLE REVIEW

The Department's review time begins on the next business day following receipt of the deliverable. The Department's review time will be determined by the approved and accepted detailed project plan and the approved contract. The Department has up to five (5) working days to determine if a deliverable is complete and ready for review. Unless otherwise negotiated, this is part of the Department's review time.

Any subsequent deliverable dependent upon the Department's acceptance of a prior deliverable will not be accepted for review until all issues related to the previous deliverable have been resolved. Deliverables determined to be incomplete and/or unacceptable for review will be rejected, not considered delivered and returned to the IV&V Contractor. After review of a deliverable, the Department will return to the IV&V Contractor the project deliverable sign-off form with the deliverable submission and review history section completed.

4. DELIVERABLES ACCEPTANCE

If the deliverable is accepted, the original deliverable sign-off form signed by the appropriate Department representatives will be returned to the Contractor.

Comments/Revisions Requested by the State

If the Department has comments and/or revisions to a deliverable, the following will be provided to the IV&V Contractor:

a. The original deliverable sign-off form with an updated entry to the deliverable submission and review history section.
b. Attached to the deliverable sign-off form will be a detailed explanation of the revisions to be made and/or a marked up copy of the deliverable.
c. The Department's first review and return with comments will be completed within the times specified in the contract.
d. The IV&V Contractor will have five (5) working days, unless otherwise mutually agreed to, for review, acceptance and/or rejection of the Department's comments.

A meeting to resolve outstanding issues must be completed within three (3) business days after completion of the IV&V Contractor's review or a mutually agreed upon time frame. Agreements made during meetings to resolve issues must be documented separately. Once an agreement is reached regarding changes, the IV&V Contractor must incorporate them into the deliverable for resubmission to the Department. All changes must be easily identifiable by the Department.

Resubmission of the deliverable must occur within five (5) business days or a mutually agreed upon time frame of the resolution of any outstanding issues. The resubmitted deliverable must be accompanied by the original deliverable sign-off form. This review process continues until all issues have been resolved within a mutually agreed upon time frame.

During the re-review process, the Department will only comment on the original exceptions noted. All other items not originally commented on are considered to be accepted by the Department. Once all revisions have been accepted, the original deliverable sign-off form signed by the appropriate the Department representatives will be returned to the IV&V Contractor.

The IV&V Contractor must provide one (1) updated electronic copy of each deliverable after approval and acceptance by the Department. At this point the IV&V Contractor must submit the Department approved deliverable to CMS.

5. REJECTED, NOT CONSIDERED DELIVERED

If the Department considers a deliverable not ready for review, the following will be returned to the IV&V Contractor:

a. The original deliverable sign-off form with an updated entry to the deliverable submission and review history section.
b. The original deliverable and all copies with a written explanation as to why the deliverable is being rejected, not considered delivered.
c. The IV&V Contractor will have five (5) business days, unless otherwise mutually agreed to, for review, acceptance and/or rejection of the Department's comments.

A meeting to discuss the Department's position regarding the rejection of the deliverable must be completed within three (3) business days after completion of the IV&V Contractor's review or a mutually agreed upon time frame. Resubmission of the deliverable must occur within a mutually agreed upon time frame. The resubmitted deliverable must be accompanied by the original deliverable sign-off form.

Upon resubmission of the completed deliverable, the Department will follow the steps outlined in this process.

H. REPORTING REQUIREMENTS

The IV&V Contractor shall deliver the IV&V Project Status Report to the Department on a monthly basis. The monthly IV&V Project Status Report should contain, at a minimum, all of the following:

1. Written support and documentation of all items to be presented during the next Management Briefing.

2. The results or findings of any assessments, evaluations, reviews or verifications completed during the prior month or updates in relation to any of the following areas:

- **a.** CMS guidance.
- **b.** Operational oversight.
- **c.** Overview of IV&V Contractor Management Plan updates;
- **d.** Overview of periodic reviews of the EES Project;
- **e.** Updates to Risk Analysis and Mitigation Plan Review;
- **f.** Overview of Corrective Action Plans produced during the previous month;
- **g.** Overview of EES Contractor Critical Incident Reports;
- **h.** Project Management updates;
- **i.** Quality Assurance updates;
- **j.** EES Operating Environment updates;
- **k.** EES Software Development updates;
- **l.** EES System Testing updates;
- **m.** EES Data Management updates;
- **n.** Any recommendations to mitigate any risk, deficiency or issue discovered as a result of any assessment, evaluation, review or verification completed during the prior month;
- **o.** A Performance Standard Planning Document that includes the status of each activity shown on the IV&V Management Plan for that EES Component as well as the progress since the prior report; and
- **p.** Any updated Work Breakdown Structure developed during the prior month.

V. PROPOSAL INSTRUCTIONS

This section documents the mandatory requirements that must be met by bidders in preparing the Technical and Cost Proposal. Bidders should identify the subdivisions of "Project Description and Scope of Work" clearly in their proposals; failure to do so may result in disqualification. Failure to respond to a specific requirement may be the basis for elimination from consideration during the State's comparative evaluation.

Proposals are due by the date and time shown in the Schedule of Events. Content requirements for the Technical and Cost Proposal are presented separately in the following subdivisions:

A. TECHNICAL PROPOSAL

The Technical Proposal shall consist of four (4) sections:

1. SIGNED "State of Nebraska Request For Proposal For Contractual Services" form;
2. Executive Summary;
3. Corporate Overview; and
4. Technical Approach.

1. REQUEST FOR PROPOSAL FORM

By signing the "Request For Proposal For Contractual Services" form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the Terms and Conditions stated in this Request for Proposal and certifies bidder maintains a drug free work place environment.

The Request For Proposal For Contractual Services form must be signed in ink and returned by the stated date and time in order to be considered for an award.

2. EXECUTIVE SUMMARY

The Executive Summary shall condense and highlight the contents of the solution being proposed by the bidder in such a way as to provide the Evaluation Committee with a broad understanding of the Contractor's Technical Proposal. The Executive Summary should include:

a. A clear and concise summary of the bidder's understanding of the EES project, the IV&V Services and the Department's needs.
b. A clear and concise summary of the proposed approach.
c. A brief summary of the bidder's experience and ability to perform this project.
d. A general description of the capabilities and role of any subcontractors

Bidders must present their understanding of the problems being addressed by implementing a new system, the objectives and intended results of the project, and the scope of work. Bidders shall summarize how their Technical Proposal meets the requirements of the Request for Proposal, and why they are best qualified to perform the work required herein.

3. CORPORATE OVERVIEW

The Corporate Overview section of the Technical Proposal must consist of the following subdivisions:

a. BIDDER IDENTIFICATION AND INFORMATION

The bidder must provide the full company or corporate name, address of the company's headquarters, entity organization (corporation, partnership, proprietorship), state in which the bidder is incorporated or otherwise organized to do business, year in which the bidder first organized to do business, whether the name and form of organization has changed since first organized, and Federal Employer Identification Number and/or Social Security Number.

b. FINANCIAL STATEMENTS

The bidder must provide financial statements applicable to the firm. If publicly held, the bidder must provide a copy of the corporation's most recent audited financial reports and statements, and the name, address and telephone number of the fiscally responsible representative of the bidder's financial or banking organization.

If the bidder is not a publicly held corporation, either the reports and statements required of a publicly held corporation, or a description of the organization, including size, longevity, client base, areas of specialization and expertise, and any other pertinent information must be submitted in such a manner that proposal evaluators may reasonably formulate a determination about the stability and financial strength of the organization. Additionally, a non-publicly held firm must provide a banking reference.

The bidder must disclose any and all judgments, pending or expected litigation, or other real or potential financial reversals, which might materially affect the viability or stability of the organization, or state that no such condition is known to exist.

c. CHANGE OF OWNERSHIP

If any change in ownership or control of the company is anticipated during the twelve (12) months following the proposal due date, the bidder must describe the circumstances of such change and indicate when the change will likely occur. Any change of ownership to an awarded vendor(s) will require notification to the State.

d. OFFICE LOCATION

The bidder's office location responsible for performance pursuant to an award of a contract with the State of Nebraska must be identified.

e. RELATIONSHIPS WITH THE STATE

The bidder shall describe any dealings with the State over the previous two (2) years. If the organization, its predecessor, or any party named in the bidder's proposal response has contracted with the State, the bidder shall identify the contract number(s) and/or any other information available to identify such contract(s). If no such contracts exist, so declare.

f. BIDDER'S EMPLOYEE RELATIONS TO STATE

If any party named in the bidder's proposal response is or was an employee of the State within the past twenty-four (24) months, identify the individual(s) by name, State agency with whom employed, job title or position held with the State, and separation date. If no such relationship exists or has existed, so declare.

If any employee of any agency of the State of Nebraska is employed by the bidder or is a subcontractor to the bidder, as of the due date for proposal submission, identify all such persons by name, position held with the bidder, and position held with the State (including job title and agency). Describe the responsibilities of such persons within the proposing organization. If, after review of this information by the State, it is determined that a conflict of interest exists or may exist, the bidder may be disqualified from further consideration in this proposal. If no such relationship exists, so declare.

g. CONTRACT PERFORMANCE

If the bidder or any proposed subcontractor has had a contract terminated for default during the past five (5) years, all such instances must be described as required below. Termination for default is defined as a notice to stop performance delivery due to the bidder's non-performance or poor performance, and the issue was either not litigated due to inaction on the part of the bidder or litigated and such litigation determined the bidder to be in default.

It is mandatory that the bidder submit full details of all termination for default experienced during the past five (5) years, including the other party's name, address and telephone number. The response to this section must present the bidder's position on the matter. The State will evaluate the facts and will score the bidder's proposal accordingly. If no such termination for default has been experienced by the bidder in the past five (5) years, so declare.

If at any time during the past five (5)years, the bidder has had a contract terminated for convenience, non-performance, non-allocation of funds, or any other reason, describe fully all circumstances surrounding such termination, including the name and address of the other contracting party.

h. SUMMARY OF BIDDER'S CORPORATE EXPERIENCE

The bidder shall provide a summary matrix listing the bidder's previous projects similar to this Request for Proposal in size, scope and complexity, specifically:

- **i.** Experience performing IV&V services for governmental agencies or large private health insurance providers.
- **ii.** Experience with a highly similar task for providing IV&V services on projects of similar scope.
- **iii.** Experience performing IV&V services for a project that included transitioning data from a legacy or existing system into a new system.
- **iv.** Demonstrated knowledge and understanding of the CMS Enterprise Life Cycle Gate Review process including required documents and their associated templates.
- **v.** Experience with CMS's Medicaid Information Technology Architecture (MITA).
- **vi.** Experience working with CMS or projects that had CMS oversight.

The State will use no more than three (3) narrative project descriptions submitted by the bidder during its evaluation of the proposal.

The bidder must address the following:

vii. Bidder must provide narrative descriptions to highlight the similarities between their experience and this Request for Proposal. These descriptions must include:

a) the time period of the project;
b) the scheduled and actual completion dates;
c) the contractor's responsibilities;
d) for reference purposes, a customer name (including the name of a contact person, a current telephone number, a facsimile number and e-mail address); and
e) each project description shall identify whether the work was performed as the prime contractor or as a subcontractor. If a bidder performed as the prime contractor, the description must provide the originally scheduled completion date and budget, as well as the actual (or currently planned) completion date and actual (or currently planned) budget.

viii. Contractor and subcontractor(s) experience must be listed separately. Narrative descriptions submitted for subcontractors must be specifically identified as subcontractor projects.

ix. If the work was performed as a subcontractor, the narrative description shall identify the same information as requested for the contractors above. In addition, subcontractors shall identify what share of contract costs, project responsibilities, and time period were performed as a subcontractor.

i. SUMMARY OF BIDDER'S PROPOSED PERSONNEL/MANAGEMENT APPROACH

The bidder must present a detailed description of its proposed approach to the management of the project.

The bidder must identify the specific professionals who will work on the State's project if their company is awarded the contract resulting from this Request for Proposal. The names and titles of the team proposed for assignment to the State project shall be identified in full, with a description of the team leadership, interface and support functions, and reporting relationships. The primary work assigned to each person should also be identified.

The bidder shall provide resumes for all personnel proposed by the bidder to work on the project. The State will consider the resumes as a key indicator of the bidder's understanding of the skill mixes required to carry out the requirements of the Request for Proposal in addition to assessing the experience of specific individuals.

Resumes must not be longer than three (3) pages. Resumes shall include, at a minimum, academic background and degrees, professional certifications, understanding of the process, and at least three (3) client references (Client and Company Name, Project Name, address, email address and telephone number) who can attest to the competence and skill level of the individual. Any changes in proposed personnel shall only be implemented after written approval from the State.

A major factor in the success of the Project is the degree of collaboration between IV&V and EES Contractor staff and Department staff. The IV&V Contractor is expected to work with key Department stakeholders, management and subject matter experts throughout the business and technology enterprise when conducting the project activities and developing the work products and deliverables. The IV&V Contractor is expected to propose a project approach that incorporates the involvement of Department business and technology staff in order to obtain information and feedback necessary to produce quality work products and deliverables.

The Bidder will provide resume(s) for the key personnel proposed for this project. The Bidder is required to demonstrate that their consultant(s) or employee(s) will have the skills necessary to meet the objectives of this project as listed below. The resumes must include:

i. Educational qualifications
ii. Summary of employment experience
iii. Specific experience with the service areas for which they are being proposed
iv. Previous work assignments in a similar role for this type of engagement demonstrating ability to meet the objectives listed below:
v. Proven experience with Consulting, Project Administration and Technical Assistance for Commercial or State Government Eligibility Solutions for a period of at least two years within the last four years
vi. Core competency in IV&V and QA as demonstrated by the resume
vii. Experience in the design, development, testing, and implementation of Medicaid or Commercial eligibility system
viii. Government or public sector experience
ix. In-depth knowledge of ACA Regulations
x. Highly developed written and verbal communication skills

The Bidder's proposal shall describe policies, plans and intentions with regard to maintaining continuity of key personnel and the implementation team assigned to the project to avoid and minimize the impact of necessary staff changes.

The Department will provide workspace, equipment and conference telephone capabilities to house the IV&V Contractor staff in Lincoln, NE. Additionally, the IV&V Contractor will be assigned Department SharePoint repository capabilities for all IV&V Contractor project documents and deliverables.

In order to ensure the success of this project, it is important that there is a continuity of Key Staff assigned to the project. The Bidder's proposal must:

i. Describe policies, plans, and intentions with regard to maintaining continuity of personnel assignments throughout the performance of any agreement resulting from this RFP.
ii. Discuss the Bidder's plans to avoid and minimize the impact of personnel changes.
iii. Identify planned backup personnel assignments.

iv. Commit to using the personnel identified in the proposal and agree to DHHS' right to approve proposed personnel changes during the term of the contract.

v. Agree that the Bidder's proposed project personnel may not be reassigned, replaced, or added during the project without the prior written consent of the DHHS Project Manager. Should a key staff position be vacated, the IV&V Contractor must give DHHS resumes of, and an opportunity to interview and approve, potential replacements for that employee.

vi. Agree that the Bidder's proposed key project personnel may not be assigned new or additional contract assignments outside the State of Nebraska contract, without the prior written consent of the DHHS Project Manager.

vii. Agree that the DHHS Project Manager reserves the right to require a change in the IV&V Contractor's project personnel at the DHHS Project Manager's discretion and that DHHS must be given an opportunity to interview and approve potential replacements for that employee. However, DHHS will not unreasonably exercise this option and will take reasonable steps to work with the IV&V Contractor toward a solution.

j. SUBCONTRACTORS

If the bidder intends to subcontract any part of its performance hereunder, the bidder must provide:

i. name, address and telephone number of the subcontractor(s);
ii. specific tasks for each subcontractor(s);
iii. percentage of performance hours intended for each subcontract; and
iv. total percentage of subcontractor(s) performance hours.

4. TECHNICAL APPROACH

The technical approach section of the Technical Proposal must consist of the following subsections:

a. Description how the IV&V Bidder plans to carry out the IV&V Services for the EES Project. This description shall include methodologies, strategies, standards and approaches employed by the Bidder for executing each of the IV&V activities within the Scope of Work of this RFP.

b. Description of the deliverables produced as a result of IV&V activities, including sample reports.

c. A documented methodology for performing IV&V Services that has proved successful on past projects.

d. A documented methodology for developing performance matrices that has proved successful on past projects.

e. A documented methodology for developing the performance matrices.

f. Description for assessing risks, documenting findings and communicating them to the Department and contractors.

g. A preliminary project management plan that includes the activities and deliverables which are defined in this RFP and expected of the vendor.

B. COST PROPOSAL REQUIREMENTS

This section describes the requirements to be addressed by bidders in preparing the Cost Proposal. The bidder must submit the Cost Proposal in a section of the proposal that is a separate section or is packaged separately as specified in the RFP from the Technical Proposal section.

The component costs of the fixed price proposal for providing the services set forth in the Request for Proposal must be provided by submitting forms substantially equivalent to those described below.

1. PRICING SUMMARY

This summary shall present the total fixed price to perform all of the requirements of the Request for Proposal - Use Form B. The bidder must include details in the Cost Proposal supporting any and all costs. These details must include, at a minimum, detailed descriptions and/or specifications of the goods and/or services to be provided, quantities, and timing and unit costs, if applicable.

The State reserves the right to review all aspects of the Cost Proposal for reasonableness and to request clarification of any proposal where the cost component shows significant and unsupported deviation from industry standards or in areas where detailed pricing is required.

2. PRICES

Prices quoted shall be net, including transportation and delivery charges fully prepaid by the bidder, F.O.B. destination named in the Request for Proposal. No additional charges will be allowed for packing, packages, or partial delivery costs. When an arithmetic error has been made in the extended total, the unit price will govern.

C. PAYMENT SCHEDULE

The payment schedule for the project is tied to specific dates and deliverables. Invoices may be submitted by the contractor on specific dates based on the completion and acceptance of related deliverables. No invoice will be approved unless the associated deliverables have been approved. A percentage of the total contract cost may then be invoiced based on the following schedule.

Form A

Bidder Contact Sheet

Request for Proposal Number 4468Z1

The Bidder Contact Sheet should be completed and submitted with each response to this Request for Proposal. This is intended to provide the State with information on the bidder's name and address, and the specific person(s) who are responsible for preparation of the bidder's response. Each bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Preparation of Response Contact Information	
Bidder Name:	
Bidder Address:	
Contact Person & Title:	
E-mail Address:	
Telephone Number (Office):	
Telephone Number (Cellular):	
Fax Number:	

Each bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Communication with the State Contact Information	
Bidder Name:	
Bidder Address:	
Contact Person & Title:	
E-mail Address:	
Telephone Number (Office):	
Telephone Number (Cellular):	
Fax Number:	

Appendix B Functional Requirements

Request for Proposal Number 4544Z1

The Functional Requirements Traceability Matrix (RTM) is used to document and track the project requirements from the proposal through to testing to verify that the requirement has been completely fulfilled. The Contractor will be responsible for maintaining the set of Baseline Requirements directly related to the configuration of the EES. Additions, modifications, and deletions to these requirements will be added and modified throughout the project so it is imperative that a current version of the matrix be maintained at all times.

Bidders must provide an initial RTM as part of its proposal. The RTM shall follow the instructions below. The Bidder must state requirements exactly as they are provided in this RFP. The Bidder must indicate how it will achieve full compliance (i.e., requirement fulfilled 100%). Any requirements that the Bidder cannot attest to full compliance must be documented as outlined in Appendix D: Gap Analysis.

Bidders are required to provide a response, using the appropriate codes provided in the tables below, for each requirements listed in the Functional Requirements Response Matrix. Scoring for each requirement will directly relate to the ability code indicated by the bidder.

Ability Code	Condition	Description
S	Standard Function	The proposed EES fully satisfies the requirement as stated. The Bidder must describe how the requirement is satisfied by the EES.
W	Workflow or System Configuration Required	Current functionality of the proposed EES exists in the EES and can be modified by a system administrator to meet this requirement.
M	Modification Required	The proposed EES requires a modification to existing functionality to meet this requirement which requires a source code modification. The EES will be modified to satisfy the requirements as stated or in a different format. The Bidder must describe the modifications.
F	Planned for Future Release	This functionality is planned for a future release. The Bidder must describe how the requirement will be satisfied by the EES and when the release will be available.
C	Custom Design and Development	The proposed EES requires new functionality to meet this requirement which requires a source code addition. The Bidder must describe the feature and its value.
N	Cannot Meet Requirement	The proposed EES will not satisfy the requirement. The Bidder must explain why the requirement cannot be satisfied.
O	Other Software	If the requirement is to be satisfied through the use of a separate software package(s), the Bidder must identify those package(s) and describe how the functionality is integrated into the base system.

Appendix B Functional Requirements

Request for Proposal Number 4544Z1

1. General Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 001	The EES shall be branded using official State of Nebraska and Nebraska Department of Health and Human Services logos, images, etc.		
GEN 002	The EES shall provide customized local office information, through public-facing front-end (i.e. physical location of nearest local office, driving directions and name, email and phone number).		
GEN 003	The EES shall ensure alignment with HIPAA security, privacy and transaction standards		
GEN 004	The EES shall implement and support functionality to meet the requirements of the Affordable Care Act (ACA) and achieve compliance deadlines.		
GEN 005	The EES shall assure that all processes, user interfaces and documents produced by the system meet applicable State and federal accessibility standards for the life of the contract.		
GEN 006	The EES shall separate business rules from the application logic. Business rules will be contained in a COTS rules engine.		
GEN 007	The EES shall provide a scalable solution to allow for the incorporation of shared eligibility determination rules to support the State's phased approach.		
GEN 008	The EES will facilitate a “no wrong door” approach to insurance coverage as required in the ACA. The EES will accept account/application transfers to/from the Exchange to seamlessly facilitate eligibility determination for all Insurance Affordability Programs.		
GEN 009	The EES will allow applications and renewals via all ACA required media. E.G. Paper, online, phone, fax, in person and other commonly available electronic means.		
GEN 010	The EES shall leverage existing systems (where appropriate) and is built on system architecture that is scalable, flexible, modular and dynamic.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 011	The EES shall leverage connections to the federal data hub to access and verify data from participating agencies such as the IRS, federal DHHS, the Department and others. Hub – Required State - Required Financial Institutions- Future		
GEN 012	The EES shall achieve the necessary degree of interoperability between technology components to determine eligibility for Medicaid or CHIP or if the customer is not eligible for Medicaid a transfer to the FFM.		
GEN 013	The EES shall support a timed release schedule.		
GEN 014	The EES shall support all Nebraska DHHS Medicaid programs.		
GEN 015	The EES shall allow business users, as determined by the Department, to easily read/modify the eligibility determination rules.		
GEN 016	The EES shall support client facing services and documents in English and Spanish languages.		
GEN 017	The EES shall screen for language needs (LEP) at first point of contact		
GEN 018	The EES shall provide functionality to interface with Multi-channel Workforce Management software, such as Verint.		
GEN 019	The EES shall have the ability to schedule staff performing call center functions, back office functions, local office appointments, and be integrated with task manager.		
GEN 020	The EES shall have the ability to interface with the quality management system.		
GEN 021	The EES shall have the ability to interface with the LINKS Performance Management and Training System.		
GEN 022	The EES should have the ability to measure case review and customer service contact review. It should utilize a scorecard or similar tool to provide feedback down to staff level.		
GEN 023	The EES shall have the ability to interface with the NE Financial and Accounting system.		
GEN 024	The EES shall accommodate phone application voice signature mechanism.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 025	The EES shall validate and return address information errors as entered in the system.		
GEN 026	The EES shall provide functionality to allow applicants to provide a signature via all ACA required modes of application.		
GEN 027	The EES shall provide free-form narrative notes capabilities with no character limit, wrap-around text, sortable and searchable.		
GEN 028	The EES shall auto-populate notes based on predefined business rules.		
GEN 029	The EES shall provide templates for notes entry.		
GEN 030	The EES shall provide mechanism to spell-check notes.		
GEN 031	The EES shall provide mechanism to associate notes to multiple beneficiary/households without retyping.		
GEN 032	The EES shall provide a mechanism to automatically date/time stamp all notes.		
GEN 033	The EES shall provide a mechanism for eligibility workers to edit their own notes with appropriate audit trails.		
GEN 034	The EES shall provide a mechanism for all system events, including system, user and administrative actions to be auditable.		
GEN 035	The EES shall provide a mechanism to restrict notes from being edited after the initial entry.		
GEN 036	The EES shall allow for any data element to be exported into an industry standard format.		
GEN 037	The EES shall allow applicant/beneficiaries to self-report changes in their personal information online, notify the appropriate eligibility worker based on parameters described by the Department when changes are made		
GEN 038	The EES shall re-determine eligibility when a Change of Circumstance is received electronically or entered by a worker.		
GEN 039	The EES shall provide the capability to view the new determination of eligibility after the change in information.		
GEN 040	The EES shall place an individual from one program into another, based on a Change of Circumstance or eligibility rules, without affecting other individuals in that household.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 041	The EES shall provide the capability to track and record any changes to an individual's information.		
GEN 042	The EES shall provide a mass change capability by a non-technical user to affect all or part of the Department caseload for any or all programs.		
GEN 043	The EES shall allow authorized users to update, add persons, and relationships to an existing household and maintain a history thereof.		
GEN 044	The EES shall close eligibility to a program without closing other programs associated with that household or individuals in the household.		
GEN 045	The EES shall change the status of any individual in a household without terminating eligible household members.		
GEN 046	The EES shall provide web-based functionality to allow the applicant to renew and initially apply for eligibility online.		
GEN 047	The EES shall allow for renewals via all ACA required modalities.		
GEN 048	The EES shall accept a renewal prior to the 12 month renewal date. The renewal period may vary by case/household/individual and program.		
GEN 049	The EES shall track and allow beneficiaries who did not return the pre-populated renewal form or the required documentation and are terminated on that basis a reconsideration period, as defined the Department, when the Department would reconsider eligibility without a new application and renew eligibility if necessary information is provided.		
GEN 050	The EES shall allow an individual who regains coverage during the reconsideration period, retroactive coverage back to date of termination.		
GEN 051	The EES shall automate the renewal process if all information remains the same or if verified information remains within applicable limits.		
GEN 052	The EES shall integrate with various systems within the State for the purpose of data sharing, eligibility determination and data verification (i.e. incarceration, Unemployment Insurance benefits, child support income, State wage information)		
GEN 053	The EES shall adjust eligibility determination resulting from appeal.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 054	The EES shall notify the applicant/beneficiary, electronically and via paper, of adjusted eligibility within 30 days of the adjustment, regardless of the reason for the eligibility adjustment.		
GEN 055	The EES shall track timeframes and deadlines of the appeal process and alert a worker or management of overdue status.		
GEN 056	The EES shall allow a worker to view appeal progress/status to report back to the applicant/beneficiary.		
GEN 057	The EES shall support an integrated and customizable applicant complaint and grievance process, with reporting capabilities.		
GEN 058	The EES shall be scalable and flexible enough to accommodate and adapt to changes required by State and/or federal statute, regulation, mandate, decision, or policy without significant changes to the architecture and without impacting the scalability or response times of the system.		
GEN 059	The EES shall incorporate the policy choices and priorities of the Nebraska policymakers.		
GEN 060	The EES shall meet the requirements of the RFP and be compliant with MITA 3.0 standards.		
GEN 061	The EES shall be based on an orientation of business processes, business rules and data and metadata management that allows modular componentized design approach that enhances interoperability across service modules and with external applications and data sources.		
GEN 062	The EES shall identify individuals who are dual eligible (Medicare plus federal Medicaid) and determine eligibility for dual-eligibles, as well as for those who are eligible for other Medicare savings programs.		
GEN 063	The EES shall support secure messaging between the Department and the federal data hub and/or the Connector via federally defined interfaces and Business Service Descriptions.		
GEN 064	The EES shall include workflow management based on whether an applicant is MAGI-based and/or MAGI-excepted households.		
GEN 065	The EES shall allow individuals in a household to be eligible under different categories and receive different benefits based upon individual information.		
GEN 066	The EES shall provide the capability to defined and stored DDHS specific data. The ability to use the data to drive workflow or pre-populate forms.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 067	The EES shall be scalable so that it can identify those applicants that are potentially eligible for express lane eligibility should the Department choose to adopt Express Lane Eligibility Program.		
GEN 068	The EES shall provide the capability for presumptive eligibility as defined by the Department and include provider web access for application purposes.		
GEN 069	The EES shall provide a mechanism to define required and optional fields, including default data values as applicable, based on program rules.		
GEN 070	The EES shall provide an alert system to notify workers when action items are assigned, have been completed, or are past due.		
GEN 071	The EES shall manually/automatically assign priority to alerts.		
GEN 072	The EES shall automatically escalate an alert if not addressed within the time limits.		
GEN 073	The EES shall provide mechanism for supervisors to be able to view alerts for any individual or group.		
GEN 074	The EES shall provide a mechanism to associate and tie alerts to household or applicant/beneficiary and have alerts accessible when household is reviewed.		
GEN 075	The EES shall automatically delete alerts when action is taken.		
GEN 076	The EES shall manually create, assign, update, change, and delete alerts.		
GEN 077	The EES shall automatically or manually archive alerts when the required action is completed.		
GEN 078	The EES shall provide a sortable and searchable history of alerts that display all actions taken in regards to that alert.		
GEN 079	The EES shall provide a mechanism to indicate that a beneficiary/household is under review.		
GEN 080	The EES shall provide a mechanism to alert management that pending applications have exceeded specified time limits.		
GEN 081	The EES shall create an alert of approaching deadlines.		
GEN 082	The EES shall create and assign alerts associated with pending tasks.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 083	The EES shall alert specified work units when specific beneficiary/household changes are made based on program rules (e.g. customer/beneficiary/eligibility worker changes the address, certain demographic information, etc.		
GEN 084	The EES shall not allow any duplication or potential duplication of services to the beneficiary.		
GEN 085	The EES shall provide the capability to alert eligibility worker of multiple households at same physical and/or mailing address.		
GEN 086	The EES shall maintain individual and household information.		

2. Reporting Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 001	The EES shall make available all business data elements for use with the business intelligence tool.		
RPT 002	The EES shall generate graphical representation of report data (e.g. pie charts, graphs, histograms, line plots, scatter plots)		
RPT 003	The EES shall generate all required Department and federal reports, in the format, media and schedule specified by the Department.		
RPT 004	The EES shall create 'canned' reports to be run on a scheduled basis. The schedule for each report should be easily changed through the system user interface by a non-IT worker.		
RPT 005	The EES shall retain report results in a manner that complies with Nebraska and applicable federal data retention policies, based on data type and program rules. The time period for which the reports are retained shall be mutually determined and shall be aligned with ongoing capacity planning exercise.		
RPT 006	The EES shall store all reports in such a manner as to allow online access to and retrieval of both current and historical reports via a user-friendly parameter and/or menu-driven access to reports, based on user permissions, as defined by the Department.		
RPT 007	The EES shall provide a mechanism to view online, save and print ad-hoc reports, based on user roles and program rules.		
RPT 008	The EES shall tabulate data by worker, county, region, etc.		
RPT 009	The EES shall provide a mechanism to perform a QC sampling by maintaining the current functionality for sampling methodology (regions, clusters, random, and stratification), including designating sampling size for random, designating month and year of a sample, designating regions and/or clusters (counties) of a sample.		
RPT 010	The EES shall provide a mechanism to create the universe from which the system pulls the samples.		
RPT 011	The EES shall provide a mechanism to manually eliminate a case from a sample and replace it with a replacement sample based on user roles. The EES shall capture a reason for eliminating/ replacing a case.		
RPT 012	The EES shall create, maintain and store QC review results for different program types, by office, sample month and year, sample ID.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 013	The EES shall define, implement, collect, and report using a set of business process-related performance metrics that conform to MITA defined performance metrics such as tracking changes in programs and policies and evaluating corresponding changes in health outcomes.		
RPT 014	The EES shall create case load reports such as active case list, active person list, pending application, review lists by manager, location, region and statewide.		
RPT 015	The EES shall provide multiple reports to include, but not limited to, fraud hearings, number and type of appeals decisions.		
RPT 016	The EES shall provide a dashboard summary view of the status of households across units for managers as for example, active, critical, error, quality assurance corrective action, QC reviews, pending reviews, etc.		
RPT 017	The EES shall provide a comprehensive reporting solution that will generate standard operating, pre-defined or operational reports without an adverse effect on system performance or response time.		
RPT 018	The EES shall generate standardized or ad-hoc reports without affecting worker response times.		
RPT 019	The EES shall store all reports in such a manner to allow online access to and retrieval of report information via a user-friendly parameter and/or menu-driven access to reports.		
RPT 020	The EES shall identify the date and time on all reports when it was generated and allow the worker to save the report multiple industry standard formats.		
RPT 021	The EES shall allow authorized workers to access, generate, and print reports.		
RPT 022	The EES shall save reports or raw data in multiple outputs formats (e.g. CSV, tab delimited, text, HTML, XML, XLS) in conformance to security standards and shall provide reports to be exported to an electronic file, PDF, Excel, Text, or Word format depending on the type of report.		
RPT 023	The EES shall maintain a history of documents and reports received, track these items and make them accessible in the electronic case file, so that information can be shared across programs and agencies using a HIPAA compliant method.		
RPT 024	The EES shall have standard reports to measure progress against the Department goals, initiatives, and policy changes, including, but not limited to, policy initiatives, budget initiatives, Affordable Care Act requirements, and grant opportunities.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 025	The EES shall generate ad-hoc and standard reports in real-time as well as historical.		
RPT 026	The EES shall provide summary tables of reports.		
RPT 027	The EES shall ensure that the reports are print-ready, visually acceptable to the user and provide the ability to format, set headers, labels.		
RPT 028	The EES shall be scalable to produce ad hoc reports on request without impacting system response times.		
RPT 029	The EES shall create reports using all current data elements available at the point of creation.		
RPT 030	The EES shall produce control and error reports from mass change processing.		
RPT 031	The EES shall have the capability to import data from other data sources.		
RPT 032	The EES shall support the ability to run online queries at the worker level.		
RPT 033	The EES shall produce reports on frequencies specified by the Department with the ability to change those frequencies at any time with minimal IT support.		
RPT 034	The EES shall allow users to sort, search, filter and drill down on any parameter of a standard report.		
RPT 035	The EES shall include version control for all reports.		
RPT 036	The EES shall generate data and reports needed to comply with federal audit and oversight requirements.		
RPT 037	The EES shall generate data and reports needed to apply for and demonstrate appropriate use of federal grant funding sources.		
RPT 038	The EES shall document the appropriate benefit programs, projects or other categories impacted by system or human actions to support claims for federal matching funds.		
RPT 039	The EES shall provide reports or data to support the cost allocation strategies (e.g., numbers and types of applications processed etc.).		
RPT 040	The EES shall differentiate funding source based on Department - specified criteria.		
RPT 041	The EES shall automate reports to support accurate forecasting of program costs.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 042	The EES shall automate reports to support evaluation of cost-containment and quality improvement initiatives		
RPT 043	The EES shall create standard reports defined by the Department to compare program expenses to budgeted expenses for the State and federal fiscal year-to-date, prior State and federal fiscal year, and projected through the remainder of the State and federal fiscal year.		
RPT 044	The EES shall generate an inventory of current and available reports.		
RPT 045	The EES shall support the ability to produce formatted reports based on online queries.		
RPT 046	The EES shall provide access to Query builder application.		
RPT 047	The EES shall support the preparation of a branch report, i.e., standard template with pre-populated data.		

3. Business Requirements/Processes Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 001	The EES shall create easy, efficient, and accurate interfaces with other systems, including the federal data hub, state and other data sources to verify application information		
OPS 002	The EES shall support integrated eligibility system and/or reduce errors associated with processing eligibility for more complex populations		
OPS 003	The EES shall support workers to improve workflow and reduce errors including:		
OPS 004	• Computerized case files and online case histories		
OPS 005	• Automated assignments of case files to workers according to their expertise and availability		
OPS 006	• Logic flags		
OPS 007	• Online policy and procedure manuals		
OPS 008	• Integrated document imaging		
OPS 009	The EES shall contain the business rules and technical capability to determine online, real-time eligibility for Medicaid MAGI and non-MAGI based eligibility		
OPS 010	The EES shall automate eligibility verification including electronic acceptance of verification documents; validation of applicant data through electronic data exchanges with valid sources		
OPS 011	The EES shall centralize User Account Management, Authentication and Authorization		
OPS 012	The EES shall display and print stored or imaged forms		
OPS 013	The EES shall allow documents to be scanned into and associated with the electronic application/renewal individual, and/or household.		
OPS 014	The EES shall upload attachments to correspondence records.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 015	The EES shall link scanned images to correspondence and records to provide one view of all related material (images, letters, or contacts with staff), with multiple links.		
OPS 016	The EES shall provide the ability to view related correspondence records from a single correspondence record.		
OPS 017	The EES shall meet federal and State records retention and purging standards		
OPS 018	The EES shall provide a searchable library, with highly flexible search criteria to enable a user to quickly find needed information in policy manuals, policy memos, training material, implementation memos and all help functions without affecting work in progress.		
OPS 019	The EES shall support both task-based, individual-based, and household-based operations.		
OPS 020	The EES shall forward finished tasks to the next responsible party or parties, when multiple levels of effort are required for resolution.		
OPS 021	The EES shall save work in progress, exit the workflow, access work at a later point with all of the information still populated from the previous worker's actions so previous work will not need to be repeated and the worker can enter the workflow where they left off.		
OPS 022	The EES shall track, monitor, and display work done/ in queue to supervisors.		
OPS 023	The EES shall create and maintain eligibility worker availability information at the local office level.		
OPS 024	The EES shall monitor caseload size in real time and support an automated workload assignment process.		
OPS 025	The EES shall weigh caseloads and provide recommended distribution.		
OPS 026	The EES shall establish a flexible assigned workload management hierarchy that identifies the responsible organizational unit.		
OPS 027	The EES shall provide an automated and manual benefit card generation capability.		
OPS 028	The EES shall provide a mechanism to override automatic mailing of benefit card.		
OPS 029	The EES shall provide a mechanism to indicate a replacement benefit card is needed.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 030	The EES shall assign work using flexible criteria; for example, assign work by worker or the type of work.		
OPS 031	The EES shall transfer a single case, or a collection of cases in mass, including all electronic supporting documentation to and from any organizational unit.		
OPS 032	The EES shall automatically create a notification of a case transfer.		
OPS 033	The EES shall allow a worker to manually create a notification of case transfer.		
OPS 034	The EES shall evaluate a case prior to a transfer, prompt user if established transfer criteria are not met and not allow transfer until criteria is met.		
OPS 035	The EES shall allow user to override assignment rules and process a transfer when defined criteria are not met based on security rule and audit trail.		
OPS 036	The EES shall have the flexibility to assign a Single Point of Contact (SPOC) to a case or use a universal assignment.		
OPS 037	The EES shall identify if and when a SPOC is assigned to a case so all communications go through the SPOC.		
OPS 038	The EES shall update case and/or household members' information, based on user roles and business functions.		
OPS 039	The EES shall have a real time, comprehensive listing of workers per customer and/or case.		
OPS 040	The EES shall sort and display the type and number of cases assigned to a specific caseload.		
OPS 041	The EES shall add, subtract or modify the number of caseloads supported within the system.		
OPS 042	The EES shall assign a unique identifier to each caseload.		
OPS 043	The EES shall recommend transfer of cases from one caseload to another.		
OPS 044	The EES shall identify when a referral is required and automatically generate and track a referral.		
OPS 045	The EES shall allow and track manually generated referrals.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 046	The EES shall track status of referrals to monitor for required or expected action by the receiving entity.		
OPS 047	The EES shall provide the ability to differentiate types of referrals within programs. (e.g. Child only CSE referrals, ERU spousal elective share, TPL lead vs. change, HIPPS, subrogation)		
OPS 048	The EES shall identify when a Change referral is necessary (e.g. employment changes, household changes, entering or leaving foster care, etc.) and send the referral.		
OPS 049	The EES shall associate a consumer notice related to the specific Cost Avoidance and Recovery area (CSE, TPL, HIPPS, ERU, and Medical Subrogation).		
OPS 050	The EES shall identify, generate and send potential resource situations to work unit as specified. (e.g. Annuities, Trust like Devices, Spousal Elective Shares, Personal Injury cases, Workers Comp, etc.)		
OPS 051	The EES shall display a summary of case information by user role (e.g. head of household, members, relationships, addresses, date of birth, caseworker or process queue, office location, case status, recertification date, simplified report date, current benefit amount, sanction status, etc.).		
OPS 052	The EES shall provide a mechanism to provide custom views of case summary information, based on user roles, program rules, and office procedure.		
OPS 053	The EES shall match and merge duplicate case information, based on user role and program rules.		
OPS 054	The EES shall automatically update case information received through electronic access.		
OPS 055	The EES shall update and track reported changes which do not affect eligibility and do not require verification that are submitted electronically (e.g. phone number, cell number, e-mail address, change in income which remains below program threshold, etc.)		
OPS 056	The EES shall have the ability to close or deny a Category of Eligibility when business rules dictate.		
OPS 057	The EES shall close a Category of Eligibility without closing other active Category of Eligibility s associated with that case.		
OPS 058	The EES shall close any individual other than the program case name in a Category of Eligibility without closing the entire Category of Eligibility that has other active members.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 059	The EES shall provide a mechanism for authorized users to manually override a category of eligibility and/or allow opt-in/opt-out functionality within an active Category of Eligibility.		
OPS 060	The EES shall provide a mechanism to automatically change Category of Eligibility within an active program.		
OPS 061	The EES shall assign a new eligibility begin date for a new Category of Eligibility and automatically assign eligibility end date for a Category of Eligibility being closed.		
OPS 062	The EES shall provide a mechanism to release the hold after final disposition by the secondary reviewer.		
OPS 063	The EES shall share common data elements across multiple programs for selected fields.		
OPS 064	The EES shall have the capability to automatically reassign categories according to business rules.		
OPS 065	The EES shall apply specific eligibility rules during renewal, a reported change or processing simplified reporting for a program(s).		
OPS 066	The EES shall provide a mechanism to collect all information required to auto-populate all necessary Procuring Agency case processing forms, based on program rules.		

4. Eligibility Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 001	The EES shall support eligibility determination in keeping with federal "timeliness" guidelines and State performance standards.		
ELG 002	The EES shall support electronic verification of application data, using State or federal sources, where possible, and support post-enrollment verification where electronic data cannot be obtained.		
ELG 003	The EES shall use the CMS Single Streamlined Application or a modified version of the Single Streamlined Application.		
ELG 004	The EES shall support the use of supplemental application for initial eligibility determinations, renewals or changes to existing Medicaid clients.		
ELG 005	The EES shall electronically capture and store all data elements on the CMS Single Streamlined Application, even if the data elements are not needed for Medicaid eligibility determination.		
ELG 006	The EES shall support the use of alternative applications such as shorten form for non-MAGI, and assessment of resources.		
ELG 007	The EES shall support multiple non-MAGI specific programs, such as spousal impoverishment, Medicare buy-in program; etc.		
ELG 008	The EES shall maintain beneficiary eligibility data and information on each beneficiary's benefits.		
ELG 009	Where an existing case (account) exists, the EES shall reuse relevant information and/or selections		
ELG 010	The EES shall ensure seamless transfer of customers between the EES and the FFM as appropriate.		
ELG 011	The EES shall provide beneficiaries with periodic notifications by mail, e-mail, text, telephone and/or other format according to their stated preference for receiving such communications. The EES shall follow-up electronic notifications with paper notifications where required by federal rules or desired by State operations.		
ELG 012	The EES shall provide the capability to determine eligibility, and make changes to eligibility, on a retroactive basis as allowed by federal and State statuses and regulations		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 013	The EES shall provide beneficiaries with clearly stated details as to rights and opportunity for appeal and grievance processes		
ELG 014	The EES shall provide beneficiaries with clear information about privacy and confidentiality protections in the application process		
ELG 015	The EES shall provide beneficiaries with clear information about the Department's protocols in case of an information breach		
ELG 016	The EES shall integrate with the existing or replace a self-assessment tool to be used by external partners and customers to evaluate potential eligibility.		
ELG 017	The EES shall integrate with the existing or replace pre-application screening without entering any personal identifying information.		
ELG 018	The EES shall allow a customer to securely access an electronic account containing application information, notices and appeals information and Fair Hearing information.		
ELG 019	The EES shall use summarized household data for the pre-application process. (e.g. two adults with two children and estimated income).		
ELG 020	The EES shall apply eligibility rules to identify and flag potential financial and non-financial eligibility.		
ELG 021	The EES shall provide the customer information on eligibility and general verification requirements for Medicaid eligibility and timelines for applications and verification processes.		
ELG 020	The EES shall access educational materials on functions of Medicaid and on other state programs.		
ELG 021	The EES shall provide informational fact sheets on programs for which the customer is potentially eligible.		
ELG 022	The EES shall populate the online application with data entered in the pre-application screening tool, if a customer chooses to apply in the same session, where data elements are compatible**.**		
ELG 023	The EES shall track applications that originate from pre-application screening.		
ELG 024	The EES shall identify and flag expedited benefit cases, with user configurable triggers for expedited cases		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 025	The EES shall use existing information on a known customer to preview the impact of potential changes via a new self-assessment.		
ELG 026	The EES shall assure consistency in eligibility determination processing when applicants attempt to access services through different entry points.		
ELG 027	The EES shall accept complete applications from the Marketplace electronically and make Medicaid eligibility determination without requiring additional information from the applicant consistent with the policies set in the State Plan Amendment.		
ELG 028	The EES shall specify beginning coverage date for those who know their existing employer coverage will be ending.		
ELG 029	The EES shall determine eligibility for all Medical Assistance programs.		
ELG 030	The EES shall validate all data fields for valid format (e.g. valid text, numbers, currency, dates, special characters allowed etc.)		
ELG 031	The EES shall upload, store and index verification documents such that they are tied to the appropriate case and searchable.		
EIG 032	The EES shall provide electronic signature capabilities for customers applying in a local office using an electronic signature pad.		
ELG 033	The EES shall provide an electronic signature for an application		
ELG 034	The EES shall record and store a telephonic signature for an application		
ELG 035	The EES shall provide the customer with a notification of approval or denial**.**		
ELG 036	The EES shall confirm for customers or workers that submitted applications are complete.		
ELG 037	The EES shall maintain data privacy and security requirements consistent with applicable laws.		
ELG 038	The EES shall retain completed applications with various retention schedules. All application data will be easily searchable and retrievable.		
ELG 039	The EES shall allow the customers to track their status via online or telephone during the application process.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 040	The EES shall store a version of the completed application form and allow the customer to retrieve it.		
ELG 041	The EES shall save and print a version of a completed application form that was saved online.		
ELG 042	The EES shall auto-populate known data within the system between modules, functions and applications within the life of the household.		
ELG 043	The EES shall process household with more than one applicant		
ELG 044	The EES shall refer cases with potentially fraudulent activity to appropriate agency		
ELG 045	The EES shall identify applications which are pending HUB Citizenship etc. verification		
ELG 046	The EES shall establish an eligibility base period from one to twelve months.		
ELG 047	The EES shall determine the correct eligibility base period automatically and manually.		
ELG 048	The EES shall retain a viewable history of changes to the eligibility base period.		
ELG 049	The EES shall place cases in a pending status if eligibility cannot be determined in real time due to system unavailability. The case will be flagged for follow up and verification of the required information		
ELG 050	The EES shall place cases in a pending status if eligibility cannot be determined in real time due to data inconsistencies in accordance with 155.315(f). The case will be flagged for follow up and verification of the required information		
ELG 051	The EES shall support multiple budgeting methodologies (e.g. perform multiple tests on a single household when family beneficiaries may be eligible for multiple programs).		
ELG 052	The EES shall identify all types of incomes (e.g. countable or exempt statuses of incomes, and resources by program or individual).		
ELG 053	The EES shall document case notes of actions which have occurred on case		
ELG 054	The EES shall calculate start and end dates of presumptive eligibility periods based on user configurable rules		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 055	The EES shall create automatic and manual alerts to internal and external users upon the occurrence of specified events.		
ELG 056	The EES shall automatically re-determine eligibility for customers based on specified events (e.g. cost-of-living adjustment, changes in insurance premium amounts).		
ELG 057	The EES shall calculate customer responsibility/cost sharing for Long Term Care or Home and Community Based waiver programs.		
ELG 058	The EES shall determine applicant eligibility for specific non-independent living Long Term Care or waiver programs. (e.g. Institutional Living).		
ELG 059	The EES shall set a period of ineligibility for a Long Term Care or waiver customer who commits a prohibited transfer of resources.		
ELG 060	The EES shall track movement from one facility to another to re-determine insurance eligibility, and cost sharing based on regulations. (e.g. hospitalization, nursing home, independent living).		
ELG 061	The EES shall identify resources excluded due to Long Term Care insurance.		
ELG 062	The EES shall complete and retain a resource assessment.		
ELG 063	The EES shall support the process of reviewing program eligibility.		
ELG 064	The EES shall display the basis of the eligibility budget calculations.		
ELG 065	The EES shall support varying methods of reviewing program eligibility (e.g. paper process where a review form is generated with pre-populated information).		
ELG 066	The EES shall trigger redetermination on cases with a fixed schedule of timed intervals.		
ELG 067	The EES shall track eligibility determinations separately. (e.g., income used to determine eligibility for Program 1 may be different than the income used to determine eligibility for Program2, etc.)		
ELG 068	The EES shall send notification of eligibility determination.		
ELG 069	The EES shall use the available interfaces to process redetermination for the MAGI qualifying population.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 070	The EES shall provide the capability to create and maintain an electronic household file of all applicants and families requesting services from the time that they first make an entry to the system.		
ELG 071	The EES shall support a range of disposition action triggers including event-based triggers (e.g., creation date, closing date, date of last review).		
ELG 072	The EES shall allow authorized users to review disposition actions prior to their execution.		
ELG 073	The EES shall allow users to apply disposition action holds on records.		
ELG 074	The EES shall have the flexibility to process individuals in the newly created categories.		
ELG 075	The EES shall notify applicants of failed verifications.		
ELG 076	The EES shall provide a mechanism to generate a list of received and pending verifications including eligibility worker entered comments.		
ELG 077	The EES shall provide the ability to allow applicants to view, confirm, dispute and submit corrections to verification results.		
ELG 078	The EES shall provide applicants the ability to address inconsistencies reported by external entities (i.e. income, citizenship, etc.) within a timeframe defined by the Department.		
ELG 079	The EES shall update the applicant’s record with the verification results as appropriate.		
ELG 080	The EES shall utilize master indexes to avoid duplicates.		
ELG 081	The EES shall search and match the existing client data before assigning new unique number (e.g., for example, search/match criteria could be the following, including but not limited to, "Fuzzy search", first name, last name, DOB, unique id, SSN, address, aliases, case number, etc.).		
ELG 082	The EES shall have the capability to reconcile duplicate records.		
ELG 083	The EES shall provide the data reports or file extracts to reconcile data between the EES and other systems.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 084	The EES shall capture alias information.		
ELG 085	The EES shall search account by multiple criteria (e.g., name, ID#, phone number, date of birth, county, assigned worker, etc.).		
ELG 086	The EES shall perform compound searches (e.g., names of married couple, names of parent and child, name of siblings, etc.).		
ELG 087	The EES shall easily modify list criteria while searching.		
ELG 088	The EES shall perform responsible person searches.		
ELG 089	The EES shall automatically identify a customer currently known to the system (e.g. applicant pending determination, past member not currently enrolled, etc.)		
ELG 090	The EES shall electronically or manually assign a customer to a case.		
ELG 091	The EES shall conduct a manual case registration by a worker.		
ELG 092	The EES shall create a case by grouping associated customers together.		
ELG 093	The EES shall allow a worker to manually create a case.		
ELG 094	The EES shall use an existing case number per policy.		
ELG 095	The EES shall assign a unique case number to a case.		
ELG 096	The EES shall allow a customer to be associated to multiple cases at the same time. (e.g. customer may receive insurance products on one case number and be the case name for a different case number on which their child is receiving insurance products, etc.)		
ELG 097	The EES shall associate multiple cases to each other. (e.g. cases that share customers).		
ELG 098	The EES shall allow manually associate multiple cases to each other. (e.g. cases that share customers).		
ELG 099	The EES shall close beneficiaries/households/categories based on applicable eligibility rules resulting from changes in information and track closure reasons.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 100	The EES shall provide a process to override system closures.		
ELG 101	The EES shall provide functionality to manually close beneficiaries/households/categories based on applicable eligibility rules resulting from changes in information and track closure reasons.		
ELG 102	The EES shall allow the user to manually associate customers to each other.		
ELG 103	The EES shall create multiple cases based on regulations. (e.g. Disabled parent with a child).		
ELG 104	The EES shall manually separate cases per regulations.		
ELG 105	The EES shall automatically create a task for updates in the eligibility determination of insurance products/other public assistance programs (e.g., child turning 18, 21 or an adult turning 65, etc.).		
ELG 106	The EES shall provide Medicaid enrollment roster to Marketplace at stipulated frequency.		
ELG 107	The EES shall display or capture prior insurance requests.		
ELG 108	The EES shall set ‘special situation’ indicators based on rules maintained in the system. (e.g. language, confidentiality situations).		
ELG 109	The EES shall allow manually override all automatically set ‘special situation’ indicators.		
ELG 110	The EES shall provide the customer with a paper receipt of the documentation (e.g. paystub or birth certificate) that has been turned in to a worker.		
ELG 111	The EES shall provide applicants the ability to address inconsistencies reported by external entities (i.e. income, citizenship, etc.) within a timeframe defined by the Department.		
ELG 112	The EES shall update the applicant’s record with the verification results as appropriate.		
ELG 113	The EES shall have the capability for the Department to notify Marketplace of Medicaid Determination		
ELG 114	The EES shall provide a mechanism to manually extend verification timeframes.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 115	The EES shall point out missing data, errors and inconsistencies as they progress through the application, performing verification in real time where possible		
ELG 116	The EES shall provide a mechanism to have a "same as" selection to enter repetitive data.		
ELG 117	The EES shall allow a worker to jump back to sections previously completed without losing data entered.		
ELG 118	The EES shall provide a mechanism to manually navigate/skip to any screens that the worker is authorized to access.		
ELG 119	The EES shall identify and display verifications required for the applicant based on program rules.		
ELG 120	The EES shall produce a customized listing of verification documents for an eligibility criteria required to complete eligibility determination.		
ELG 121	The EES shall allow a worker to upload and attach source documents to support eligibility determination.		
ELG 122	The EES shall present worker with a summary view of the information entered prior to submission.		
ELG 123	The EES shall provide applicants the ability to submit alternative verification via multiple avenues (e.g., email, mail, phone, fax, walk- in).		
ELG 124	The EES shall assign a unique identifier as specified by the Department to be for each person entered.		
ELG 125	The EES shall allow an applicant or applicant’s authorized representative to review the current application before and after formal submission with the appropriate safeguards and security measures.		
ELG 126	The EES shall not allow an applicant and applicant’s authorized representative to submit more than one application within 30 days from the initial submission unless the application was denied.		
ELG 127	The EES shall allow an applicant or applicant’s representative to amend an application as long as a determination has not been made.		
ELG 128	The EES shall allow the applicant or applicant’s authorized representative to save and amend the application or renewal for up to 30 days in order to gather additional information prior to submittal.		
ELG 129	The EES shall allow and record an applicant's request to withdraw an application.		
ELG 130	The EES shall only collect applicant/household information once and share across Department designated fields.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 131	The EES shall provide an automated or guided application process to enable the worker to easily enter required information.		
ELG 132	The EES shall capture and track from which organization an application was submitted.		
ELG 133	The EES shall monitor the number of applications submitted and abandoned and the number of applicants who requested assistance via chat, telephonic, etc.		
ELG 134	The EES shall monitor and report on number of applications received and the method by which they were submitted.		
ELG 135	The EES shall capture interview dates.		
ELG 136	The EES shall provide system-generated date and time stamp for receipt of electronic applications to be used in monitoring standards of promptness by program.		
ELG 137	The EES shall provide system-generated date and time stamp for registration of paper applications.		
ELG 138	The EES shall provide a mechanism to begin benefits on a date different than the application date and system-generated date.		
ELG 139	The EES shall capture and display date that a disposition was made on an application/renewal.		
ELG 140	The EES shall check each incoming applicant against existing eligibility database to determine if the incoming applicant is new to the system, reopening a prior category, or adding applicants to existing household.		
ELG 141	The EES shall allow continuance of the application process for applicants without an SSN and assign pseudo-number and ensure pseudo number allows match to get correct SSN.		
ELG 142	The EES shall provide a mechanism to match and replace the pseudo-SSN with the actual SSN.		
ELG 143	The EES shall route applications to the appropriate staff, based on business rules.		
ELG 144	The EES shall display to the applicant discrepant information between the new application and information stored in the existing household.		
ELG 145	The EES shall provide a mechanism through which an applicant could check the applicant's status.		
ELG 146	The EES shall provide the ability to allow applicants to submit paper applications, whether through walk-in, fax or mail-in.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 147	The EES shall provide capability to track incomplete, new, add-on, and pending applications.		
ELG 148	The EES shall allow for a manual verification process when the Marketplace hub verification service is not available.		
ELG 149	The EES shall provide a mechanism to indicate which verification documents have already been provided.		
ELG 150	The EES shall send notification of alternative verification options to the applicant when electronic verification is not available.		
ELG 151	The EES shall provide the capability to determine and correct eligibility for current and prior months.		
ELG 152	The EES shall determine eligibility without worker intervention, as allowed by policy (e.g., exceeds the Medical Assistance income limit).		
ELG 153	The EES shall allow designated users to override eligibility determinations.		
ELG 154	The EES shall send eligibility determinations to the MMIS enrollment system on a real-time basis to support plan enrollment and claims processing functions.		
ELG 155	The EES shall generate reports related to eligibility decisions.		
ELG 156	The EES shall be flexible enough to add additional Medical Assistance programs.		
ELG 157	The EES shall display the eligibility results in a manner that is comprehensive and easy to understand.		
ELG 158	The EES shall have spenddown capability, including automating a spenddown of resources and income calculation.		
ELG 159	The EES shall allow the Department to set enrollment limits and provide a mechanism to manage applications for programs that are at whose enrollment is capped.		
ELG 160	The EES shall provide the capability for certain programs, as identified by the Department, to be flagged according to funding source.		
ELG 161	The EES shall evaluate the resource/asset eligibility of an applicant when determining eligibility for those programs requiring a resource / asset test.		
ELG 162	The EES shall allow authorized users to search online household files using key fields such as name, SSN, ID, date of birth, etc.		
ELG 163	The EES shall provide a mechanism for authorized users to access beneficiary/household summary from any screen.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 164	The EES shall provide the capability to re-open a category that is closed in the status it was before the closure.		
ELG 165	The EES shall provide a mechanism to indicate relationships between all members of a household.		
ELG 166	The EES shall provide a mechanism to automatically create the inverse family relationships (e.g., parent - child, child - parent, etc.).		
ELG 167	The EES shall provide the capability to perform mass terminations due to changes in status as well as program changes.		
ELG 168	The EES shall provide household-based activity checklists (to-do lists) to assist in prompting the workers in the completion of required household activities		
ELG 169	The EES shall allow for interview scheduling and tracking of completed interviews. Send client notification of interview is not completed.		
ELG 170	The EES shall include workflow management based on whether an applicant is MAGI-based and/or MAGI-excepted households.		
ELG 171	The EES shall identify all types of incomes (e.g. countable or exempt statuses of incomes, and resources by program or individual).		
ELG 172	The EES shall provide the capability at an individual level to be able to rework a prior case that is closed even if an open case exists.		
ELG 173	The EES shall track program requirements for individuals, e.g., those who are penalized due to transfer of assets.		
ELG 174	The EES shall provide an automated screening tool to determine potential eligibility status using predefined rules and to route to the next step in the process.		

5. Appeals Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 001	The EES shall support an electronic appeals process, which includes transmission of data to the federal Hub, interfacing with document imaging, and a client web accessibility		
APP 002	If an Appeals decision is in favor of The Department, the EES shall automate the recovery of premiums or medical services that were paid and auto-generate form to Finance Office for recovery.		
APP 003	The EES shall support an integrated and customizable applicant complaint and grievance process, with reporting capabilities.		
APP 004	The EES shall capture and track the disposition of appeals (including status, assignments, and relevant household notes).		
APP 005	The EES shall record the detailed results and supporting documentation that result from or support an appeals decision.		
APP 006	The EES shall have the ability to be notified of results of Appeals		
APP 007	The EES shall automatically capture, retain, and display receipt of eligibility appeals.		
APP 008	The EES shall allow manually entered eligibility appeals.		
APP 009	The EES shall record the reporter/source (name, address, associated agency of person expressing the eligibility appeals, etc.), if applicable.		
APP 010	The EES shall provide a mechanism to generate a list of received and pending verifications including eligibility worker entered comments.		
APP 011	The EES shall assign a unique tracking number to the eligibility appeals.		
APP 012	The EES shall assign a worker, or group of workers, to manage eligibility appeals.		
APP 013	The EES shall update/change manager assigned to an eligibility appeal.		
APP 014	The EES shall identify and assign the priority of eligibility appeals.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 015	The EES shall cross reference common eligibility appeals (e.g. receiving 100 fair appeals requests from a single customer on a single policy change).		
APP 016	The EES shall track when a request for reconsideration becomes an appeal request.		
APP 017	The EES shall provide the facility to export and print case histories and case notes for the purposes of appeals.		
APP 018	The EES shall support the appeals process for customer exemption decision.		
APP 019	The EES shall accept and adjudicate customers appeals regarding eligibility determinations and exemptions from the customer responsibility requirement.		
APP 020	The EES shall associate the eligibility appeals to a case(s) and /or a customer(s).		
APP 021	The EES shall track all eligibility appeals.		
APP 022	The EES shall track multiple eligibility appeals from a single contact.		
APP 023	The EES shall store all eligibility appeals in a central location.		
APP 024	The EES shall track a request for reconsideration outside of standard case notes		
APP 025	The EES shall log updates to an appeal in case notes		
APP 026	The EES shall add notes to appeals		
APP 027	The EES shall capture history of eligibility appeals by multiple parameters (e.g. source, subject, date, etc.)		
APP 028	The EES shall sort history of eligibility appeals by multiple parameters (e.g. source, subject, date, etc.).		
APP 029	The EES shall document an audit trail which reflect who updated associated details to a case.		
APP 030	The EES shall provide the capability to record all decisions of appeals.		
APP 031	The EES shall alert appropriate staff when action is needed or information is due to ensure timely processing of the eligibility appeals.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 032	The EES shall support an appeals process on individual exemption decisions from the individual responsibility requirement.		
APP 033	The EES shall provide the functionality to reinstate service coverage until the Administrative Appeals decision is rendered.		
APP 034	The EES shall provide the ability to allow applicants to view, confirm, dispute and submit corrections to verification results.		
APP 035	The EES shall have the ability for customers to request a postponement of an appeal if the request is made in compliance with State and federal guidelines.		
APP 036	The EES shall have the ability for the customers to request for reconsideration to handle inquiries.		
APP 037	The EES shall have an appeal request submitted through multiple channels including phone, e-mail, letter, etc.		
APP 038	The EES shall provide an electronic template for eligibility appeal process.		
APP 039	The EES shall generate a referral to a third party assignee. (e.g. regular letter, email, automated referral, etc.).		
APP 040	The EES shall require a response by the third party assignee on a case by case basis.		
APP 041	The EES shall have the ability for customers to request an appeal in written form or verbally and followed up in writing.		
APP 042	The EES shall maintain health benefit plan at the current level after an appeal is requested by the customer on a timely manner until the decision of appeal is made (for a discontinuance of an active case).		
APP 043	The EES shall notify customer, third party entity, worker, etc. that the status of an eligibility appeal has changed. (e.g. pending hearing, withdraw, referred, etc.).		
APP 044	The EES shall notify applicants of failed verifications.		
APP 045	The EES shall notify the customer that their eligibility appeal has been received.		
APP 046	The EES shall notify the customer who their eligibility appeal has been referred to.		
APP 047	The EES shall provide a mechanism to track required verification timeframes.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 048	The EES shall provide the capability to create an electronic household file that records all application data and organizes all supporting documentation and images in an easy-to-use format.		
APP 049	The EES shall allow all individuals to exercise their right to appeal any eligibility determination for Medicaid, premium tax credits, cost sharing subsidies, or QHP eligibility.		
APP 050	If an appeals decision is in favor of the Department, the EES shall automate the recovery of premiums or medical services that were paid and auto-generate form to Finance Office for recovery.		

6. Notifications Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 001	The EES shall generate notices by applicant/beneficiary preferred method of communication e.g., mail, email, or fax.		
NOT 002	The EES shall support multiple pages and applicant/beneficiaries standard "Rights and Responsibilities" text, including, but not limited to, applicant/beneficiary's right to an Administrative Appeal.		
NOT 003	The EES shall allow applicant/beneficiaries to choose the method of preferred communication.		
NOT 004	The EES shall record and track how correspondence was issued to the applicant/beneficiary.		
NOT 005	The EES shall provide the capability for mass notifications to applicant/beneficiaries or groups of applicant/beneficiaries.		
NOT 006	The EES shall auto-populate all forms with required information from the system (e.g., applicable dates, missing and provided verifications, notes, etc.).		
NOT 007	The EES shall not have page limits.		
NOT 008	The EES shall produce notices and forms in English and Spanish languages as required by the federal and State statutes, regulations, and policies.		
NOT 009	The EES shall issue notices at set timeframes according to program rules.		
NOT 010	The EES shall provide the capability to set and change release dates.		
NOT 011	The EES shall provide a mechanism to suppress and track any specific notice (one-time notice suppression).		
NOT 012	The EES shall provide a mechanism to suspend any notice type.		
NOT 013	The EES shall provide a mechanism for designated persons to create new versions of notices/forms/correspondence from templates.		
NOT 014	The EES shall provide standard letter templates and the ability to add free form text to customize a letter to the customer's specific issue.		
NOT 015	The EES shall allow workers to generate or regenerate a notice/form upon demand.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 016	The EES shall generate a notice which includes a list of needed actions by the applicant/beneficiary by a standard due date (with a worker override), depending on the status or type of program applied for.		
NOT 017	The EES shall notify the beneficiary when their enrollment status has changed based on pre-set parameters so that the appropriate notice is generated for the circumstance.		
NOT 018	The EES shall provide the capability to electronically generate notices to obtain missing information.		
NOT 019	The EES shall create a sortable history of all notices associated with the applicant/beneficiary, including specific dates, and have the ability to view notices.		
NOT 020	The EES shall provide the capability to bundle and send out multiple notices and/or send out notices with corresponding forms together.		
NOT 021	The EES shall provide the capability to change information in a notice or delete a notice if it has not been 'sent'.		
NOT 022	The EES shall identify whether notice was auto-generated or worker-generated.		
NOT 023	The EES shall have noticing tightly integrated with the Marketplace and complying with all ACA regulations for such integration.		
NOT 024	The EES shall send electronic and/or paper renewal notices to beneficiaries.		
NOT 025	The EES shall pre-populate electronic and/or paper renewal forms with beneficiary information that is currently on file and allow the beneficiary to change or add information.		
NOT 026	The EES shall renew eligibility based on current Federal and State statutes and regulations. The system shall be modified as required to meet all federal and State statues that are changed during the life of the contract.		
NOT 027	The EES shall track and provide notification to users when a renewal is due.		
NOT 028	The EES shall track which electronic and/or paper renewals have been sent and which have been returned,		
NOT 029	The EES shall allow workers to generate notices, compliant with State and federal regulations at the time of notice generation, throughout the appeal process.		
NOT 030	The EES shall accept automated and manual responses received on referrals sent and associate them with initial referral.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 031	The EES shall retain history of all referrals sent and responses received.		
NOT 032	The EES shall store a copy of notices. These notices shall be available to the work units that support these functions (CSE, TPL, HIPPS, ERU, and Medical Subrogation).		
NOT 033	The EES shall generate Notice to customer that the full application must be completed to continue coverage beyond the presumptive eligibility period.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

The Non-Functional Requirements Traceability Matrix (RTM) is used to document and track the project requirements from the proposal through to testing to verify that the requirement has been completely fulfilled. The Contractor will be responsible for maintaining the set of Baseline Requirements directly related to the configuration of the EES. Additions, modifications, and deletions to these requirements will be added and modified throughout the project so it is imperative that a current version of the matrix be maintained at all times.

Bidders must provide an initial RTM as part of its proposal. The RTM shall follow the instructions below. The Bidder must state requirements exactly as they are provided in this RFP. The Bidder must indicate how it will achieve full compliance (i.e., requirement fulfilled 100%). Any requirements that the Bidder cannot attest to full compliance must be documented as outlined in Appendix D: Gap Analysis.

Bidders are required to provide a response, using the appropriate codes provided in the tables below, for each requirements listed in the Functional Requirements Response Matrix. Scoring for each requirement will directly relate to the ability code indicated by the Bidder.

Ability Code	Condition	Description
S	Standard Function	The proposed EES fully satisfies the requirement as stated. The Bidder must describe how the requirement is satisfied by the EES.
W	Workflow or System Configuration Required	Current functionality of the proposed EES exists in the EES and can be modified by a system administrator to meet this requirement.
M	Modification Required	The proposed EES requires a modification to existing functionality to meet this requirement which requires a source code modification. The EES will be modified to satisfy the requirements as stated or in a different format. The Bidder must describe the modifications.
F	Planned for Future Release	This functionality is planned for a future release. The Bidder must describe how the requirement will be satisfied by the EES and when the release will be available.
C	Custom Design and Development	The proposed EES requires new functionality to meet this requirement which requires a source code addition. The Bidder must describe the feature and its value.
N	Cannot Meet Requirement	The proposed EES will not satisfy the requirement. The Bidder must describe why the requirement cannot be satisfied.
O	Other Software	If the requirement is to be satisfied through the use of a separate software package(s), the Bidder must identify those package(s) and describe how the functionality is integrated into the base system.

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

1. General System Requirements

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 001	The EES shall follow a modular, flexible approach to systems development which is consistent with the MITA 3.0 guidelines, the CMS Exchange Reference Architecture, and Service-Oriented Architecture (SOA) design principles.		
GSR 002	The EES shall follow an n-tiered (layered) architectural approach in which presentation, business logic, and data access are separated.		
GSR 003	The EES shall provide scalable architecture.		
GSR 004	The EES shall be architected with no single point of failure, supporting a high-availability enterprise.		
GSR 005	The EES shall be deployable to servers running one of the following operating systems: - Linux - Unix - Windows - z/OS		
GSR 006	The EES shall support deployment on virtualized servers to support scalability and flexibility.		
GSR 007	All infrastructure software used by the EES (operating system, databases, web servers, network management, etc.) shall be a version that is currently supported under standard maintenance agreements and is generally available during the life of the contract.		
GSR 008	The EES shall incorporate an externalized rules repository and engine that allows business rules (including, but not limited to eligibility rules, program determination rules, rate calculations, and application validation rules) to be separated from application logic and defined and maintained through graphical user interfaces or other non-programmatic means.		
GSR 009	The rules engine shall be scalable and flexible to allow it to support expanded eligibility and enrollment rules in the future.		
GSR 010	The EES shall use an enterprise workflow engine to support the routing of work items, work queues, etc.		
GSR 011	The EES shall leverage an electronic document management system that is integrated with the workflow engine to support the storage and retrieval of document images associated with member and eligibility and enrollment processes.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 012	The EES shall use an industry-standard commercial Relational Database Management System (RDBMS), Application Server, and Web Server infrastructure.		
GSR 013	The EES' transactional databases shall use data models, referential integrity, constraints, stored procedures, and other DB specific functions to ensure data is properly formatted and orphaned records are not allowed in the EES		
GSR 014	The EES shall support a multi-tiered network deployment model that allows some physical tiers (e.g. load balancers, web servers) to be deployed in one network zone and other tiers (e.g. application servers, databases) to be secured behind internal firewalls		
GSR 015	The EES shall employ an Enterprise Service Bus (ESB) that serves as the integration backbone and the broker between service consumers and producers.		
GSR 016	The EES shall provide a business process layer that manages/orchestrates executable business processes via the ESB, including reusable business services such as encryption, compression, validation, and dynamic routing.		
GSR 017	The EES shall be architected using Business Process Management and workflow technologies as the primary integrated vehicle to implement business processes by composing them from human interactions and coarse-grained services.		
GSR 018	The EES shall support multi-node application server processing so that application processing load can be distributed and balanced across multiple physical servers.		
GSR 019	The EES architecture shall ensure that reporting and batch processing does not interfere with general system responsiveness or availability.		
GSR 020	The EES workflow, web pages and program functions, shall be configurable and modifiable without changing program code.		
GSR 021	The EES shall be designed and developed using a component-based architecture that is modifiable and reusable.		
GSR 022	The EES shall be designed, built and deployed in accordance with Enterprise Architecture best practices.		
GSR 023	The EES shall be built upon an infrastructure that is easily upgradable through patches and point releases, including the upgrading of the EES software and all prerequisite infrastructure software and the application of data migration or update scripts.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 024	The EES shall have the ability to interact with the N-FOCUS legacy system to allow for all functionality of the old and new systems to be available.		
GSR 025	The EES shall comply with CMS requirements to establish a framework of enabling technologies and processes that support improved administration of the Medicaid program.		
GSR 026	The EES shall provide the ability to terminate, reverse or back-out a software update in the event it is discovered the update is erroneous or corrupted. The EES shall provide the ability to restore the data to the state prior to the update.		
GSR 027	The EES shall provide a clearly defined promote-to-production process that enforces a strictly defined methodology for movement from development to QA and production.		
GSR 028	The EES shall provide the ability to roll back data and software releases/programs as requested by DHHS during testing cycles.		
GSR 029	The EES shall provide DHHS with all changes, modifications, enhancements, or customized features it makes to any licensed software approved by the Department to be used in The EES.		
GSR 030	The EES shall include appropriate checkpoint/restart capabilities, and other features necessary to ensure reliability and recovery, including telecommunications reliability, file backups, and disaster recovery.		
GSR 031	The EES shall be deployed primarily as a web-based interface, so that users only need a web browser to access the EES.		
GSR 032	The EES workflow, web pages, and program functions shall be configurable and modifiable without changing program code.		
GSR 033	The EES shall maintain the security requirements set forth by federal and Nebraska government.		
GSR 034	The EES shall be scalable and flexible enough to accommodate any changes required by Nebraska and/or federal statute, mandate, decision or policy.		
GSR 035	The EES shall support multiple deployment environments, including development, test, training, and production. (sandbox, break-fix)		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 036	The EES shall provide the following testing functions: - Functional Testing - Regression Testing - Load & Performance Testing - Test case creation and tracking - Test data generation (i.e. data masking, data filtering, etc.)		
GSR 037	The EES should make the rules engine available in a shared services model to be accessed by other Nebraska systems.		
GSR 038	The EES should leverage an enterprise content management system to store digital content, downloadable forms, and personalized on-screen content.		
GSR 039	The EES should assure that third party software, used for ancillary aspects of the EES, that require distribution or maintenance to remote desktops or servers can be capable of being distributed and configured on user work stations from a central site and not require onsite intervention. In other words, software should support “silent" or unattended installation functionality for any non-web based features.		
GSR 040	The EES should be able to support the following multi-agency configurations:		
GSR 041	• Two or more independent yet integrated Agencies in a single instance of the business application running on a single instance of the technical infrastructure		
GSR 042	• Two or more independent yet integrated Agencies each with a separate instance of the business application which all run on the same instance of the technical infrastructure		
GSR 043	• Two or more independent, yet integrated, Agencies each with a separate instances of the business application which run on separate instances of the technical infrastructure.		
GSR 044	The EES should include a service management layer that provides the following:		
GSR 045	• A registry/repository in which all services related to the EES can be published. This registry should support Universal Description Discovery and Integration (UDDI) and the Web Services Description Language (WSDL)		
GSR 046	• Service monitoring, logging, and audit		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 047	• Should be open to others and reusable by other systems and agencies		
GSR 048	The EES should ensure that the use of acronyms and codes are consistent across the EES components (windows, screens, reports and databases or data dictionary).		
GSR 049	The EES should provide the ability to support client services through a variety of channels. This may include, but is not limited to web, kiosks, call centers, other organizations, and walk ins.		
GSR 050	The EES should allow new data items to be automatically included in migration paths during software upgrades.		
GSR 051	The EES should document and expose all SOA services using standard WSDL and industry best practices.		
GSR 052	The EES should leverage webs services and adhere to key standards such as SOAP, XML, UDDI, WSDL, BPEL, SAML, and other standards as detailed by the Department.		
GSR 053	The EES should define service modules independently, with the interface modules bridging the gap between modules.		
GSR 054	The EES should provide the ability to refresh each environment.		
GSR 055	The EES should have the ability to backup, recover, restart, and cancel jobs.		
GSR 056	The EES should utilize a web portal that is scalable and has the ability to accommodate additional systems and content in the future.		

2. Service Oriented Architecture (SOA) Requirements

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SOA 001	The EES components shall be committed to an advanced approach to interoperability using web services and SOA aligned with Nebraska standards and vision for interoperability.		
SOA 002	The EES shall provide the ability to distribute services amongst different components and tiers of the architecture.		
SOA 003	The EES shall develop/integrate services using standardized Web Services formats.		
SOA 004	The EES shall allow for centralized service maintenance (new, update, delete).		
SOA 005	The EES shall provide the ability to publish services and related data to be used by different types and classes of service consumers.		
SOA 006	The EES shall ensure enterprise-wide access to services through all required channels such as Nebraska facilities, phone, mail, and online via the Internet.		
SOA 007	The EES shall provide the capabilities for a Real-Time (or near real-time) Integrated Enterprise where common data elements about the consumers served and services rendered are easily shared across organizational units with appropriate adherence to security and privacy restrictions.		
SOA 008	The EES shall establish an interoperability layer that supports interactions among components via a variety of protocols (HTTP/plain old XML, SOAP, Internet Inter-ORB Protocol [IIOP], .NET remoting, Message-Oriented Middleware [MOM] protocols, file transfer protocols and others) and interaction styles (request/reply, conversational, publish and subscribe, asynchronous messaging and others).		
SOA 009	The EES shall implement synchronous and asynchronous program-to-program communication, moving messages between SOA service consumer modules and service provider modules at runtime. The ESB component may also move files, database rows and other data.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SOA 010	EES shall implement a SOA by using an ESB, responsible to monitor and control routing of message exchange between services, resolve contention between communicating service components, control deployment and versioning of services and marshal use of redundant services.		
SOA 011	EES shall support creation and extension of service interfaces through the use of WSDL.		

3. Interoperability & Interfaces Requirements

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
IOI 001	The EES shall provide a SOA based infrastructure (i.e. hub and spoke) for connecting to other EESs using an ESB infrastructure.		
IOI 002	The EES's Interface architecture for internal A2A (Application to Application) integration shall not have a negative impact on the user experience and expectation for application performance. All points of contacts for A2A communications shall be documented.		
IOI 003	The EES's interfaces shall secure and protect the data and the associated infrastructure from a confidentiality, integrity and availability perspective.		
IOI 004	The EES shall be able to support Application to Application (A2A) synchronous and asynchronous messaging using web services. The messaging capabilities will be able to support a wide variety of A2A patterns including, but not limited to, the following: -		
IOI 005	• Data look-up and retrieval		
IOI 006	• Data look-up with services provided by other applications		
IOI 007	• Simple bulk data transfer to/from other EES's.		
IOI 008	The EES' interface infrastructure shall continue to operate despite failure or unavailability of individual technology components such as a server platform or network connection.		
IOI 009	The EES shall have the capability to notify System Administrators/system support staff if an interface is not available for any reason. The notification and issue(s) shall be invisible to the applicant/beneficiary/client.		
IOI 010	The EES' interfaces must be scalable to accommodate changes in scale including changes in user population, transaction volume, throughput and geographical distribution.		
IOI 011	The EES shall be capable of making any changes to the interface data elements/layouts easily, and to test those changes.		
IOI 012	The EES shall implement, at a minimum, interfaces (both real-time or batch) with the applications and data sources listed in "Interface List - N-FOCUS" document included in the procurement library.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
IOI 013	The EES shall provide the capability to detect and remediate errors caused by batch processing and real time processing via user defined rules		
IOI 014	The EES shall provide the capability to perform source to destination file integrity checks for exchange data and alert appropriate parties with issues		
IOI 015	The EES shall build in contingencies for the storage of transactions where there is dependency on availability of data from business partners that provide authoritative data (e.g., the IRS, DHS, and SSA).		

4. Scalability and Extensibility Requirements

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SCA 001	The EES shall be designed for ease of maintenance and readily allow future functional enhancements. This shall be accomplished through use of modern design principles for SOA, applying principles of modularity, interface abstraction, and loose coupling.		
SCA 002	The EES shall be adequately flexible to keep up with ever changing technology and regulatory changes. This shall be accomplished by separating workflow and business rules into their own separate tiers.		
SCA 003	The EES shall be scalable and adaptable to meet future growth and expansion/contraction needs such that the EES can be expanded on demand and be able to retain its performance levels when adding additional users, functions, and data.		
SCA 004	The screens shall be highly re-configurable, providing ability to reposition and rename field labels/data fields, remove or “turn-off” unused fields, maintain data, and allow addition of custom-defined fields.		
SCA 005	The Department shall be able to modify the labels and arrangement of information in the data model EES documentation templates and can create custom data fields.		
SCA 006	The EES shall provide the ability to create and/or modify edits and business rules which determine the correctness/integrity of data.		
SCA 007	The EES shall provide the ability for on-line access by any site connected to the organization WAN.		
SCA 008	The EES shall provide the capability for remote access in compliance with existing Nebraska / federal connectivity/security policies.		

5. EES Performance Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PER 001	The Contractor must build the EES such that expansion of the system can be achieved with a minimum of additional system administration burden and staffing.		
PER 002	EES Administration staffing requirements and workload should be minimally impacted with expanded system usage.		
PER 003	The Contractor must build the EES so that there is a near linear relationship between each additional server added, and the additional load that can be accommodated (load vs. capacity added), up to specified limit.		
PER 004	The EES shall use fully redundant network and hardware. Hardware components (such as processor and memory) should have built-in redundancy to allow a second component to take over in the event of a failure in the primary component. Similarly, redundant paths should also exist for networks.		
PER 005	The EES shall leverage virtualization to expedite disaster recovery.		
PER 006	The EES shall have the ability to support either a Production and hot (real time replication) disaster recovery design or a multi host site Production design that would allow one site to seamlessly be offline and the other site would maintain service without interruption.		
PER 007	The EES shall include a disaster recovery plan and provide contingency plans for client lookup capabilities and online collaboration in the event of a disaster.		
PER 008	The EES shall provide the ability to recover from data loss due to end user error and application error.		
PER 009	The EES shall provide the ability to perform archival/incremental backups and the ability to perform open/closed database backups.		
PER 010	The EES shall provide tools for managing an environment that supports both high availability and disaster recovery.		
PER 011	The EES shall include the capability to maintain all data according to Department defined records retention guidelines (i.e. record schedule). In general document retentions range from 3 to 10 years.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PER 012	The EES shall include the capability to maintain all images and electronic documents according to Department defined document retention guidelines (i.e. record schedule).		

6. Regulatory & Security Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 001	The EES must provide a mechanism to comply with EES security requirements and safeguards requirements following federal agencies/entities:		
RSR 002	• United States Department of Agriculture (USDA)		
RSR 003	• Food & Nutrition Services (FNS)		
RSR 004	• Internal Revenue Service (IRS)		
RSR 005	• Social Security Administration (SSA)		
RSR 006	• Department of Health & Human Services (DHHS) Center for Medicare & Medicaid Services (CMS)		
RSR 007	• Administration for Children & Families (ACF)		
RSR 008	• NIST 800-53 and DOD 8500.2		
RSR 009	• Federal Information Security Management Act (FISMA) of 2002		
RSR 010	• Health Insurance Portability and Accountability Act (HIPAA) of 1996		
RSR 011	• Health Information Technology for Economic and Clinical Health Act (HITECH) of 2009		
RSR 012	• Privacy Act of 1974		
RSR 013	• e-Government Act of 2002		
RSR 014	• Patient Protection and Affordable Care Act of 2010, Section 1561 Recommendations		
RSR 015	• Safeguards for Protecting Federal Tax Returns and Return Information (26 U.S.C. Section 6103 and related provisions)		
RSR 016	• Health Insurance Portability and Accountability Act (HIPAA)		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 017	• Family Educational Rights and Privacy Act (FERPA)		
RSR 018	• Health Information Technology for Economic and Clinical Health (HITECH) Act		
RSR 019	• NIST 800-53A		
RSR 020	• NIST 800-53 version 4 Recommended Security Controls for Federal Information Systems Information Security		
RSR 021	• NIST 800-44 version 2 Guidelines on Security Public Web Servers		
RSR 022	• NIST 800-77 Security Configuration Checklist Program for IT Products – Guidance for checklist Users and Developers.		
RSR 023	• IRS Publication 1075, Tax Information Security Guidelines for Federal State and Local agencies, which points back to NIST 800-53 rev 3		
RSR 024	• CMS requirements, which points back to NIST 800-53 rev3 moderate baseline		
RSR 025	• Guidance from CMS including MITA Framework 2.0 and Harmonized Security and Privacy Framework		
RSR 026	• 45 CFR Part 95.621(f) ADP System Security Requirements and Review Process		
RSR 027	• Standards defined in federal Information Processing Standards (FIPS) issued by the National Institute of Standards and Technology (NIST)		
RSR 028	• FIPS PUB 112 Password Usage Procedure		
RSR 029	• FIPS PUB 186-3 Digital Signature Standard June 2009		
RSR 030	• Nebraska Electronic Signature Statute http://www.legislature.ne.gov/laws/statutes.php?statute=86-611		
RSR 031	• Records Usage, Duplication, Retention, Re-disclosure and Timely Destruction Procedures/Restrictions 5 U.S.C. 552a (o)(1)(F), (H) and (I)		
RSR 032	• Federal Records Retention Schedule 44 U.S.C. 3303a		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 033	• Computer Matching and Privacy Protection Act of 1988 (CMPPA)		
RSR 034	• SSA Information System Security Guidelines for federal, State, and Local Agencies		
RSR 035	• Title XIX Confidentiality Rules		
RSR 036	The EES shall conform to the sub-parts of Section 508 of the Americans with Disabilities Act (ADA), and any other appropriate Nebraska or federal disability legislation.		
RSR 037	The EES shall comply with all applicable Nebraska security policies and adhere to all legal, statutory, and regulatory requirements, as determined by Nebraska Leadership.		
RSR 038	The EES should have a unique identifier which is not the SSN.		
RSR 039	The EES shall comply with accessibility requirements described in 45 CFR 85 and with Nebraska accessibility requirements.		
RSR 040	The EES shall comply with Nebraska branding standards as defined by the Department.		
RSR 041	The Contractor shall adhere to the principle of “Fail Safe” to ensure that a system in a failed state does not reveal any sensitive information or leave any access controls open for attacks.		
RSR 042	The EES shall allow for controlled access to participant records. Users will be able to view participant data within the EES at the Department defined levels of access based on user security privileges.		
RSR 043	The EES shall maintain a level of security that is commensurate with the risk and magnitude of the harm that could result from the loss, misuse, disclosure, or modification of information.		
RSR 044	Information security shall be built into the EES from its inception rather than “bolted on” after the EES has been implemented.		
RSR 045	The EES shall support security at the object level (e.g. Table, View, Index).		
RSR 046	The EES shall support security at the row and column level.		
RSR 047	The EES shall support auditing at the object level (i.e. Table, Column).		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 048	The EES shall provide the ability for concurrent users to simultaneously view the same record, documentation and/or template.		
RSR 049	The EES shall provide protection to maintain the integrity of data during concurrent access.		
RSR 050	The software used to install and update the systems, independent of the mode or method of conveyance, shall be certified free of malevolent software (“malware”). Contractor may self-certify compliance with this standard through procedures that make use of commercial malware scanning software.		
RSR 051	The EES shall be configurable to prevent corruption or loss of data already accepted into the EES in the event of an EES failure (e.g. integrating with a UPS, etc.).		
RSR 052	The EES shall support protection of confidentiality of all Protected Health Information (PHI) delivered over the Internet or other known open networks via encryption using triple-DES (3DES) or the Advanced Encryption Standard (AES) and an open protocol such as Transport Layer Security (TLS), Secure Sockets Layer (SSL), Internet Protocol Security (IPsec), XML encryptions, or Secure/Multipurpose Internet Mail Extensions(S/MIME) or their successors.		
RSR 053	The EES, when storing PHI on any device intended to be portable/removable (e.g. smartphones, portable computers, portable storage devices), shall support use of a standards based encrypted format using 3DES, AES or their successors.		
RSR 054	The EES, prior to access to any PHI, shall display a configurable warning or login banner (e.g. "The EES should only be accessed by authorized users"). In the event that an EES does not support pre-login capabilities, the EES shall display the banner immediately following authorization.		
RSR 055	The EES shall comply with Title XIX and related regulations and guidance.		
RSR 056	The EES shall comply with Title XXI and related regulations and guidance.		
RSR 057	The EES shall comply with the Office of the National Coordinator’s Nationwide Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 058	The EES shall comply with the Section 504 of the Rehabilitation Act.		
RSR 059	The EES shall comply with the Section 6103 of the Internal Revenue Code.		
RSR 060	The EES should comply with the National Information Exchange Model (NIEM).		
RSR 061	The EES should support processing of data in multiple formats such as XML, X12, and other industry standard formats.		
RSR 062	The EES shall provide for security concepts covering the following components: Virtual Private Network (VPN), firewall technology and Demilitarized Zone (DMZ), virus-/intrusion detection, mail/content filtering avoiding fault positives, encryption, Public Key Infrastructure (PKI).		
RSR 063	The EES upon detection of inactivity of an interactive session shall prevent further viewing and access to the EES by that session by terminating the session, or by initiating a session lock that remains in effect until the user reestablishes access using appropriate identification and authentication procedures. The inactivity timeout shall be configurable.		
RSR 064	The EES shall enforce a limit of (configurable) consecutive invalid access attempts by a user. The EES shall protect against further, possibly malicious, user authentication attempts using an appropriate mechanism (e.g. locks the account/node until released by an administrator, locks the account/node for a configurable time period, or delays the next login prompt according to a configurable delay algorithm).		
RSR 065	The EES shall provide the capability to prevent database administrators from seeing the data in databases they maintain.		
RSR 066	The EES shall provide the ability to maintain a directory of all personnel who currently use or access the system/IVR/SQL database.		
RSR 067	The EES shall provide the ability to create and maintain a directory of external providers to facilitate communication and information exchange.		
RSR 068	The EES shall provide the ability to identify certain information as confidential (e.g. PII, PHI, etc.) and only make that accessible by appropriately authorized users.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 069	The EES shall restrict access to summarized information according to organizational policy, scope of practice, and jurisdictional law.		
RSR 070	The EES must be able to associate permissions with a user using one or more of the following access controls:		
RSR 071	• User-based (access rights assigned to each user)		
RSR 072	• Role-Based Access Controls (RBAC; users are grouped by role and access rights assigned to these groups)		
RSR 073	• Context-based (role-based with additional access rights assigned or restricted based on the context of the transaction such as time-of-day, workstation-location, emergency-mode, etc.)		
RSR 074	The EES shall provide the ability to prevent specified user(s) or groups from accessing confidential information such as a patient's chart.		
RSR 075	The EES should preserve and report specified audit data when potential security violations are detected.		
RSR 076	When access to a user's account is restricted, the EES shall provide a means for appropriately authorized users to "break the glass" and obtain access for emergency situations, as defined by Nebraska policy.		
RSR 077	When access to a chart is restricted and the "break the glass" has occurred, the EES shall provide the ability to notify specified users and provide an audit trail for this access.		
RSR 078	The EES shall enforce the most restrictive set of rights/privileges or accesses needed by users/groups or processes acting on behalf of users, for the performance of specified tasks.		
RSR 079	The EES shall provide the ability for authorized administrators to assign restrictions or privileges to users/groups.		
RSR 080	The EES shall support removal of a user's privileges without deleting the user from the EES to ensure history of user's identity and actions.		
RSR 081	The EES shall be able to support RBAC in compliance with the HL7 Permissions Catalog.		
RSR 082	The EES shall provide more-advanced session management abilities such as prevention of duplicate logins, remote logout and location-specific session timeouts.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 083	The EES shall provide the ability to perform EES administration functions such as reference table maintenance and adding/ removing users from the system.		
RSR 084	The EES shall allow users access based on their roles irrespective of their geographical location.		
RSR 085	The EES shall provide the capability to integrate with existing authentication and authorization mechanisms (RACF on the mainframe).		
RSR 086	The EES shall provide the capability to create temporary and emergency accounts and terminate those accounts automatically after a user defined period of time.		
RSR 087	The EES shall provide the capability to override a role and restrict access to information by users or groups of users.		
RSR 088	The EES shall allow an individual with active eligibility under a different user ID to reapply under their own user ID.		
RSR 089	The EES shall provide the capability to monitor events on the information system, detect attacks, and provide identification of unauthorized use of the system.		
RSR 090	The EES shall provide the capability to identify and report on inappropriate access to information in the system, based on user defined criteria.		
RSR 091	The EES shall manage user profiles, including enforcing role-based security access to system data and functions.		
RSR 092	The EES shall enforce strong password rules per NITC & IRS requirements.		
RSR 093	The EES support the use of Multi-factor authentication		
RSR 094	The EES shall support the ability to disable user accounts and ensure no disabled accounts can log in or access the solution.		
RSR 095	The EES shall provide the same security provisions for all the environments as those used in the production environment.		
RSR 096	The EES shall support user account authentication procedures with configurable parameters (time, cipher strength, logon attempts, etc.).		
RSR 097	The EES shall implement appropriate encryption mechanisms to protect the confidentiality and integrity of critical types of data, including but not limited to passwords, social security numbers, and bank account numbers.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 098	All sensitive data shall be encrypted in transit (including emails) to protect data confidentiality and integrity as appropriate based on the sensitivity of data.		
RSR 099	The EES shall provide the ability to implement security for transport and messaging via web services.		
RSR 100	The EES shall have the ability to support strong authentication through SSL, Kerberos, RADIUS, SAML, XACML, or OpenID.		
RSR 101	The EES shall provide the ability to virus scan uploaded files using Department approved virus scanning software.		
RSR 102	The EES shall provide the ability to administer user security based on organizational unit.		
RSR 103	The EES shall support the latest version of Secure Sockets Layer (SSL)/Transport Layer Security.		
RSR 104	The EES shall be able to use HTTPS/SSL for connections between interfaces.		
RSR 105	The EES shall pass vulnerability tests that are deemed industry standard for an application which hosts confidential information of clients like Social Security Numbers, dates of birth, addresses etc.		
RSR 106	The EES shall pass tests for common web vulnerabilities such as poor session controls, injection flaws, denial of service, un-validated input, and cross site scripting.		
RSR 107	The EES shall manage user authentication and authorization via LDAP version 3.0 or higher.		
RSR 108	The solution shall contain verification mechanisms that are capable of authenticating authority (as well as identify) for the use or disclosure requested.		
RSR 109	The EES should provide role-based security using unique identifiers (IDs), mandatory password standards, and profile or group access assignments. All users should be authenticated when establishing a connection to the solution. Authentication should be based on unique user IDs and should support separation of duties based on roles.		
RSR 110	The EES shall enforce password policies for length, character requirements, forced reset intervals, and updates, as defined by the Department.		
RSR 111	The EES shall have the ability to use secure (SSL/SSH) FTP to accommodate file transfers.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 112	The EES shall ensure a timely and reliable process for security breach notification to the appropriate entity.		
RSR 113	The EES shall alert appropriate staff authorities of potential violations of privacy safeguards, such as inappropriate access to confidential information.		
RSR 114	The EES shall assure strict adherence to IRS security and privacy requirements for data obtained from IRS and the federal Data Hub.		
RSR 115	The EES shall adhere to all Nebraska and federal requirements to secure, store, and dispose of data.		
RSR 116	The EES shall provide complete control and accounting of all data received, stored, accessed, or transmitted to ensure administrative, physical, and technical security of the data		
RSR 117	The EES shall ensure the security of all State documents and data ensuring that complete segregation of the State data and files exists from other selected Contractors/selected Contractor customers.		
RSR 118	The EES shall offer the latest, commercially available and industry accepted encryption technologies for any file transfers or information exchanges within the solution network through the Internet and with any potentially unsecured network.		
RSR 119	The EES should implement a security architecture based on MITA 3.0 Security and Privacy model, including the following security architectural elements: - Multi-Level Security - Identity Management - Role Based Access Control (RBAC) - Decentralized Label Model (DLM)		
RSR 120	The EES should support a defense-in-depth, multi-zone computing architecture that physically separates the layers between the solution components. Each layer should be protected by firewalls and appropriate security devices based on the sensitivity of data it houses and functions it performs.		
RSR 121	The EES should be built upon an infrastructure that protects against the known forms of exploits and attacks, including SQL injection, code injection, cross-site scripting, request forgery, and session fixation.		
RSR 122	The EES should support the saving of user profiles for archival purposes, including the ability to re-enable/reuse the profile.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 123	The EES should pass credentials for authentication and authorization from the solution to authenticate system access to web service transactions (that is, connect to external web systems in the context of a named user, not super-user, account).		
RSR 124	The EES should support, issue, and manage public key certificates for secure transactions, following standard practices such as the use of accepted Certification Authorities (CA), documented Certificate Policies (CP), and Certificate Practice Statements (CPS), including key escrow strategy. Implementation should use fundamental technical standards such as X.509 certificate format and Public Cryptographic Standards (PKCS).		
RSR 125	If a system component or application fails, the EES should not leave sensitive data accessible, and should return user-friendly error messages that do not expose internal system details and does not include information that might help an attacker exploit vulnerabilities in the application.		
RSR 126	The EES should have the ability to support robust session management controls, including the ability to limit the number of concurrent sessions for an individual user.		
RSR 127	The EES should ensure transactions and messages are accurately received as they were sent and information is not altered by non-authorized individuals.		
RSR 128	The EES should support the latest version of the IP Protocol Security extension (IPSec).		
RSR 129	The EES should support S/MIME for email communications.		
RSR 130	The EES should support cryptography levels set forth in FIPS 1402.		
RSR 131	The EES should prevent the creation of duplicate user accounts.		
RSR 132	The EES should use file encryption for data transfer between entities.		
RSR 133	The EES should provide the ability to create, display and maintain an administrative structure as specified by the Department.		
RSR 134	The EES should provide the ability to include a viewable online history of all changes made by User Account Managers as specified by the Department.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 135	The EES should prevent installation or use of remote control or file sharing software unless explicitly approved by the Department.		
RSR 136	The EES should detect and prevent hacking, intrusion, and other unauthorized use of system resources.		
RSR 137	The EES should provide procedures for guarding, monitoring and detecting malicious software.		
RSR 138	The EES should update virus blocking software daily and aggressively monitor for and protect against viruses.		
RSR 139	The EES should suspend all EES users who have not accessed the solution within a specified number of days as specified by the Department. The suspension requirements should be configurable and distinct for each system environment.		
RSR 140	The EES should provide screen/window security, including links that route to interfaces.		
RSR 141	The EES should provide a secure web portal with authentication and encryption to protect interactions and transactions including, at a minimum Secure Socket Layers (SSL).		
RSR 142	The EES should provide a secure web portal with role based access enabling viewing and maintenance of information across all components of the solution meeting all applicable Nebraska and federal standards.		
RSR 143	The EES should accommodate all current HIPAA revisions/updates including those that may occur during the life of the project.		
RSR 144	The EES should maintain all data sets defined by the HIPAA Implementation Guides to support all transactions required under HIPAA Administrative Simplification Rule.		
RSR 145	The EES should protect the confidentiality and integrity of electronic Protected Health Information (PHI).		
RSR 146	The EES should support encryption and decryption of stored PHI or an equivalent alternative protection mechanism, if approved by the Department.		
RSR 147	The EES should track disclosures of PHI; provide authorized users access to, and reports on the disclosures.		
RSR 148	The EES should include procedures for accessing necessary electronic PHI in the event of an emergency and continue protection of PHI in emergency.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 149	The EES should provide data integrity of PHI by preventing and detecting improper alteration or destruction (including but not limited to: message authentication, electronic signature, check sums etc.).		
RSR 150	The EES should perform data mapping to identify the PHI contained in the solution.		
RSR 151	The EES should provide ability to redact records in whole or in part to comply with Nebraska and federal privacy standards based on role and authority.		
RSR 152	The EES should provide audit reports for tracking users, associated security groups, roles, settings, passwords and duplicate IDs. The frequency and content of security audit reports will be determined by the Department.		
RSR 153	The EES should track adds, changes and deletes of individual user data.		
RSR 154	The EES shall audit/track all activity specific to each user and process, including at a minimum date and time of last login, invalid login attempts, system errors, and all transaction activities, including inquiry.		
RSR 155	The EES should provide read-only access to system job and maintenance schedule, submission, and processing statistics, and system performance tools for designated staff.		
RSR 156	The EES should monitor system activity and log and examine system activity in accordance with audit policies and procedures adopted by the Department.		
RSR 157	The EES should provide security administrative rights to the Department security administrator(s) for the purpose of adding, updating, and deleting security access.		

7. Audit & Compliance Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 001	The EES shall maintain a record (e.g. audit trail) of all additions, changes and deletions made to data in the system. This should be readily searchable by user ID or client ID. This must include but is not limited to:		
AUD 002	• The user ID of the person who made the change		
AUD 003	• The date and time of the change		
AUD 004	• The physical, software/hardware and/or network location of the person while making the change		
AUD 005	• The information that was changed		
AUD 006	• The outcome of the event		
AUD 007	• The data before and after it was changed, and which screens were accessed and used		
AUD 008	The EES shall allow an authorized administrator to set the inclusion or exclusion of auditable events based on organizational policy and operating requirements/limits.		
AUD 009	The EES shall support logging to a common audit engine using the schema and transports specified in the Integrating the Healthcare Enterprise (IHE) Audit Trails and Node Authentication (ATNA) profile, Audit Log specification.		
AUD 010	The EES shall be able to detect security-relevant events that it mediates and generate audit records for them. At a minimum the events shall include those listed here:		
AUD 011	• start/stop		
AUD 012	• user login/logout		
AUD 013	• session timeout		
AUD 014	• account lockout		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 015	• client record created/viewed/updated/deleted		
AUD 016	• scheduling		
AUD 017	• query		
AUD 018	• order		
AUD 019	• node-authentication failure		
AUD 020	• signature created/validated		
AUD 021	• Personally Identifiable Information (PII) export		
AUD 022	• PII import		
AUD 023	• security administration events		
AUD 024	• backup and restore		
AUD 025	The EES shall provide authorized administrators with the capability to read all audit information from the audit records.		
AUD 026	The EES shall provide the audit records in a manner suitable for the user to interpret the information.		
AUD 027	The EES shall provide the capability to generate reports based on ranges of EES date and time that audit records were collected.		
AUD 028	The EES shall be able to export logs into text format in such a manner as to allow correlation based on time (e.g. Coordinated Universal Time [UTC] synchronization).		
AUD 029	The EES shall be able to perform time synchronization using NTP/SNTP, and use this synchronized time in all security records of time.		
AUD 030	The EES shall have the ability to format for export recorded time stamps using UTC based on ISO 8601.		
AUD 031	The EES shall prohibit all users read access to the audit records, except those users that have been granted explicit read access.		
AUD 032	The EES shall protect the stored audit records from unauthorized deletion.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 033	The EES shall prevent modifications to the audit records.		
AUD 034	The proposed EES shall provide logging, reporting and accessing errors and exceptions.		
AUD 035	The EES shall maintain an audit trail of all inquiry, and updates to the EES that are required by State and federal policies and regulations.		
AUD 036	The EES shall ensure plans and procedures are in place for all modules to meet audit and compliance requirements		
AUD 037	The EES should capture and retain the data that was used to determine eligibility, calculate benefits, and generate various outputs, at the point in time that the particular action took place. Subsequent changes to data elements (e.g. an applicant's income) should not over-write the value that used to make a determination at a particular point in the past.		
AUD 038	The EES should have the ability to research transaction exceptions (e.g. a failed "add" transaction due to business rule violation) and make corrections within the system as necessary to correct enrollment discrepancies.		

8. Usability Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 001	The EES will adhere to the accessibility standard as outlined in the web guidelines and based on the W3C level 2 accessibility guidelines: (http://www.w3.org/TR/WCAG10/full-checklist.html).		
USE 002	The EES shall adhere to all federal and Nebraska accessibility requirements, or their successors: (section 508 of the Rehabilitation Act and detailed in section 1194.22 of the Code of Federal Regulations, “Web-based intranet and internet information and applications”.		
USE 003	The EES shall provide a user interface that shall be simple and consistent throughout all areas and functions of the EES.		
USE 004	The EES shall minimize the number of mouse clicks/user interaction to complete any action.		
USE 005	The EES shall use a Graphical User Interface (GUI) to help the user navigate to the next logical step in the workflow, or freely navigate to other parts of the EES functionality, and then allow the user to return to complete the in-process task.		
USE 006	The EES shall preserve context by limiting abrupt transitions and redisplays in order to maximize and enhance the user experience and EES usability.		
USE 007	The EES shall speak the users' language, with words, phrases and concepts familiar to the user, rather than EES-oriented terms.		
USE 008	The EES shall follow real-world conventions, making information appear in a natural and logical order.		
USE 009	The EES shall allow the users to easily navigate to a variety of functions available to them without having to move sequentially through excessive menus and screens.		
USE 010	The EES shall support undo and redo, or provide onscreen confirmation/acceptance to the user to confirm a change that is permanent and cannot be "undone".		
USE 011	The EES shall provide users with a clearly marked "emergency exit" for the instances when a user mistakenly chooses a function and such "emergency exit" must be simple with minimal dialogue.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 012	The EES shall follow standardized conventions and limit the use of words, situations, or actions that have multiple meanings.		
USE 013	The EES shall eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.		
USE 014	The EES shall minimize the user's memory load by making objects, actions, and options visible.		
USE 015	The EES shall provide the option to have rollover/ tool-tip help or context messages and provide the option to turn off this option in the user preferences profile.		
USE 016	The EES shall provide all user instructions in a visible or easily retrievable location, when appropriate.		
USE 017	The EES shall cater to both inexperienced and experienced users and shall provide accelerators (e.g. onscreen short cuts, hot-keys, alternate workflows, etc.) to speed up the interaction for the expert user.		
USE 018	The EES will allow users to create shortcuts (e.g. onscreen short cuts, hot-keys, etc.) for frequent actions.		
USE 019	The EES's error messages shall be expressed in plain language, precisely indicate the problem, and constructively suggest a solution.		
USE 020	The EES shall use colors to enhance user experience and EES usability while complying with all disability requirements notated elsewhere in these requirements.		
USE 021	The EES shall allow the user to navigate to any functional component from a client landing page.		
USE 022	The EES shall alert the user with information relevant to required next steps.		
USE 023	The EES shall provide drop down and list boxes for all key entry, and text entry will display existing values for selection (auto fill).		
USE 024	The EES shall accommodate point and click selection and check box entry for all relevant data entries to ensure that the user does not have to enter textual data that may already be available to the system.		
USE 025	The EES shall facilitate data entry and shall contain pop-up list boxes for all code fields in all processing windows and allow selection of the entry with use of hot keys.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 026	The EES shall provide field level on-screen edits with limited user override capabilities.		
USE 027	The EES shall not show fields that are not accessible to a given user based on access rights, nor shall the EES show fields not in use.		
USE 028	The EES cursor shall automatically advance to the next logical input field when the maximum allowed numbers of characters have been entered for the keyed field.		
USE 029	The EES shall provide the option of having a selection from the drop down boxes automatically take the user to the next field.		
USE 030	The EES shall provide validation checks by methods described within policy, functional, and detailed requirements.		
USE 031	The EES shall identify invalid entries to the user as immediately as possible.		
USE 032	The EES shall provide the ability to suggest or automatically change entries that do not conform to data entry standards.		
USE 033	The EES shall be designed to include only the necessary information and functionality on screens and shall be based on the user's access level and the user's configuration.		
USE 034	The EES shall be designed to include logical transitions between screens and level of detail during navigation.		
USE 035	The EES shall provide templates for data entry with identified mandatory and optional data fields.		
USE 036	The EES shall allow incomplete data sets to be saved for completion of the workflow at a later time.		
USE 037	The EES shall highlight and flag required and incomplete data fields.		
USE 038	The EES shall include a graduated system of alert levels to allow users to determine urgency and relevancy.		
USE 039	The EES shall allow configuration of alerts by a user, for a user by a supervisor, and for a user by an EES administrator		
USE 040	The EES shall allow for the request of or entry of data from external devices (e.g. tablets, kiosks, barcode scanner, RFID scanner, speech).		
USE 041	The EES shall notify the user when a source system is unavailable/inoperable and notify user that any available information about the subject being viewed is as of certain time and date.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 042	The EES's web interface shall be aligned with Web 2.0 design principles and best practices.		
USE 043	The EES shall not require users to reenter data due to validation errors if the systems can auto-correct based on the entered data or the user can navigate to the entry error to correct the entry.		
USE 044	The EES shall enable central workflow alerts and transactional status.		
USE 045	The EES shall centralize pending work items for the user as in a "work queue"		
USE 046	The EES shall have the capability to push messages to the intended workers without requiring them to specifically inquire for the data.		
USE 047	The EES shall provide linked access to help functions which contain the appropriate information and search of all help information from every window, based on user profiles.		
USE 048	The EES shall have the capability to capture a public benefit applicant's application in a disconnected/offline mode to be processed once a connection to the Internet is established		
USE 049	The EES shall utilize standard web browser-based technology with the ability to provide data over a web browser interface (i.e. HTML over HTTP).		
USE 050	The EES shall include the capability to encrypt the data communicated over the network via SSL (HTML over HTTPS).		

9. Integrated Eligibility Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 001	The EES shall have the capability of exchanging information with the legacy N-FOCUS system.		
IER 002	The EES shall have the capability to provide data and access to notifications to the Federal Facilitated Marketplace.		
IER 003	The EES shall have the capability to request and store data from federal Hub for a number of purposes including, but not limited to: updated Citizenship and Income verification.		
IER 004	The EES shall have the capability to request and store results of IRS service information.		
IER 005	The EES shall have the capability to request and store results of Equifax – TALX wage verification.		
IER 006	The EES shall have the capability to request and store results of verification service citizenship/lawful presence provided by CMS		
IER 007	The EES must be able to express eligibility determination business rules outside transactional system in the business rules engine implemented as part of the Nebraska EES.		
IER 008	The EES shall have the capability of exchanging eligibility information with the legacy N-FOCUS system.		
IER 009	The EES shall have the capability of exchanging eligibility information with the legacy MMIS.		
IER 010	The EES shall have the capability to provide results of eligibility determination to other systems.		
IER 011	The EES shall have the capability to provide data and access to notifications to other systems.		
IER 012	The EES shall have the capability to store results/client attestation of a number of factors including, but not limited to Native American Status, Residency, Incarceration Status, and Individual Exemption qualification.		
IER 013	The EES shall have the capability to store results of alternate client verifications for a number of items including, but not limited to income, Citizenship / Lawful presence		
IER 014	The services and consumers employed in the EES shall be loosely-coupled to ensure service logic can evolve while guaranteeing backwards compatibility to existing consumers.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 015	The EES shall be able to interface with multiple state systems as well as external partner systems to allow interoperability as appropriate with outside entities and state agencies. (Real-time, near-time, batch)		
IER 016	The EES shall provide the ability to leverage the federal approach to verification from federal agencies such as the Internal Revenue Service, Department of Health and Human Services, and Department of Homeland Security to eliminate the independent establishment of those interfaces and connections at the Nebraska level.		
IER 017	The EES shall provide standard, secure, and configurable interfaces between all interfacing information sharing entities.		
IER 018	The EES shall provide the ability to support real-time automated data exchanges with internal systems to ensure that data is aligned.		
IER 019	The EES shall provide the ability to communicate the eligibility decision to other relevant systems.		
IER 020	The EES shall provide the ability to export an enrollment file to external entities as specified by the Department.		
IER 021	The EES shall provide the ability to export Medicaid benefits to the Nebraska MMIS.		
IER 022	The EES shall ensure that dates across Nebraska systems remain in synch (e.g., a case's closing or some other action).		
IER 023	The EES shall provide the ability for data and process integration between programs according to state and federal regulations as required.		
IER 024	The EES should expose a web service that allows other systems to submit requests to verify an individual’s enrollment.		
IER 025	All web services used in the EES should be reusable as enterprise resources by systems external to the EES.		
IER 026	The data exchange infrastructure should support multiple open standards and industry standard protocols, including Secure FTP (S-FTP), SOAP over HTTPS, and JMS/ MQ messages.		
IER 027	The EES should provide common bi-direction interfaces (preferably, a web service API) that will support the integration with Computer Telephone Integration (CTI) systems for purposes such as retrieving caller information and triggering screen pops.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 028	The EES should provide the ability to report on interface transmissions (e.g., total number of records loaded, date of interface transmission, amount of time to execute the interface transmission, errors, and failures).		
IER 029	The EES should provide the ability to import data into the EES in multiple formats (e.g., csv, fixed length ASCII, tab-delimited).		
IER 030	The EES should provide the ability to automatically identify inconsistencies between the case record and information received from interfaces as specified by the Department.		
IER 031	The EES should support integration with Nebraska's current calendar and e-mail environment.		
IER 032	The EES should employ XML-based standards for communication and integration with other environments.		
IER 033	The EES should provide alerts to DHHS staff on status of interface data processing (e.g., when processing is completed or error occurs).		
IER 034	The EES should provide the ability to support Interfaces by exchanging information on schedule as specified by the Department.		
IER 035	The EES should provide the ability to automatically track inbound customer service interactions received through the IVR and/or interfaces based on program rules.		
IER 036	The EES should provide the ability to present a result list for data imports and exports (e.g., success or failure, time started, time completed).		
IER 037	The EES should provide the ability to restart an interface transmission from a specific point (e.g., restart at failed record, restart from beginning).		
IER 038	The EES should associate information received via interface with the line-of-business record which generated the information request.		
IER 039	The EES should support exchange of bulk data information to be printed and mailed.		

10. EES Administration Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ADM 001	The EES shall provide data archiving capabilities based on Department defined criteria.		
ADM 002	The EES shall provide the capability to move all historical, expired and/or unnecessary data to offline storage according to a set of business rules and schedule to be defined by the Department as a part of the ongoing system operational decision making.		
ADM 003	The EES shall maintain an archival process so that accumulated historical records and log files do not consume large amounts of disk space.		
ADM 004	The EES shall provide an auto archive/purge of the log files to prevent uncontrolled growth of the log and historical records storage using administrator-set parameters.		
ADM 005	The EES shall provide version control capabilities to ensure the integrity of all software releases.		
ADM 006	The EES shall monitor and provide reports on any unauthorized access.		
ADM 007	All EES communications shall be protected by at least 128-bit encryption.		
ADM 008	The EES shall be supported by public key/private key encryption Secure Socket Layer (SSL) certificates.		
ADM 009	The EES shall provide admin tools and maintenance routines to change access rights quickly.		
ADM 010	The EES shall use firewalls and Demilitarized Zones (DMZs) for external access and remote access.		
ADM 011	The EES shall allow EES administrators to create and manage user accounts.		
ADM 012	The EES shall allow EES administrators to assign status and permissions to user accounts.		
ADM 013	The EES shall allow EES administrators to create and manage user roles.		
ADM 014	The EES shall allow EES administrators to create user groups to manage workflow.		
ADM 015	The EES shall allow EES administrators to assign users to particular local offices.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ADM 016	The EES shall allow EES administrators to assign users to particular user groups / units.		
ADM 017	The EES shall allow EES administrators to assign users to particular supervisors.		
ADM 018	The Contractor shall establish an automated maintenance routine that shall at a minimum: - backup the user IDs and password data - identify expired IDs and related data		
ADM 019	The Contractor shall use offsite storage. Data backup should be stored offsite in the event of a physical disaster		

11. EES Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MGT 001	The EES shall have the ability to generate administrative alerts and warnings when statistics indicate an impact or potential limits on EES component performance and availability. The specific alerts will be defined by the hosting services provider.		
MGT 002	The EES shall allow for all changes/updates to the distributed components to be administered and completed centrally and available immediately to all source systems and sites.		
MGT 003	The EES shall provide Service Level Requirements (SLR) monitoring and reporting capabilities. Service Level definitions will be drafted into a single document provided as an attachment.		
MGT 004	The EES shall securely support State's existing remote control (i.e. support personnel ability to take over the user device for troubleshooting and support) capabilities deployed for any type of client workstation.		
MGT 005	The EES shall provide event management and monitoring functionality according to Information Technology Infrastructure Library version 3 (ITIL v3) or equivalent best practices.		
MGT 006	The EES shall provide application performance monitoring and management capabilities (i.e. transaction monitoring, synthetic transactions, component root cause analysis)		
MGT 007	The EES shall provide transaction tracking and log consolidation capabilities across all tiers of the application		
MGT 008	The EES shall use automated application and network performance measuring tools for proactive system monitoring, tuning mechanisms, reporting, and trend analysis. Performance monitoring alerts shall be configurable and allow for user notification using multiple communication methods.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MGT 009	The EES shall provide a custom report outlining system anomalies such as high levels of utilization, poor response times, large number of failed logins, and other abnormal activities, identified, repaired and resolved. This report's frequency shall be dictated by the number of anomalous activities. The report shall include specifics regarding the issues encountered, the measures taken to resolve the anomalies and the resources (EES Contractor, Department and third-party, as applicable) participating in the process.		
MGT 010	The EES shall provide a report reflective of system performance statistics. This performance statistics report shall be presented to the Department not less than monthly for the purposes of monitoring the Department's systems and network activity.		
MGT 011	The EES shall provide event and incident notification capabilities which can integrate with industry standard system management frameworks such as those provided by CA, IBM and Microsoft.		
MGT 012	The EES shall have the ability to capture and report on system utilization needed to allocate costs down to the user and transaction level.		
MGT 013	All performance and systems management functions shall be able to operate without degrading business systems response time.		
MGT 014	The EES shall include the infrastructure (e.g. via the ESB and business process layer) needed to support effective Business Activity Monitoring and Reporting of various business performance metrics, and the information reports necessary to allocate costs based on usage.		
MGT 015	The EES shall provide the ability for system capacity monitoring including, but not limited to, server volume/capacity, and network volume/capacity.		
MGT 016	The EES shall have the ability to provide workload statistics (e.g., work-in-process, queues, waiting-for-resources).		
MGT 017	The EES shall have the ability to notify users, via multiple channels, when the measured performance is outside tolerances.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MGT 018	The EES shall have the ability for users, upon notification of performance outside tolerance, to identify the cause of the performance issue.		
MGT 019	The EES shall have the ability to provide dashboard and other report types suitable for business activity monitoring including templates for common display types.		
MGT 020	The EES shall provide for and support the ability to control batch job execution by time of day, date, and processing cycle (weekly, monthly, yearly, quarterly, on request, etc.).		

12. Enterprise Service Bus (ESB) Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 001	The EES shall provide reliable, once-only delivery of messages (guarantee of reliable and non-repetitive delivery).		
ESB 002	The EES shall have the ability to support varying message payloads, ranging from individual transactions to large files (more than 1GB) containing multiple transactions.		
ESB 003	The EES shall have the ability to track a message from its origin to its destination (inside a firewall), inquire on the status of that message and address exceptions (for example, resend the message if a target times out).		
ESB 004	The EES shall have the ability to use standards-based communication protocols, such as TCP/IP, HTTP, HTTP/S and SMTP.		
ESB 005	The EES shall have the ability to convert between the protocol native to the messaging platform and other protocols, such as Remote Method Invocation (RMI), IIOP and .NET remoting.		
ESB 006	The EES shall have features that enable in-flight message manipulation, such as transformation (typically XML-based), intelligent routing, naming and addressing.		
ESB 007	The EES shall have the ability to apply logic to the routing of messages, including support for the following file interaction styles:		
ESB 008	• Store and forward: Ability to persist a message and then send it to destinations.		
ESB 009	• Publish/subscribe: Ability to distribute a message to multiple destinations based on a message attribute usually described as the subject area of the message.		
ESB 010	• Request/reply: Ability to correlate asynchronous messages so that the target's response is associated with the appropriate request made by the source.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 011	• Content-based: The ability to route a message based on a value or values within a message. For example, the ability to route a referral message whose target turnaround time is small to a different set of targets than a referral message whose turnaround time is high.		
ESB 012	The EES shall provide for syntactic conversion and semantic transformation, including ease of use and reuse, number of built-in functions, ease of extending the transformation function with custom-coded logic and XML support (e.g. schema or Extensible Style sheet Language Transformations [XSLT]).		
ESB 013	The EES shall have the capability during operations, to assist service consumers by dynamically finding, binding to and invoking the execution of service providers.		
ESB 014	The EES shall provide the technology that combines design tools and runtime software to implement programs that act as "glue," transforming among protocols, connecting to databases and linking pre-SOA Application Programming Interfaces (APIs) to the SOA backplane. To support B2B projects, adapters also need to support SOA services using B2B protocols such as Applicability Statement 1 (AS1)/Applicability Statement 2 (AS2), RosettaNet and Electronic Data Interchange for Administration, Commerce and Transportation (EDIFACT).		
ESB 015	The EES shall support the industry-standards messaging and interfaces relevant to health and human services organizations including, but not limited to: - Health Level Seven (HL7) Versions 2.x, 3.x, and CCD - Integrating the Healthcare Enterprise (IHE) XD* Profiles		
ESB 016	The EES shall provide the technology that hosts the execution of process logic spanning multiple back-end services or applications - typically for short-term (seconds or minutes) processes that can occasionally also be long term (hours, days, weeks) - with the aim of implementing composite services or automated EES-to-EES processes. Features include:		
ESB 017	• Graphical design surface for specifying process flows		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 018	• Support for standard specification languages including Business Process Modeling Notation (BPMN)		
ESB 019	• Support for standard representations including Business Process Execution Language (BPEL), XML Process Definition Language (XPDL), Business Process Modeling Language (BPML) and Web Services Flow Language (WSFL)		
ESB 020	• Ability to specify compensating transactions and execute those transactions upon failure of the process flow		
ESB 021	• Integration with workflow		
ESB 022	The EES shall provide the technology to perform syntactic and semantic hub-based transformation of messages, including:		
ESB 023	• Support of taxonomy		
ESB 024	• Support of ontology		
ESB 025	• Reusable transformation maps		
ESB 026	• Built-in transformation functions		
ESB 027	• Extending the transformation function with custom-coded logic		
ESB 028	• Support B2B project translation including Electronic Data Interchange (EDI), RosettaNet, HL7, etc.		
ESB 029	The EES shall provide the functionality that provides reliability for applications, services or message flows:		
ESB 030	• Load balancing		
ESB 031	• High availability		
ESB 032	• Fault tolerance		
ESB 033	• Failover		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 034	• In-order delivery		
ESB 035	• Transaction support		
ESB 036	• Execution prioritization		
ESB 037	• Message prioritization		
ESB 038	• Downstream throttling		
ESB 039	The EES shall provide the functionality used to monitor the operation of the overall system (services, applications, processes and application infrastructure), and to collect events and usage information aimed at populating technical KPIs of the deliverables supported by the SOA backplane and of the SOA backplane components by monitoring and collecting metrics for:		
ESB 040	• Messaging traffic		
ESB 041	• Process state and behavior		
ESB 042	• Application and service parameters and behavior for all nodes in a LAN or WAN		
ESB 043	The EES must provide for any combination of Alert Destinations such as Email, JMS, SNMP, reporting services, and server logs. The alerts shall be customizable with respect to the frequency of the alert, the ability to enable/disable an alert, rule expiration dates, starting and ending times for an alert, and customizable conditions for an alert".		
ESB 044	The EES shall provide the tools and technologies required to implement the necessary control access to the services and the connected resources (for example, other services and databases), as well as the SOA backplane functionality. Capabilities include:		
ESB 045	• Authentication		
ESB 046	• Authorization		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 047	• Encryption/decryption		
ESB 048	• Digital signatures		
ESB 049	• Credential mapping		
ESB 050	The EES shall provide the functionality to assist Department's operations personnel in keeping the resultant system (applications, services and infrastructure) running at peak efficiency at all times, including:		
ESB 051	• Establishing rules for automated system monitoring		
ESB 052	• Establishing network-alert-based management		
ESB 053	• Supporting autonomous network behavior so local management and problem resolution can continue during an outage		
ESB 054	• A console that enables domain-specific display for multiple devices		
ESB 055	The EES shall provide the technology that manages the metadata and provides the features needed to support the reliable operation of services. Examples include:		
ESB 056	• Online catalog of services and associated artifacts such as WSDL files, XSDs, BPEL files		
ESB 057	• A single point of controlled access for cataloging, promoting, publishing and searching for information about managed assets		
ESB 058	• Metadata that enables an ESB to find, bind to and invoke the execution of a service implementation		
ESB 059	• Support for extending existing asset types and defining and populating custom asset types		
ESB 060	The EES shall provide support for building frameworks and extensible tools that enable the design, configuration, assembly, deployment, monitoring, and management of software designed around an SOA.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 061	The EES shall provide assistance for deploying applications with SOA and event-driven architecture in a manner that supports the following implementation strategies:		
ESB 062	• Web Services: Web Services Interoperability (WS-I) Organization-compliant implementation of basic Web services standards, including SOAP, WSDL and Universal Description, Discovery and Integration (UDDI), as well as higher-level Web services standards, such as WS-Security.		
ESB 063	• Representational State Transfer (REST): Support for XML-based message processing a well as HTTP, and XHTML.		
ESB 064	The EES shall support Transport Security, Message Security, WS-Security, SAML architecture, and WS-Policy.		
ESB 065	The EES shall implement the ability to externalize security by using a third-party security infrastructure whereby the ESB's proxy action calls a third-party for user/role information.		
ESB 066	The EES shall provide the technology to implement processing logic that directly manipulates data values, and the representation of those values for storage, transport or presentation purposes to establish common access to data sources (structured and unstructured), improve data quality or federate data from multiple sources.		
ESB 067	The EES shall provide the tooling that enables the recording (storage) or retrieving (reading) of information (data) from data stores. An example is distributed query functionality that parses incoming queries into sub queries and the execution of those sub queries, via the connectivity layer, against the respective sources where the desired data resides.		
ESB 068	The EES shall provide the data infrastructure tooling that enables users to represent semantic models, identify model-to-model relationships, and execute the necessary translations to reconcile data with differing semantic models.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 069	The EES shall provide optimization services that continuously read various types of metadata from across the architecture. The optimization verbs shall use the semantic/logical services to reconcile context to data content and deliver against some aspect of the application service-level agreement (requirements for data quality, data freshness, data volumes, throughput parameters, data-mining results, on-demand data aggregation or summarization, data enrichment, and many others).		
ESB 070	The EES shall provide tooling that supports data profiling: the process of examining the data available in an existing data source (for example, a database or a file), and collecting statistics and information about that data.		
ESB 071	The EES shall provide a modeling environment to support the roles of the business analyst, process architect, EES architect and developer.		
ESB 072	The EES shall support individual and group teamwork at design time and runtime.		
ESB 073	The EES must incorporate the ability to undo changes, detect and resolve conflicts, test service connectivity with tracing information, easily enable/disable services, provide logging and view all session activities/change history attributable to each logged in user.		
ESB 074	The EES must incorporate Role/Group-based rights for the management of the ESB across the environments.		
ESB 075	The EES shall have the ability to automatically manage complex workflow patterns that are system-based, human-based, or a mixture of both.		
ESB 076	The EES shall have the ability to design workflows, preferably using Business Process Model and Notation (BPMN).		
ESB 077	The EES shall provide the ability to schedule events (e.g., reminders, notification generation, business process execution, etc.).		
ESB 078	The EES shall provide the ability to associate the scheduled event with a system record (e.g., case record to an event).		
ESB 079	The EES shall provide the ability to attach documentation to the scheduled event.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 080	The EES shall provide the ability to notify a user of a scheduled event based on user-defined criteria (e.g., reminder time, delivery mechanism).		
ESB 081	The EES shall provide the ability to modify existing scheduled events (e.g., begin date, end date, frequency, and business process specific information).		
ESB 082	The EES shall have the ability to monitor and manage executing processes, including the capability to override workflows and business rules by authorized users.		
ESB 083	The EES shall provide the ability to suspend a scheduled event.		
ESB 084	The EES shall provide the ability to cancel a scheduled event.		
ESB 085	The EES shall provide the ability to route imaged correspondence to any work queue.		
ESB 086	The EES shall provide the ability to maintain historical information related to scheduled events.		
ESB 087	The EES shall provide the ability to maintain user-defined calendars and dates specific to business functionality (e.g., time off, work hours, review dates).		
ESB 088	The EES shall provide the ability to associate comments with scheduled events.		
ESB 089	The EES should have the ability to import and export process designs using an industry standard format, such as Business Process Execution Language (BPEL) or XML Process Definition Language (XPDL).		

13. Data Integration & ETL Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ETL 001	The EES shall have the ability to convert message formats and translate coded data within messages.		
ETL 002	The EES shall provide support for a metadata repository for data and message conversion and transformations.		
ETL 003	The EES shall at a minimum support the following standards:		
ETL 004	• Integrating the Health Enterprise (IHE): Cross-Enterprise Document Sharing (XDS); Cross-Community Access (XCA)		
ETL 005	• Health Level Seven (HL7) Continuity of Care Document (CCD) C32 profile		
ETL 006	• ONC Direct Project		
ETL 007	The EES shall provide the technology to implement processing logic that can manipulate data values, and the representation of those values for transport or conversion purposes.		
ETL 008	The EES shall provide tools for data source connectivity: Adapters for a range of source types beyond RDBMS' and legacy databases (access to data stored in non-relational structures - for example, VSAM files and IMS databases), including packaged applications and Web services, the ability to access semi-structured and unstructured data (such as e-mail, websites, office productivity tools, content repositories and rich media) and the ability to interpret (as a source) XML structures.		
ETL 009	The EES shall provide tools to support the Extract-Transform-Load (ETL) process that involves:		
ETL 010	• Extracting data from data sources		
ETL 011	• Transforming it to fit business needs (which can include quality levels).		
ETL 012	• Loading it into the target data store		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ETL 013	• Caching: The ability to cache federation results and various subsets of the source data to improve performance in situations where source data volumes are large; therefore, retrieving all data required for integration directly from the source is not feasible.		
ETL 014	• Verbose ETL process logging to allow for ease of support and debugging.		
ETL 015	The EES shall have the ability to load data in a variety of approaches including (but not limited to) the following:		
ETL 016	• Bulk data extraction and loading		
ETL 017	• Granular trickle-feed acquisition and delivery		
ETL 018	• Changed-data capture (ability to identify and extract modified data)		
ETL 019	• Event-based acquisition (time-based or data-value-based)		
ETL 020	The EES shall include the following types of transformation:		
ETL 021	• Simple transformations such as data-type conversions, string manipulations and Simple calculations		
ETL 022	• Moderate-complexity transformations, such as lookup and replace operations, aggregations, summarizations, deterministic matching and management of slowly changing dimensions		
ETL 023	• Higher-order transformations, such as sophisticated parsing operations on free-form text and rich media Facilities for developing custom transformations and extending packaged transformations		
ETL 024	• Facilities for developing custom transformations and extending packaged transformations		
ETL 025	The EES shall provide tools that enables the recording (storage) or retrieving (reading) of information (data) from data stores. An example is distributed query functionality that parses incoming queries into sub-queries and the execution of those sub-queries, via the connectivity layer, against the respective sources where the desired data resides.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ETL 026	The EES shall comply with all relevant HIPAA standards, including national standards for electronic health care transactions and code sets, unique employee and provider identifiers, and security and privacy of individually identifiable health information (called “protected health information” or PHI).		

14. Master Data Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 001	The EES shall have the capability to support the global identification, linking and/or synchronization of client and provider information across heterogeneous data sources through semantic reconciliation of master client and master provider data.		
MDM 002	The EES shall create and manage a central, database-based EES or index of record for master client (i.e. Master Client Index [MCI]) and master provider (i.e. Master Provider Index [MPI]) data.		
MDM 003	The EES shall enable the delivery of a single client and a single provider view for all stakeholders.		
MDM 004	The EES shall support ongoing client and provider data stewardship and governance requirements through monitoring of policy decisions and corrective action.		
MDM 005	The EES shall track and maintain detailed records on all changes via interfaces and authoring to support audit requirements.		
MDM 006	The EES must include a flexible data model that can model the complex relationships between the internal application sources inside Nebraska, its trading partners, clients and providers, as well as intermediaries and other parties, with the ability to handle complex hierarchies.		
MDM 007	The EES's data model must be capable of handling at least the following categories of elements for clients and providers:		
MDM 008	• Identification		
MDM 009	• Demographics		
MDM 010	• Contact information		
MDM 011	• Relationships with other entities / providers		
MDM 012	• Interactions with other entities / providers		
MDM 013	The EES shall include data modeling capabilities that will be configurable, customizable, extensible, and upgradable.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 014	The EES data model must be able to support Nebraska's standards for data content and coding where they exist.		
MDM 015	The EES data model must be expressed using commonly accepted logical data model conventions with associated metadata.		
MDM 016	The EES shall have strong facilities, in batch and real-time mode, for profiling, cleansing, matching, linking, identifying and semantically reconciling master client and master provider data in different data sources to create and maintain golden records.		
MDM 017	The EES's business rules and associated metadata related to data cleansing shall be sufficiently visible to satisfy any audit requirements.		
MDM 018	The EES shall include the ability to review data quality metrics and track corrective actions.		
MDM 019	The EES shall provide dynamically configurable rules for comparing and reconciling semantics across data sources, matching (both probabilistic and tunable) across changing demographic data structures, linking data, and managing the merging and unmerging of client and provider records with full auditability and survivability.		
MDM 020	Where data is matched by a proxy rather than the actual identifier (e.g. client or provider ID) the EES shall load data no less quickly, efficiently or accurately.		
MDM 021	The EES shall include integration middleware to provide a communication backbone for the bidirectional flow of client and provider data between the central repository and the spoke solutions, and/ or remote applications.		
MDM 022	The EES shall provide tools to validate and manage all client and provider addresses to include all address types (mailing, residential, etc.).		
MDM 023	The EES shall be able to leverage a range of middleware products to data sources, including all Nebraska and trading partner data sources, and expose Healthcare industry-standard interfaces.		
MDM 024	The EES shall support integration with different latency characteristics and styles (e.g. real-time, batch).		
MDM 025	The EES shall support integration with downstream Business Intelligence (BI) and analytical requirements.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 026	The EES shall provide flexible and comprehensive workflow capabilities to enable business users and client and provider data managers to collaborate effectively in the authoring and management of client and provider data across the multiple source systems.		
MDM 027	The EES shall include facilities for managing and controlling access to client and provider data in the MDM such as reporting on MDM activities.		
MDM 028	The EES shall have the ability to integrate the data within the MDM with management and security tools.		
MDM 029	The EES shall manage the policies and rules associated with privacy access rights.		
MDM 030	The EES shall configure and manage differing visibility rules, providing different views for different roles.		
MDM 031	The EES shall integrate with the Department's Active Directory to provide authorization, e.g., role-based security.		
MDM 032	The EES shall provide analytics and performance measures related to the range of processes and activities taking place within the MDM; from the running of batch data loads and the execution of workflows against benchmarks to the quality of active client and provider data in the MDM.		
MDM 033	The EES shall include status and management tools for the data stewards to monitor to-do lists to ensure effective action takes place across the management of the master client and master provider data.		
MDM 034	The EES shall include solution-wide meta models to help identify what users, roles, applications and systems are responsible for which client and provider data.		
MDM 035	The EES shall provide workflow services for remediation of quality issues in client and provider data.		
MDM 036	The EES shall include business rules services to interrogate which rules are used by MDM by frequency and preference and to provide suggested enhancements to such business rules.		
MDM 037	The EES shall be based on up-to-date, mainstream technologies, and capable of flexible and effective integration with a wide range of other application and infrastructure platform components (whether from the same Contractor or not) that will be deployed by Nebraska.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 038	The EES shall protect and complement the data layer with a layer of business services for accessing and manipulating the client and provider data that is built for an SOA environment, by exposing web services interfaces.		
MDM 039	The EES shall be capable of flexible configuration into a range of architectural styles in terms of instantiation, latency and use of client and provider data to enable different deployment scenarios, such as the consolidation, registry, coexistence and centralized scenarios.		

15. Consent Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CMT 001	The EES shall be interoperable/Contractor agnostic.		
CMT 002	The EES shall support break-the-glass/ override access for emergency data access per HIPAA.		
CMT 003	The EES shall provide an alert mechanism for privacy breaches.		
CMT 004	The EES shall be non-disruptive to worker workflow.		
CMT 005	The EES shall be centralized to consistently enforce policies network-wide.		
CMT 006	The EES shall enable all applications to support consumer consent.		
CMT 007	The EES shall accommodate granular directives.		
CMT 008	The EES shall audit all access to protected information in real time.		
CMT 009	The EES shall provide an alert mechanism for privacy breaches or when HIPAA break-the-glass or override functions are enacted.		
CMT 010	The EES shall be highly flexible to meet changing requirements.		
CMT 011	The Department has a strong preference to use a COTS product to provide the consent management required for the EES.		
CMT 012	The EES shall have the consent service tied into role-based access control system for real-time permissions access-granting/removal/denial.		
CMT 013	The EES shall provide extensive search and reporting capabilities on any consent audit event data.		
CMT 014	The EES shall maintain historical record of consent/removal of consent.		

16. Business Intelligence and Reporting Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 001	The EES shall provide the ability to impose graduated access to reports based on user role and agency requirements/permissions to better analyze program data.		
BIR 002	The EES's business intelligence and reporting capabilities must be scalable to accommodate changes in EES scale including changes in user population, transaction volume, throughput and geographical distribution while maintaining the agreed service levels.		
BIR 003	The EES shall have a mechanism to share specific data (e.g. limited data sets, detailed data at the level of the individual but with the data anonymous and completely de-identified, etc.) in a controllable fashion with other State and local agencies.		
BIR 004	The EES shall be extensible and have a scalable data architecture incorporating State and external data.		
BIR 005	The EES shall provide a tool to allow predictive modeling and analysis utilizing production data and coexist and integrate with tools such tools as SPSS and SAS.		
BIR 006	The EES shall provide the ability for user to create and customize reports, queries, and dashboards.		
BIR 007	The EES shall provide scalable architecture and support designs that will provide flexibility to add more data fields and change granularity level efficiently as analytic demand matures and expands.		
BIR 008	The EES shall have the ability for logical and physical view creation and storage.		
BIR 009	The EES shall support designs that facilitate a single view of business data.		
BIR 010	The EES shall support OLAP database structure for use in analytics and business intelligence to include ROLAP or MOLAP processing.		
BIR 011	The EES shall support hierarchical drill up/down; ad-hoc query; multi-dimensional tables and views.		
BIR 012	The EES shall provide the ability to support data mining functions.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 013	The EES shall provide the ability to perform in-database analytics.		
BIR 014	The EES shall offer options to use Database Management EES (DBMS)-integrated data integration tool and/or third party Contractor integration tool.		
BIR 015	The EES shall support fast large volume data loading and shall have the ability to capture real-time data.		
BIR 016	The EES shall have the ability to capture delta of changes to data from diverse systems and populate them to Shared Analytics.		
BIR 017	The EES shall provide the ability to capture and load data via SOA-based services and the ability to schedule data integration and load jobs.		
BIR 018	The EES shall include the ability to facilitate design and construction of data integration processes.		
BIR 019	The EES shall provide the ability to create custom transformations and the ability to group and reuse mapping and transformation operations.		
BIR 020	The EES shall provide comprehensive metadata management from source to target.		
BIR 021	The EES shall provide single repository for metadata, such as mappings of business concepts to underlying data structures, business glossary, data lineage, reference data, and objects (e.g. view, table, join) and reports from source to target.		
BIR 022	The EES shall provide the ability to import metadata from tools and data sources.		
BIR 023	The EES shall provide data quality tools and/or support 3rd party data quality tools for data profiling, cleansing and monitoring.		
BIR 024	The EES shall produce metadata and/or data dictionaries in a format that the Department can consume, e.g., Word, Excel, PDF, OF, etc.		
BIR 025	The EES shall be highly available via various mechanisms, e.g. data marts, data replication, clustering and backup configuration.		
BIR 026	The EES shall support reorganization of databases, indexes and configurations online without the need for the EES to shut down.		
BIR 027	The Contractor shall release upgrades and patches that shall be applied with minimal loss of system availability during production hours.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 028	The EES shall allow data loading to support environments with small or no window where system is down when loading data.		
BIR 029	The EES shall provide standards based connectivity including Open Database Connectivity (ODBC), Java Database Connectivity (JDBC), Web Services (WS) and others.		
BIR 030	The EES shall have no limit on the size of data types (including CHAR, NUM, CLOB, BLOB and XML) that are less than that of the manufacturer-known and published limits of the underlying DBMS.		
BIR 031	The EES shall have no limits on the size of tables, indexes and other database-level objects that are less than that of the manufacturer-known and published limits of the underlying DBMS.		
BIR 032	The EES shall support both horizontal and vertical scaling.		
BIR 033	The EES shall have an option for fast loading of data into the database. Where necessary this will include minimal relaxation of quality and integrity constraints and mechanisms for carrying out data quality checks as the final stage in the process.		
BIR 034	The EES shall provide for expansion of data storage as needed to accommodate increased volume of data based on approved Capacity Plans by the Department.		
BIR 035	The EES shall be American National Standards Institute (ANSI) Structured Query Language (SQL) Compliant. (Contractor needs to specify version of SQL compliance – e.g. 2003, 2006, 2008).		
BIR 036	The EES shall be XQuery 1.0 standard compliant.		
BIR 037	The EES shall support industry standards for electronic data exchange.		
BIR 038	The EES shall provide flexibility in using public/private cloud versions of the DBMS as an option to provide cost-effective scalability as needed.		
BIR 039	The EES shall run on and be portable across multiple Contractors' hardware and operating systems (e.g. IBM, HP, and Dell hardware, AIX, Linux, and Windows Operating Systems and VMware)		
BIR 040	The EES shall make an underlying DBMS available as a data warehouse appliance so it is also available as a standalone query-able DBMS.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 041	The EES shall support major application development interfaces (e.g. .NET interface, Java 2 Platform, Enterprise Edition [J2EE]).		
BIR 042	The EES shall support various database connectivity protocols (e.g. ODBC, JDBC, etc.)		
BIR 043	The EES shall support all connections required for BI analysis and reporting tools and ETL tools.		
BIR 044	The EES shall support stored procedures and extensions.		
BIR 045	The EES shall not employ triggers or cursors.		
BIR 046	The EES shall support native geo-spatial data types.		
BIR 047	The EES shall provide DBA tools for monitoring and administering DBMS and contain tools to manage the storage devices.		
BIR 048	The EES shall have built-in utilities to the DBMS to automate the normal day-to-day DBA operations (e.g., automated index rebuilding, free space reclamation and block reorganization).		
BIR 049	The EES shall provide the ability to:		
BIR 050	• prioritize workload executions and ensure quality-of-service;		
BIR 051	• partition indexing and aggregate management via parameters and tools;		
BIR 052	• simulate the various workloads and mixes		
BIR 053	The EES shall provide workflow and collaboration support for administrator tasks.		

17. Rules Engine Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 001	The EES shall support data verification and consistency checks.		
RLE 002	The EES shall support compute values based on input data.		
RLE 003	The EES shall support the selection of business process path.		
RLE 004	The EES shall support mechanisms and ease of use for users to edit rules while maintaining compliance with CMS rules.		
RLE 005	The Contractor must follow all standards defined by CMS in Guidance for Exchange and Medicaid Technology Systems and Enhanced Funding Requirements: Seven Conditions and Standards; and other federal guidelines yet to be defined; including use a technology neutral rules repository.		
RLE 006	The EES shall support design for a multi-step decision.		
RLE 007	The EES shall have the ability to tune individual steps in the overall decision process for maximum performance by the execution engine.		
RLE 008	The EES shall support reporting requirements either natively or integrate with other reporting tools to provide reporting.		
RLE 009	The EES shall support repository infrastructure for rule storage and versioning.		
RLE 010	The EES shall support seamless and easy user interaction.		
RLE 011	The EES shall provide context sensitive help and extensive documentation.		
RLE 012	The Rules Engine must be able to submit business rules to a federal repository at such time as the repository exists.		
RLE 013	The EES shall support high performance and scalability, including the following characteristics:		
RLE 014	• High performance for large rule bases (more than 20,000 rules)		
RLE 015	• Ability to share rule sets across multiple engines		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 016	• Dynamic and static execution versions for performance		
RLE 017	• Multiple, cross-platform support		
RLE 018	• Segmented repositories		
RLE 019	• Pre-built rule paths		
RLE 020	• Rule pre-fetch to memory		
RLE 021	• Parallel rule search		
RLE 022	• Ability to compile rule sequences into base languages like C++, Java and C#		
RLE 023	The EES shall support advanced inference features, including:		
RLE 024	• Truth maintenance to support parallel rule execution		
RLE 025	• Inductive and deductive problem sets supported		
RLE 026	• Recursive rules supported		
RLE 027	• Rule aggregation supported		
RLE 028	• Links to simulation capabilities		
RLE 029	• Agent or daemon links		
RLE 030	• Object inheritance supported		
RLE 031	• Multiple-engine support		
RLE 032	The EES shall include rule management features for the execution engine, including:		
RLE 033	• Rule extensibility		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 034	• Rule mapping to owners and stewards		
RLE 035	• Rule change impact analysis purposes		
RLE 036	• Integration/coordination of distributed rule engines with a corporate "master"		
RLE 037	• Ability to rerun the engine for a point which has passed (for example, after 1 January, still able to rerun year-end jobs with 31 December rules)		
RLE 038	• Ability to enter new rules or changes to become effective on a future date (for example, ability to put in the rule changes for 1 January in December)		
RLE 039	• Rule consistency/collision checks		
RLE 040	• Rule versioning		
RLE 041	• Release versioning and rollback		
RLE 042	• Rule security		
RLE 043	The EES shall include a rule repository for global rule management, including:		
RLE 044	• nomadic support		
RLE 045	• an extensible meta model		
RLE 046	• rule merge support		
RLE 047	• versioning/lockout		
RLE 048	• rule promotion		
RLE 049	• change management		
RLE 050	• electronic rule distribution (publish or subscribe)		
RLE 051	• security		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 052	The EES shall support ease of use in operation/development and administration, including:		
RLE 053	• Rule-firing audit report capabilities		
RLE 054	• Rule views by project or role		
RLE 055	• Ability to be used as a wizard/plug-in for multiple development environments		
RLE 056	• Dynamic rule change supported		
RLE 057	• Rules separated from the engine		
RLE 058	• Constraints naturally supported		
RLE 059	The EES will include the capability to save and retrieve partial user sessions.		
RLE 060	The EES shall provide the capability to associate effective dates with each program and rule in the rules engine.		
RLE 061	The EES shall provide the capability to associate a rule with multiple program profiles.		
RLE 062	The EES shall provide the capability to identify and apply a rule change appropriately to existing cases.		
RLE 063	The EES shall provide the capability to copy an existing rule to create a new rule.		
RLE 064	The EES shall provide the ability to identify all other rules that are dependent on a specific rule by allowing rules association.		
RLE 065	The EES shall provide the capability to generate and display a flow chart of each program profile.		
RLE 066	The EES shall provide the ability to maintain and display the history of each rule change in the rules engine to show previous versions of the rule, a timestamp of when the change was made and the ID of the user making the change.		
RLE 067	The EES shall provide the capability to add additional table-driven variables to support new regulations using a rules engine.		
RLE 068	The EES shall include an automated rule build capability for rule repository propagation through the environments Development, Integration/Test, User Acceptance Testing and Production.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 069	The EES shall have the ability to expose sets of interrelated rules in the rules repository as either a web service and/or in an interactive, web-based interview format.		
RLE 070	The EES shall have the ability to create customizable web-based, interview sessions based on defined rule sets.		
RLE 071	The EES must facilitate the creation and maintenance of rules referencing complex data relationships this will include, but not be limited to, rules referencing complex many-to-many relationships between entity types		
RLE 072	The EES must have the ability for text documentation and meta-data to be included as part of the rules repository.		
RLE 073	The EES will have documentation to assist rule authors and administrators with best practices for rule repository creation and maintenance, repository check-in/checkout, repository promotion across environments.		
RLE 074	The Contractor shall partner with the Department management and Rule Author(s) to design suitable policy models for Eligibility Determination and other rules to be automated using the proposed Rules Management System.		
RLE 075	The Contractor shall transform all of the state's Medicaid eligibility program rules into a format that can be consumed by the proposed Rules Management System.		
RLE 076	The Contractor shall create the program rules in the proposed Rules Management System and test them in an established environment.		
RLE 077	The Contractor shall create a valid set of rules to transition from the current mainframe system to the proposed Rules Management system in preparation for the new SOA system.		
RLE 078	The Contractor rules management team will work with and mentor the Department staff Rule Author(s) in the best practices of: - Converting rules from federal or legislative documents into properly structured rules that can be consumed by the proposed Rules Management System and writing future rules in such a way that eases the transition - Capturing meta-data about each of the rules sets and how they function		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 079	The Contractor shall provide guidance on: - How best to store and look up the meta-data - Defining the Lifecycle of rule sets - How to integrate or flow rules - How to provide help or commentary on rules - General use of the proposed Rules Management System		
RLE 080	The Contractor shall provide selected Department staff with holistic education on the proposed Rules Management system that includes (but is not limited to): - Knowledge about how the proposed Rules Management system works - Knowledge about how to structure the Rule Author(s) to meet the Agency goals - Knowledge about how to create, maintain and update rules in the proposed Rules Management system		
RLE 081	The EES shall have the ability to test rules independently from the application with which they are being integrated.		
RLE 082	The EES shall have the ability to debug rules using an integrated tool.		
RLE 083	The EES shall have the ability to assign effective dates to rules to control when rules are applied and to allow the storage and application of rules in historical, current, and future contexts.		
RLE 084	The EES shall have the ability to invoke rules as a service from the service integration capability as well as directly from other system modules.		
RLE 085	The EES shall have the ability to record and output the exact reasons and/or basis for decisions determined by the Rules Engine.		
RLE 086	The EES business rules shall be expressed using a consistent, technology-neutral standard format that is human-readable.		
RLE 087	The EES shall provide a Business Rules Engine to generate transaction logs in accordance with the Harmonized Security and Privacy Framework and other federal requirements.		
RLE 088	The EES shall provide a Business Rules Engine, which generates transaction logs in accordance with the Health Insurance Portability and Accountability Act (HIPAA)		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 089	The EES should be able to recreate results on a unique set of data regardless of when the rules are executed; modeled and/or What-if situations are required.		
RLE 090	The EES should provide a Business Rules Engine which contains a process for built-in rule review and approval process that should identify any conflicts in business rules as they are being developed.		
RLE 091	The EES should include a Business Rules Engine which provides a debugging process that automatically analyzes and identifies logical errors (i.e. conflict, redundancy, and incompleteness) across business rules.		
RLE 092	The EES should provide a Business Rules Engine which allows for the tracking and reporting of rules usage.		
RLE 093	The EES should include a Business Rules Engine which provides the flexibility to define business rules by inclusion or exclusion.		
RLE 094	The EES should include a Business Rules Engine which provides the capability for the user to view and model rules for system exceptions online and to trace exception rule dependencies.		
RLE 095	The EES should provide a Business Rules Engine to manage the synchronization of business policies and rules across physical system environments. (e.g. development, test, training and production).		
RLE 096	The EES should have the ability to automatically promote rules from one environment to another (e.g. development to system test to user acceptance to production) as well as rollback changes to a previous version.		
RLE 097	The EES should have the ability to produce and consume rules in both machine and human readable formats (which may be the same format).		
RLE 098	The EES should have the ability to define rules via a customizable business vocabulary using rule metaphors, including decision tables, decision trees, and text-based rules.		

18. Portal Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 001	The EES shall provide a portal UI framework that separates content from logic and is robust, scalable and interoperable with W3C Web-based standards.		
PRT 002	The EES shall provide session management capabilities to support user sessions and coordinated back-end application functionality.		
PRT 003	The EES shall provide support for multiple languages and character set encoding standards.		
PRT 004	The EES shall provide portal personalization and customization capabilities for the constituent user experience.		
PRT 005	The EES shall support access from multiple channels and devices.		
PRT 006	The EES shall provide support for Web content management EES that is robust and scalable.		
PRT 007	The EES shall provide time-based content expiration and version management capabilities.		
PRT 008	The EES shall provide Web content related workflow management capabilities.		
PRT 009	The EES shall provide syndicated content capabilities including creation and subscription to RSS feeds		
PRT 010	The EES shall provide content metadata attributes for portal extensibility.		
PRT 011	The EES shall provide multimedia Web content management capabilities.		
PRT 012	The EES shall provide wiki- and blog-based capabilities		
PRT 013	The EES shall provide XHTML e-form capabilities.		
PRT 014	The EES shall provide survey engine capabilities.		
PRT 015	The EES shall provide chat and instant messaging (IM) support.		
PRT 016	The EES shall provide the capability to consume externally available mapping Web services.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 017	The EES shall provide portlet capabilities.		
PRT 018	The EES shall provide inter-portlet communications that are robust, scalable and reliable using Shared Render Parameter and Events methods.		
PRT 019	The EES shall provide search engine capabilities.		
PRT 020	The EES shall provide taxonomy-based cataloging of portal resources.		
PRT 021	The EES shall provide index-based search capabilities.		
PRT 022	The EES must allow for user analytics to be captured and reported		
PRT 023	The EES shall support commonly used Internet browsers without any degradation in functionality, including the following:		
PRT 024	• Internet Explorer Version 8.0 or greater		
PRT 025	• Mozilla Firefox Version 6 or greater		
PRT 026	• Google Chrome Version 20 or greater		
PRT 027	• Apple Safari version 5.1 or greater		
PRT 028	• Opera Browsers 10 or greater		
PRT 029	The EES shall meet all American with Disabilities Act (ADA) and Limited English (LEP) requirements as required by the ACA and Federal regulations.		
PRT 030	The EES shall allow consumers to submit applications with an electronic signature that complies with State, federal, and agency requirements and standards.		
PRT 031	The EES shall use cascading style sheets and other modern browser technologies to ensure that the look and feel of the site can be changed without requiring reprogramming the portal if using a browser based interface.		
PRT 032	The EES shall provide the ability to capture, display and maintain confidentiality statements and privacy protections as specified by the Department.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 033	The EES shall provide the ability to capture, display and maintain signature acknowledgement(s) of completed forms / case activity(s) as specified by the Department.		
PRT 034	The EES shall provide the ability for external users (e.g. Clients, Community Partners) to upload documents as specified by the Department.		
PRT 035	The EES should support small form-factor devices, including the following mobile phone and tablet platforms:		
PRT 036	• iOS phones and tablets		
PRT 037	• Android phones and tablets		
PRT 038	• Blackberry phones and tablets		
PRT 039	• Windows mobile phones and tablets		
PRT 040	The EES should be 100% accessible via the Internet and require no desktop software (including specialized plug-ins and applets) except for the commercially-available web browsers listed above.		
PRT 041	The EES should provide web analytics.		
PRT 042	The EES should provide citizen and business-centric portals.		
PRT 043	The EES should have a common look and feel across the portal, regardless of the source of information		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

19. Application Server Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
APP 001	The Application Server shall be a scalable, enterprise-ready application and shall support the deployment of many types of distributed applications and provides an ideal foundation for building applications based on SOA.		
APP 002	The Application Server shall enable deployment of mission-critical applications or components in a robust, secure, highly available, and scalable environment.		
APP 003	The Application Server clusters shall provide scalability and reliability for applications by distributing the work load among multiple instances of the server.		
APP 004	The Application Server clusters shall have overload protection to allow the server the ability to detect, avoid, and recover from overload conditions.		
APP 005	The Application Server clusters shall prioritize work based on pre-defined rules and by monitoring actual run time performance statistics.		
APP 006	The Application Server clusters shall store-and-forward services to enable the server to deliver messages reliably between applications that are distributed across many Server instances.		
APP 007	Allows for System Administration that include tasks such as creating Application Server domains; deploying applications or components; migrating domains from development environments to production environments; monitoring and configuring the performance of the application Server domain; and diagnosing and troubleshooting problems.		
APP 008	The Application Server security architecture shall provide a comprehensive, flexible security infrastructure designed to address the security challenges of making applications or components available on the Web.		
APP 009	Shall provide for a monitoring and diagnostic service that creates, collects, analyzes archives, and accesses diagnostic data generated by a running server and its deployed applications.		
APP 010	The EES must allow for user analytics to be captured and reported.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
APP 011	The EES shall support session replication to support transparent fail over.		
APP 012	The EES shall provide guidelines and tools (MVC frameworks, persistent frameworks) to create web applications (portal or stand-alone) with basic CRUD functionality.		

20. Database Management System Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 001	The EES shall lock database records based on various parameters (e.g., at row level, field level, or at the application level).		
DMA 002	The EES shall accommodate separate instances of databases.		
DMS 003	The EES shall support online modifications to database structures with minimal user downtime.		
DMS 004	The EES shall allow for data and transaction replication including, but not limited to, copying an instance of any database to specified locations (e.g. SAN, Multi-site implementations)		
DMS 005	The EES shall provide standard data extraction APIs to allow import and export of data.		
DMS 006	The EES shall provide documented best practices including, but not limited to optimum database configuration, client maintenance and change control.		
DMS 007	The EES shall handle load balancing, failover and/or clustering ability for extended scalability and performance		
DMS 008	The System shall avail the capacity planning model for database configuration.		
DMS 009	The EES supports advanced configurations for data caching (e.g., support of client/application caching, support of server caching, etc.)		
DMS 010	The EES shall have the ability to optimize performance in transaction processing versus report processing		
DMS 011	The EES shall use history tracking within the database and logging options (e.g., transaction auditing)		
DMS 012	The EES shall be fully ACID (Atomicity, Consistency, Isolation, Durability)- compliant so as to ensure it handles transaction rollbacks, validity and referential integrity checks, etc.		
DMS 013	The EES shall handle record locking (e.g., row, field, other) and record updating/committing.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 014	The EES shall support indexing technology (multiple types of Indexing shall be available to tune performance of SQL statements).		
DMS 015	The EES must have the ability to support a variety of data model constructs including complex entity relationships and complex many-to-many relationships		
DMS 016	The EES shall provide the ability to optimize individual queries and support parallelizing a query to run on multiple CPUs at the same time to increase performance.		
DMS 017	The EES shall manage multiple query queue entries in parallel.		
DMS 018	The EES shall offer tools to manage and control disparate mixed workloads in a DBMS environment.		
DMS 019	The EES must have the ability to maintain security based upon defined roles.		
DMS 020	The EES must have data replication capabilities to external file formats or other RDBM Systems.		
DMS 021	The EES shall have full, incremental and transaction log backup and recovery capabilities on both a regular schedule and an ad hoc basis, including redundant off-site backups.		
DMS 022	The EES shall provide the capability to remain fully-functional during database backup windows.		
DMS 023	The EES must support geo-coded address data for the storage and retrieval of latitude and longitude coordinates.		
DMS 024	The EES shall assist the Department in developing procedures to ensure that specified data is archived and protected from loss, unauthorized access, or destruction.		
DMS 025	The EES shall have the ability to extend the data model in a manner that is compatible with framework upgrades.		
DMS 026	The EES shall have the ability within the base data model to store effective and expiration dates for items being tracked.		
DMS 027	The EES shall have the ability to prevent the alteration of information that has been deemed as historical.		
DMS 028	The EES shall have the ability to maintain the data model and associated dictionaries and generate appropriate DDL for local modifications and new releases of the product.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 029	The EES shall have the ability to gather and analyze database performance information and provide recommendations for improvement.		
DMS 030	The EES shall employ one defined set of data standards (e.g., consistent data schema, data element, data class, field lengths, data tables, view naming conventions).		
DMS 031	The EES shall provide consistency and validity checks on data elements at the database level.		
DMS 032	The EES shall provide a data history in accordance with state and federal law (7 years is the general requirement except where otherwise indicated).		
DMS 033	The EES shall provide the ability to archive records (i.e., remove from active system) based on administrator defined criteria.		
DMS 034	The EES shall properly normalize or de-normalize all tables for efficient operation.		
DMS 035	The EES shall store all data (data, configuration, user, etc.) in a central repository.		
DMS 036	The EES shall provide sharing of data among all parts of an integrated system.		
DMS 037	The EES shall store all data in industry-standard relational databases that use referential integrity rules.		
DMS 038	The EES shall have the capability and capacity to maintain data as required by Nebraska and federal requirements as well as the DHHS electronic retention policy		
DMS 039	The EES should have the ability to support conceptual, logical and physical modeling.		
DMS 040	The EES should have the ability to reverse engineer, document, and inventory existing databases.		
DMS 041	The EES should include metadata on all data fields stored in the database, web services, or indexed documents in the document library.		
DMS 042	The EES should provide the ability to return archived records to the active system based on user request and/or administrator defined criteria.		
DMS 043	The EES should provide the ability to configure a retention schedule for records and documents.		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 044	The EES should provide automatic program checks for controlling data files, verifying correct processing, and ensuring data integrity.		
DMS 045	The EES should have the ability to retrieve data based on worker requests and retrieve the data and return it to the system within 24 hours.		

21. SOA Governance Infrastructure Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
GOV 001	The Enterprise Metadata Repository shall provide design-time governance in support of the service life phase, delivering key capabilities for the storage and management of an extensible set of metadata for number of composites, services, business processes, and other IT-related assets.		
GOV 002	A Service Registry shall serve as an integration point for runtime tooling.		
GOV 003	The SOA governance infrastructure should support the Service Bus in subscribing to new or modified assets.		
GOV 004	The SOA governance infrastructure should facilitate composite applications in discovering updated endpoints and WSDL locations.		
GOV 005	As part of the SOA governance model, Runtime monitoring tooling should publish metrics to the Service Registry.		
GOV 006	The security policy manager for Web services shall allow for centrally defined security policies that govern Web services operations (such as access policy, logging policy, and load balancing).		
GOV 007	The ESB solution shall provide dynamic discovery and service level monitoring of all artifacts deployed in the Application Server.		
GOV 008	The Contractor shall define governance processes for the following domains:		
GOV 009	• Service Portfolio Management		
GOV 010	• Services Technical Architecture		
GOV 011	• Service Design & Development		
GOV 012	• Configuration & Release Management		
GOV 013	• Contract Management		

Appendix C Non-Functional Requirements

Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
GOV 014	• Service Monitoring & Control		
GOV 015	• Incident Management		
GOV 016	• Change Management		

22. Business Process and Case Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CSE 001	The EES shall include business process management capabilities (e.g., roles, responsibilities, policies, procedures, approvals, deadlines, integrations, etc.).		
CSE 002	The EES shall provide process execution and state management.		
CSE 003	The EES shall interact/integrate with the case management components with Enterprise Data Management and Content Management Systems.		
CSE 004	The EES shall enable collaboration.		
CSE 005	The EES shall enable BAM (Business Activity Monitoring) and event-based notifications.		
CSE 006	The EES shall provide simulation and optimization.		
CSE 007	The EES shall provide a registry for process components.		
CSE 008	The EES shall provide robust Administration functions.		
CSE 009	The EES shall provide and/or integrate with a robust and easily configurable workflow engine.		
CSE 010	The EES shall include the capability to assign tasks to staff based on defined business rules.		
CSE 011	The EES shall include the capability to route work to the next person in a workflow based on process outcomes.		
CSE 012	The EES shall provide an automated method to balance workload based on user and work unit queues or skills and availability.		
CSE 013	The EES will provide a method to manually reassign workload based on user input.		
CSE 014	The EES shall support e-mail (push) or on-line queries (pull) by a user for work that is in their queue.		
CSE 015	The EES shall provide data validation rules to ensure data validity		
CSE 016	The EES shall enforce workflow rules (with task checklists) to ensure that processes are completed correctly.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CSE 017	The EES shall improve management and staff accountability through the production of reports and/or electronic notifications which will alert users of pending and overdue work.		
CSE 018	The EES shall provide for comprehensive case tracking as defined in requirements detailed during system configuration - minimally these requirements will include logging of task status, case and contact history, issues, etc.		
CSE 019	The EES shall track milestones and due dates and support notification of the appropriate parties about upcoming and overdue milestones.		
CSE 020	The EES shall support multiple forms of electronics notification channels for external users (e.g. text, page, etc.).		
CSE 021	The EES shall support a visual/modeling tool to define business process flows.		
CSE 022	The EES shall be integrated and exposed via portal for citizens (100%) and key functionality for other users, enabling high usage of system within portal.		
CSE 023	The EES shall support standard business process definition languages.		
CSE 024	The EES shall provide the capability to tie business rules to workflows.		
CSE 025	The EES shall provide the capability to link a workflow to one or more workflows.		
CSE 026	The EES shall provide the capability to suspend and resume a workflow that is incomplete.		
CSE 027	The EES shall provide production of reports and/or electronic notifications to identify suspended workflows.		

23. Application/Transaction Monitoring and Logging Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
TNS 001	The EES shall log all system transactions and keep them easily retrievable and sortable.		
TNS 002	The EES shall detect major errors related to one or more components including loss of network connectivity, a database server going off line, or the application suffers an out-of-memory situation.		
TNS 003	The EES shall detect less than desirable application performance, such as degraded servlet, database or other back end resource response times.		
TNS 004	The EES shall have safeguards designed to ensure that configuration variables affecting the application and the back end resources remain at Department predetermined configuration settings.		
TNS 005	The EES shall detect intrusion attempts by unauthorized system users.		
TNS 006	The EES shall monitor critical performance parameters such as response time, resource availability, CPU Utilization, etc.		
TNS 007	The EES shall provide a holistic view of a wide range of application services and network services providing the ability to drill down to a level where the observations provide useful information and both real-time and snapshot views.		
TNS 008	The EES shall send alarms based on the monitored attributes; these can be escalated through E-Mail / SMS etc.		
TNS 009	The EES shall provide information on the bottleneck in the system.		
TNS 010	The EES shall allow Department staff to perform admin activities through an intuitive user interface.		
TNS 011	The EES shall have the ability to create custom dashboards to empower the users.		
TNS 012	The EES shall allow for different roles for Users including Operators, Administrators, Managers etc.		
TNS 013	The EES shall allow for report generation and analysis for application troubleshooting and capacity planning.		

24. Enterprise Content Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
	Document Management		
DOC 001	The EES shall provide the ability to capture EES-generated documents and store them at appropriate level (e.g. individual, case, program, application, various workflow/process).		
DOC 002	The EES shall provide the ability to store electronic forms (EES generated or 3rd-party generated forms).		
DOC 003	The EES shall enable indexing and searching of documents by a variety of user-defined metadata attributes.		
DOC 004	The EES shall provide support for full text search.		
DOC 005	The EES shall provide built-in viewers/converters for a wide variety of file types.		
DOC 006	The EES shall provide digital rights management capabilities.		
DOC 007	The EES shall provide check-in/check-out functionality for electronic documents.		
DOC 008	The EES shall provide notification features for files that are checked out (overdue, availability, etc.).		
DOC 009	The EES shall ensure version control of documents as they are changed or modified.		
DOC 010	The EES shall allow rollback to a previous version of a document.		
DOC 011	The EES shall enable collaborative document creation and/or markup.		
DOC 012	The EES shall enable attachment of documents to e-mails and e-mail distribution lists.		
DOC 013	The EES shall utilize the EES' authorization and access control for file level security.		
DOC 014	The EES shall have the ability to, based on rules or context, automate the creation of indexing, meta data and overall taxonomy.		
DOC 015	The EES shall have robust bulk load and conversion features.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DOC 016	The EES shall provide the capability to communicate natively with the document management API.		
DOC 017	The EES shall provide the capability to access the output of the document management system over the Internet and/or Intranet web sites.		
DOC 018	The EES shall develop a user guide that can be accessed online and printed on demand.		
DOC 019	The EES shall provide the capability for online access to policy and procedure and training materials.		
DOC 020	The EES shall be integrated with document processing center workflow.		
	Imaging and Image Capture		
IMG 001	The EES shall accommodate multiple imaging locations.		
IMG 002	The EES shall integrate the Imaging and Document Management System with Nebraska's Hyland On-Base solution.		
IMG 003	The EES shall provide the capability to access Nebraska's Hyland On-Base solution to extract data to pre-populate index fields, and/or values on forms.		
IMG 004	The EES shall provide the capability to send and receive faxed and e-form documents, process the data and image directly into and out of the system including the ability to automatically send confirmation of transmission to the sender.		
IMG 005	The EES shall provide the capability for performing conditional routing that will send documents to a specific queue or inbox, either manually or electronically, based on preset conditions as defined by the User.		
IMG 006	The EES shall provide the capability to store and view a multiple page document as a single document.		
IMG 007	The EES shall provide the capability to attach notes, annotations, e-mails and other documents to an original scanned document at any time without rescanning.		
IMG 008	The EES shall provide the capability to notify the user when a duplicate document has been received so the user can decide whether to use the previously received document, replace the existing document or store the new document separately.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IMG 009	The EES shall provide the capability to link imaged documentation together and link it to an individual and/or cases within Nebraska EES.		
IMG 010	The EES shall provide the capability to record user and workstation identification for each document processed, accessed or updated.		
IMG 011	The EES shall provide the capability for documents to be grouped together during scanning based on user defined criteria.		
IMG 012	The EES shall provide the capability to allow the User to manually remove, rescan and replace a previously scanned image or document(s).		
IMG 013	The EES shall provide the capability to employ user-defined form/template, indexes and/or field values for recognition and retrieval of documents.		
IMG 014	The EES shall provide the capability to validate data captured from specific fields on forms electronically read by OCR/OMR/ICR.		
IMG 015	The EES will provide the capability to archive documents manually and/or automatically by user-defined criteria.		
IMG 016	The EES shall provide the capability for archived documents to be retrieved and re-indexed.		
IMG 017	The EES shall provide the capability to permanently delete documents based on user defined criteria.		
IMG 018	The EES shall provide the capability to interface with other imaging systems using industry standard interfaces and file formats.		
IMG 019	The EES shall provide the capability to version multiple copies of scanned documents.		
IMG 020	Scanners provided as part of the EES shall have the capability to scan at least 80 pages per minute.		
IMG 021	The EES shall provide image retrieval response times within a maximum of two seconds for all documents stored in the system given a minimum level of bandwidth agreed during detailed requirements and EES configuration.		
IMG 022	Scanners provided as part of the EES shall provide the capability for simplex and duplex scanning.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IMG 023	The EES shall provide audit trail functions with the ability to log every step in the process to a database for query and reporting purposes.		
	Records Management		
REC 001	The EES shall automatically calculate transfer and destruction dates (and assign records ready for deletion to the appropriate review process for approval of final deletion) for all records in the retention schedules.		
REC 002	The EES shall provide email notification of disposition results		
REC 003	The EES shall include a workflow tool to support the records management process.		
REC 004	The EES shall allow users to manually or automatically classify records or classified automatically based on a policy/rules engine.		
REC 005	The EES shall allow administrators and authorized users to create, apply, view or remove legal holds for individual or multiple records.		
REC 006	The EES shall have the capability to produce colored and bar-coded labels created for physical records.		
REC 007	The EES shall have the capability to check records in and out using barcodes, with adherence to security permissions and support the use of barcode scanners for the purpose.		
REC 008	The EES shall have the capability to track all types and sizes of storage containers within storage locations.		
REC 009	The EES shall have the ability for an administrator to create and maintain retention schedules.		
REC 010	The EES shall have the ability to create disposition, legal hold and audit reports for the records.		
	Web Content Management		
WEB 001	The EES shall provide content authoring capabilities including:•		
WEB 002	• Provide a structured container for the content (e.g. document)		
WEB 003	• Support reuse via Copy and Paste or "Save As"		
WEB 004	• Tracking of changes to content within a container		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 005	• Drag-and-drop page layout		
WEB 006	• Ability for collaboration by allowing the “single control” to transfer between authors, reviewers and authorizers		
WEB 007	• Real-time active collaboration allowing multiple authors to review and update the content in a container during the course of a shared session		
WEB 008	• Standard templates to make authoring documents within certain parameters		
WEB 009	• Facilitate the use of Microsoft Office creation tools to submit content directly into the WCM repository		
WEB 010	• The bulk import and export of XML content for integration and migration		
WEB 011	• Reuse of content and templates to enforce a common “look and feel” and brand identity		
WEB 012	• A flexible and extensible workflow to manage authoring review and approval of content across its life cycle		
WEB 013	• The ability to expire and retire content.		
WEB 014	The EES shall support the combination of text and other page elements, such as graphics, logos and buttons and multimedia, such as audio/video and Flash.		
WEB 015	The EES shall include the ability to support content in multiple languages.		
WEB 016	The EES shall support multiple versions of the same site using the same WCM instance and repository.		
WEB 017	The EES shall display content targeted toward specific user profiles.		
WEB 018	The EES shall target content based on visitor-supplied preferences		
WEB 019	The EES shall personalize a site based on customer transaction data, apply personalization rules to elements smaller than pages and use perceived behavior employing mechanisms to assess the behavior of an individual user (known or unknown) in real time and enable choice of delivered content based on that analysis).		
WEB 020	The EES shall provide reporting of:•		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 021	• The status and history of a piece of content		
WEB 022	• Content source and descriptive information		
WEB 023	• Timetable of release dates or content submission dates		
WEB 024	• User-definable audit reporting on an ad hoc basis for content		
WEB 025	• Active content page inventory		
WEB 026	The EES shall provide out-of-the-box log file analysis.		
WEB 027	The EES shall have the ability to find broken links and repair them.		
WEB 028	The EES shall have the capability to track and report on-site use and demographics.		
WEB 029	The EES shall provide content publication capabilities including:		
WEB 030	• Support in-context (what you see is what you get [WYSIWYG])		
WEB 031	• editing and the ability to preview rendered content in a staging area.		
WEB 032	• verify content for hygiene (for example, accessibility, spelling, format validation, privacy, security, speed of deployment)		
WEB 033	• Publish to multiple locations and channels based on predefined attributes		
WEB 034	• Roll back content publication if unsuccessful		
WEB 035	• Automatically publishing on a scheduled date		
WEB 036	• Support dynamic and event-driven presentation of content		

25. Identity Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IDT 001	The EES shall provide APIs/Connectors to integrate with a variety of 3rd party/custom applications to provide single sign-on.		
IDT 002	The EES shall enforce a limit of (configurable) consecutive invalid access attempts by a user.		
IDT 003	The EES shall protect against further, possibly malicious, user authentication attempts using an appropriate mechanism (e.g. locks the account/node until released by an administrator, locks the account/node for a configurable time period, or delays the next login prompt according to a configurable delay algorithm).		
IDT 004	The EES shall provide an administrative function to reset passwords.		
IDT 005	The EES shall not display passwords while being entered.		
IDT 006	The EES shall provide only limited feedback information to the user during the authentication.		
IDT 007	The EES shall support case-sensitive usernames that contain typeable alpha-numeric characters in support of ISO-646/ECMA-6 (aka US ASCII).		
IDT 008	The EES shall allow an authenticated user to change their password, automatically when possible, consistent with password strength rules.		
IDT 009	The EES shall support password strength rules that allow for minimum number of characters, and inclusion of alpha-numeric complexity.		
IDT 010	The EES shall support case-sensitive passwords that contain typeable alpha-numeric characters in support of ISO-646/ECMA-6 (aka US ASCII).		
IDT 011	The EES shall use either standards-based encryption, e.g., 3DES, AES, or standards-based hashing, e.g., SHA1 to store or transport passwords.		
IDT 012	The EES shall prevent the reuse of passwords previously used within a specific (configurable) timeframe, or shall prevent the reuse of a specific (configurable) number of the most recently used passwords.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IDT 013	The EES shall meet:		
IDT 014	• CMS E-Authentication Assurance Levels		
IDT 015	• NIST 800-63 guidance **Level 1:** Single factor authentication, Identity proofing relies on subscriber's own assertions **Level 2:** Single factor authentication, requires verifying the individual's financial account information, and other information **Level 3:** Multifactor authentication, requires verifying the individual's financial account information, and other information **Level 4:** Multifactor authentication, In-person proofing is required Tokens (typically a cryptographic key or password) for proving identity,		
IDT 016	• Identity proofing, registration and the delivery of credentials which bind an identity to a token,		
IDT 017	• Remote authentication mechanisms, that is the combination of credentials, tokens and authentication protocols used to establish that a claimant is in fact the subscriber he or she claims to be		
IDT 018	• Assertion mechanisms used to communicate the results of a remote authentication to other parties.		
IDT 019	The EES should re-authenticate the user before any access to Protected Health Information (PHI) or other sensitive or confidential information is allowed, including when not connected to a network (e.g. on unconnected mobile devices).		
IDT 020	The EES shall encrypt storage of all passwords using a one-way hash or other equivalent functionality to minimize damage from a security breach.		

Appendix D
Requirements Gap Analysis
RFP# 4544Z1

Any requirements that the Bidder cannot attest to full compliance; i.e., provides a value of "N" in the Compliant field of the Appendix B Functional Requirements Traceability Matrix or Appendix C Non-Functional Requirements Traceability Matrix, must document the requirement gap as outlined in this Appendix. The Bidder must ensure that the Gap Analysis Matrix contains an entry for each requirement where one or more of these conditions are true:

1. The Bidder has indicated "N" to Compliant in either RTM
2. The Bidder has indicated "M", "F", "C" or "O" to Availability in either RTM
3. The Bidder has indicated that an extensive integration effort of more than 2,500 hours will be needed to meet the requirement as documented in the Key Features of the EES description in the RTM.

For each requirement gap, the Bidder must follow the instructions in this Appendix. The Bidder must copy, exactly, the Identifier, Requirement Description, and Availability from the RTM to ensure linkage between the RTM and the Requirement Gap Analysis Matrix.

The Bidder must provide an assessment of the requirement gap, including an estimate of its impact or severity if not compliant, and the steps necessary to close the gap and achieve full compliance. For system and/or product features that will support the requirement and close the gap, the Bidder must also provide an estimated date when the capability will be available as part of the Bidder's baseline capability.

Bidders are required to use the following Gap Analysis instructions:

Column Description	Bidder Responsibility
Identifier	The unique identifier of the requirement which does not have a compliant solution according to the criteria established in either Appendix B Functional Requirements Traceability Matrix or Appendix C Non-Functional Requirements Traceability Matrix. Copy the requirement identifier from the applicable RTM.
Requirement Description	Copy the requirement description from the applicable RTM for the requirement identified above.
Availability	Copy from the RTM for the requirement identified above.
Impact/Severity (Product development or integration effort to fulfill the requirement)	**High** (H)= >2500 hours **Medium** (M)=>1000 hours to <2500 hours **Low** (L)=<1000 hours

Appendix D Gap Analysis Matrix						
Identifier	**Description**	**Availability**	**Impact Severity**	**Gap Description**	**Recommendation for Closure**	**Date**

Appendix A

Bidder Library Content

Request for Proposal Number 4544Z1

The Procurement Library contains information which should be of use to the vendor in developing their proposed solution.

Medicaid Eligibility and Enrollment System
MMIS Existing Infrastructure
N-FOCUS Overview
N-FOCUS Interface Documentation and Schedule
N-FOCUS Technical Overview
Technical Framework
Nebraska EES Analysis
EES IV&V RFP
Production Database Size by table for N.Focus
Staff in County
ANDI Full Architecture

Medicaid Eligibility and Enrollment System

Request for Proposal Number 4544Z1

There are two existing systems that Nebraska will be modifying for ACA compliance.

Nebraska's current functional environment is called ACCESSNebraska. ACCESSNebraska provides service delivery for Nebraska Medicaid and the Economic Assistance Programs (Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), Low Income Home Energy Assistance Program (LIHEAP) and several smaller programs. The environment contains the following components:

1. Web site
2. Customer Service Centers
3. Local Offices
4. Universal and Assigned Case Management model
5. Functional Case Management Assignments
6. Document Imaging

The web site ACCESSNebraska.ne.gov contains the following: Do I Qualify? (screening tool), Application, Change Reporting, Benefit Accounts, Submit Documents and information on Community Partners, Local Offices, etc. The Benefit Accounts contains information on benefit eligibility and copies of correspondence sent to the account holder. The accounts require a PIN authentication process and security questions to set up.

ACCESSNebraska has four (4) Customer Service Centers with a total of 400 staff. The Customer Service Centers utilize a single 800 telephone number for access with local calling available in Lincoln. With ACA implementation, a new phone number is being set up for Medicaid. Two of the Customer Service Centers will begin taking these calls for a total of 150 staff. The phone system utilizes an Integrated Voice Response System that retrieves customer data from N-FOCUS and is available 24 hours a day, seven days a week. They system is connected to an Automated Call Distribution System which directs callers to specific routing with case managers who have knowledge and expertise to answer the question. The system utilizes Call Quality Recording and Monitoring (CQRM) to store data. The voice signature will be stored as a part of this. It is currently envisioned that a staff member will take the application over the telephone. Eventually the application process will be moved to the IVR with the data transmitted to the new EES. The system is managed utilizing Contact Center Manager software that allows for reporting.

Nebraska has local offices throughout the state where customers can walk in. The local offices accept applications, conduct interviews, determine eligibility and have kiosks available for customers to utilize the web site and contact the Customer Service Center.

ACCESSNebraska utilizes a Universal Case Management system for most of its case management. In the Universal Case Management System, work tasks are created for staff to act on the cases as the need arises. Work is prioritized inside the work queues. Work queues in use include: Document Imaging, Application Management, Interviewing, Eligibility Processing, and Change Management. Some cases are assigned to a case manager and processed with the single case manager completing all case actions.

Staff is assigned to work out of queues according to functions. Staff complete all tasks for the function assigned. Staff is also divided into Service Delivery Groups known as adult and family. With ACA implementation, staff will now be divided by MAGI, Non-MAGI and Combined. Combined is a case with both MAGI and Non-MAGI eligible people.

The system is supported by two Document Imaging Centers. These centers contain two high speed IBML scanners that scan documents. In addition, documents can be moved electronically to be stored in the system. All documents are indexed by person and category. Local offices have Canon Scanners to scan documents received locally. The Document Imaging System is integrated and viewable through N-FOCUS.

MMIS Existing Infrastructure

Request for Proposal Number 4544Z1

The foundation of the current MMIS technical architecture was developed in 1973. The current MMIS has been fully operational since 1978 and became HIPAA compliant in October 2003. The MMIS consists of batch and online CICS mainframe components and a front-end HIPAA compliant Sybase Translator.

The Nebraska MMIS currently consists of the following 16 subsystems:

1. Data Management – The Nebraska DHHS currently contracts with Truven Health Analytics for data management, housing ten years of Medicaid claims and provider and client information used to facilitate management reporting, including the Management & Administrative Reporting Subsystem (MARS), the Surveillance and Utilization Review Subsystem (SURS) and the Medicaid Statistical Information System (MSIS) reporting.
2. Drug Claims Processing – The Nebraska DHHS currently contracts with Magellan Medicaid Administration (MMA) for drug claims receipt and adjudication. MMA's Point of Service (POS) system supports the National Council for Prescription Drug Programs standards, including currently D.0 and 1.1 (batch) formats. The POS sends processed pharmacy claims to the State's MMIS on a daily basis, where the claims are passed into the MMIS weekly payment cycle for final adjudication, payment, and reporting.
3. Management & Administrative Reporting Subsystem (MARS) – Provides system generated reports. The Nebraska DHHS also contracts with Truven Health Analytics to provide management information.
4. Medicaid Drug Rebate (MDR) – A PC-based extract from MMIS claims history to prepare quarterly invoices for drug rebates from manufacturers.
5. Medical Claims Processing (MCP) – Edits claims and calculates reimbursement amounts.
6. Medical Non-Federal (MNF) – Ensures that Title XIX Federal matching funds are not used to pay for health care services otherwise available through Title XVIII (Medicare) funding.
7. Medical Provider Subsystem (MPS) – Maintains demographic, eligibility, and licensing data for all enrolled Medicaid providers.
8. Nebraska Aging Management Information System (NAMIS II) – This application supports the activities of the State Unit on Aging. It was developed to enter, edit, monitor, and report services provided by Area Agencies on Aging in Nebraska, track services required by the U.S. Administration on Aging (AoA), and to compile information required by the AoA for NAPIS, the National Aging Program Information System. It is also used to manage programs, track costs in certain services, track program usage, and analyze client demographics.
9. Nebraska Disability Program (NDP) – Accounts for the separate funding of health care services for disabled persons who do not meet the SSI disability duration requirements but are eligible for the same medical services as Medicaid.
10. Nebraska Managed Care System (NMC) – Provides plan and PCP enrollment of Medicaid clients into managed care, and documentation of communications between the client, the enrollment broker, and the managed care plans. The NMC offers basic case management functionality.

11. Nebraska Medicaid Eligibility System (NMES) – An automated voice response system used to verify client Medicaid or managed care eligibility for Nebraska Medicaid. The current Interactive Voice Response Unit also supports the Nebraska's Child Support system, known as Children Have A Right To Support (CHARTS), which serves as Nebraska's statewide Child Support Enforcement (CSE) system.
12. Recipient File Subsystem (RFS) – Uses and maintains Medicaid client eligibility data obtained from N-FOCUS.
13. Reference File Subsystem (RSS) – A database containing various reference information that includes but is not limited to, procedure, diagnosis and drug codes, and fee schedules.
14. Screening Eligible Children (SEC) – Facilitates comprehensive, preventative health care and early detection and treatment of health problems in Medicaid eligible children.
15. Surveillance and Utilization Review Subsystem (SURS) – Provides system generated reports. MLTC also contracts with Truven Health Analytics for reports and tools to support the investigation of potential provider fraud, abuse, or misuse.
16. Third Party Liability (TPL) – Stores information on Medicaid clients with private insurance; contains edits and produces reports for coordination of benefits and recovery.

Current System

Current System Overview

- Current solution is comprised of two primary components
  - N-FOCUS and ACCESSNebraska

- Nebraska Family Online Client User System (N-FOCUS)
  - Integrated service delivery and case management system
  - Supports over 30 programs overseen by the Nebraska Department of Health and Human Services (DHHS)
  - Functions include client/case intake, eligibility determination, case management, service authorization, benefit payments, claims processing and payment, provider contract management, and government and management reporting.
  - Supports Medicaid Eligibility, as well as other programs such as SNAP and TANF
  - Statewide Automated Child Welfare Information System (SACWIS)
  - Interfaces with Medicaid Management Information System (MMIS)

Current System Overview

- ACCESSNebraska
  - Public facing web front-end
  - Provides the public a means to apply on-line for public aid
  - Supports subset of programs in N-FOCUS
  - Umbrella Application which includes the following functions:
    - Screening – survey that assists applicants in understanding their potential eligibility
    - E-App – electronic application for benefits
    - Change Reporting – update name, address other demographic data
    - Inquiry – check status of benefits
  - Call Centers
    - Operate in conjunction with the AccessNebraska system
    - Four centers located across the state
    - Functions include conducting interviews, taking customer changes, and providing information and referral services via the telephone

Current System Architecture

- N-FOCUS
  - Highly integrated client/server application built in 1996
  - On-line system
    - Client
      - Windows 7/XP
      - developed using CA Gen and AION to generate windows and C code
      - some custom developed C code
      - External Call Interface (ECI) used to connect to server components
      - 475 windows, 490 +client procedures
    - Server components
      - Z/OS
      - CICS transactions
      - CA Gen generated and in house developed COBOL
      - 470 server procedures
    - AION
      - Supports complex eligibility data gathering
      - Automated determination and noticing processes

Current System Architecture

- N-FOCUS On-line System (continued)
  - Web components
    - Java Server Faces and Facelets developed using Eclipse IDE
    - Tomcat WAS on Linux

- Batch System
  - Z/OS COBOL
    - 700+ procedures, 640+ programs, 220+ stored procedures
  - Crystal Reports
    - 540+ reports distributed via Business Objects Enterprise

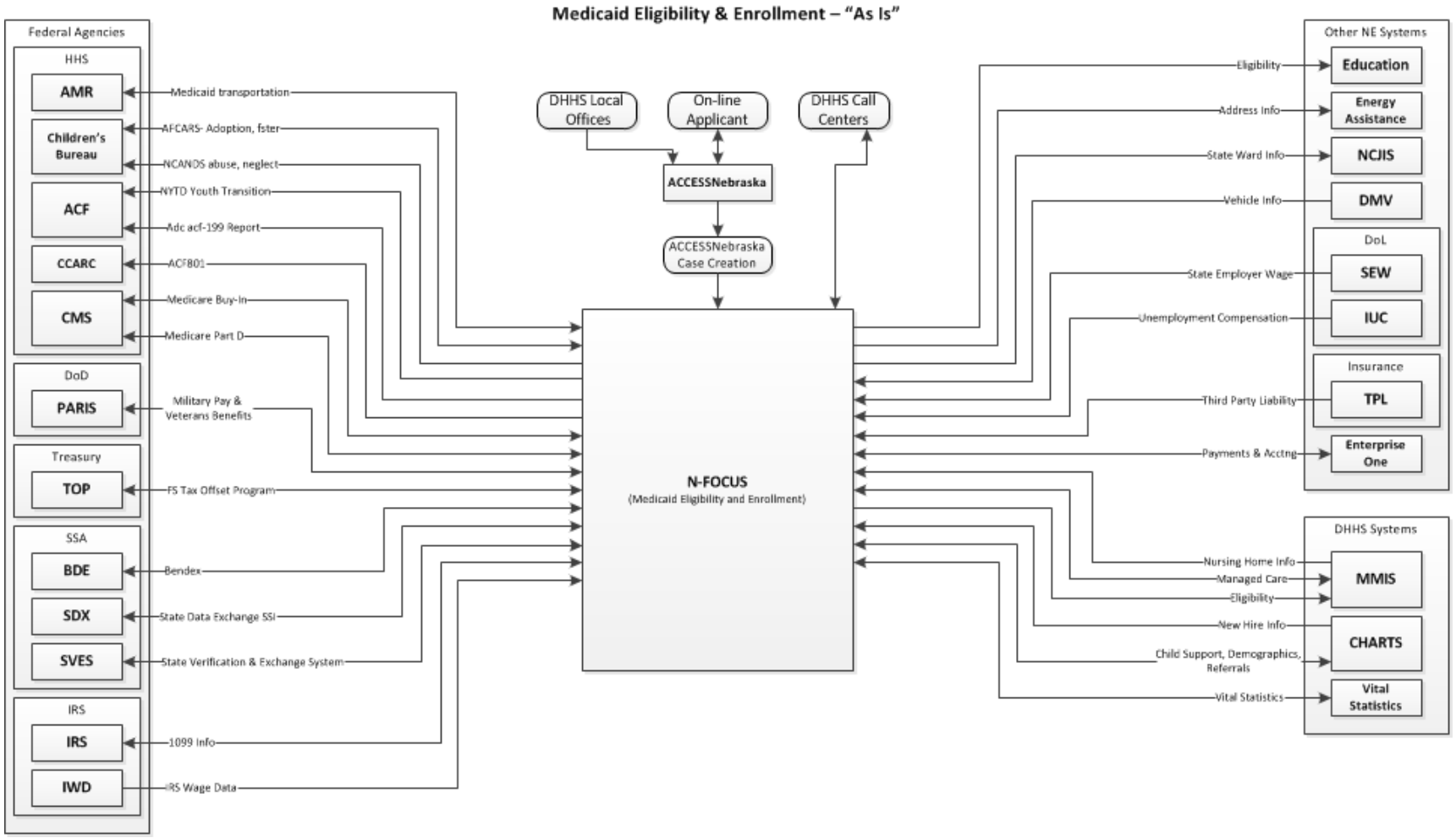
- Database
  - Z/OS based DB2 database
  - 500+ tables, 550+ table relationships, 935 indexes, 8700+ attributes
  - Over 1.3 billion rows, largest table exceeds 200 million rows

Current System Architecture

- ACCESSNebraska
  - Established in 2008
  - Web-Based Java application
  - Utilizes SQL server for temporary data and DB2 for long terms storage
  - Call Center Telephony Components
    - Interactive Voice Response System (IVR)
    - Automated Call Distribution (ACD)
    - Dashboard Client – provide CTI capabilities
    - Contact Recording and Quality Monitoring (CRQM) – provides call recording and playback capabilities
    - Dashboard Manager Shortcut – provides ability to review call statistics in real time

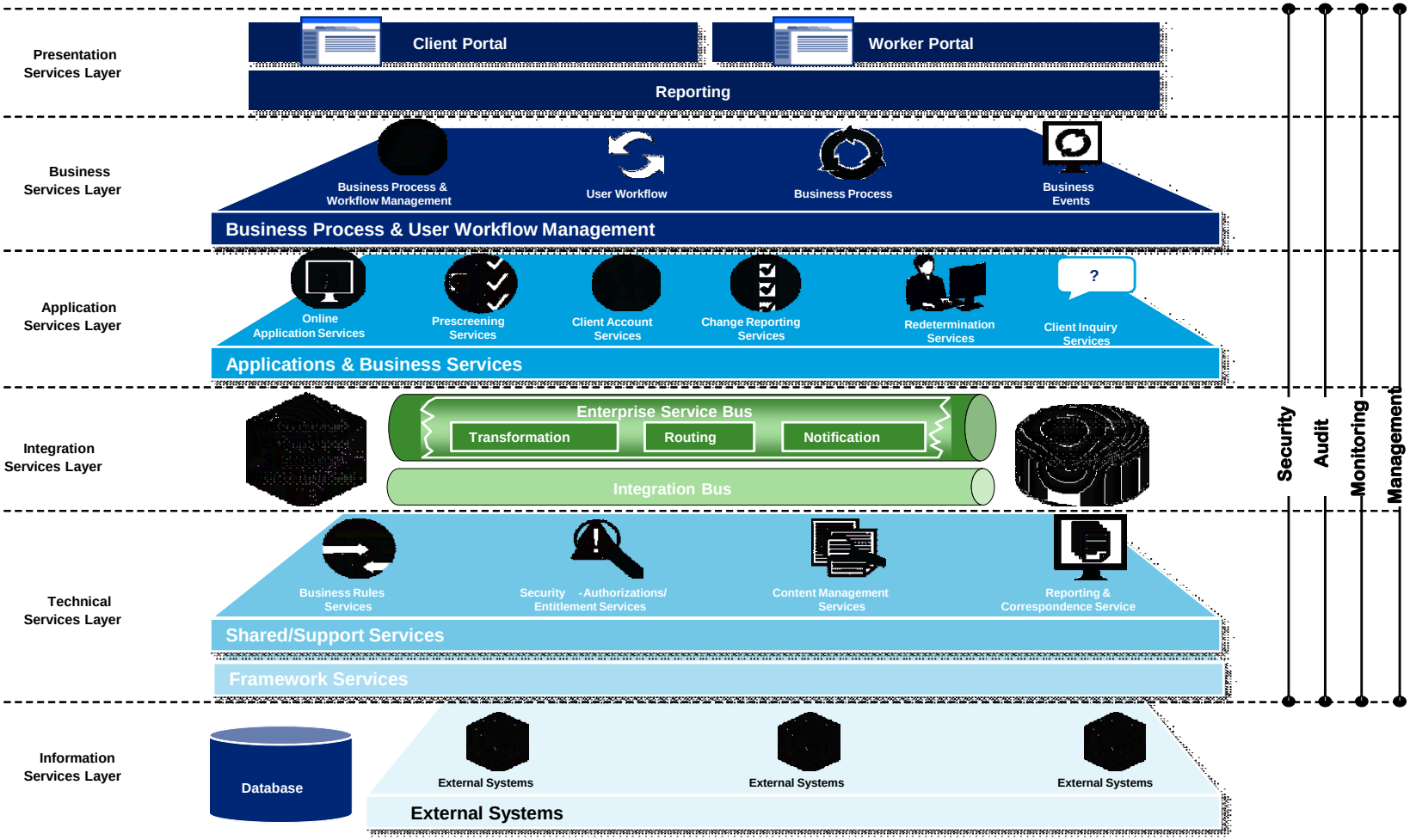
- N-FOCUS and ACCESSNebraska are not currently integrated electronically, therefore information is manually re-entered into N-FOCUS to initiate the eligibility process.

Current System



Proposed System

Proposed System
Conceptual Architecture



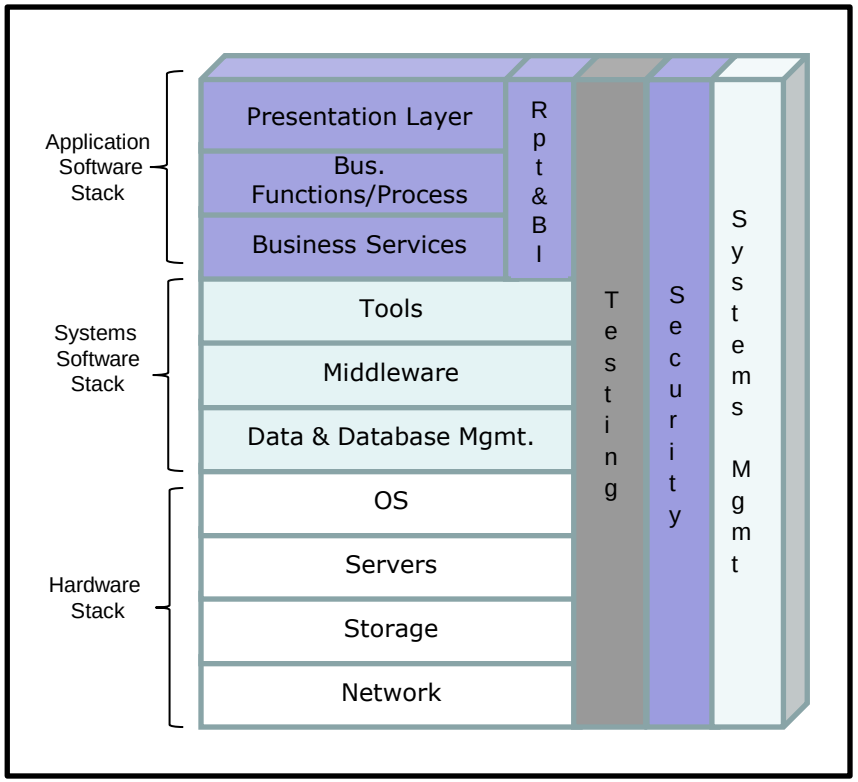
Proposed System Conceptual Architecture

Presentation Layer includes:
- User Interface(s)
  - Lightweight
  - Role based
  - Access Method based
- Data Entry validation
  - Complete
  - Type
  - Logical
- Help screens/prompts
- Standards compliant

Business Functions/Processes:
- Predefined Business processes/workflows like:
  - Eligibility
  - Enrollment
  - Plan Selection
  - Change of Circumstances
  - Renewal
- Configurable through external rules and/or business process/workflow definitions

Business Services:
- Predefined services used to construct Business Functions:
  - Determine Medicaid Eligibility
  - Conduct Verification
  - Verify Citizenship
  - Determine MAGI Eligibility
  - Calculate MAGI
  - Transfer Account
  - Check Exchange Enrollment
- Configurable through external rules

Data & Database Management includes:
- Enterprise Content Management (ECM)
- Document Management & Imaging (DM)
- Extraction, Transformation, Load (ETL)
- Data Conversion
- Data Migration & Transfer
- Data Quality (DQ)
- Database Management Software (DBMS)
- Database Management & Monitoring
- Database Backup & Recovery
- Data Archival & Retrieval



Middleware includes:
- Business Process Management/Workflow (BPM/WF)
- Business Rules Management/Rules Engine (BRM/RE)
- Enterprise Service Bus/Message Broker (ESB/MB)
- Enterprise Application Integration (EAI)
- Electronic Data Integration (EDI)
- Web Application Server (WAS)
- Web Server (WS)
- Interactive Voice Response System (IVR)
- Computer Telephony Integration (CTI)

Tools includes:
- Integrated Development Environment (IDE)
- Source code control (check in/out, versioning, etc)
- Debuggers
- Report Development and Generation
- Ad-hoc Query & Reporting
- On-line Analytical Processing (OLAP, ROLAP,MOLAP,OOLAP)
- Data Mining

Systems Management includes:
- Performance Monitoring & Reporting
- Business Activity Monitoring (BAM)
- Workload/Job Scheduling
- System Backup & Recovery
- Configuration Management
- Release Management
- Change Management
- Event/Incident Management
- Problem Management
- Capacity Management
- Financial Management/Cost Allocation

Security includes:
- Identity Management
  - Authentication
  - Authorization
  - Access Control
  - Single Sign-On (SSO)
- Non-Repudiation
- Auditability
- Data Integrity
- Data Protection & Confidentiality
- Encryption (static and in motion)
- Intrusion Detection System (IDS)
- Firewalls
- Virus and Malware Detection

Testing includes:
- Test Management
- Functional/Regression Test
- Load & Performance Test
- Test Case Development
- Test Data Generator
- Capture & Playback
- Web App/UI
- Standards Compliance

N-FOCUS Interfaces

Interface Name	Incoming / Outgoing / Both	Recipient / Sender	Frequency	Transfer	Function
ADC ACF-199 Reporting	Both	Administration of Children and Families (ACF), Federal	Quarterly	Connect/Direct	ADC ACF-199 federal reports.
Child Care ACF-801 Reporting	Outgoing	Child Care Automation Resource Center (CCARC), Federal	Monthly	Connect/Direct	Child Care ACF-801 federal report.
Child Support (CHARTS)	Both	CHARTS State Application	Daily	State Mainframe File	Child Support data interface including eligibility, demographic, referral information. CHARTS also directly accesses some N-FOCUS table information.
Child Welfare AFCARS Reporting	Both	HHS Children's Bureau, Federal	Semiannual	Tibco Managed File Transfer (formerly named Cyberfusion)	Child Welfare AFCARS adoption and foster care information; incoming files are not automatically processed.
Child Welfare CONNECT	Outgoing	CONNECT State Application	Weekly	Invoked DB2 Stored Procedure	EDN and CAPTA referrals.
Child Welfare Court (JUSTICE)	Outgoing	JUSTICE State Application	Daily	FTP	Child Welfare state ward information for county courts.
Child Welfare Criminal Justice (NCJIS)	Outgoing	NCJIS State Application	Hourly, Daily	Hourly: invoked DB2 stored procedure; daily FTP	Child Welfare Nebraska Crime Commission information for state wards and law enforcement.
Child Welfare NCANDS Reporting	Outgoing	HHS Children's Bureau, Federal	Annual	Upload to NCANDS Portal	Child Welfare NCANDS (National Child Abuse and Neglect Data System) information.
Child Welfare Project Impact	Outgoing	Project Impact - Juvenile Accountability Impact Block Grant (Omaha)	Monthly	SFTP	Child Welfare Project Impact state ward information.
Child Welfare Quality Assurance	Outgoing	Child Welfare Quality Assurance State Application	Monthly	State Mainframe File	Child Welfare case information.
Debit Card (Reliacard)	Both	US Bank	Daily	Connect/Direct	Electronic payment debit card information.
Developmental Disabilities Therap	Outgoing	Therap vendor	Daily	SFTP	Client eligibility information. Future phases in 2012 will include Provider information as well as incoming service authorization/claim information.
Education	Outgoing	Department of Education, State	Daily	FTP	Client eligibility information.
Energy Assistance	Outgoing	Energy Assistance State Application	Monthly	Direct Data Access	Energy Assistance directly accesses N-FOCUS address information. LIHEAP is scheduled to be incorporated into N-FOCUS July 2012.
Enterprise One (NIS)	Both	Enterprise One (NIS) State Application	Daily	FTP	Payment and accounting information for clients and providers.
Interactive Voice Response (IVR)	Both	HHS Voice Response Unit	Real Time	Invoked DB2 Stored Procedure	Client and provider eligibility information.
IRS 1099	Both	Internal Revenue Service, Federal	Monthly	Axway Secure Transport (formerly named Tumbleweed)	IRS 1099 information.
Labor Employment	Incoming	State Department of Labor	Daily	State Mainframe File	Labor employer wage information (SEW).
Labor Unemployment	Incoming	State Department of Labor	Daily	State Mainframe File	Labor unemployment benefit information.
Labor Unemployment Compensation Tax	Both	State Department of Labor	Weekly, Quarterly	SFTP	Labor unemployment compensation tax information and reporting.

N-FOCUS Interfaces

Interface Name	Incoming / Outgoing / Both	Recipient / Sender	Frequency	Transfer	Function
Medicaid Cards	Outgoing	Lasermark Vendor	Daily	SFTP	Medicaid card information for printing/mailing.
Medicaid (MMIS)	Outgoing	MMIS State Application (RFS, SEC)	Daily	State Mainframe File; Direct Data Access	Medicaid data interface including eligibility, demographic information. MMIS also directly accesses some N-FOCUS table information.
Medicaid Long Term Care (MMIS)	Incoming	MMIS State Application (RFS)	Daily	State Mainframe File	Medicaid nursing home per diem rate information (Long Term Care interface)
Medicaid Managed Care (MMIS)	Both	MMIS Managed Care State Application (NMC)	Daily	State Mainframe File; Direct Data Access	Medicaid managed care information. Managed Care also directly accesses some N-FOCUS table information.
Medicaid Transportation Broker	Both	American Medical Response (AMR) Vendor	Daily	SFTP	Medicaid transportation and authorization information.
Medicare Buy-In	Both	Centers for Medicare and Medicaid Services (CMS), Federal	Monthly	Connect/Direct	Medicare buy-in information exchange.
Medicare Part D	Both	Centers for Medicare and Medicaid Services (CMS), Federal	Monthly	Connect/Direct	Medicare Part D information.
Motor Vehicles	Incoming	Department of Motor Vehicles (DMV) State Application	Real Time	Direct Data Access	Motor vehicle registration information.
New Hire	Incoming	CHARTS State Application	Daily	State Mainframe File	New Hire employment information which originates federally and is transmitted to N-FOCUS via CHARTS.
NTAP	Outgoing	Public Service Commision	Monthly	FTP	Nebraska Telephone Assistance Program (NTAP).
NYTD	Outgoing	Administration of Children and Families (ACF), Federal	Semiannual	Tibco Managed File Transfer (formerly named Cyberfusion)	National Youth Transition Database (NYTD)
OnBase Claims & Service Authorizations	Both	Enterprise Content Manager (ECM), State	Daily, Real Time	SFTP, invoked DB2 stored procedure	Child Care provider and client claims and service authorization information (will be expanded to other programs later in 2012).
PARIS	Both	Department of Defense, Federal	Quarterly / Request	Connect/Direct	PARIS military benefits information; matches from other states.
Provider Rating and Review Reporting	Outgoing	Center for Children, Family, and the Law (CCFL) Answer 4 Families, University	Monthly	SFTP	Client, provider, and service authorization information.
SNAP EBT	Both	JP Morgan Electronic Financial Services, EBT Vendor	Daily	Connect/Direct	SNAP electronic benefits transfer.
SNAP Treasury Offset	Both	Financial Management Services (FMS) Treasury Offset Program, Federal	Weekly	Connect/Direct	SNAP Treasury Offset Program.
Social Security (Bendex)	Both	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security beneficiary and earnings data exchange (BENDEX/SVES).
Social Security (LIS)	Incoming	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security medicaid applications for Low Income Subsidy (LIS)
Social Security (SDX)	Both	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security supplemental security income information (SDX/SVES).
Social Security (SVES)	Both	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security verification exchange system (SVES); includes SNAP forty quarters information and citizenship verifications.
Third Party Liability (TPL)	Incoming	TPL State Application	Daily	State Mainframe File	Third Party Liability insurance information.
Vital Statistics	Both	Vital Statistics State Application	Daily	Connect/Direct	Vital Statistics information (passed on to the CHARTS application too)

N-FOCUS Technical Overview

Request for Proposal Number 4544Z1

N-FOCUS (Nebraska Family Online Client User System) is an integrated system that automates benefit/service delivery and case management for more than 30 Nebraska Department of Health and Human Services (DHHS) programs, including Child Welfare, Aid to Dependent Children, Supplemental Nutrition Assistance Program, and Medicaid. N-FOCUS functions include client/case intake, eligibility determination, case management, service authorization, benefit payments, claims processing and payments, provider contract management, interfacing with other private, state and federal organizations, and management and government reporting. N-FOCUS was implemented in production in mid-1996 and is operational statewide.

The typical N-FOCUS user is a DHHS or contracted employee. N-FOCUS daily supports over 2500 workers, operating from offices around the State as well as from 4 customer service centers and 2 hub scanning facilities. Some cases are assigned to specific workers; however the majority of cases are managed via a universal caseload methodology coordinated by the customer service centers.

The application has both batch and online components and stores data in DB2, V9. The DB2 database has over 500 tables, some with a corresponding archive table. There are over 642 relationships between tables, 1054 indexes, and over 7839 attributes. There are over 1.6 billion rows of production data with over 206 million rows in one table with an average table size of 2.8 million rows.

The batch system is coded in Z/OS COBOL and executes in a Z/OS environment. There are more than 660 procedures, over 720 programs, and over 230 stored procedures. The application generates over 540 reports using Crystal Reports that are published to a web portal through Business Objects Enterprise software. Another 100 reports generated independently are published to the portal for viewing.

The online system is an integrated client/server based software system. The client software executes on Windows 7 and resides on Windows 2008 servers located throughout the State. Computer Associates Gen and AION toolsets are used to generate windows and C code, along with custom in-house architecture code written in C. The server components are Z/OS CICS transactions. The CICS programs are Gen-generated COBOL, along with in-house written COBOL and Assembler externals. The CICS programs access DB2 on the Z/OS mainframe. The Gen clients use External Call Interface (ECI), IBM's CICS Universal Client to connect to the Z/OS CICS using TCP/IP protocol. The Gen online system consists of over 570 client procedures, 555 server procedures, 550 windows, and 1450 dialog boxes. The AION online system supports the complex eligibility data gathering and automated determination and noticing processes.

N-FOCUS web applications consist of public applications, including dashboard applications, and applications launched directly from N-FOCUS. Eclipse is the IDE used to generate the Java Server Faces and Facelets code. These Java applications run on Tomcat application servers on the Linux Operating System. The Java applications call stored procedures to access DB2 data and SQL to access SQL server data.

The primary role of the N-FOCUS team today is to maintain and enhance the N-FOCUS application. This includes providing users with technical and business support to keep the system current with government policy and industry technology, both of which continue to change at a rapid pace. The N-FOCUS team works in the Nebraska State Office Building in Lincoln. Business and technical contract and full-time State team members are organized into teams that are involved in application development (Gen, AION, COBOL, Web, Reporting), technical architecture (workstation communications, mainframe communications, print architecture, reporting architecture administration, document imaging administration), database administration, configuration management, project management, business requirements and testing, application and production support, and training. Approximately 40 technical and 30 business team members are assigned to the N-FOCUS team.

Technology Framework

Request for Proposal Number 4544Z1

1.1 General

As part of this RFP procurement process the Department is looking for systems and technologies that can form the basis for an Enterprise Architecture that can be utilized and leveraged across Divisions and/or Programs. As such, we are looking for a solution that is built upon a technology framework that will support and promote this goal. The remaining sections of this document describe what the Department considers a "technology framework".

1.2 Definitions

Architecture - the fundamental organization of a system embodied in its components, their relationships to each other, and to the environment, and the principles guiding its design and evolution.

Service-Oriented Architecture – an architecture that aims to enhance efficiency, agility, and productivity of an enterprise by positioning services as the primary means through which solution logic is represented. Services act as containers of related capabilities. High-quality service-oriented architectures are consistent with the following principles:

- Standardized service contract – services within the same service inventory are in compliance with the same contract design standards.
- Service loose coupling – service contracts impose low consumer coupling requirements and are themselves decoupled from their surrounding environment.
- Service abstraction – service contracts only contain essential information, and information about services is limited to what is publish in the service contracts.
- Service reusability – services contain and express agnostic logic and can be positioned as reusable enterprise resources.
- Service autonomy – services exercise a high level of control over their underlying runtime execution environment.
- Service statelessness – services minimize resource consumption by deferring the management of state information when necessary.
- Service discoverability – services are supplemented with communicative meta data by which that can be effectively discovered and interpreted.
- Service composability – services are effective composition participants, regardless of the size and complexity of the composition.

Framework – for the purposes of this RFP, a framework is an extensible software platform providing general purpose and domain-specific services in the context of a uniform, reusable, service-oriented architecture with consistent abstractions. A framework may include the ability to both directly instantiate end-user capabilities and to provide developer-centric capabilities.

1.3 MITA Technical Principles

The Framework should support the MITA technical principles:

- **Business driven.** Technology will only be used when it supports a business goal or objective; technology will not be used for technology's sake alone.
- **Implementation neutral.**
- **Platform independent.** Application software and infrastructure components should be developed for reusability and platform independence.
- **Adaptable, extensible, and scalable.**
- **Open technology and standards based.** The advantages of standardization (e.g., data sharing and interoperability) should be leveraged.
- **Security and privacy** must be integrated into a system.
- **Interoperability standards** are established and followed.
- **Quality data** are enabled to support good decision making.
- **Current and proven technology** is selected.

1.4 Seven Conditions and Standards

In order to receive enhanced Federal financial participation (FFP), the Department must implement solutions that are consistent with 42 CFR 433.112 and related guidance from the Centers for Medicare and Medicaid Services (CMS), e.g., *Medicaid IT Supplement MITS-11-01-V1.0*, commonly referred to as the seven conditions and standards ("Seven Conditions"). The Framework must allow the Department to satisfy, to the greatest extent practical, those portions of the Seven Conditions that are system-related. The Seven Conditions are:

- Modularity Standard
- MITA Condition
- Industry Standards Condition
- Leverage Condition
- Business Results Condition
- Reporting Condition
- Interoperability Condition

1.5 Framework Attributes, and Areas of Commonality

1.5.1 Attributes

The following attributes are required in the proposed framework:

The Framework for the Solution must be consistent. A framework is not merely a random or semi-related set of utilities or generic services. Various services, tools, and data structures should use a unified design paradigm and design patterns (service calls; service arguments and return values; data types, etc.) to improve productivity and reduce defects driven by "impedance mismatches." Frameworks encourage the use of helpful design patterns, but don't force developers into deep levels of abstraction that detract from their productivity (e.g., factories of factories of factories). Database schema are normalized; data are stored in only one place within the framework and its resulting applications; and these data are accessible only by service calls to the services "owning" the data.

The Framework for the Solution must promote interoperability. The use of standards (where standards exist) and the use of well-documented information interchange specifications (where standards do not exist) assist the using organization in producing and consuming information and services that are interoperable with other systems and organizations. Frameworks should make using interoperable standards easier than creating homegrown interface solutions.

The Framework for the Solution must externalize parameters that are prone to frequent change. These include:

- Business rules
- Workflows
- Configuration, environment, and startup parameters
- Localization resources
- Security roles
- User interface elements

The Framework for the Solution must be service-oriented. The Framework should provide a discoverable service inventory containing service contracts having granularity that is neither so coarse as to result in performance and governance issues nor so fine as to result in excessive developer burden and poor reuse. Service orientation principles may be compromised to the extent necessary to meet performance standards.

The Framework for the Solution must enable functional build out by configuration rather than customization as much as is practical. This likely requires that the base functionality, as delivered, has been used and is configured to support the Medicaid and health insurance domains.

The Framework for the Solution should have a standard, domain-specific base data model. This data model should be consistent, normalized, and incorporate the common data elements used in Medicaid eligibility, enrollment, and member management. The data model must be extensible via documented processes, and must not have any proprietary restrictions on the State's use or extension of the data model.

The Framework for the Solution must encourage reuse. Areas of reuse may include:

- Intra-application. Developers on a single team should find it easy to reuse base framework services or custom services built by other team members.
- Inter-application. Developers on different teams within the same organization should find it easy to reuse base framework services to promote commonality and to discover and use services created by other application teams.
- Inter-enterprise. Developers in sister human and social services agencies and in sister states should find it easy to reuse base framework services to promote commonality and to discover and use services created by other agencies.

The Framework for the Solution must have a security architecture that supports standard security principles. These principles are:

- **Confidentiality** – prevent disclosure to unauthorized persons or systems.
- **Integrity** – data cannot be modified undetectably.

- **Availability** – access is not inappropriately blocked or denied.
- **Authenticity** – validation that the parties to a transaction are who they say they are and that their communications are genuine.
- **Non-repudiation** – parties to a transaction cannot deny their participation in the transaction.
- **Auditability** – track and log data changes including the user or system making the change. Track and log any inquires, views or access of data that may require such tracking as a result of law, policy or data use agreements including user or system making inquiry, doing the viewing or accessing the data along with the data and time of the inquiry, view or access.

The Framework for the Solution must be architecturally-rich. A framework should have a thoughtful architecture that is better than one in which an organization would normally invest for a single project. Because a framework is intended to be reusable, the framework developer must ensure that the breadth and depth of the services extend to cover the uses that can be reasonably foreseen. Other attributes of the architecture are:

- The functional and structural abstractions chosen to implement the architecture are intuitive, robust, and consistent. Confusing, frail, or inconsistent architectures can destroy using development organization productivity and induce high defect rates.
- The framework is easily extensible. Lacking extensibility, a framework is merely an incomplete software application.
- The framework supports scalable, high-performance applications.
- Security and privacy are built into the architecture as primary considerations rather than as afterthoughts.

The Framework for the Solution must enhance the productivity of the using organization. An important reason for an organization to use a framework is to improve productivity. The increase in productivity should enable an organization to deliver needed capabilities more rapidly and at a lower cost. It should also enable the organization to respond to life-cycle changes in business needs with greater agility. Frameworks enhance productivity by:

- Providing tools that assist the using organization in performing common, redundant, or complex tasks with ease.
- Providing pre-constructed features, services, and capabilities with default behavior that shorten the time from inception to deployment while allowing fine-grained control to avoid the need for workarounds.
- Being supported by a long-term maintenance concept that continues to improve the features and usability of the framework, reduces the burden of workarounds (particularly security workarounds), and minimizes "reinventing the wheel" by the using organization.
- Using self-documenting tools (e.g., maintaining the official business process diagrams in the business process management system) to avoid having to maintain business and technical design artifacts in multiple locations.

The Framework for the Solution should be multi-platform unless user or enterprise needs require targeting specific hardware/operating system platforms. As the use of specific CPUs, hardware architectures, and operating systems change rapidly, the Department prefers not to be tightly bound to a particular platform. Support for various platforms such as Windows,

z/OS, Linux, and various UNIX is desirable. In addition, the Department strongly prefers the use of products that can be run in virtualized environments while recognizing that some components may have performance needs that preclude or contraindicate the use of virtualization.

Additionally, the current migration towards mobile platforms is likely to continue for the foreseeable future. A framework should assist with and automate activities needed to optimize applications for mobile devices as well as desktop devices, including addressing touch interfaces; limited display sizes; limited bandwidth and intermittent network connectivity; limited processor capabilities; and the movement towards standards-based Web technologies, such as HTML 5.

Frameworks should minimize the number of programming languages necessary for their use, consistent with developer need and balanced against other principles. The Department has the following goals for various types of programming languages:

- General – the Department prefers using open, standards-defined programming languages to the greatest extent practical. The Department understands that there are some domains today (particularly business rules and business process management) where standards are still emerging and permeating the market.
- Object-oriented – the Department prefers the use of a single object-oriented language, that uses automated memory management, to create the majority of custom services and to extend the Framework. While it would consider other languages, the Department prefers Java.
- Procedural – the Department prefers little or no use of procedural languages (e.g., C) in the Framework.
- Declarative – the Department prefers that declarative languages (e.g., HTML) largely be limited to displaying Web-based user interfaces. Even when building user interfaces, the Department prefers to substantially limit the amount of hand-coding necessary by using graphical design and construction tools.
- Scripting – the Department prefers that scripting languages be limited to functions such as user interface code , build management, system startup, and integration with non-service based external systems. Even when performing these functions, the Department prefers to substantially limit the amount of hand-coding necessary by using graphical design and construction tools.
- Business rules – the Department prefers that business rules are represented in English-like statements that are easy to interpret by business users and business analysts. While the Department is not currently planning to allow business analysts to make changes directly to a production system, the ability for these analysts to create and interpret the business rules in the Framework's native rules language will substantially improve productivity and agility in managing business rules. Based on the Department of the market, the Department would be willing to accept rules languages that are more developer-focused.
- Business Process Management System (BPMS) – the Department prefers the use of Business Process Execution Language (BPEL) for executing managed business processes. Direct consumption of Business Process Model and Notation models (perhaps via the XML Process Definition Language format) is also acceptable. As this area is still maturing, the Department would accept other languages for BPMS process execution, particularly if they are transformable to BPEL for forward compatibility. While the

Department would like direct access to the process execution files for manipulation, including the ability to "round trip" modifications through the Integrated Development Environment, the BPMS must have graphical design and construction tools as directly coding BPEL and other related languages would likely result in substantial productivity reductions and an increase in defects.

- Database – the Department prefers the use of standards-based Structured Query Language (SQL) for database queries. Based on the use of other languages and general purpose frameworks within the Framework (e.g., Java), programming language-specific query languages may also be acceptable (either for relational or object queries). The Department discourages the use of database stored procedures or DBMS specific functionality other than in those instances where needed performance can only be obtained with such use.
- XML-based – the Department encourages the use of XML-based documents for purposes such as system configuration and messaging. The Framework should generate documents without requiring the developer to hand-code XML; however, direct access to the XML documents for manipulation is desirable, including the ability to "round trip" modifications through the Integrated Development Environment.
- Proprietary languages – while there may be specific needs for using proprietary programming languages, the Department prefers to avoid proprietary languages to the greatest extent practical.

1.5.2 Areas of Commonality

In the list below, the Department has identified the areas of commonality it expects to be supplied by the Framework or supplied by the Department to supplement the Framework. These have been identified using common product-oriented terminology, but that does not mean that each capability must be satisfied by a separate, self-contained product. While the Department has a preference for using general purpose COTS products to perform major functions (where Framework capabilities and performance are not compromised), it is not mandating that the functions of the major capabilities be supplied by general purpose COTS products nor is it mandating that the functions are even performed by standalone software services partitioned as listed below. For example, while the Department prefers the use of general purpose COTS business process management and business rules management components, it would be willing to accept an integrated business process/business rules capability as part of the Contractor's COTS suite. The Department does not intend the list of capabilities to be all-inclusive. Bidders must propose a complete suite of capabilities to comprise the Framework.

1.5.2.1 Framework Areas of Commonality

The following areas of commonality and capabilities are consistent with the State's goals for the Framework and should be addressed in system solutions:

- **Unified data source/database** – this is a capability to store/persist information using a unified data model on a common database product. The unified data source should support the use of effective time segments and a "never delete a record" approach to enable maintaining complete historical data and referential integrity.
- **Business Process Management** – this is a capability to design and execute business processes enabled by automation for the purposes of orchestration (automated execution

of a workflow) and choreography (coordinated interaction between two or more independent parties or services). While these may include steps executed synchronously, business process management tools excel at automating processes where most or all tasks are executed asynchronously, potentially over extended periods of time.

- **Business Activity Monitoring (BAM)** – this is a capability to monitor and manage business processes, transaction volumes, and quality indicators, in real time and retrospectively. This capability may include statistical analyses of the execution of the indicators being monitored.
- **Business Rules Management** – this is a capability to design and manage the business rules logic within the system and is supported by a repository for the rules.
- **Interaction Management** – this is a capability that allows an organization to manage information about and interactions with stakeholders or clients via multiple channels including easy access to historical data.
- **Case Management** – this is a capability that allows an organization to manage information and transactional activities over time relative to a specific entity.
- **Correspondence** – this is a capability to generate and manage communications with stakeholders via multiple channels, and includes the ability to generate canned, semi-custom, and custom messages.
- **Service Integration/Enterprise Service Bus** – this is a capability that allows the discovery and interaction of distributed services via synchronous and asynchronous messaging in a service-oriented architecture. Through adapters, service integration should also allow interaction with non-service based capabilities.
- **Web Portal** – this is a capability that allows for configurable Web access to backend services. While any sort of Web page could conceivably allow access, a Web portal automates the access, security, and configuration of Web access, and is configurable by not only the developers, but to a limited extent by the end users (e.g., what information is shown and where on the page is it shown).
- **Reporting/Business Intelligence** – this is a capability that allows for textual, tabular, and graphical representations of data needed to answer questions, monitor/control parameters, and make decisions and querying to gather data to fill these reports.
- **Call Center Integration** – this is a capability for the Framework (and resulting system) to integrate with common call center technology to be able to link telephone calls to records, automatically call up useful information for the call center operator, etc.
- **Integrated Development Environment** – this is a capability to develop, integrate, build, test, deploy, and control configuration of software using a unified, integrated, and coherent suite of tools.
- **Security** – while security is an attribute that should apply across the suite of capabilities in the Framework, in this particular case it is a capability to manage authentication, authorization, and access to the system, including a single sign-on capability.
- **Data Management Tools** - This is the capability of collecting, aggregating, matching, consolidating, persisting, securing and distributing data and its meta data to ensure consistency and control in the ongoing maintenance and use of the information.
- **Online Help** – this is the capability to manage, produce, and publish help files, training, and reference information that is integrated in a context-sensitive fashion with the Framework and resulting applications.

- **Document Management*** - this is a capability to store, index, and access electronic documents and images of paper documents in a structured and scalable manner. The capability may have standalone uses or be integrated into an enterprise system via documented interfaces or services.

  *Note that the State has designated and procured Hyland OnBase as the enterprise document management system. The preference would be to leverage OnBase as part of the Framework, therefore the Bidder should provide details regarding how their proposed Framework could integrate seamlessly with OnBase.

Nebraska EES Analysis

Request for Proposal Number 4544Z1

1. Summary of the Alternatives Analysis

As part of the systems strategy development process for the Medicaid Eligibility & Enrollment and Information Systems project, we considered a number of system options for delivering integrated eligibility, enrollment and case management functionality which satisfies the requirements of the ACA. The options were ultimately consolidated into four primary alternatives for comparison and evaluation purposes. Those options were:

1. Maintain Status Quo

2. Ground Up Development

3. Incremental Modernization

4. Transfer/COTS System

2. Evaluation Criteria and Results

The set of criteria that was used to evaluate these alternatives was primarily based upon the architectural principles set forth by the Centers for Medicare & Medicaid Services (CMS), which are presented and described in the following table.

Table 2-1: Description of Evaluation Criteria Used	**Description**
System Integration	Applies a modular, flexible approach to systems development, including the use of open interfaces and exposed application programming interfaces, and the separation of business rules from core programming, available in both human and machine readable formats. Ensures seamless coordination between Medicaid, DHCP, and the Exchange, and allows interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services.
Service-Oriented Architecture (SOA)	Employs common authoritative data sources and data exchange services such as but not limited to, federal and state agencies or other commercial entities.
Isolation of Business Rules	Uses standards-based business rules and a technology-neutral business rules repository. Enables the business rules to be accessible and adaptable by other states.

State of Nebraska

REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM

RETURN TO:
State Purchasing Bureau
301 Centennial Mall South, 1st Fl
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Phone: 402-471-2401
Fax: 402-471-2089

SOLICITATION NUMBER	RELEASE DATE
RFP 4468Z1	**August 16, 2013**
OPENING DATE AND TIME	PROCUREMENT CONTACT
September 24, 2013 2:00 p.m. Central Time	**Peter A. Kroll** **Robert Thompson**

This form is part of the specification package and must be signed and returned, along with proposal documents, by the opening date and time specified.

PLEASE READ CAREFULLY!

SCOPE OF SERVICE

The State of Nebraska, Administrative Services (AS), Materiel Division, Purchasing Bureau, is issuing this Request for Proposal, RFP Number 4468Z1 for the purpose of selecting a qualified contractor to provide Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services.

.

Written questions are due no later than August 30, 2013, and should be submitted via e-mail to as.materielpurchasing@nebraska.gov. Written questions may also be sent by facsimile to (402) 471-2089.

Bidder should submit one (1) original and six (6) hardcopies of the entire proposal. In the event of any inconsistencies among the proposals, the language contained in the original proposal shall govern. Proposals must be submitted by the proposal due date and time.

PROPOSALS MUST MEET THE REQUIREMENTS OUTLINED IN THIS REQUEST FOR PROPOSAL TO BE CONSIDERED VALID. PROPOSALS WILL BE REJECTED IF NOT IN COMPLIANCE WITH THESE REQUIREMENTS.

1. Sealed proposals must be received in State Purchasing by the date and time of proposal opening indicated above. No late proposals will be accepted. No electronic, e-mail, fax, voice, or telephone proposals will be accepted.
2. This form "REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES" MUST be manually signed, in ink, and returned by the proposal opening date and time along with bidder's proposal and any other requirements as specified in the Request for Proposal in order to be considered for an award.
3. It is the responsibility of the bidder to check the website for all information relevant to this solicitation to include addenda and/or amendments issued prior to the opening date. Website address is as follows: http://das.nebraska.gov/materiel/purchasing/rfp.htm
4. It is understood by the parties that in the State of Nebraska's opinion, any limitation on the contractor's liability is unconstitutional under the Nebraska State Constitution, Article XIII, Section 3, and that any limitation of liability shall not be binding on the State of Nebraska despite inclusion of such language in documents supplied with the contractor's bid or in the final contract.

BIDDER MUST COMPLETE THE FOLLOWING

By signing this Request for Proposal For Contractual Services form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions (see Section III) and certifies that bidder maintains a drug free work place environment.

FIRM: _____

COMPLETE ADDRESS: _____

TELEPHONE NUMBER: _____ FAX NUMBER: _____

SIGNATURE: _____ DATE: _____

TYPED NAME & TITLE OF SIGNER: _____

TABLE OF CONTENTS

REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM i

TABLE OF CONTENTS ii

GLOSSARY OF TERMS iv

ACRONYM LIST xi

I. SCOPE OF THE REQUEST FOR PROPOSAL 1

A. SCHEDULE OF EVENTS 1

II. PROCUREMENT PROCEDURES 2

A. PROCURING OFFICE AND CONTACT PERSON 2
B. GENERAL INFORMATION 2
C. COMMUNICATION WITH STATE STAFF 2
D. WRITTEN QUESTIONS AND ANSWERS 3
E. ORAL INTERVIEWS/PRESENTATIONS AND/OR DEMONSTRATIONS 3
F. SUBMISSION OF PROPOSALS 4
G. PROPOSAL OPENING 4
H. LATE PROPOSALS 5
I. REJECTION OF PROPOSALS 5
J. EVALUATION OF PROPOSALS 5
K. EVALUATION COMMITTEE 5
L. MANDATORY REQUIREMENTS 6
M. REFERENCE CHECKS 6
N. SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS 6
O. VIOLATION OF TERMS AND CONDITIONS 6

III. TERMS AND CONDITIONS 8

A. GENERAL 8
B. AWARD 9
C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION 9
D. PERMITS, REGULATIONS, LAWS 9
E. OWNERSHIP OF INFORMATION AND DATA 10
F. INSURANCE REQUIREMENTS 10
G. COOPERATION WITH OTHER CONTRACTORS 12
H. INDEPENDENT CONTRACTOR 12
I. CONTRACTOR RESPONSIBILITY 12
J. CONTRACTOR PERSONNEL 12
K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION 13
L. CONFLICT OF INTEREST 13
M. PROPOSAL PREPARATION COSTS 14
N. ERRORS AND OMISSIONS 14
O. BEGINNING OF WORK 14
P. ASSIGNMENT BY THE STATE 14
Q. ASSIGNMENT BY THE CONTRACTOR 14
R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL 14
S. GOVERNING LAW 15
T. ATTORNEY'S FEES 15
U. ADVERTISING 15

V. STATE PROPERTY 15
W. SITE RULES AND REGULATIONS 15
X. NOTIFICATION 15
Y. EARLY TERMINATION 16
Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS 17
AA. BREACH BY CONTRACTOR 17
BB. ASSURANCES BEFORE BREACH 17
CC. PENALTY 18
DD. FORCE MAJEURE 18
EE. PROHIBITION AGAINST ADVANCE PAYMENT 18
FF. PAYMENT 18
GG. INVOICES 19
HH. AUDIT REQUIREMENTS 19
II. TAXES 19
JJ. INSPECTION AND APPROVAL 19
KK. CHANGES IN SCOPE/CHANGE ORDERS 20
LL. SEVERABILITY 20
MM. CONFIDENTIALITY 20
NN. PROPRIETARY INFORMATION 21
OO. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING 21
PP. PRICES 21
QQ. BEST AND FINAL OFFER 22
RR. ETHICS IN PUBLIC CONTRACTING 22
SS. INDEMNIFICATION 23
TT. NEBRASKA TECHNOLOGY ACCESS STANDARDS 23
UU. ANTITRUST 24
VV. DISASTER RECOVERY/BACK UP PLAN 24
WW. TIME IS OF THE ESSENCE 24
XX. RECYCLING 24
YY. DRUG POLICY 24
ZZ. NEW EMPLOYEE WORK ELIGIBILITY STATUS 24
AAA. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY 25

IV. PROJECT DESCRIPTION AND SCOPE OF WORK 26

A. PROJECT OVERVIEW 27
B. PROJECT REQUIREMENTS 27
C. BUSINESS REQUIREMENTS 34
D. SCOPE OF WORK 35
E. EES TECHNOLOGY REVIEW 35
F. PROJECT PLANNING AND MANAGEMENT 36
G. DELIVERABLES 36
H. REPORTING REQUIREMENTS 39

V. PROPOSAL INSTRUCTIONS 40

A. TECHNICAL PROPOSAL 40
B. COST PROPOSAL REQUIREMENTS 46
C. PAYMENT SCHEDULE 46

Form A Bidder Contact Sheet 47

GLOSSARY OF TERMS

AABD (Assistance to the Aged, Blind and Disabled): Medicaid available to certain Nebraskans to assist with medical expenses. Nebraskans who are aged, blind or have a disability (as classified by the Social Security Administration) must meet established financial guidelines in order to be eligible. Some consumers in the AABD Medicaid program access services through managed care while the remaining population access care through a fee-for-service delivery system.

Acceptance Test Procedure: Benchmarks and other performance criteria, developed by the State of Nebraska or other sources of testing standards, for measuring the effectiveness of products or services and the means used for testing such performance.

ACA (Affordable Care Act): On March 23, 2010, President Obama signed into law the Patient Protection and Affordable Care Act. On March 30, 2010, the Health Care and Education Reconciliation Act of 2010 was signed into law. The two laws are collectively referred to as the Affordable Care Act (ACA). ACA is also referred to as the "health reform act" or "Patient Protection and Affordable Care Act (PPACA).

ACCESSNebraska Web Portal: The public application portal for various Nebraska public assistance benefit programs such as: Medicaid, Supplemental Nutritional Assistance Program (SNAP), Aid to Dependent Children (ADC), Aid to Aged, Blind and Disabled, Energy Assistance, Kids Connection, and Child Care Subsidy.

Addendum: Something added or deleted.

Agency: Any state agency, board, or commission other than the University of Nebraska, the Nebraska State colleges, the courts, the Legislature, or any officer or agency established by the Constitution of Nebraska.

Agent: A person authorized by a superior or organization to act on their behalf.

Amend: To alter or change by adding, subtracting, or substituting. A contract can be amended only by the parties participating in the contract. A written contract can only be amended in writing.

Amendment: Written correction or alteration.

Appropriation: Legislative authorization to expend public funds for a specific purpose. Money set apart for a specific use.

Award: All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

Best and Final Offer (BAFO): A second-stage bid in a public procurement for services.

Bid: The executed document submitted by a bidder in response to a Request for Proposal.

Bid Bond: A bond given by a surety on behalf of the bidder to ensure that the bidder will enter into the contract as bid and is retained by the State from the date of the bid opening to the date of contract signing.

Bidder: Any person or entity submitting a competitive bid response to a solicitation.

Business: Any corporation, partnership, individual, sole proprietorship, joint-stock company, joint venture, or any other private legal entity.

Business Day: Any weekday, excepting public holidays.

Calendar Day: Every day shown on the calendar; Saturdays, Sundays and State/Federal holidays included. Not to be confused with "Work Day".

Centers for Medicare & Medicaid Services (CMS): is a federal agency within the United States Department of Health and Human Services (DHHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program (CHIP), and health insurance portability standards.

CHIP (Children's Health Insurance Program): Enacted in 1997, CHIP is a federal-state program that provides health care coverage for uninsured low-income children who are not eligible for Medicaid. States have the option of administering CHIP through their Medicaid programs or through a separate program (or a combination of both). The federal government matches state spending for CHIP but federal CHIP funds are capped.

Collusion: A secret agreement or cooperation between two or more persons or entities to accomplish a fraudulent, deceitful or unlawful purpose.

Competition: The process by which two or more vendors vie to secure the business of a purchaser by offering the most favorable terms as to price, quality, delivery and/or service.

Confidential Information: Unless otherwise defined below, "Confidential Information" shall also mean proprietary trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Nebraska Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would provide.

Configure: Modification to software that does not require changes to the Source Code for such software. This includes rules-based, rules engine based, or parameter driven modification.

Contract: An agreement between two or more persons to perform a specific act or acts.

Contract Administration: The Management of various facets of contracts to assure that the contractors total performance is in accordance with the contractual commitments and obligations to the purchaser are fulfilled.

Contract Management: Includes reviewing and approving of changes, executing renewals, handling disciplinary actions, adding additional users, and any other form of action that could change the contract.

Contractor: Any person or entity that supplies goods and/or services.

Conversion Period: A period of time not to exceed six (6) months, during which the State converts to a new Operating System under "Conversion" as per this RFP.

Copyright: A grant to a writer/artist that recognizes sole authorship/creation of a work and protects the creator's interest(s) therein.

CPU: Any computer or computer system that is used by the State to store, process, or retrieve data or perform other functions using Operating Systems and applications software.

Critical Program Error: Any Program Error, whether or not known to the State, which prohibits or significantly impairs use of the Licensed Software as set forth in the documentation and intended in the contract.

Default: The omission or failure to perform a contractual duty.

Deviation: Any proposed change(s) or alteration(s) to either the contractual language or deliverables within the scope of this Request for Proposal.

Documentation: The user manuals and any other materials in any form or medium customarily provided by the contractor to the users of the Licensed Software which will provide the State with sufficient information to operate, diagnose, and maintain the Licensed Software properly, safely, and efficiently.

Evaluation Committee: A committee (or committees) appointed by the requesting agency that advises and assists the procuring office in the evaluation of proposals.

Evaluation of Proposal: The process of examining a proposal after opening to determine the bidder's responsibility, responsiveness to requirements, and to ascertain other characteristics of the proposal that relate to determination of the successful bidder.

Extension: A provision, or exercise of a provision, of a contract that allows a continuance of the contract (at the option of the State of Nebraska) for an additional time according to contract conditions. Not to be confused with "Renewals."

FOA (Funding Opportunity Announcement): A publicly available document by which a U.S. Federal agency makes known its intentions to award discretionary grants or cooperative agreements, usually as a result of competition for funds. Funding opportunity announcements may be known as program announcements, requests for applications, notices of funding availability, solicitations, or other names depending on the agency and type of program

F.O.B. Destination: Free on Board. The delivery charges have been included in the quoted price and prepaid by the vendor. Vendor is responsible for all claims associated with damages during delivery of product.

Foreign Corporation: A foreign corporation is a corporation that was formed (i.e. incorporated) in another state but transacting business in Nebraska pursuant to a certificate of authority issued by the Nebraska Secretary of State.

HIPAA (Health Insurance Portability and Accountability Act of 1996): The Standards for Security and Privacy of Individually Identifiable Health Information found in the Health Insurance Portability and Accountability Act of 1996, Public Law 104-91, as amended and related HIPAA regulations at 45 C.F.R. part 160-164, as in effect or as amended.

Installation Date: The date when the procedures described in "Installation by Contractor, and Installation by State", as found in the RFP, are completed.

Late Proposal: A proposal received at the place specified in the solicitation after the date and time designated for all proposals to be received.

Licensed Software: Any and all software and documentation by which the State acquires or is granted any rights under this contract

Local Time: Central Time in Lincoln, NE.

MAGI (Modified Adjusted Gross Income): A definition of income from the tax system that will be used to determine eligibility for certain categories of Medicaid eligibility in addition to tax credits available to people buying insurance in exchanges.

Mandatory: Required, compulsory or obligatory.

May: Denotes discretion.

MITA (Medicaid Information Technology Architecture): an initiative of the Centers for Medicare and Medicaid Services (CMS), aligned with the National Health Infrastructure Initiative (NHII), and intended to foster integrated business and information technology transformation across the Medicaid enterprise to improve the administration of the Medicaid program.

Module: A collection of routines and data structures that perform a specific function of the Licensed Software.

Must: Denotes the imperative, required, compulsory or obligatory

N-FOCUS: (Nebraska Family Online Client User System) The Department's software application used to support eligibility determinations for Nebraska Medicaid, Nebraska CHIP and various Economic Assistance Programs. This system also provides additional functionality such as case management, provider management and payment calculations.

Opening Date: Specified date and time for the public opening of received, labeled and sealed formal proposals. Not to be confused with "Release Date".

Operating System: The control program in a computer that provides the interface to the computer hardware and peripheral devices, and the usage and allocation of memory resources, processor resources, input/output resources, and security resources.

Outsourcing: Acquiring computing or related services from a source outside of the State of Nebraska which may include programming and/or executing the State's Licensed Software on the State's CPU's, programming, and/or executing the State's programs and Licensed Software on the contractor's CPU's or any mix thereof.

Outsourcing Company: A company that provides Outsourcing Services under contract to the State.

Performance Bond: A bond given by a surety on behalf of the contractor to ensure the timely and proper (in sole estimation of the State) performance of a contract.

PHI (Protected Health Information): Individually identifiable health information that is transmitted by, or maintained in, electronic media or any other form or medium. Individually identifiable health information is information that is a subset of health information, including demographic information collected from an individual, and 1) is created or received by a healthcare provider, health plan, employer, or healthcare clearinghouse; and 2) related to the past, present, or future physical or

mental health or condition of an individual; the provision of healthcare to an individual; or the past, pre-sent, or future payment for the provision of healthcare to an individual; (i) that identifies the individual; or (ii) with respect to which there is a reasonable basis to believe the information can be used to identify the individual.

PII (Personally Identifiable Information): Information: 1) that directly identifies an individual (e.g., name, address, social security number or other identifying number or code, telephone number, email, address, etc.), or 2) by which an agency intends to identify specific individuals in conjunction with other data elements, e.g., indirect identification. (These data elements may include a combination of gender, race, birth date, geographic indicator, and other descriptors.)

Platform: A specific hardware and Operating System combination that is different from other hardware and Operating System combinations to the extent that a different version of the Licensed Software product is required to execute properly in the environment established by such hardware and Operating System combination.

PPACA (Patient Protection and Affordable Care Act): See ACA: Affordable Care Act.

Pre-Proposal Conference: A meeting scheduled for the purpose of providing clarification regarding a Request for Proposal and related expectations.

Product: A module, a system, or any other software-related item provided by the contractor to the State.

Program Error: Code in Licensed Software which produces unintended results or actions, or which produces results or actions other than those described in the specifications. A program error includes, without limitation, any "Critical Program Error."

Program Set: The group of programs and products, including the Licensed Software specified in the RFP, plus any additional programs and products licensed by the State under this contract for use by the State.

Project: The total of all software, documentation, and services to be provided by the contractor under this contract.

Proposal: The executed document submitted by a bidder in response to a Request for Proposal.

Proprietary Information: Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive.

Protest: A complaint about a governmental action or decision related to a Request for Proposal or the resultant contract, brought by a prospective bidder, a bidder, a contractor, or other interested party to AS Materiel Division or another designated agency with the intention of achieving a remedial result.

Public Proposal Opening: The process of opening proposals, conducted at the time and place specified in the Request for Proposal, and in the presence of anyone who wishes to attend.

Recommended Hardware Configuration: The data processing hardware (including all terminals, auxiliary storage, communication, and other peripheral devices) to the extent utilized by the State as

recommended by the contractor.

Release Date: Date of release of the Request for Proposal to the public for submission of proposal responses. Not to be confused with "Opening Date".

Renewal: Continuance of a contract for an additional term after a formal signing by the parties.

Representative: Includes an agent, an officer of a corporation or association, a trustee, executor or administrator of an estate, or any other person legally empowered to act for another.

Request for Proposal (RFP): All documents, whether attached or incorporated by reference, utilized for soliciting competitive proposals.

Responsible Bidder: A bidder who has the capability in all respects to perform fully all requirements with integrity and reliability to assure good faith performance.

Responsive Bidder: A bidder who has submitted a bid which conforms in all respects to the solicitation document.

Seven Standards and Conditions for Enhanced Funding: The Centers for Medicare & Medicaid Services (CMS) issued standards and conditions that must be met by the states in order for Medicaid technology investments (including traditional claims processing systems, as well as eligibility systems) to be eligible for enhanced match funding.

Shall: Denotes the imperative, required, compulsory or obligatory.

Should: Indicates an expectation.

SOA (Service Oriented Architecture): A set of principles and methodologies for designing and developing software in the form of interoperable services. These services are well-defined business functionalities that are built as software components (discrete pieces of code and/or data structures) that can be reused for different purposes. SOA design principles are used during the phases of systems development and integration.

Solicitation: The process of notifying prospective bidders or offerors that the State of Nebraska wishes to receive proposals for furnishing services. The process may consist of public advertising, posting notices, or mailing Request for Proposals and/or Request for Proposal announcement letter to prospective bidders, or all of these.

Solicitation Document: Request for Proposal.

Specifications: The information provided by or on behalf of the contractor that fully describes the capabilities and functionality of the Licensed Software as set forth in any material provided by the contractor, including the documentation and User's Manuals described herein.

System: Any collection or aggregation of two (2) or more Modules that is designed to function, or is represented by the contractor as functioning or being capable of functioning as an entity.

Termination: Occurs when either party pursuant to a power created by agreement or law puts an end to the contract. All obligations which are still executory on both sides are discharged but any right based on prior breach or performance survives.

Trademark: A distinguishing sign, symbol, mark, word, or arrangement of words in the form of a label

or other indication, that is adopted and used by a manufacturer or distributor to designate its particular goods and which no other person has the legal right to use.

Trade Secret: Information, including, but not limited to, a drawing, formula, pattern, compilation, program, device, method, technique, code, or process that; (a) derives independent economic value, actual or potential, from not being known to, and not being ascertainable by proper means, other persons who can obtain economic value from its disclosure or use; and (b) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy (see Neb. Rev. Stat. §87-502(4)).

Upgrade: Any improvement or change in the Software that improves or alters its basic function.

Vendor: An actual or potential contractor; a contractor

Will: Denotes the imperative, required, compulsory or obligatory.

ACRONYM LIST

AABD	Assistance to the Aged, Blind and Disabled
ACA	Affordable Care Act
ADC	Aid to Dependent Children
ARRA	American Recovery and Reinvestment Act of 2009
CCIIO	Center for Consumer Information and Insurance Oversight
CFR	Code of Federal Regulation
CHIP	Children's Health Insurance Program
CMMI	Capability Maturity Model Integration
CMS	Centers for Medicare & Medicaid Services
DDI	Design, Develop and Implement
DED	Deliverables Expectation Document
EDI	Electronic Data Interchange
EES	Eligibility and Enrollment Solution
FPL	Federal Poverty Level
FFM	Federal Financial Management
FFP	Federal Financial Participation
FOA	Funding Opportunity Announcement
DHHS	Nebraska Department of Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act
IEEE	Institute of Electrical and Electronic Engineers
IS&T	Information Systems and Technology Division
IV&V	Independent Verification and Validation
JAD	Joint Application Development
MAGI	Modified Adjusted Gross Income
MITA	Medicaid Information Technology Architecture
MLTC	Division of Medicaid and Long-Term Care
MMIS	Medicaid Management Information Systems
NE	Nebraska
N-FOCUS	Nebraska Family Online Client User System
O-CIO	Office of the CIO
PHI	Protected Health Information
PII	Personally Identifiable Information
PMI	Project Management Institute
PMBOK	Project Management Book of Knowledge
PMP	Project Management Plan
PPACA	Patient Protection and Affordable Care Act
RFP	Request for Proposal
RTM	Requirements Traceability Matrix
SDLC	Software Development Life Cycle
SHOP	Small Business Health Options Plan
SOA	Service Oriented Architecture
WBS	Work Breakdown Structure

I. SCOPE OF THE REQUEST FOR PROPOSAL

The State of Nebraska, Administrative Services (AS), Materiel Division, Purchasing Bureau, is issuing this Request for Proposal, RFP Number 4468Z1 for the purpose of selecting a qualified contractor to provide Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services.

The IV&V contractor awarded the IV&V contract for the EES project, their subcontractor(s) and vendor(s) are precluded from submitting an EES proposal, assisting another company in making a proposal, or otherwise materially participating in any subsequent contract related to the EES project.

A contract resulting from this Request for Proposal will be issued from the date of the award through December 31, 2015, with the option to renew for one (1) additional six-month period as mutually agreed upon by all parties.

ALL INFORMATION PERTINENT TO THIS REQUEST FOR PROPOSAL CAN BE FOUND ON THE INTERNET AT**:** http://www.das.state.ne.us/materiel/purchasing/rfp.htm

A. SCHEDULE OF EVENTS

The State expects to adhere to the tentative procurement schedule shown below. It should be noted, however, that some dates are approximate and subject to change.

	ACTIVITY	DATE/TIME
1.	Release Request for Proposal	August 16, 2013
2.	Last day to submit written questions	August 30, 2013
3.	State responds to written questions through Request for Proposal "Addendum" and/or "Amendment" to be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm	September 6, 2013
4.	Proposal opening Location: Nebraska State Office Building State Purchasing Bureau 301 Centennial Mall South, Mall Level Lincoln, NE 68508	September 24, 2013 2:00 PM Central Time
5.	Review for conformance of mandatory requirements	September 24, 2013
6.	Evaluation period	September 25, 2013 To October 11, 2013
7.	"Oral Interviews/Presentations and/or Demonstrations" (if required)	October 11, 2013 To November 1, 2013
8.	Post "Letter of Intent to Contract" to Internet at: http://www.as.materielpurchasing@nebraska.gov/rfp.htm	November 4, 2013
9.	Performance bond submission	November 11, 2013
10.	Contract award	November 11, 2013
11.	Contractor start date	November 15, 2013

II. PROCUREMENT PROCEDURES

A. PROCURING OFFICE AND CONTACT PERSON

Procurement responsibilities related to this Request for Proposal reside with the State Purchasing Bureau. The point of contact for the procurement is as follows:

Name: Peter Kroll/Robert Thompson
Agency: State Purchasing Bureau
Address: 301 Centennial Mall South, Mall Level
Lincoln, NE 68508

OR

Address: P.O. Box 94847
Lincoln, NE 68509
Telephone: 402-471-2401
Facsimile: 402-471-2089
E-Mail: as.materielpurchasing@nebraska.gov

B. GENERAL INFORMATION

The Request for Proposal is designed to solicit proposals from qualified vendors who will be responsible for providing Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services at a competitive and reasonable cost. Proposals that do not conform to the mandatory items as indicated in the Request for Proposal will not be considered.

Proposals shall conform to all instructions, conditions, and requirements included in the Request for Proposal. Prospective bidders are expected to carefully examine all documentation, schedules and requirements stipulated in this Request for Proposal, and respond to each requirement in the format prescribed.

A fixed-price contract will be awarded as a result of this proposal. In addition to the provisions of this Request for Proposal and the awarded proposal, which shall be incorporated by reference in the contract, any additional clauses or provisions required by the terms and conditions will be included as an amendment to the contract.

C. COMMUNICATION WITH STATE STAFF

From the date the Request for Proposal is issued until a determination is announced regarding the selection of the contractor, contact regarding this project between potential contractors and individuals employed by the State is restricted to only written communication with the staff designated above as the point of contact for this Request for Proposal.

Once a contractor is preliminarily selected, as documented in the intent to contract, that contractor is restricted from communicating with State staff until a contract is signed. Violation of this condition may be considered sufficient cause to reject a contractor's proposal and/or selection irrespective of any other condition.

The following exceptions to these restrictions are permitted:

1. written communication with the person(s) designated as the point(s) of contact for this Request for Proposal or procurement;
2. contacts made pursuant to any pre-existing contracts or obligations; and

3. state-requested presentations, key personnel interviews, clarification sessions or discussions to finalize a contract.

Violations of these conditions may be considered sufficient cause to reject a bidder's proposal and/or selection irrespective of any other condition. No individual member of the State, employee of the State, or member of the Evaluation Committee is empowered to make binding statements regarding this Request for Proposal. The buyer will issue any clarifications or opinions regarding this Request for Proposal in writing.

D. WRITTEN QUESTIONS AND ANSWERS

Any explanation desired by a bidder regarding the meaning or interpretation of any Request for Proposal provision must be submitted in writing to the State Purchasing Bureau and clearly marked "RFP Number 4468Z1; Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services Questions". It is preferred that questions be sent via e-mail to as.materielpurchasing@nebraska.gov Questions may also be sent by facsimile to 402-471-2089, but must include a cover sheet clearly indicating that the transmission is to the attention of Buyer, showing the total number of pages transmitted, and clearly marked "RFP Number 4468Z1; Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services Questions".

It is recommended that Bidders submit questions sequentially numbered, include the RFP reference and page number using the following format:

Question Number	RFP Section Reference	RFP Page Number	Question

Written answers will be provided through an addendum to be posted on the Internet at http://das.nebraska.gov/materiel/purchasing/rfp.htm on or before the date shown in the Schedule of Events.

E. ORAL INTERVIEWS/PRESENTATIONS AND/OR DEMONSTRATIONS

The Evaluation Committee(s) may conclude after the completion of the Technical and Cost Proposal evaluation that oral interviews/presentations and/or demonstrations are required in order to determine the successful bidder. All bidders may not have an opportunity to interview/present and/or give demonstrations; the State reserves the right to select only the top scoring bidders to present/give oral interviews in its sole discretion. The scores from the oral interviews/presentations and/or demonstrations will be added to the scores from the Technical and Cost Proposals. The presentation process will allow the bidders to demonstrate their proposal offering, explaining and/or clarifying any unusual or significant elements related to their proposals. Bidders' key personnel will be requested to participate in a structured interview to determine their understanding of the requirements of this proposal, their authority and reporting relationships within their firm, and their management style and philosophy. Bidders shall not be allowed to alter or amend their proposals. Only representatives of the State and the presenting bidders will be permitted to attend the oral interviews/presentations and/or demonstrations.

Once the oral interviews/presentations and/or demonstrations have been completed the State reserves the right to make a contract award without any further discussion with the bidders regarding the proposals received.

Detailed notes of oral interviews/presentations and/or demonstrations may be recorded and supplemental information (such as briefing charts, et cetera) may be accepted; however, such supplemental information shall not be considered an amendment to a bidders' proposal.

Additional written information gathered in this manner shall not constitute replacement of proposal contents.

Any cost incidental to the oral interviews/presentations and/or demonstrations shall be borne entirely by the bidder and will not be compensated by the State.

F. SUBMISSION OF PROPOSALS

The following describes the requirements related to proposal submission, proposal handling and review by the State.

To facilitate the proposal evaluation process, one (1) original, clearly identified as such, and six (6) hardcopies of the entire proposal should be submitted. The copy marked "original" shall take precedence over any other copies, should there be a discrepancy. Proposals must be submitted by the proposal due date and time. A separate sheet must be provided that clearly states which sections have been submitted as proprietary or have copyrighted materials. All proprietary information the bidder wishes the State to withhold must be submitted in accordance with the instructions outlined in Section III, Proprietary Information. Proposal responses should include the completed Form A, Bidder Contact Sheet. Proposals must reference the request for proposal number and be sent to the specified address. Container(s) utilized for original documents should be clearly marked "ORIGINAL DOCUMENTS". Please note that the address label should appear in Section II part A as specified on the face of each container or bidder's bid response packet. Rejected late proposals will be returned to the bidder unopened, if requested, at bidder's expense. If a recipient phone number is required for delivery purposes, 402-471-2089 should be used. The request for proposal number must be included in all correspondence.

Emphasis should be concentrated on conformance to the Request for Proposal instructions, responsiveness to requirements, completeness and clarity of content. If the bidder's proposal is presented in such a fashion that makes evaluation difficult or overly time consuming, it is likely that points will be lost in the evaluation process. Elaborate and lengthy proposals are neither necessary nor desired.

The Technical and Cost Proposals should be packaged separately (loose-leaf binders are preferred) on standard 8 ½" by 11" paper, except that charts, diagrams and the like may be on fold-outs which, when folded, fit into the 8 ½" by 11" format. Pages may be consecutively numbered for the entire proposal, or may be numbered consecutively within sections. Figures and tables must be numbered and referenced in the text by that number. They should be placed as close as possible to the referencing text. The Technical Proposal must not contain any reference to dollar amounts. However, information such as data concerning labor hours and categories, materials, subcontracts and so forth, shall be considered in the Technical Proposal so that the bidder's understanding of the scope of work may be evaluated. The Technical Proposal shall disclose the bidder's technical approach in as much detail as possible, including, but not limited to, the information required by the Technical Proposal instructions.

G. PROPOSAL OPENING

The sealed proposals will be publicly opened and the bidding entities announced on the date, time and location shown in the Schedule of Events. Proposals will be available for viewing by those present after the proposal opening. Vendors may also contact the State to schedule an appointment for viewing proposals after the opening date.

H. LATE PROPOSALS

Proposals received after the time and date of the proposal opening will be considered late proposals. Rejected late proposals will be returned to the bidder unopened, if requested, at bidder's expense. The State is not responsible for proposals that are late or lost due to mail service inadequacies, traffic or any other reason(s).

I. REJECTION OF PROPOSALS

The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

J. EVALUATION OF PROPOSALS

All responses to this Request for Proposal which fulfill all mandatory requirements will be evaluated. Each category will have a maximum possible point potential. The State will conduct a fair, impartial and comprehensive evaluation of all proposals in accordance with the criteria set forth below. Areas that will be addressed and scored during the evaluation include:

1. Executive Summary;
2. Corporate Overview shall include but is not limited to;

- **a.** the ability, capacity and skill of the bidder to deliver and implement the system or project that meets the requirements of the Request for Proposal;
- **b.** the character, integrity, reputation, judgment, experience and efficiency of the bidder;
- **c.** whether the bidder can perform the contract within the specified time frame;
- **d.** the quality of bidder performance on prior contracts;
- **e.** such other information that may be secured and that has a bearing on the decision to award the contract;

3. Technical Approach

- **a.** Program Management/IV&V Project Plan
- **b.** Deliverables Review and Acceptance
- **c.** Quality Assurance
- **d.** Contract Compliance

4. Cost Proposal.

Evaluation criteria will become public information at the time of the Request for Proposal opening. Evaluation criteria and a list of respondents will be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm. Evaluation criteria will not be released prior to the proposal opening.

K. EVALUATION COMMITTEE

Proposals will be independently evaluated by members of the Evaluation Committee(s). The committee(s) will consist of staff with the appropriate expertise to conduct such proposal evaluations. Names of the members of the Evaluation Committee(s) will not become public information.

Prior to award, bidders are advised that only the point of contact indicated on the front cover of this Request For Proposal For Contractual Services Form can clarify issues or render any

opinion regarding this Request for Proposal. No individual member of the State, employee of the State or member of the Evaluation Committee(s) is empowered to make binding statements regarding this Request for Proposal.

L. MANDATORY REQUIREMENTS

The proposals will first be examined to determine if all mandatory requirements listed below have been addressed to warrant further evaluation. Proposals not meeting mandatory requirements will be excluded from further evaluation. The mandatory requirement items are as follows:

1. signed Request For Proposal For Contractual Services form in ink;
2. Executive Summary;
3. Corporate Overview;
4. Technical Approach; and
5. Cost Proposal.

M. REFERENCE CHECKS

The State reserves the right to check any reference(s), regardless of the source of the reference information, including but not limited to, those that are identified by the company in the proposal, those indicated through the explicitly specified contacts, those that are identified during the review of the proposal, or those that result from communication with other entities involved with similar projects.

Information to be requested and evaluated from references may include, but is not limited to, some or all of the following: project description and background, job performed, functional and technical abilities, communication skills and timeliness, cost and schedule estimates and accuracy, problems (poor quality deliverables, contract disputes, work stoppages, et cetera), overall performance, and whether or not the reference would rehire the firm or individual. Only top scoring bidders may receive reference checks and negative references may eliminate bidders from consideration for award.

N. SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS

All bidders shall be authorized to transact business in the State of Nebraska. All bidders are expected to comply with all Nebraska Secretary of State registration requirements. It is the responsibility of the bidder to comply with any registration requirements pertaining to types of business entities (e.g. person, partnership, foreign or domestic limited liability company, association, or foreign or domestic corporation or other type of business entity). The Bidder who is the recipient of an Intent to Award will be required to certify that it has so complied and produce a true and exact copy of its current (within 90 days), valid Certificate of Good Standing or Letter of Good Standing; or in the case registration is not required, to provide, in writing, the reason as to why none is required. This must be accomplished prior to the award of the contract. Construction contractors are expected to meet all applicable requirements of the Nebraska Contractor Registration Act and provide a current, valid certificate of registration. Further, all bidders shall comply with any and all other applicable Nebraska statutes regarding transacting business in the State of Nebraska. Bidders should submit the above certification(s) with their bid.

O. VIOLATION OF TERMS AND CONDITIONS

Violation of the terms and conditions contained in this Request for Proposal or any resultant contract, at any time before or after the award, shall be grounds for action by the State which may include, but is not limited to, the following:

1. rejection of a bidder's proposal;

2. suspension of the bidder from further bidding with the State for the period of time relative to the seriousness of the violation, such period to be within the sole discretion of the State.

III. TERMS AND CONDITIONS

By signing the "Request For Proposal For Contractual Services" form, the Bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions and certifies bidder maintains a drug free work place environment.

Bidders are expected to closely read the Terms and Conditions and provide a binding signature of intent to comply with the Terms and Conditions; provided, however, a bidder may indicate any exceptions to the Terms and Conditions by (1) clearly identifying the term or condition by subsection, (2) including an explanation for the bidder's inability to comply with such term or condition which includes a statement recommending terms and conditions the bidder would find acceptable. Rejection in whole or in part of the Terms and Conditions may be cause for rejection of a bidder's proposal.

The Contractor awarded the IV&V contract for the EES project, their subcontractor(s) and vendor(s) are precluded from submitting an EES proposal, assisting another company in making a proposal, or otherwise materially participating in any subsequent contract related to the EES project.

A. GENERAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract resulting from this Request for Proposal shall incorporate the following documents:

1. Amendment to Contract Award with the most recent dated amendment having the highest priority;
2. Contract Award and any attached Addenda;
3. The signed Request for Proposal form and the Contractor's Proposal;
4. Amendments to RFP and any Questions and Answers; and
5. The original RFP document and any Addenda.

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to Contract Award with the most recent dated amendment having the highest priority, 2) Contract Award and any attached Addenda, 3) the signed Request for Proposal form and the Contractor's Proposal, 4) Amendments to RFP and any Questions and Answers, 5) the original RFP document and any Addenda.

Any ambiguity in any provision of this contract which shall be discovered after its execution shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

Once proposals are opened they become the property of the State of Nebraska and will not be returned.

B. AWARD

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part, and at its discretion, may withdraw or amend the Request for Proposal at any time. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State. The Request for Proposal does not commit the State to award a contract. If, in the opinion of the State, revisions or amendments will require substantive changes in proposals, the due date may be extended.

By submitting a proposal in response to this Request for Proposal, the bidder grants to the State the right to contact or arrange a visit in person with any or all of the bidder's clients.

Once an intent to award decision has been determined, it will be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm

Grievance and protest procedure is available on the Internet at: http://www.das.state.ne.us/materiel/purchasing/agencyservicesprocurementmanual/ProtestGrievanceProcedureForServices.doc

Any protests must be filed by a vendor within ten (10) calendar days after the intent to award decision is posted to the Internet.

C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall comply with all applicable local, State and Federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits contractors of the State of Nebraska, and their subcontractors, from discriminating against any employee or applicant for employment, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin (Neb. Rev. Stat. §48-1101 to 48-1125). The contractor guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this Request for Proposal.

D. PERMITS, REGULATIONS, LAWS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall procure and pay for all permits, licenses and approvals necessary for the execution of the contract. The contractor shall comply with all applicable local, state, and federal laws, ordinances, rules, orders and regulations.

E. OWNERSHIP OF INFORMATION AND DATA

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State of Nebraska shall have the unlimited right to publish, duplicate, use and disclose all information and data developed or derived by the contractor pursuant to this contract.

The contractor must guarantee that it has the full legal right to the materials, supplies, equipment, and other rights or titles (e.g. rights to licenses transfer or assign deliverables) necessary to execute this contract. The contract price shall, without exception, include compensation for all royalties and costs arising from patents, trademarks and copyrights that are in any way involved in the contract. It shall be the responsibility of the contractor to pay for all royalties and costs, and the State must be held harmless from any such claims.

F. INSURANCE REQUIREMENTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall not commence work under this contract until he or she has obtained all the insurance required hereunder and such insurance has been approved by the State. If contractor will be utilizing any subcontractors, the contractor is responsible for obtaining the certificate(s) of insurance required herein under from any and all subcontractor(s). Contractor is also responsible for ensuring subcontractor(s) maintain the insurance required until completion of the contract requirements. The contractor shall not allow any subcontractor to commence work on his or her subcontract until all similar insurance required of the subcontractor has been obtained and approved by the contractor. Approval of the insurance by the State shall not limit, relieve or decrease the liability of the contractor hereunder.

If by the terms of any insurance a mandatory deductible is required, or if the contractor elects to increase the mandatory deductible amount, the contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

1. WORKERS' COMPENSATION INSURANCE

The contractor shall take out and maintain during the life of this contract the statutory Workers' Compensation and Employer's Liability Insurance for all of the contactors' employees to be engaged in work on the project under this contract and, in case any such work is sublet, the contractor shall require the subcontractor similarly to provide Worker's Compensation and Employer's Liability Insurance for all of the subcontractor's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the state in which the work is to be performed, including Occupational Disease. This policy shall include a waiver of subrogation in favor of the State. The amounts of such insurance shall not be less than the limits stated hereinafter.

2. COMMERCIAL GENERAL LIABILITY INSURANCE AND COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The contractor shall take out and maintain during the life of this contract such Commercial General Liability Insurance and Commercial Automobile Liability Insurance as shall protect contractor and any subcontractor performing work covered by this contract from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this contract, whether such operation be by the contractor or by any subcontractor or by anyone

directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than limits stated hereinafter.

The Commercial General Liability Insurance shall be written on an occurrence basis, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury and Contractual Liability coverage. The policy shall include the State, and others as required by the contract documents, as an Additional Insured. This policy shall be primary, and any insurance or self-insurance carried by the State shall be considered excess and non-contributory. The Commercial Automobile Liability Insurance shall be written to cover all Owned, Non-owned and Hired vehicles.

3. INSURANCE COVERAGE AMOUNTS REQUIRED

a. WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY

Coverage A	Statutory
Coverage B	
Bodily Injury by Accident	$100,000 each accident
Bodily Injury by Disease	$500,000 policy limit
Bodily Injury by Disease	$100,000 each employee

b. COMMERCIAL GENERAL LIABILITY

General Aggregate	$2,000,000
Products/Completed Operations Aggregate	$2,000,000
Personal/Advertising Injury	$1,000,000 any one person
Bodily Injury/Property Damage	$1,000,000 per occurrence
Fire Damage	$50,000 any one fire
Medical Payments	$5,000 any one person

c. COMMERCIAL AUTOMOBILE LIABILITY

Bodily Injury/Property Damage	$1,000,000 combined single limit

d. UMBRELLA/EXCESS LIABILITY

Over Primary Insurance	$1,000,000 per occurrence

4. EVIDENCE OF COVERAGE

The Contractor should furnish the State, with their proposal response, a certificate of insurance coverage complying with the above requirements, which shall be submitted to the Buyer, Administrative Services, State Purchasing Bureau, 301 Centennial Mall S, 1st Fl., Lincoln, NE 68508 (facsimile 402-471-2089). These certificates or the cover sheet shall reference the RFP number, and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration and amounts and types of coverage afforded. If the State is damaged by the failure of the contractor to maintain such insurance, then the contractor shall be responsible for all reasonable costs properly attributable thereto.

Notice of cancellation of any required insurance policy must be submitted to Buyer, Administrative Services, State Purchasing Bureau, 301 Centennial Mall S, 1st Fl, Lincoln, NE 68508 (facsimile 402-471-2089 when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

G. COOPERATION WITH OTHER CONTRACTORS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may already have in place or choose to award supplemental contracts for work related to this Request for Proposal, or any portion thereof.

1. The State reserves the right to award the contract jointly between two or more potential contractors, if such an arrangement is in the best interest of the State.
2. The contractor shall agree to cooperate with such other contractors, and shall not commit or permit any act which may interfere with the performance of work by any other contractor.

H. INDEPENDENT CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

It is agreed that nothing contained herein is intended or should be construed in any manner as creating or establishing the relationship of partners between the parties hereto. The contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under the contract. The contractor's employees and other persons engaged in work or services required by the contractor under the contract shall have no contractual relationship with the State; they shall not be considered employees of the State.

All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination against the contractor, its officers or its agents) shall in no way be the responsibility of the State. The contractor will hold the State harmless from any and all such claims. Such personnel or other persons shall not require nor be entitled to any compensation, rights or benefits from the State including without limit, tenure rights, medical and hospital care, sick and vacation leave, severance pay or retirement benefits.

I. CONTRACTOR RESPONSIBILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor is solely responsible for fulfilling the contract, with responsibility for all services offered and products to be delivered as stated in the Request for Proposal, the contractor's proposal, and the resulting contract. The contractor shall be the sole point of contact regarding all contractual matters.

If the contractor intends to utilize any subcontractors' services, the subcontractors' level of effort, tasks and time allocation must be clearly defined in the contractor's proposal. The contractor shall agree that it will not utilize any subcontractors not specifically included in its proposal, in the performance of the contract, without the prior written authorization of the State. Following execution of the contract, the contractor shall proceed diligently with all services and shall perform such services with qualified personnel in accordance with the contract.

J. CONTRACTOR PERSONNEL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor warrants that all persons assigned to the project shall be employees of the contractor or specified subcontractors, and shall be fully qualified to perform the work required

herein. Personnel employed by the contractor to fulfill the terms of the contract shall remain under the sole direction and control of the contractor. The contractor shall include a similar provision in any contract with any subcontractor selected to perform work on the project.

Personnel commitments made in the contractor's proposal shall not be changed without the prior written approval of the State. Replacement of key personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

The State reserves the right to require the contractor to reassign or remove from the project any contractor or subcontractor employee.

In respect to its employees, the contractor agrees to be responsible for the following:

1. any and all employment taxes and/or other payroll withholding;
2. any and all vehicles used by the contractor's employees, including all insurance required by state law;
3. damages incurred by contractor's employees within the scope of their duties under the contract;
4. maintaining workers' compensation and health insurance and submitting any reports on such insurance to the extent required by governing State law; and
5. determining the hours to be worked and the duties to be performed by the contractor's employees.

Notice of cancellation of any required insurance policy must be submitted to the State when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall not, at any time, recruit or employ any State employee or agent who has worked on the Request for Proposal or project, or who had any influence on decisions affecting the Request for Proposal or project.

L. CONFLICT OF INTEREST

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

By submitting a proposal, bidder certifies that there does not now exist any relationship between the bidder and any person or entity which is or gives the appearance of a conflict of interest related to this Request for Proposal or project.

The bidder certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its services hereunder or which creates an actual or appearance of conflict of interest.

The bidder certifies that it will not employ any individual known by bidder to have a conflict of interest.

M. PROPOSAL PREPARATION COSTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State shall not incur any liability for any costs incurred by bidders in replying to this Request for Proposal, in the demonstrations, or oral presentations, or in any other activity related to bidding on this Request for Proposal.

N. ERRORS AND OMISSIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The bidder shall not take advantage of any errors and/or omissions in this Request for Proposal or resulting contract. The bidder must promptly notify the State of any errors and/or omissions that are discovered.

O. BEGINNING OF WORK

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The bidder shall not commence any billable work until a valid contract has been fully executed by the State and the successful contractor. The contractor will be notified in writing when work may begin.

P. ASSIGNMENT BY THE STATE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State shall have the right to assign or transfer the contract or any of its interests herein to any agency, board, commission, or political subdivision of the State of Nebraska. There shall be no charge to the State for any assignment hereunder.

Q. ASSIGNMENT BY THE CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor may not assign, voluntarily or involuntarily, the contract or any of its rights or obligations hereunder (including without limitation rights and duties of performance) to any third party, without the prior written consent of the State, which will not be unreasonably withheld.

R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The requirements contained in the Request for Proposal become a part of the terms and conditions of the contract resulting from this Request for Proposal. Any deviations from the Request for Proposal must be clearly defined by the bidder in its proposal and, if accepted by the State, will become part of the contract. Any specifically defined deviations must not be in conflict with the basic nature of the Request for Proposal or mandatory requirements. “Deviation”, for the purposes of this RFP, means any proposed changes or alterations to either the contractual language or deliverables within the scope of this RFP. The State discourages deviations and reserves the right to reject proposed deviations.

S. GOVERNING LAW

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract shall be governed in all respects by the laws and statutes of the State of Nebraska. Any legal proceedings against the State of Nebraska regarding this Request for Proposal or any resultant contract shall be brought in the State of Nebraska administrative or judicial forums as defined by State law. The contractor must be in compliance with all Nebraska statutory and regulatory law.

T. ATTORNEY'S FEES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

In the event of any litigation, appeal or other legal action to enforce any provision of the contract, the contractor agrees to pay all expenses of such action, as permitted by law, including attorney's fees and costs, if the State is the prevailing party.

U. ADVERTISING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor agrees not to refer to the contract award in advertising in such a manner as to state or imply that the company or its services are endorsed or preferred by the State. News releases pertaining to the project shall not be issued without prior written approval from the State.

V. STATE PROPERTY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall be responsible for the proper care and custody of any State-owned property which is furnished for the contractor's use during the performance of the contract. The contractor shall reimburse the State for any loss or damage of such property, normal wear and tear is expected.

W. SITE RULES AND REGULATIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall use its best efforts to ensure that its employees, agents and subcontractors comply with site rules and regulations while on State premises. If the contractor must perform on-site work outside of the daily operational hours set forth by the State, it must make arrangements with the State to ensure access to the facility and the equipment has been arranged. No additional payment will be made by the State on the basis of lack of access, unless the State fails to provide access as agreed to between the State and the contractor.

X. NOTIFICATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

During the bid process, all communication between the State and a bidder shall be between the bidder’s representative clearly noted in its proposal and the buyer noted in Section II, A. Procuring Office and Contact Person of this RFP. After the award of the contract, all notices under the contract shall be deemed duly given upon delivery to the staff designated as the

point of contact for this Request for Proposal, in person, or upon delivery by U.S. Mail, facsimile, or e-mail. Each bidder should provide in its proposal the name, title and complete address of its designee to receive notices.

1. Except as otherwise expressly specified herein, all notices, requests or other communications shall be in writing and shall be deemed to have been given if delivered personally or mailed, by U.S. Mail, postage prepaid, return receipt requested, to the parties at their respective addresses set forth above, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or three (3) days following deposit in the mail.

2. Whenever the contractor encounters any difficulty which is delaying or threatens to delay its timely performance under the contract, the contractor shall immediately give notice thereof in writing to the State reciting all relevant information with respect thereto. Such notice shall not in any way constitute a basis for an extension of the delivery schedule or be construed as a waiver by the State of any of its rights or remedies to which it is entitled by law or equity or pursuant to the provisions of the contract. Failure to give such notice, however, may be grounds for denial of any request for an extension of the delivery schedule because of such delay.

Either party may change its address for notification purposes by giving notice of the change, and setting forth the new address and an effective date.

For the duration of the contract, all communication between contractor and the State regarding the contract shall take place between the contractor and individuals specified by the State in writing. Communication about the contract between contractor and individuals not designated as points of contact by the State is strictly forbidden.

Y. EARLY TERMINATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract may be terminated as follows:

1. The State and the contractor, by mutual written agreement, may terminate the contract at any time.

2. The State, in its sole discretion, may terminate the contract for any reason upon 30 days written notice to the contractor. Such termination shall not relieve the contractor of warranty or other service obligations incurred under the terms of the contract. In the event of cancellation the contractor shall be entitled to payment, determined on a pro rata basis, for products or services satisfactorily performed or provided.

3. The State may terminate the contract immediately for the following reasons:

- **a.** if directed to do so by statute;
- **b.** contractor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;
- **c.** a trustee or receiver of the contractor or of any substantial part of the contractor's assets has been appointed by a court;

d. fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its contractor, its employees, officers, directors or shareholders;

e. an involuntary proceeding has been commenced by any party against the contractor under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) days; or (ii) the contractor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the contractor has been decreed or adjudged a debtor;

f. a voluntary petition has been filed by the contractor under any of the chapters of Title 11 of the United States Code;

g. contractor intentionally discloses confidential information;

h. contractor has or announces it will discontinue support of the deliverable;

i. second or subsequent documented "vendor performance report" form deemed acceptable by the State Purchasing Bureau.

Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may terminate the contract, in whole or in part, in the event funding is no longer available. The State's obligation to pay amounts due for fiscal years following the current fiscal year is contingent upon legislative appropriation of funds for the contract. Should said funds not be appropriated, the State may terminate the contract with respect to those payments for the fiscal years for which such funds are not appropriated. The State will give the contractor written notice thirty (30) days prior to the effective date of any termination, and advise the contractor of the location (address and room number) of any related equipment. All obligations of the State to make payments after the termination date will cease and all interest of the State in any related equipment will terminate. The contractor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date. In no event shall the contractor be paid for a loss of anticipated profit.

AA. BREACH BY CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may terminate the contract, in whole or in part, if the contractor fails to perform its obligations under the contract in a timely and proper manner. The State may, by providing a written notice of default to the contractor, allow the contractor to cure a failure or breach of contract within a period of thirty (30) days (or longer at State's discretion considering the gravity and nature of the default). Said notice shall be delivered by Certified Mail, Return Receipt Requested or in person with proof of delivery. Allowing the contractor time to cure a failure or breach of contract does not waive the State's right to immediately terminate the contract for the same or different contract breach which may occur at a different time. In case of default of the contractor, the State may contract the service from other sources and hold the contractor responsible for any excess cost occasioned thereby.

BB. ASSURANCES BEFORE BREACH

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

If any document or deliverable required pursuant to the contract does not fulfill the requirements of the Request for Proposal/resulting contract, upon written notice from the State, the contractor shall deliver assurances in the form of additional contractor resources at

no additional cost to the project in order to complete the deliverable, and to ensure that other project schedules will not be adversely affected.

CC. PENALTY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

In the event that the contractor fails to perform any substantial obligation under the contract, the State may withhold all monies due and payable to the contractor, without penalty, until such failure is cured or otherwise adjudicated. Failure to meet the dates stipulated in the contract for the deliverables may result in an assessment of penalty due the State of $1000.00 dollars per day, until the deliverables are approved. Contractor will be notified in writing when penalty will commence.

DD. FORCE MAJEURE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Neither party shall be liable for any costs or damages resulting from its inability to perform any of its obligations under the contract due to a natural disaster, or other similar event outside the control and not the fault of the affected party ("Force Majeure Event"). A Force Majeure Event shall not constitute a breach of the contract. The party so affected shall immediately give notice to the other party of the Force Majeure Event. The State may grant relief from performance of the contract if the contractor is prevented from performance by a Force Majeure Event. The burden of proof for the need for such relief shall rest upon the contractor. To obtain release based on a Force Majeure Event, the contractor shall file a written request for such relief with the State Purchasing Bureau. Labor disputes with the impacted party's own employees will not be considered a Force Majeure Event and will not suspend performance requirements under the contract.

EE. PROHIBITION AGAINST ADVANCE PAYMENT

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Payments shall not be made until contractual deliverable(s) are received and accepted by the State.

FF. PAYMENT

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

State will render payment to contractor when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the contractor as solely determined by the State. Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408). The State may require the contractor to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any services provided by the contractor prior to the Effective Date, and the contractor hereby waives any claim or cause of action for any such services.

GG. INVOICES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Invoices for payments must be submitted by the contractor to the agency requesting the services with sufficient detail to support payment. Invoices must be submitted to: Medicaid and Long-Term Care Division, P.O. Box 95026, Lincoln, NE 68509. The terms and conditions included in the contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract.

HH. AUDIT REQUIREMENTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All contractor books, records and documents relating to work performed or monies received under the contract shall be subject to audit at any reasonable time upon the provision of reasonable notice by the State. These records shall be maintained for a period of five (5) full years from the date of final payment, or until all issues related to an audit, litigation or other action are resolved, whichever is longer. All records shall be maintained in accordance with generally accepted accounting principles.

In addition to, and in no way in limitation of any obligation in the contract, the contractor shall agree that it will be held liable for any State audit exceptions, and shall return to the State all payments made under the contract for which an exception has been taken or which has been disallowed because of such an exception. The contractor agrees to correct immediately any material weakness or condition reported to the State in the course of an audit.

II. TAXES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State is not required to pay taxes of any kind and assumes no such liability as a result of this solicitation. Any property tax payable on the contractor's equipment which may be installed in a state-owned facility is the responsibility of the contractor.

JJ. INSPECTION AND APPROVAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Final inspection and approval of all work required under the contract shall be performed by the designated State officials. The State and/or its authorized representatives shall have the right to enter any premises where the contractor or subcontractor duties under the contract are being performed, and to inspect, monitor or otherwise evaluate the work being performed. All inspections and evaluations shall be at reasonable times and in a manner that will not unreasonably delay work.

KK. CHANGES IN SCOPE/CHANGE ORDERS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may, at any time with written notice to the contractor, make changes within the general scope of the contract. Changes in scope shall only be conducted with the written approval of the State's designee as so defined by the State from time to time. (The State retains the right to employ the services of a third party to perform any change order(s)).

The State may, at any time work is in progress, by written order, make alterations in the terms of work as shown in the specifications, require the performance of extra work, decrease the quantity of work, or make such other changes as the State may find necessary or desirable. The contractor shall not claim forfeiture of contract by reasons of such changes by the State. Changes in work and the amount of compensation to be paid to the contractor for any extra work so ordered shall be determined in accordance with the applicable unit prices of the contractor's proposal.

Corrections of any deliverable services or performance of work required pursuant to the contract shall not be deemed a modification requiring a change order.

LL. SEVERABILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

MM. CONFIDENTIALITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All materials and information provided by the State or acquired by the contractor on behalf of the State shall be regarded as confidential information. All materials and information provided by the State or acquired by the contractor on behalf of the State shall be handled in accordance with Federal and State Law, and ethical standards. The contractor must ensure the confidentiality of such materials or information. Should said confidentiality be breached by a contractor; contractor shall notify the State immediately of said breach and take immediate corrective action.

It is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable to contractors by 5 U.S.C. 552a (m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

NN. PROPRIETARY INFORMATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Data contained in the proposal and all documentation provided therein, become the property of the State of Nebraska and the data becomes public information upon opening the proposal. If the bidder wishes to have any information withheld from the public, such information must fall within the definition of proprietary information contained within Nebraska's public record statutes. All proprietary information the bidder wishes the State to withhold must be submitted in a sealed package, which is separate from the remainder of the proposal. The separate package must be clearly marked PROPRIETARY on the outside of the package. Bidders may not mark their entire Request for Proposal as proprietary. Bidder's cost proposals may not be marked as proprietary information. Failure of the bidder to follow the instructions for submitting proprietary and copyrighted information may result in the information being viewed by other bidders and the public. Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, bidders submitting information as proprietary may be required to prove specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive. Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State's definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information.

OO. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

By submission of this proposal, the bidder certifies, that he or she is the party making the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham proposal, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the proposal price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the proposal are true; and further that the bidder has not, directly or indirectly, submitted his or her proposal price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

PP. PRICES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All prices, costs, terms and conditions outlined in the proposal shall remain fixed and valid commencing on the opening date of the proposal until an award is made (and for bidder

receiving award prices shall remain as bid for the duration of the contract unless otherwise so stated in the contract) or the Request for Proposal is cancelled.

Contractor represents and warrants that all prices for services, now or subsequently specified are as low as and no higher than prices which the contractor has charged or intends to charge customers other than the State for the same or similar products and services of the same or equivalent quantity and quality for delivery or performance during the same periods of time. If, during the term of the contract, the contractor shall reduce any and/or all prices charged to any customers other than the State for the same or similar products or services specified herein, the contractor shall make an equal or equivalent reduction in corresponding prices for said specified products or services.

Contractor also represents and warrants that all prices set forth in the contract and all prices in addition, which the contractor may charge under the terms of the contract, do not and will not violate any existing federal, state or municipal law or regulations concerning price discrimination and/or price fixing. Contractor agrees to hold the State harmless from any such violation. Prices quoted shall not be subject to increase throughout the contract period unless specifically allowed by these specifications.

QQ. BEST AND FINAL OFFER

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State will compile the final scores for all parts of each proposal. The award may be granted to the highest scoring responsive and responsible bidder. Alternatively, the highest scoring bidder or bidders may be requested to submit best and final offers. If best and final offers are requested by the State and submitted by the bidder, they will be evaluated (using the stated criteria), scored and ranked by the Evaluation Committee. The award will then be granted to the highest scoring bidder. However, a bidder should provide its best offer in its original proposal. Bidders should not expect that the State will request a best and final offer.

RR. ETHICS IN PUBLIC CONTRACTING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

No bidder shall pay or offer to pay, either directly or indirectly, any fee, commission compensation, gift, gratuity, or anything of value to any State officer, legislator or employee based on the understanding that the receiving person's vote, actions or judgment will be influenced thereby. No bidder shall give any item of value to any employee of the State Purchasing Bureau.

Bidders shall be prohibited from utilizing the services of lobbyists, attorneys, political activists, or consultants to secure the contract. It is the intent of this provision to assure that the prohibition of state contact during the procurement process is not subverted through the use of lobbyists, attorneys, political activists, or consultants. It is the intent of the State that the process of evaluation of proposals and award of the contract be completed without external influence. It is not the intent of this section to prohibit bidders from seeking professional advice, for example consulting legal counsel, regarding terms and conditions of this Request for Proposal or the format or content of their proposal.
If the bidder is found to be in non-compliance with this section of the Request for Proposal, they may forfeit the contract if awarded to them or be disqualified from the selection process.

SS. INDEMNIFICATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

1. GENERAL

The contractor agrees to defend, indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State, arising out of, resulting from, or attributable to the willful misconduct, negligence, error, or omission of the contractor, its employees, subcontractors, consultants, representatives, and agents, except to the extent such contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

2. INTELLECTUAL PROPERTY

The contractor agrees it will at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all claims, to the extent such claims arise out of, result from, or are attributable to the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the contractor or its employees, subcontractors, consultants, representatives, and agents; provided, however, the State gives the contractor prompt notice in writing of the claim. The contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the contractor has indemnified the State, the contractor shall at the contractor's sole cost and expense promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality. At the State's election, the actual or anticipated judgment may be treated as a breach of warranty by the contractor, and the State may receive the remedies provided under this RFP.

3. PERSONNEL

The contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any claim with respect to withholding taxes, worker's compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel provided by the contractor.

TT. NEBRASKA TECHNOLOGY ACCESS STANDARDS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Contractor shall review the Nebraska Technology Access Standards, found at http://nitc.nebraska.gov/standards/2-101.html and ensure that products and/or services provided under the contract comply with the applicable standards. In the event such standards change during the contractor's performance, the State may create an amendment to

the contract to request that contract comply with the changed standard at a cost mutually acceptable to the parties.

UU. ANTITRUST

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

VV. DISASTER RECOVERY/BACK UP PLAN

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall have a disaster recovery and back-up plan, of which a copy should be provided to the State, which includes, but is not limited to equipment, personnel, facilities, and transportation, in order to continue services as specified under these specifications in the event of a disaster.

WW. TIME IS OF THE ESSENCE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Time is of the essence in this contract. The acceptance of late performance with or without objection or reservation by the State shall not waive any rights of the State nor constitute a waiver of the requirement of timely performance of any obligations on the part of the contractor remaining to be performed.

XX. RECYCLING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Preference will be given to items which are manufactured or produced from recycled material or which can be readily reused or recycled after their normal use as per state statute (Neb. Rev. Stat. §81-15, 159).

YY. DRUG POLICY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Contractor certifies that it maintains a drug free work place environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State.

ZZ. NEW EMPLOYEE WORK ELIGIBILITY STATUS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security

or other federal agency authorized to verify the work eligibility status of a newly hired employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us.

2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

AAA. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor, by signature to this RFP, certifies that the contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from participating in transactions (debarred). The contractor also agrees to include the above requirements in any and all subcontracts into which it enters. The contractor shall immediately notify the Department if, during the term of this contract, contractor becomes debarred. The Department may immediately terminate this contract by providing contractor written notice if contractor becomes debarred during the term of this contract.

IV. PROJECT DESCRIPTION AND SCOPE OF WORK

In March 2010, PPACA and the Health Care and Education Reconciliation Act of 2010 were signed into law. The two laws are collectively referred to as the Affordable Care Act (ACA). Sections of the ACA, codified at 42 CFR 431, 435, and 437, require the creation of a health insurance exchange in each state, either by the state or by the federal government. The State of Nebraska will employ the Federally Facilitated Marketplace (Marketplace) option.

An analysis was conducted by the Nebraska Department of Health and Human Services' (Department) to determine the most desirable option for meeting ACA compliance, and CMS Seven Standards and Conditions as defined in Medicaid IT Supplement (MITS-11-01-v1.0). The analysis revealed that replacing the current Medicaid eligibility and enrollment system with a modern solution was the best course of action given the project constraints The same analysis revealed there was not enough time to procure and implement a solution by the ACA mandated deadline of October 1, 2013.

The purpose of this RFP is to select a Contractor who is responsible for performing Independent Verification and Validation (IV&V) services for implementing a new Eligibility and Enrollment Solution (EES). The Department plans to release an RFP to procure an Eligibility and Enrollment Solution. The RFP will procure the products and services of a Systems Integrator with an Eligibility and Enrollment Solution.

Nebraska's existing Eligibility and Enrollment System is almost twenty years old. The current system was developed with client/server technology. Nebraska intends to complete replacement of the existing Medicaid Eligibility and Enrollment System in order to access the enhanced federal matching funds for these legacy system replacements since the enhanced funding expires at the end of 2015.

The Department will award one Contractor to fulfill all the IV&V responsibilities described herein. The awarded IV&V Contractor shall review EES related artifacts defined by the Department to gain sufficient understanding of the EES project.

The IV&V services described in this RFP must comply with IV&V regulatory requirements detailed in 45 CFR 95.626, which requires that IV&V efforts be conducted by an entity that is independent. The IV&V contractor is required to:

1. Develop an IV&V Workplan. The plan must be provided directly to the Centers for Medicare and Medicaid (CMS) at the same time it is given to the Department.
2. Review and make recommendations on both the management of the EES project (Department and Contractor), and the technical aspects of the project. The IV&V Contractor must provide the results of its analysis directly to CMS at the same time it reports to the State.
3. Consult with all stakeholders and assesse the user involvement and buy-in regarding system functionality and the system's ability to support program business needs.
4. Conduct an analysis of past project performance sufficient to identify and make recommendations for improvement.
5. Provide EES risk management assessment.
6. Develop EES performance metrics which allow tracking project completion against milestones set by the Department.

The bidder must provide the following information in response to this Request for Proposal.

A. PROJECT OVERVIEW

The purpose of this procurement is to contract for the IV&V services to assist the Department to ensure the success of the EES project by facilitating early detection and correction of errors, enhance management insight into risks and ensure compliance with project performance, schedule, and budget requirements. The Information Systems and Technology (IS&T) Division provides leadership, project management, planning, implementation, and support services for information technology for the Department. IS&T will provide support for the project, including the technical planning, implementation, testing and maintenance of the new solution.

The Department is seeking proposals from qualified bidders with IV&V expertise, project management expertise, and relevant past experience performing IV&V work for Medicaid eligibility determination systems similar to the system that will be developed for the State.

The Department seeks an IV&V contractor who will bring project personnel, processes, approaches and tools to meet the requirements of the IV&V services for the EES Project.

The IV&V scope of work includes:

1. Program Management
2. Deliverables Review and Acceptance
3. Quality Assurance
4. Contract Compliance

The contractor awarded the IV&V contract for the EES project, their subcontractor(s) and vendor(s) are precluded from submitting an EES proposal, assisting another company in making a proposal, or otherwise materially participating in any subsequent contract related to the EES project.

B. PROJECT REQUIREMENTS

The IV&V Contractor will perform all IV&V responsibilities defined in this RFP throughout the life of the contract including the optional renewal period. The IV&V Contractor is expected to actively participate in meetings and to contribute IV&V expertise to all phases of the EES Project to ensure that the EES Contractor activities result in successful project completion.

The IV & V project requirements are outlined in the following sections. The tasks and activities within this section are not necessarily listed in the order that they should be completed. Bidders must reflect within their proposal and preliminary project plan their recommended approach to scheduling and accomplishing the tasks and activities identified within this RFP.

1. PROGRAM MANAGEMENT

Perform a review of IV&V project activities for the EES Project which shall be documented and submitted in the appropriate Management Briefing, EES Management, Project Status or Deliverable Review Report. Activities shall include but not be limited to:

a. Delivery of an Initial Project Assessment Report that includes the initial status of each activity shown on the IV&V Management Plan for the EES project.
b. A review of the EES Contractor's analysis of risk areas of the implementation of the EES Component and the risk mitigation plan for those identified risks. The IV&V Contractor shall include recommendations for any deficiencies it finds during its review of the risk mitigation plans. The results and recommendation

of the analysis shall be written and presented as part of the Risk Assessment Report.

c. Hosting the Monthly Management Briefings at times approved by the Department.

d. Attendance at all status meetings between the Department and the EES Contractor, which will occur on at least a monthly basis and may occur more regularly based on the phase and stage of the implementation of the EES.

e. Assessment of the methodology for maintaining requirements traceability throughout the transfer and development process.

f. A review all MITA documentation, guidance and rules promulgated by CMS..

g. A review all ACA Regulations documentation, guidance and rules promulgated by CMS.

h. Notification to the Department if any MITA documentation, guidance and rules, or any changes to those items, will impact the implementation of any EES Component or the work performed by any EES Contractor.

i. Notification to the Department if any ACA Regulation documentation, guidance and rules, or any changes to those items, will impact the implementation of any EES Component or the work performed by any EES Contractor.

j. Performance of program management services for all EES activities. These program management services shall include, at a minimum, all of the following:

- **i.** Assess the progress of the implementation of the entire EES project, and recommend improvements as necessary.
- **ii.** Verify that lines of reporting and associated responsibility within the EES Contractor to ensure adequate technical and managerial oversight of the project.
- **iii.** Verify the EES Contractor and the State are not independently duplicating effort toward the same end.
- **iv.** Evaluate project progress, resources, budget, schedules, work flow and reporting.
- **v.** Verify the EES Contractor has created a project management plan and that the EES Contractor is following the approved project management plan.
- **vi.** Evaluate the project management plans and procedures to verify that they are developed, communicated, implemented, monitored and complete.
- **vii.** Evaluate project reporting plan and actual project reports to verify project status is accurately traced using project metrics.
- **viii.** Verify milestones and completion dates contained in the EES Contractor's project management plan and contract are planned, monitored and met.
- **ix.** Verify the EES Contractor has created and implemented an appropriate project issue tracking mechanism that documents issues as they arise, enables communication of issues to proper stakeholders, documents a mitigation strategy as appropriate, and tracks the issue to closure.
- **x.** Evaluate the EES Contractor's planned life-cycle development methodology or methodologies (e.g. waterfall, evolutionary spiral, rapid prototyping, or incremental) to see if they are appropriate for the EES component that EES Contractor is developing.
- **xi.** Verify that all business process reengineering recommendations are strategic, have management backing, resources, skills and incentives necessary for effective change.

xii. Verify that the EES Contractor has a change management plan and that the change management plan and procedures to verify them are developed, communicated, implemented, monitored and complete.

xiii. Verify that the EES Contractor has a communication plan and that that plan is being followed.

xiv. Evaluate the EES Contractor's communication plans and procedures to verify that they support communications and work product sharing between all project stakeholders and that the communication plans and strategies are effective, implemented, monitored and complete.

k. Manage the identification, resolution and tracking of stakeholder concerns, both internal and external.

l. All documentation and deliverables produced in the performance by the IV&V Contractor must be stored in a central repository to be designated by the Department.

2. DELIVERABLE REVIEW AND ACCEPTANCE

As part of the Deliverable Review Report, the IV&V Contractor shall assess the EES Deliverables based upon quality attributes including:

a. Adherence to Requirements;
b. Clarity;
c. Completeness;
d. Consistency;
e. Traceability: and
f. Adherence to laws, rules and guideline.

Deliverable review shall be performed by identified IV&V resources that are experienced and/or certified in the related technical, functional, and federal requirements of the deliverable under review, and comments shall be submitted to Department as part of the Deliverable Review Report within a timeframe that allows inclusion of IV&V feedback in Department's response to the EES Contractor.

The IV&V Contractor shall perform the following Deliverable Review and Acceptance tasks:

a. Develop and submit a Performance Metrics Document to track project completion against milestones set by the Department using Department approved performance metrics.

b. Review each deliverable and report submitted by the EES Contractor, as directed by the Department, for content, quality and timeliness.

c. Notify the Department of any EES Contractor submitted management reports that do not contain the content required for that report, are of not sufficient quality or were not submitted in a timely manner.

d. Participate in walk-through of EES Contractor deliverables as requested by the Department.

e. Assess each reviewed deliverable and recommend a corrective action plan for each deliverable that fails to achieve the standards or timelines in that EES Contractor's contract with the Department.

f. The IV&V Contractor will work with the Department to define criteria for a Critical Incident which could adversely affect the outcome of the EES Project.

g. Notify the Department immediately when the IV&V Contractor discovers any Critical Incident. Provide an EES Contractor Critical Incident Report for each Critical Incident that summarizes the incident, how it may affect the project, notes any discrepancies found by the IV&V Contractor and provides a proposed action plan to resolve the incident and mitigate its impact.

3. QUALITY ASSURANCE

The IV&V Contractor shall perform the following Quality Assurance tasks:

a. Write and verbally present Management Briefings on a monthly basis regarding the performance of the EES Contractor and the monitoring performed by the IV&V Contractor. This Management Briefing shall include, at a minimum, all of the following:

- **i.** The current general status of the EES Contractor in relation to the EES Contractor's work plans and implementation plans.
- **ii.** Any flaws or issues with the system design for each EES Component that may negatively impact the implementation of the EES with recommendations to mitigate or eliminate those flaws or issues.
- **iii.** Any flaws or issues regarding system security for each EES component that may negatively impact the implementation of the EES with recommendations to mitigate or eliminate those flaws or issues.
- **iv.** The results of any system testing or retesting performed during the prior month and recommendations on how to resolve any flaws or issues identified as a result of that system testing or retesting.
- **v.** Any flaws or issues with the interfaces within each EES Component, between each of the EES Components or between the EES Components and external systems that may negatively impact the implementation of the EES with recommendations to mitigate or eliminate those flaws or issues.
- **vi.** Any delays or issues with the transition from the Department's current Eligibility and Enrollment System to any EES Contractor and recommendations to mitigate or eliminate those delays or issues.
- **vii.** The results of all acceptance testing performed during the prior month and recommendations on how to resolve any flaws or issues identified as a result of that testing.
- **viii.** The status of the overall implementation and operation of each EES Component and any flaws or issues that are negatively impacting the operation of any EES Component with recommendations on how to resolve those issues or flaws.
- **ix.** Any recommendations regarding training provided by the EES Contractor to system users.
- **x.** Any recommendations regarding the EES Contractors' progress and procedures for managing requirements.
- **xi.** Any recommendations regarding each EES Contractor's policies and procedures for ensuring that each EES Component is secure and that the privacy of Client data is maintained.

4. CONTRACT COMPLIANCE

The IV&V Contractor shall perform the following EES Contract Compliance tasks which shall be documented and submitted in the appropriate Management Briefing, EES Management, Project Status or Deliverable Review Report:

a. As part of developing and submitting the Estimating and Schedule Review Recommendation Report evaluate and make recommendations on the estimating and scheduling process of the EES Project to ensure that the project budget and EES resources are adequate for the work break-down structure and schedule.

b. Review EES schedules to verify that adequate time and resources are assigned for planning, development, review, testing and rework.

c. Perform ongoing assessments of EES Contractor staffing, which include key and non-key personnel, to ensure adequate staffing for the EES Contractor to comply with their contract and maintain service levels defined throughout the EES contract.

d. Examine the job assignments, skills, training and experience of the EES Contractor personnel involved in program development to verify that they are adequate for the development task.

e. Verify that the EES Contractor's organizational structure supports training, process definition, independent Quality Assurance, Configuration Management, product evaluation, and any other functions critical for the project's success.

f. Monitor the performance of the EES Contractor to ensure that EES Contractor is in compliance with its contract with the Department and that the solution that EES Contractor is developing meets all requirements of its contract with the Department. This shall include, but is not limited to, monitoring all of the following:

- **i.** EES Contractor work plans.
- **ii.** EES Contractor implementation plans.
- **iii.** General Solution design for each EES Component.
- **iv.** Detailed Solution design for each EES Component.
- **v.** Solution security for each EES Component.
- **vi.** Solution testing for each EES Component.
- **vii.** EES Contractor transition from the Department's existing NE Eligibility and Enrollment System.
- **viii.** Acceptance Testing for each EES Component.

g. The IV&V Contractor shall evaluate the EES Contractor's progress and procedures for managing requirements. This shall include at minimum all of the following:

- **i.** Verify that system requirements are well-defined, understood and documented.
- **ii.** Verify that software requirements can be traced through design, code and test phases to verify that the system performs as intended and contains no unnecessary software elements.
- **iii.** Verify that requirements are under formal configuration control.
- **iv.** Evaluate on the EES Contractor's policies and procedures for ensuring that each EES Component is secure and that the privacy of Client data is maintained. This shall include all of the following:

a) Evaluate the restrictions on system and data access.
b) Evaluate the system security plan to ensure it meets Department standards.

v. Verify that EES processes and equipment are in place to back up client and project data files and archive them safely at appropriate levels.

vi. The IV&V Contractor shall verify that the EES Contractor has performed an adequate requirements analysis for that EES Contractor's deliverables. This shall include a verification of all of the following:

a) An analysis of client, State, and Federal needs and objectives has been performed to verify that requirements of the system are well understood, well defined and satisfy federal regulations.
b) All stakeholders have been consulted to the desired functionality of the system, and that users have been involved in prototyping of the user interface.

vii. All stakeholders have bought-in to all changes with impact project objectives, cost and schedule.
viii. EES Performance requirements satisfy user needs.
ix. User's maintenance requirements for the system are completely specified.

h. The IV&V Contractor shall verify that the EES Contractor has described all system interfaces for each EES Component exactly, by medium and by function, including input/output control codes, data format, polarity, range, units and frequency. The IV&V Contractor shall also verify that all approved interface documents are available and that appropriate relationships are in place with all agencies and organizations supporting the interfaces.
i. The IV&V Contractor shall verify that there is a well-defined plan for transferring data from the legacy system to the new EES.

5. EES SOFTWARE DEVELOPMENT

The IV&V Contractor shall evaluate both the high level and detailed design of any custom software developed or used by the EES Contractor for any EES component. The Design and Analysis Review Report shall include at minimum all of the following:

a. Evaluate all high-level design products to verify the design is workable, efficient, and satisfies all system and system interface requirements.
b. Evaluate all detail design products to verify that the design is workable, efficient, and satisfies all high level design requirements.
c. Evaluate the design products for adherence to the project design methodology and standards.
d. Evaluate the design and analysis process used to develop the design and make recommendations for improvements.
e. Evaluate design standards, methodology and CASE tools used.
f. Verify that design requirements can be traced back to system requirements.
g. Verify that all design products are under configuration control and formally approved before detailed design begins.
h. Verify that all design products are under configuration control and formally approved before coding begins.

i. The IV&V Contractor shall evaluate the plans, requirements, environment, tools, and procedures used for unit testing system modules as well as the level of test automation, interactive testing, and interactive debugging available in the test environment.

j. The IV&V Contractor shall review all unit testing to ensure that an appropriate level of test coverage was achieved by the test process, that test results were verified, that the correct code configuration was tested, and that the tests were appropriately documented. The IV&V Contractor shall develop and submit a Unit Testing Review Report documenting the results of all unit testing reviews and evaluations.

6. SYSTEM TESTING

The IV&V Contractor shall review all system testing performed on each EES component and submit all findings as part of the Management Briefing, Unit Testing or Critical Incident Reports. This review shall include the following:

a. Assess planned testing activities, results reporting, and error correction/resolution, including an appropriate change control and configuration management process, to include all of the following:

- **i.** Assess test efforts and schedules are based on defined requirements priorities as well as project risk.
- **ii.** Assess test scenarios address the testable requirements.
- **iii.** Assess specific business cases and test verification efforts for each case has been defined.
- **iv.** Conduct reviews of testing to ensure that critical elements of the EES are stable and comply with Department requirements as detailed in the Department's contract with the EES Contractor.
- **v.** Evaluate the plans, requirements, environment, tools, and procedures used for system testing.
- **vi.** Evaluate the level of automation and the availability of the system test environment.

b. Verify that an appropriate level of test coverage is achieved by the test process, that test results are verified, that the correct code configuration has been tested, and that the tests are appropriately documented, including formal logging of errors found in testing.

c. Verify that the individuals conducting the test have an appropriate level of independence from those completing the development.

d. Verify that a sufficient number and type of case scenarios are used to ensure comprehensive but manageable testing and those tests are run in a realistic, real-time environment.

e. Verify that test scripts are complete, with step-by-step procedures, required pre-existing events or triggers and expected results.

7. DATA MANAGEMENT

The IV&V Contractor shall evaluate the EES Contractors' proposed plans, procedures and software for data conversion and submit a Data Conversion Process Review Report. This evaluation shall include, at a minimum, all of the following:

a. Verify that procedures are in place and are being followed to review the completed data for completeness and accuracy and to perform data clean-up as required.

b. As part of developing the Data Conversion Error Report, determine conversion error rates and if the error rates are manageable.

c. Make recommendations on the conversion process to make it more efficient and on maintain the integrity of data during the conversion.

d. The IV&V Contractor shall evaluate all EES Contractor database designs and system processes/workflows to determine if they meet system requirements contained in the EES Contractor's contract with the Department. This shall include an evaluation of all of the following:

i. The design for maintainability, scalability, refresh-ability, concurrence, normalization and any other factors affecting performance and data integrity.

ii. The process for administering the database, including backup, recovery, performance analysis and control of data item creation.

C. BUSINESS REQUIREMENTS

The IV&V Contractor shall develop a comprehensive Project Management Plan (IV&V Project Management Plan) for Department approval, and shall manage and carry out the IV&V services in accordance with the IV&V Project Management Plan. The IV&V Project Management Plan (PMP) must include at a minimum the following elements:

1. Description of how the IV&V Contractor plans to carry out the IV&V services. This description should include methodologies, strategies, standards, and approaches employed by the IV&V Contractor for executing each of the IV&V activities within this Scope of Work.

2. High level IV&V services schedule which aligns with the EES Master Project Schedule.

3. Detailed schedule that includes activities, tasks, task work effort estimates, estimated start and end dates, durations, deliverables, and assigned resources.. Coordinate and align the IV&V deliverable schedule with the Department and the EES Contractors.

4. Organizational structure which reflects, among other things, the need to coordinate activities among the Department, IV&V, and EES Contractor.

5. Description of resources assigned to activities, tasks and the IV&V deliverable creation.

6. Assigned personnel dedicated to the IV&V reviews on the EES project.

7. Description of the deliverables produced as a result of IV&V activities.

The IV&V Contractor shall perform ongoing program monitoring activities and shall review and validate issues/deficiencies/risks identified with the Department Project Management Team and the EES Contractor. Project monitoring tasks include but are not limited to:

1. Review and validate all project work plans and schedules, including staffing levels.

2. Develop and submit an EES Project Status and Milestone Report to monitor all project milestones and costs.

3. Perform ongoing assessments of project staffing levels (key and non-key personnel) and report on the ability to meet project schedule and milestones.

4. Provide Risk Assessment Reports for all project risks, with proposed mitigation strategies.

5. Monitor the Department's ACA project management office practices, processes and deliverables.

The IV&V Contractor shall conduct verification and validation reviews of the quality and completeness of critical path deliverables produced by the awarded contractor for the EES Project to help ensure they meet the requirements and expectations of the Department, CMS, and internal and external stakeholders.

D. SCOPE OF WORK

The following Scope of Work sections focus on the key IV&V activities and requirements for the Eligibility and Enrollment Solution project. Specifically:

1. Program Management - Oversight and acceptance of PMP Deliverables, Executive Committee Participation and Monthly Status Reporting
2. Deliverables Review and Acceptance
3. Quality Assurance
4. Contract Compliance

E. EES TECHNOLOGY REVIEW

The IV&V Contractor shall develop and submit a Technical Recommendations Report as part of performing the following defined EES Technology Review tasks:

1. EES Operating Environment

The IV&V Contractor will evaluate each EES Component for all of the following:

a. System hardware configurations to determine if their performance is adequate to meet proposed system requirements as defined in the EES contract.
b. Compatibility with the State's existing processing environment, if it is maintainable, and if it is easily upgradeable. This evaluation will include, but is not limited to Central Processing Units (CPUs) and other processors, memory, network connections, and bandwidth, communication controllers, telecommunications systems (Local Area Network/Wide Area Network [LAN/WAN]), terminals, printers, and storage devices.
c. System software to determine if its capabilities are adequate to meet proposed system requirements.
d. Whether the software is maintainable and easily upgradeable.
e. Projected service provider support of the hardware and software.
f. Database products to determine if their capabilities are adequate to meet proposed system requirements.
g. The database's data format to determine if it is easily convertible to other formats, if it supports the addition of new data items, if it is scalable, if it is easily refreshable and if it is compatible with the State's existing hardware and software, including any on-line transaction processing environment.
h. Processing capacity of the system to determine if it is adequate for current statewide needs for both batch and on-line processing.
i. The system's capacity to support future growth.

The Contractor shall make recommendations on changes in processing hardware, storage, network systems, operating systems, consumer off the shelf software, and software design to meet future growth and improve system performance.

F. PROJECT PLANNING AND MANAGEMENT

The IV&V Contractor shall ensure that staff attending meetings between the Department and the IV&V Contractor has the authority to represent and commit the IV&V Contractor regarding work planning, problem resolution and program development.

At the Department's direction, the Contractor shall make its Key Personnel and other personnel assigned to the Contract available to attend meetings as subject matter experts with stakeholders both within the State government and external or private stakeholders. The IV&V Contractor shall be present at all scheduled status meetings between the Department and EES Vendor, unless the Department provides permission otherwise.

All of the IV&V Contractor's personnel that attend any meeting with the Department or other Department stakeholders shall be physically present at the location of the meeting, unless the Department gives prior, written permission to attend by telephone or video conference. In the event that the Contractor has any personnel attend by telephone or video conference and are the only entity not at the location of the meeting, the IV&V Contractor shall be responsible for providing the conference line or virtual meeting place.

The IV&V Contractor shall respond to all telephone calls, voicemails and emails from the Department within one (1) Business Day of receipt by the IV&V Contractor.

G. DELIVERABLES

The IV&V Contractor must provide the deliverables required by CMS and defined in the IV&V activities.

1. THE IV&V DELIVERABLES INCLUDE

- **a.** Initial Project Assessment Report
- **b.** IV&V Project Management Plan
- **c.** IV&V Project Status Report
- **d.** IV&V Project Schedule
- **e.** Performance Standards Planning Document
- **f.** Performance Metrics Document
- **g.** Monthly Management Briefing Report
- **h.** Risk Assessment Report
- **i.** EES Estimating and Schedule Review Recommendations Report
- **j.** EES Deliverable Review Report
- **k.** Critical Incident Report
- **l.** EES Project Milestone and Cost Status Report
- **m.** EES Estimating and Schedule Review Recommendations Report
- **n.** EES Design and Analysis Review Report
- **o.** Unit Testing Review Report
- **p.** EES Technical Recommendations Report
- **q.** Data Conversion Process Review Report
- **r.** Data Conversion Error Report

Once the detailed IV&V Project Plan is approved by the Department, the following sections detail the process for submission and review of deliverables during the life of the project/contract.

The IV&V Contractor must provide one electronic copy of each deliverable to the appropriate Department Project manager as identified in the contract. Once a deliverable is approved and

accepted by Department, the IV&V Contractor must upload an electronic copy into the designated Department SharePoint site.

Deliverables will be evaluated by the Department utilizing mutually agreed to acceptance/exit criteria.

2. DELIVERABLE SUBMISSION

Prior to development and submission of Department specified contract deliverable, a Deliverables Expectations Document (DED) containing a description of the format and content of each deliverable will be delivered to the Department for review and approval. The DED must contain, at a minimum, the following:

a. Cover letter;
b. Table of Contents with a brief description of the content of each section;
c. Anticipated number of pages; and
d. Identification of appendices/exhibits

The DED must contain an approval/rejection section that can be completed by the Department. The summary document will be returned to the IV&V Contractor within a mutually agreed upon time frame. Deliverables must be developed by the IV&V Contractor according to the approved format and content of the summary document for each specific deliverable.

At a mutually agreed to meeting, on or before the time of delivery to Department, the IV&V Contractor must provide a walkthrough of each IV&V deliverable. IV&V Deliverables must be submitted no later than 5:00 PM CST, per the approved contract deliverable schedule and must be accompanied by a deliverable sign-off form with the appropriate sections completed by the IV&V Contractor.

3. DELIVERABLE REVIEW

The Department's review time begins on the next business day following receipt of the deliverable. The Department's review time will be determined by the approved and accepted detailed project plan and the approved contract. The Department has up to five (5) working days to determine if a deliverable is complete and ready for review. Unless otherwise negotiated, this is part of the Department's review time.

Any subsequent deliverable dependent upon the Department's acceptance of a prior deliverable will not be accepted for review until all issues related to the previous deliverable have been resolved. Deliverables determined to be incomplete and/or unacceptable for review will be rejected, not considered delivered and returned to the IV&V Contractor. After review of a deliverable, the Department will return to the IV&V Contractor the project deliverable sign-off form with the deliverable submission and review history section completed.

4. DELIVERABLES ACCEPTANCE

If the deliverable is accepted, the original deliverable sign-off form signed by the appropriate Department representatives will be returned to the Contractor.

Comments/Revisions Requested by the State

If the Department has comments and/or revisions to a deliverable, the following will be provided to the IV&V Contractor:

a. The original deliverable sign-off form with an updated entry to the deliverable submission and review history section.
b. Attached to the deliverable sign-off form will be a detailed explanation of the revisions to be made and/or a marked up copy of the deliverable.
c. The Department's first review and return with comments will be completed within the times specified in the contract.
d. The IV&V Contractor will have five (5) working days, unless otherwise mutually agreed to, for review, acceptance and/or rejection of the Department's comments.

A meeting to resolve outstanding issues must be completed within three (3) business days after completion of the IV&V Contractor's review or a mutually agreed upon time frame. Agreements made during meetings to resolve issues must be documented separately. Once an agreement is reached regarding changes, the IV&V Contractor must incorporate them into the deliverable for resubmission to the Department. All changes must be easily identifiable by the Department.

Resubmission of the deliverable must occur within five (5) business days or a mutually agreed upon time frame of the resolution of any outstanding issues. The resubmitted deliverable must be accompanied by the original deliverable sign-off form. This review process continues until all issues have been resolved within a mutually agreed upon time frame.

During the re-review process, the Department will only comment on the original exceptions noted. All other items not originally commented on are considered to be accepted by the Department. Once all revisions have been accepted, the original deliverable sign-off form signed by the appropriate the Department representatives will be returned to the IV&V Contractor.

The IV&V Contractor must provide one (1) updated electronic copy of each deliverable after approval and acceptance by the Department. At this point the IV&V Contractor must submit the Department approved deliverable to CMS.

5. REJECTED, NOT CONSIDERED DELIVERED

If the Department considers a deliverable not ready for review, the following will be returned to the IV&V Contractor:

a. The original deliverable sign-off form with an updated entry to the deliverable submission and review history section.
b. The original deliverable and all copies with a written explanation as to why the deliverable is being rejected, not considered delivered.
c. The IV&V Contractor will have five (5) business days, unless otherwise mutually agreed to, for review, acceptance and/or rejection of the Department's comments.

A meeting to discuss the Department's position regarding the rejection of the deliverable must be completed within three (3) business days after completion of the IV&V Contractor's review or a mutually agreed upon time frame. Resubmission of the deliverable must occur within a mutually agreed upon time frame. The resubmitted deliverable must be accompanied by the original deliverable sign-off form.

Upon resubmission of the completed deliverable, the Department will follow the steps outlined in this process.

H. REPORTING REQUIREMENTS

The IV&V Contractor shall deliver the IV&V Project Status Report to the Department on a monthly basis. The monthly IV&V Project Status Report should contain, at a minimum, all of the following:

1. Written support and documentation of all items to be presented during the next Management Briefing.

2. The results or findings of any assessments, evaluations, reviews or verifications completed during the prior month or updates in relation to any of the following areas:

- **a.** CMS guidance.
- **b.** Operational oversight.
- **c.** Overview of IV&V Contractor Management Plan updates;
- **d.** Overview of periodic reviews of the EES Project;
- **e.** Updates to Risk Analysis and Mitigation Plan Review;
- **f.** Overview of Corrective Action Plans produced during the previous month;
- **g.** Overview of EES Contractor Critical Incident Reports;
- **h.** Project Management updates;
- **i.** Quality Assurance updates;
- **j.** EES Operating Environment updates;
- **k.** EES Software Development updates;
- **l.** EES System Testing updates;
- **m.** EES Data Management updates;
- **n.** Any recommendations to mitigate any risk, deficiency or issue discovered as a result of any assessment, evaluation, review or verification completed during the prior month;
- **o.** A Performance Standard Planning Document that includes the status of each activity shown on the IV&V Management Plan for that EES Component as well as the progress since the prior report; and
- **p.** Any updated Work Breakdown Structure developed during the prior month.

V. PROPOSAL INSTRUCTIONS

This section documents the mandatory requirements that must be met by bidders in preparing the Technical and Cost Proposal. Bidders should identify the subdivisions of "Project Description and Scope of Work" clearly in their proposals; failure to do so may result in disqualification. Failure to respond to a specific requirement may be the basis for elimination from consideration during the State's comparative evaluation.

Proposals are due by the date and time shown in the Schedule of Events. Content requirements for the Technical and Cost Proposal are presented separately in the following subdivisions:

A. TECHNICAL PROPOSAL

The Technical Proposal shall consist of four (4) sections:

1. SIGNED "State of Nebraska Request For Proposal For Contractual Services" form;
2. Executive Summary;
3. Corporate Overview; and
4. Technical Approach.

1. REQUEST FOR PROPOSAL FORM

By signing the "Request For Proposal For Contractual Services" form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the Terms and Conditions stated in this Request for Proposal and certifies bidder maintains a drug free work place environment.

The Request For Proposal For Contractual Services form must be signed in ink and returned by the stated date and time in order to be considered for an award.

2. EXECUTIVE SUMMARY

The Executive Summary shall condense and highlight the contents of the solution being proposed by the bidder in such a way as to provide the Evaluation Committee with a broad understanding of the Contractor's Technical Proposal. The Executive Summary should include:

a. A clear and concise summary of the bidder's understanding of the EES project, the IV&V Services and the Department's needs.
b. A clear and concise summary of the proposed approach.
c. A brief summary of the bidder's experience and ability to perform this project.
d. A general description of the capabilities and role of any subcontractors

Bidders must present their understanding of the problems being addressed by implementing a new system, the objectives and intended results of the project, and the scope of work. Bidders shall summarize how their Technical Proposal meets the requirements of the Request for Proposal, and why they are best qualified to perform the work required herein.

3. CORPORATE OVERVIEW

The Corporate Overview section of the Technical Proposal must consist of the following subdivisions:

a. BIDDER IDENTIFICATION AND INFORMATION

The bidder must provide the full company or corporate name, address of the company's headquarters, entity organization (corporation, partnership, proprietorship), state in which the bidder is incorporated or otherwise organized to do business, year in which the bidder first organized to do business, whether the name and form of organization has changed since first organized, and Federal Employer Identification Number and/or Social Security Number.

b. FINANCIAL STATEMENTS

The bidder must provide financial statements applicable to the firm. If publicly held, the bidder must provide a copy of the corporation's most recent audited financial reports and statements, and the name, address and telephone number of the fiscally responsible representative of the bidder's financial or banking organization.

If the bidder is not a publicly held corporation, either the reports and statements required of a publicly held corporation, or a description of the organization, including size, longevity, client base, areas of specialization and expertise, and any other pertinent information must be submitted in such a manner that proposal evaluators may reasonably formulate a determination about the stability and financial strength of the organization. Additionally, a non-publicly held firm must provide a banking reference.

The bidder must disclose any and all judgments, pending or expected litigation, or other real or potential financial reversals, which might materially affect the viability or stability of the organization, or state that no such condition is known to exist.

c. CHANGE OF OWNERSHIP

If any change in ownership or control of the company is anticipated during the twelve (12) months following the proposal due date, the bidder must describe the circumstances of such change and indicate when the change will likely occur. Any change of ownership to an awarded vendor(s) will require notification to the State.

d. OFFICE LOCATION

The bidder's office location responsible for performance pursuant to an award of a contract with the State of Nebraska must be identified.

e. RELATIONSHIPS WITH THE STATE

The bidder shall describe any dealings with the State over the previous two (2) years. If the organization, its predecessor, or any party named in the bidder's proposal response has contracted with the State, the bidder shall identify the contract number(s) and/or any other information available to identify such contract(s). If no such contracts exist, so declare.

f. BIDDER'S EMPLOYEE RELATIONS TO STATE

If any party named in the bidder's proposal response is or was an employee of the State within the past twenty-four (24) months, identify the individual(s) by name, State agency with whom employed, job title or position held with the State, and separation date. If no such relationship exists or has existed, so declare.

If any employee of any agency of the State of Nebraska is employed by the bidder or is a subcontractor to the bidder, as of the due date for proposal submission, identify all such persons by name, position held with the bidder, and position held with the State (including job title and agency). Describe the responsibilities of such persons within the proposing organization. If, after review of this information by the State, it is determined that a conflict of interest exists or may exist, the bidder may be disqualified from further consideration in this proposal. If no such relationship exists, so declare.

g. CONTRACT PERFORMANCE

If the bidder or any proposed subcontractor has had a contract terminated for default during the past five (5) years, all such instances must be described as required below. Termination for default is defined as a notice to stop performance delivery due to the bidder's non-performance or poor performance, and the issue was either not litigated due to inaction on the part of the bidder or litigated and such litigation determined the bidder to be in default.

It is mandatory that the bidder submit full details of all termination for default experienced during the past five (5) years, including the other party's name, address and telephone number. The response to this section must present the bidder's position on the matter. The State will evaluate the facts and will score the bidder's proposal accordingly. If no such termination for default has been experienced by the bidder in the past five (5) years, so declare.

If at any time during the past five (5)years, the bidder has had a contract terminated for convenience, non-performance, non-allocation of funds, or any other reason, describe fully all circumstances surrounding such termination, including the name and address of the other contracting party.

h. SUMMARY OF BIDDER'S CORPORATE EXPERIENCE

The bidder shall provide a summary matrix listing the bidder's previous projects similar to this Request for Proposal in size, scope and complexity, specifically:

- **i.** Experience performing IV&V services for governmental agencies or large private health insurance providers.
- **ii.** Experience with a highly similar task for providing IV&V services on projects of similar scope.
- **iii.** Experience performing IV&V services for a project that included transitioning data from a legacy or existing system into a new system.
- **iv.** Demonstrated knowledge and understanding of the CMS Enterprise Life Cycle Gate Review process including required documents and their associated templates.
- **v.** Experience with CMS's Medicaid Information Technology Architecture (MITA).
- **vi.** Experience working with CMS or projects that had CMS oversight.

The State will use no more than three (3) narrative project descriptions submitted by the bidder during its evaluation of the proposal.

The bidder must address the following:

vii. Bidder must provide narrative descriptions to highlight the similarities between their experience and this Request for Proposal. These descriptions must include:

a) the time period of the project;
b) the scheduled and actual completion dates;
c) the contractor's responsibilities;
d) for reference purposes, a customer name (including the name of a contact person, a current telephone number, a facsimile number and e-mail address); and
e) each project description shall identify whether the work was performed as the prime contractor or as a subcontractor. If a bidder performed as the prime contractor, the description must provide the originally scheduled completion date and budget, as well as the actual (or currently planned) completion date and actual (or currently planned) budget.

viii. Contractor and subcontractor(s) experience must be listed separately. Narrative descriptions submitted for subcontractors must be specifically identified as subcontractor projects.

ix. If the work was performed as a subcontractor, the narrative description shall identify the same information as requested for the contractors above. In addition, subcontractors shall identify what share of contract costs, project responsibilities, and time period were performed as a subcontractor.

i. SUMMARY OF BIDDER'S PROPOSED PERSONNEL/MANAGEMENT APPROACH

The bidder must present a detailed description of its proposed approach to the management of the project.

The bidder must identify the specific professionals who will work on the State's project if their company is awarded the contract resulting from this Request for Proposal. The names and titles of the team proposed for assignment to the State project shall be identified in full, with a description of the team leadership, interface and support functions, and reporting relationships. The primary work assigned to each person should also be identified.

The bidder shall provide resumes for all personnel proposed by the bidder to work on the project. The State will consider the resumes as a key indicator of the bidder's understanding of the skill mixes required to carry out the requirements of the Request for Proposal in addition to assessing the experience of specific individuals.

Resumes must not be longer than three (3) pages. Resumes shall include, at a minimum, academic background and degrees, professional certifications, understanding of the process, and at least three (3) client references (Client and Company Name, Project Name, address, email address and telephone number) who can attest to the competence and skill level of the individual. Any changes in proposed personnel shall only be implemented after written approval from the State.

A major factor in the success of the Project is the degree of collaboration between IV&V and EES Contractor staff and Department staff. The IV&V Contractor is expected to work with key Department stakeholders, management and subject matter experts throughout the business and technology enterprise when conducting the project activities and developing the work products and deliverables. The IV&V Contractor is expected to propose a project approach that incorporates the involvement of Department business and technology staff in order to obtain information and feedback necessary to produce quality work products and deliverables.

The Bidder will provide resume(s) for the key personnel proposed for this project. The Bidder is required to demonstrate that their consultant(s) or employee(s) will have the skills necessary to meet the objectives of this project as listed below. The resumes must include:

i. Educational qualifications
ii. Summary of employment experience
iii. Specific experience with the service areas for which they are being proposed
iv. Previous work assignments in a similar role for this type of engagement demonstrating ability to meet the objectives listed below:
v. Proven experience with Consulting, Project Administration and Technical Assistance for Commercial or State Government Eligibility Solutions for a period of at least two years within the last four years
vi. Core competency in IV&V and QA as demonstrated by the resume
vii. Experience in the design, development, testing, and implementation of Medicaid or Commercial eligibility system
viii. Government or public sector experience
ix. In-depth knowledge of ACA Regulations
x. Highly developed written and verbal communication skills

The Bidder's proposal shall describe policies, plans and intentions with regard to maintaining continuity of key personnel and the implementation team assigned to the project to avoid and minimize the impact of necessary staff changes.

The Department will provide workspace, equipment and conference telephone capabilities to house the IV&V Contractor staff in Lincoln, NE. Additionally, the IV&V Contractor will be assigned Department SharePoint repository capabilities for all IV&V Contractor project documents and deliverables.

In order to ensure the success of this project, it is important that there is a continuity of Key Staff assigned to the project. The Bidder's proposal must:

i. Describe policies, plans, and intentions with regard to maintaining continuity of personnel assignments throughout the performance of any agreement resulting from this RFP.
ii. Discuss the Bidder's plans to avoid and minimize the impact of personnel changes.
iii. Identify planned backup personnel assignments.

iv. Commit to using the personnel identified in the proposal and agree to DHHS' right to approve proposed personnel changes during the term of the contract.

v. Agree that the Bidder's proposed project personnel may not be reassigned, replaced, or added during the project without the prior written consent of the DHHS Project Manager. Should a key staff position be vacated, the IV&V Contractor must give DHHS resumes of, and an opportunity to interview and approve, potential replacements for that employee.

vi. Agree that the Bidder's proposed key project personnel may not be assigned new or additional contract assignments outside the State of Nebraska contract, without the prior written consent of the DHHS Project Manager.

vii. Agree that the DHHS Project Manager reserves the right to require a change in the IV&V Contractor's project personnel at the DHHS Project Manager's discretion and that DHHS must be given an opportunity to interview and approve potential replacements for that employee. However, DHHS will not unreasonably exercise this option and will take reasonable steps to work with the IV&V Contractor toward a solution.

j. SUBCONTRACTORS

If the bidder intends to subcontract any part of its performance hereunder, the bidder must provide:

i. name, address and telephone number of the subcontractor(s);
ii. specific tasks for each subcontractor(s);
iii. percentage of performance hours intended for each subcontract; and
iv. total percentage of subcontractor(s) performance hours.

4. TECHNICAL APPROACH

The technical approach section of the Technical Proposal must consist of the following subsections:

a. Description how the IV&V Bidder plans to carry out the IV&V Services for the EES Project. This description shall include methodologies, strategies, standards and approaches employed by the Bidder for executing each of the IV&V activities within the Scope of Work of this RFP.

b. Description of the deliverables produced as a result of IV&V activities, including sample reports.

c. A documented methodology for performing IV&V Services that has proved successful on past projects.

d. A documented methodology for developing performance matrices that has proved successful on past projects.

e. A documented methodology for developing the performance matrices.

f. Description for assessing risks, documenting findings and communicating them to the Department and contractors.

g. A preliminary project management plan that includes the activities and deliverables which are defined in this RFP and expected of the vendor.

B. COST PROPOSAL REQUIREMENTS

This section describes the requirements to be addressed by bidders in preparing the Cost Proposal. The bidder must submit the Cost Proposal in a section of the proposal that is a separate section or is packaged separately as specified in the RFP from the Technical Proposal section.

The component costs of the fixed price proposal for providing the services set forth in the Request for Proposal must be provided by submitting forms substantially equivalent to those described below.

1. PRICING SUMMARY

This summary shall present the total fixed price to perform all of the requirements of the Request for Proposal - Use Form B. The bidder must include details in the Cost Proposal supporting any and all costs. These details must include, at a minimum, detailed descriptions and/or specifications of the goods and/or services to be provided, quantities, and timing and unit costs, if applicable.

The State reserves the right to review all aspects of the Cost Proposal for reasonableness and to request clarification of any proposal where the cost component shows significant and unsupported deviation from industry standards or in areas where detailed pricing is required.

2. PRICES

Prices quoted shall be net, including transportation and delivery charges fully prepaid by the bidder, F.O.B. destination named in the Request for Proposal. No additional charges will be allowed for packing, packages, or partial delivery costs. When an arithmetic error has been made in the extended total, the unit price will govern.

C. PAYMENT SCHEDULE

The payment schedule for the project is tied to specific dates and deliverables. Invoices may be submitted by the contractor on specific dates based on the completion and acceptance of related deliverables. No invoice will be approved unless the associated deliverables have been approved. A percentage of the total contract cost may then be invoiced based on the following schedule.

Form A

Bidder Contact Sheet

Request for Proposal Number 4468Z1

The Bidder Contact Sheet should be completed and submitted with each response to this Request for Proposal. This is intended to provide the State with information on the bidder's name and address, and the specific person(s) who are responsible for preparation of the bidder's response. Each bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Preparation of Response Contact Information	
Bidder Name:	
Bidder Address:	
Contact Person & Title:	
E-mail Address:	
Telephone Number (Office):	
Telephone Number (Cellular):	
Fax Number:	

Each bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Communication with the State Contact Information	
Bidder Name:	
Bidder Address:	
Contact Person & Title:	
E-mail Address:	
Telephone Number (Office):	
Telephone Number (Cellular):	
Fax Number:	

REVISED Appendix A
Production Database Size by table for N-Focus
NOVEMBER 26, 2013

TABLE NAME	TABLE SPACE	DATABASE	SIZE IN KBYTES
ACA_FED_REF	NFOTS418	NFOPDBII	720
ACA_HUB_REQ	NFOTS002	NFOPDBII	5,760
ACA_HUB_REQ_XML	NFOTS003	NFOPDBII	27,360
ACA_IRSINF_PRS_MSG	NFOTS416	NFOPDBII	720
ACA_IRS_INF	NFOTS428	NFOPDBII	720
ACA_IRS_INF_MSG	NFOTS434	NFOPDBII	720
ACA_IRS_INF_PRS	NFOTS429	NFOPDBII	720
ACA_IRS_REQ	NFOTS426	NFOPDBII	720
ACA_IRS_REQ_PRS	NFOTS427	NFOPDBII	720
ACA_SSA_INF	NFOTS432	NFOPDBII	97,920
ACA_SSA_REQ	NFOTS431	NFOPDBII	29,520
ACHUB_REQXML_AUX_1	NFOT1003	NFOPDBII	1,440,000
ADDR	NFOTS005	NFOPDBII	338,400
ADM_NTFCN	NFOTS607	NFOPDBII	720
ADOPTION	NFOTS792	NFOPDBII	2,160
ADOP_EXCP	NFOTS011	NFOPDBII	720
AFCARS_ADOP	NFOTS908	NFOPDBII	4,320
AFCARS_COMP_MSR	NFOTS905	NFOPDBII	81,360
AFCARS_EPSD	NFOTS032	NFOPDBII	4,320
AFCARS_FC	NFOTS907	NFOPDBII	221,040
ALLEGATION	NFOTS801	NFOPDBII	106,560
ALL_FNDNG_HIST	NFOTS802	NFOPDBII	57,600
ALL_INVSTGN	NFOTS462	NFOPDBII	5,760
ALL_INV_ARP_INVLV	NFOTS464	NFOPDBII	3,600
ALL_INV_ASGN	NFOTS469	NFOPDBII	720
ALL_INV_CNTCT_DTL	NFOTS468	NFOPDBII	6,480
ALL_INV_ORG_INVLV	NFOTS466	NFOPDBII	5,040
ALL_INV_POI_INVLV	NFOTS465	NFOPDBII	432
ALL_INV_RVW	NFOTS467	NFOPDBII	14,400
ALL_INV_STAT_HIST	NFOTS463	NFOPDBII	5,760
ALRT	NFOTS010	NFOPDBII	366,480
ANSWER	NFOTS803	NFOPDBII	783,360
APRV_ITM	NFOTS015	NFOPDBII	528
APRV_PGM_SVC	NFOTS020	NFOPDBII	26,640
APRV_PGM_SVC_HIST	NFOTS025	NFOPDBII	357,840
APRV_PGM_SVC_RTE	NFOTS030	NFOPDBII	90,720
APS_REGISTRY	NFOTS915	NFOPDBII	50,400
APS_SVC_AT	NFOTS033	NFOPDBII	432
AR	NFOTS035	NFOPDBII	15,120
ARP	NFOTS040	NFOPDBII	622,080
ARP_ADDRSE	NFOTS045	NFOPDBII	264,960
ARP_DTL	NFOTS042	NFOPDBII	390,240
ARP_EXPN	NFOTS340	NFOPDBII	162,720
ARP_EXPN_AMT	NFOTS345	NFOPDBII	251,280
ARP_FUNC_REL	NFOTS060	NFOPDBII	23,040
ARP_NARR_INVLV	NFOTS041	NFOPDBII	14,400
ARP_REL	NFOTS065	NFOPDBII	250,560
ARP_TANF_TRKNG	NFOTS055	NFOPDBII	4,320
ARP_TX_RET_INC	NFOTS433	NFOPDBII	720
ARP_VERF	NFOTS752	NFOPDBII	198,720
AR_BIL_DTL	NFOTS274	NFOPDBII	2,160
AR_STAT	NFOTS070	NFOPDBII	15,840
AR_TRN	NFOTS075	NFOPDBII	123,120
ASP	NFOTS080	NFOPDBII	3,600
ASP_CASE_INVLV	NFOTS082	NFOPDBII	19,440
ASSIGNHIST	NFOTS911	NFOPDBII	11,520

ASSMNT	NFOTS805	NFOPDBII	7,200
ATP	NFOTS272	NFOPDBII	5,040
ATP_ARP_INVLV	NFOTS273	NFOPDBII	9,360
AT_VAR (Partioned)	NFOTS120	NFOPDBII	776,160
AT_VAR (Partioned)	NFOTS120	NFOPDBII	790,560
AT_VAR (Partioned)	NFOTS120	NFOPDBII	777,600
AT_VAR (Partioned)	NFOTS120	NFOPDBII	797,760
AT_VAR (Partioned)	NFOTS120	NFOPDBII	770,400
AT_VAR (Partioned)	NFOTS120	NFOPDBII	772,560
AT_VAR (Partioned)	NFOTS120	NFOPDBII	774,000
AT_VAR (Partioned)	NFOTS120	NFOPDBII	781,200
AT_VAR (Partioned)	NFOTS120	NFOPDBII	767,520
AT_VAR (Partioned)	NFOTS120	NFOPDBII	777,600
AT_VAR (Partioned)	NFOTS120	NFOPDBII	771,120
AT_VAR (Partioned)	NFOTS120	NFOPDBII	771,120
AT_VAR (Partioned)	NFOTS120	NFOPDBII	768,240
AT_VAR (Partioned)	NFOTS120	NFOPDBII	775,440
AT_VAR (Partioned)	NFOTS120	NFOPDBII	776,160
AT_VAR (Partioned)	NFOTS120	NFOPDBII	768,960
AT_VAR (Partioned)	NFOTS120	NFOPDBII	781,200
AT_VAR (Partioned)	NFOTS120	NFOPDBII	789,840
AT_VAR (Partioned)	NFOTS120	NFOPDBII	817,200
AT_VAR (Partioned)	NFOTS120	NFOPDBII	807,840
BCKGRND_CHK	NFOTS095	NFOPDBII	54,720
CARD_HOLDER	NFOTS598	NFOPDBII	15,840
CASE_PLAN	NFOTS806	NFOPDBII	18,000
CASE_PLAN_GOAL	NFOTS807	NFOPDBII	31,680
CASE_PLAN_GOAL_TXT	NFOTS811	NFOPDBII	660,960
CASE_PLAN_PCPI	NFOTS810	NFOPDBII	18,000
CFS_ASSET_TEST	NFOTS877	NFOPDBII	64,800
CHG_RPT	NFOTS332	NFOPDBII	38,880
CHG_RPT_CAT	NFOTS335	NFOPDBII	7,920
CHG_RPT_MC_INVLV	NFOTS336	NFOPDBII	9,360
CHG_RPT_STAT_HIST	NFOTS334	NFOPDBII	26,640
CHG_RPT_XML	NFOTS333	NFOPDBII	9,360
CHG_RPT_XML_AUX_1	NFOT1333	NFOPDBII	511,920
CHLD_DTL	NFOTS084	NFOPDBII	105,120
CHLD_RVW	NFOTS715	NFOPDBII	5,760
CHLD_RVW_AT_TAKEN	NFOTS719	NFOPDBII	432
CHLD_RVW_BARR	NFOTS716	NFOPDBII	2,880
CHLD_RVW_LG_REF_AT	NFOTS720	NFOPDBII	720
CHLD_RVW_SEL	NFOTS717	NFOPDBII	1,440
CHLD_RVW_STAT	NFOTS718	NFOPDBII	1,440
CLM	NFOTS135	NFOPDBII	880,560
CLM_ITM	NFOTS140	NFOPDBII	3,575,520
CLM_ITM_ADJ_RSN	NFOTS142	NFOPDBII	10,800
CLM_ITM_EXPND	NFOTS145	NFOPDBII	227,520
CLM_ITM_FNDNG_EXCP	NFOTS148	NFOPDBII	15,840
CLM_ITM_OP	NFOTS150	NFOPDBII	10,080
CLM_ITM_STAT_RSN	NFOTS155	NFOPDBII	32,400
CNTCT_DTL	NFOTS099	NFOPDBII	20,160
CODE_DECODE	NFOTS160	NFOPDBII	16,560
CODE_DECODE_EXT	NFOTS162	NFOPDBII	1,488
CODE_STAGING	NFOTS161	NFOPDBII	17,280
COMPLAINANT	NFOTS564	NFOPDBII	2,160
COMPLAINT	NFOTS562	NFOPDBII	720
COMPLAINT_ASGN	NFOTS566	NFOPDBII	720

COM_BANK_ACCT	NFOTS118	NFOPDBII	720
COM_BANK_ACCT_ASGN	NFOTS119	NFOPDBII	720
COM_BANK_ACCT_TYP	NFOTS121	NFOPDBII	720
COM_BANK_STMNT	NFOTS137	NFOPDBII	432
CONT_BUD_TRKR	NFOTS297	NFOPDBII	720
CONT_BUD_TRKR_TRN	NFOTS298	NFOPDBII	720
CONV_CASE_XREF	NFOTS995	NFOPDBII	5,760
CONV_CLI_XREF	NFOTS990	NFOPDBII	10,800
CONV_FCRB_XREF	NFOTS797	NFOPDBII	2,160
CONV_FSP_DUPL_PMT	NFOTS164	NFOPDBII	2,160
CONV_PAE_DUPL_PMT	NFOTS997	NFOPDBII	288
COR	NFOTS170	NFOPDBII	1,002,240
COR_ARCH	NFOTS172	NFOPDBII	21,600
COR_DOC	NFOTS182	NFOPDBII	1,098,000
COR_ENT (Partioned)	NFOTS175	NFOPDBII	586,080
COR_ENT (Partioned)	NFOTS175	NFOPDBII	588,960
COR_ENT (Partioned)	NFOTS175	NFOPDBII	592,560
COR_ENT (Partioned)	NFOTS175	NFOPDBII	594,720
COR_ENT (Partioned)	NFOTS175	NFOPDBII	590,400
COR_ENT (Partioned)	NFOTS175	NFOPDBII	575,280
COR_ENT (Partioned)	NFOTS175	NFOPDBII	587,520
COR_ENT (Partioned)	NFOTS175	NFOPDBII	595,440
COR_ENT (Partioned)	NFOTS175	NFOPDBII	587,520
COR_ENT (Partioned)	NFOTS175	NFOPDBII	589,680
COR_ENT (Partioned)	NFOTS175	NFOPDBII	583,920
COR_ENT (Partioned)	NFOTS175	NFOPDBII	578,880
COR_ENT (Partioned)	NFOTS175	NFOPDBII	586,800
COR_ENT (Partioned)	NFOTS175	NFOPDBII	586,800
COR_ENT (Partioned)	NFOTS175	NFOPDBII	586,080
COR_ENT (Partioned)	NFOTS175	NFOPDBII	625,680
COR_ENT (Partioned)	NFOTS175	NFOPDBII	574,560
COR_ENT (Partioned)	NFOTS175	NFOPDBII	608,400
COR_ENT (Partioned)	NFOTS175	NFOPDBII	604,080
COR_ENT (Partioned)	NFOTS175	NFOPDBII	618,480
COR_HIST	NFOTS180	NFOPDBII	496,080
COR_TMPL_LINE	NFOTS185	NFOPDBII	432
COR_TMPL_NAME	NFOTS184	NFOPDBII	432
COR_TRIG	NFOTS187	NFOPDBII	25,920
COR_XML	NFOTS125	NFOPDBII	350,640
COR_XML_AUX_1	NFOT1125	NFOPDBII	55,952,640
COURT_DTL	NFOTS052	NFOPDBII	5,040
CPGI	NFOTS808	NFOPDBII	17,280
CPL_LEGAL_AT_INVLV	NFOTS809	NFOPDBII	432
CPS_CNTR_RGSTY_RPT	NFOTS506	NFOPDBII	159,840
CPS_NARR	NFOTS508	NFOPDBII	97,920
CPS_PRS	NFOTS507	NFOPDBII	149,760
CPS_PRS_DTL	NFOTS509	NFOPDBII	84,240
CRT_RPT_INFO	NFOTS086	NFOPDBII	9,360
CSE_NONCOOP	NFOTS420	NFOPDBII	5,040
CSE_NONCOOP_USRTRK	NFOTS422	NFOPDBII	4,320
CSH_REPY	NFOTS190	NFOPDBII	15,120
CS_REF	NFOTS885	NFOPDBII	28,080
CS_REF_RLE	NFOTS890	NFOPDBII	33,840
CURRENT_PKSET	NFOTS212	NFOPDBII	144
CURR_OFFICE_POSTN	NFOTS901	NFOPDBII	7,200
CUST_AGNCY	NFOTS789	NFOPDBII	2,880
CUST_AGNCY_CNTCT	NFOTS790	NFOPDBII	27,360

CW_AGE_REL_DTL	NFOTS896	NFOPDBII	720
CW_CHKLST	NFOTS894	NFOPDBII	720
CW_CHKLST_DTL	NFOTS895	NFOPDBII	720
DB_ASGN	NFOTS950	NFOPDBII	144
DB_BKUP	NFOTS955	NFOPDBII	144
DERIVED_PLMNT	NFOTS906	NFOPDBII	1,488
DISABILITY	NFOTS791	NFOPDBII	384
DISC_ARP_XREF	NFOTS215	NFOPDBII	2,880
DRV_PERF_ACBTY	NFOTS903	NFOPDBII	1,488
DRV_SF_PERF_ACBTY	NFOTS904	NFOPDBII	1,488
DSS_OFC	NFOTS225	NFOPDBII	144
DSS_OFC_ADDRSE	NFOTS227	NFOPDBII	144
DSS_OFC_FNC	NFOTS226	NFOPDBII	144
DSS_OFC_POSTN	NFOTS230	NFOPDBII	2,880
DSS_OFC_POSTN_EXP	NFOTS233	NFOPDBII	720
DSS_OFC_POSTN_STF	NFOTS235	NFOPDBII	3,600
DSS_PST_SVC_DLV_GR	NFOTS232	NFOPDBII	432
DSTR_SNAP_ADMIN	NFOTS586	NFOPDBII	1,440
DSTR_SNAP_DCL_AREA	NFOTS587	NFOPDBII	1,440
DSTR_SNAP_PC_INVLV	NFOTS588	NFOPDBII	1,440
EBT_ACCOUNT	NFOTS596	NFOPDBII	8,640
ED	NFOTS240	NFOPDBII	2,097,360
ED_AABD	NFOTS245	NFOPDBII	321,840
ED_ADC_RRP	NFOTS255	NFOPDBII	426,240
ED_ARP_ELIG_DTL	NFOTS281	NFOPDBII	43,200
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	182,880
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	192,960
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	199,440
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	187,200
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	195,120
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	184,320
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	198,000
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	190,800
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	189,360
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	203,760
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	190,800
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	192,960
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	192,240
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	200,160
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	187,200
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	190,800
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	186,480
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	203,040
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	303,840
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	304,560
ED_ARP_EXPN	NFOTS260	NFOPDBII	1,643,760
ED_ARP_EXPN_AMT	NFOTS262	NFOPDBII	1,001,520
ED_AR_INVLV	NFOTS290	NFOPDBII	11,520
ED_CC	NFOTS295	NFOPDBII	79,200
ED_CFS	NFOTS876	NFOPDBII	39,600
ED_CW_AGE_REL_DTL	NFOTS897	NFOPDBII	3,600
ED_DTL	NFOTS253	NFOPDBII	1,047,600
ED_EI_PMT_SCH	NFOTS266	NFOPDBII	945,360
ED_EI_PMT_STUB	NFOTS267	NFOPDBII	2,211,840
ED_EXPND	NFOTS320	NFOPDBII	1,516,320
ED_EXPN_EST_OCC_DT	NFOTS264	NFOPDBII	2,880
ED_FINANCIAL	NFOTS291	NFOPDBII	6,292,080

ED_FIN_ARP_INVLV	NFOTS292	NFOPDBII	4,012,560
ED_FSP	NFOTS325	NFOPDBII	1,263,600
ED_INC_ACTIVITY	NFOTS265	NFOPDBII	5,263,200
ED_INC_ACTY_TOT	NFOTS258	NFOPDBII	504,720
ED_LIHEAP	NFOTS248	NFOPDBII	10,800
ED_LIHEAP_PMT_SCH	NFOTS246	NFOPDBII	7,200
ED_MED	NFOTS327	NFOPDBII	4,194,720
ED_NON_FINANCIAL	NFOTS280	NFOPDBII	6,292,080
ED_OP	NFOTS330	NFOPDBII	21,600
ED_OTH_GRANT_AMT	NFOTS326	NFOPDBII	200,880
ED_OVERRD_DTL	NFOTS284	NFOPDBII	6,480
ED_PGM_ELIG_DTL	NFOTS282	NFOPDBII	1,556,640
ED_PLMNT_MNGD_CARE	NFOTS279	NFOPDBII	432
ED_REL	NFOTS242	NFOPDBII	5,040
ED_RSRC	NFOTS275	NFOPDBII	1,782,720
ED_RSRC_EXCLSN_DIS	NFOTS278	NFOPDBII	179,280
ED_RSRC_OWNER	NFOTS276	NFOPDBII	1,601,280
ED_RSRC_VALUATION	NFOTS277	NFOPDBII	1,832,400
ED_RVW	NFOTS249	NFOPDBII	720
ED_SANCTION_DTL	NFOTS287	NFOPDBII	10,080
ED_SHL_EXPN_DTL	NFOTS286	NFOPDBII	491,040
ED_SLF_EMP_FTX_RET	NFOTS270	NFOPDBII	25,920
ED_SLF_EMP_FTX_SCH	NFOTS271	NFOPDBII	164,880
ED_SLF_EMP_LDG	NFOTS269	NFOPDBII	336,240
ED_TAX_HH_PRS	NFOTS417	NFOPDBII	720
ED_TOTAL	NFOTS293	NFOPDBII	4,995,360
ED_UI_AMT	NFOTS268	NFOPDBII	1,973,520
EI_PMT_SCH	NFOTS665	NFOPDBII	156,960
EI_PMT_STUB	NFOTS670	NFOPDBII	516,240
ELEC_APP	NFOTS126	NFOPDBII	451,440
ELEC_APP_CMNT	NFOTS141	NFOPDBII	256,320
ELEC_APP_PC_INVLV	NFOTS139	NFOPDBII	155,520
ELEC_APP_PGM	NFOTS138	NFOPDBII	46,080
ELEC_APP_PRITY_RSN	NFOTS147	NFOPDBII	4,320
ELEC_APP_PSTN_ASGN	NFOTS128	NFOPDBII	50,400
ELEC_APP_RPT_DATA	NFOTS067	NFOPDBII	720
ELEC_APP_STAT_HIST	NFOTS129	NFOPDBII	216,000
ELEC_APP_XML	NFOTS127	NFOPDBII	20,160
ELEC_APP_XML_AUX_1	NFOT1127	NFOPDBII	19,127,520
ELIG_RQMT	NFOTS350	NFOPDBII	143,280
ES_CASE_STAT	NFOTS110	NFOPDBII	1,111,680
ES_TRIG	NFOTS547	NFOPDBII	23,040
ES_UPLD_COMM	NFOTS477	NFOPDBII	720
EXT_OP	NFOTS365	NFOPDBII	5,040
EXT_PRSNL	NFOTS088	NFOPDBII	7,920
FAMILY_DTL	NFOTS880	NFOPDBII	5,040
FAM_STRENGTH	NFOTS816	NFOPDBII	73,440
FCLTY_TYPE	NFOTS815	NFOPDBII	5,040
FCLTY_TYPE_HIST	NFOTS864	NFOPDBII	8,640
FCLTY_TYP_ACCRDTN	NFOTS881	NFOPDBII	1,440
FCRB_LEGAL_AT	NFOTS793	NFOPDBII	2,880
FCRB_PLMNT	NFOTS796	NFOPDBII	27,360
FCRB_REL	NFOTS798	NFOPDBII	4,320
FCRHISTORY	NFOTS914	NFOPDBII	59,040
FCRMASTER1	NFOTS912	NFOPDBII	165,600
FCRMASTER2	NFOTS913	NFOPDBII	70,560
FSP_CERT_PRD	NFOTS283	NFOPDBII	225,360

FS_ISSU	NFOTS375	NFOPDBII	982,800
GENR_ALRT	NFOTS872	NFOPDBII	9,360
GENR_POSTN_ALRT_DS	NFOTS873	NFOPDBII	2,880
GOA_TSK	NFOTS385	NFOPDBII	140,400
GOA_TSK_MOPLHRS	NFOTS395	NFOPDBII	80,640
HHS_ALIEN_DTLS	NFOTS960	NFOPDBII	432
HHS_CHLD_SUPP	NFOTS961	NFOPDBII	432
HHS_CLMNT_CNTCT	NFOTS966	NFOPDBII	432
HHS_CLMNT_HIST	NFOTS967	NFOPDBII	432
HHS_CLM_BAL_INFO	NFOTS962	NFOPDBII	432
HHS_CLM_BEN_DTLS	NFOTS963	NFOPDBII	432
HHS_CLM_CLMNT_KEY	NFOTS976	NFOPDBII	15,840
HHS_CLM_ISS	NFOTS964	NFOPDBII	432
HHS_CLM_VRSN	NFOTS965	NFOPDBII	432
HHS_EMPLM_VRSN	NFOTS968	NFOPDBII	432
HHS_EMPLR	NFOTS969	NFOPDBII	432
HHS_ISS_DETRM	NFOTS970	NFOPDBII	1,440
HHS_OVPT	NFOTS971	NFOPDBII	432
HHS_PMT_CHK_DTLS	NFOTS972	NFOPDBII	432
HHS_PMT_DEDN_DTLS	NFOTS973	NFOPDBII	2,880
HHS_REOPN_CLM	NFOTS974	NFOPDBII	432
HHS_WKLY_ERNG	NFOTS975	NFOPDBII	432
HH_ID_CRD	NFOTS597	NFOPDBII	51,120
HH_ID_CRD_PRSN	NFOTS599	NFOPDBII	34,560
HLTH_CHK	NFOTS400	NFOPDBII	32,400
HOME_DTL	NFOTS817	NFOPDBII	14,400
HOME_INQUIRY	NFOTS863	NFOPDBII	336
HOME_STUDY	NFOTS355	NFOPDBII	5,040
HOME_STUDY_APP	NFOTS357	NFOPDBII	3,600
ICPC	NFOTS819	NFOPDBII	240
ILP_ARP_INVLV	NFOTS167	NFOPDBII	2,880
ILP_GOAL	NFOTS168	NFOPDBII	9,360
ILP_PLN	NFOTS165	NFOPDBII	6,480
ILP_PROVD_SVC	NFOTS169	NFOPDBII	4,320
ILP_RVW_HIST	NFOTS163	NFOPDBII	432
ILP_STAT_HIST	NFOTS166	NFOPDBII	3,600
INCLD_NARR_INVLV	NFOTS092	NFOPDBII	40,320
INC_ACTIVITY	NFOTS660	NFOPDBII	259,920
INFRML_LA_ARP_INVL	NFOTS311	NFOPDBII	432
INFRML_LIV_ARR	NFOTS310	NFOPDBII	432
INF_AUD	NFOTS425	NFOPDBII	272,160
INF_DD_STAT_TRKNG	NFOTS451	NFOPDBII	2,880
INF_FORTY_QTR	NFOTS443	NFOPDBII	10,800
INF_IUC	NFOTS435	NFOPDBII	342,720
INF_MDCR_RSPNS	NFOTS493	NFOPDBII	979,920
INF_MMA	NFOTS457	NFOPDBII	2,548,800
INF_MMA_D_ENR_DATA	NFOTS456	NFOPDBII	393,840
INF_SDX	NFOTS440	NFOPDBII	640,080
INF_SEW_EMP	NFOTS445	NFOPDBII	39,600
INF_SEW_QTR	NFOTS450	NFOPDBII	906,480
INF_SSA_BENDEX	NFOTS455	NFOPDBII	955,440
INF_SSA_WA	NFOTS460	NFOPDBII	144
INF_VIT_BIRTH	NFOTS405	NFOPDBII	542,160
INF_VIT_DEATH	NFOTS406	NFOPDBII	151,920
INF_VIT_DIVORCE	NFOTS408	NFOPDBII	60,480
INF_VIT_MARRIAGE	NFOTS407	NFOPDBII	93,600
INSTC_STAT	NFOTS517	NFOPDBII	39,600

INS_CARRIER	NFOTS869	NFOPDBII	432
INTAKE	NFOTS820	NFOPDBII	52,560
INTAKE_ARP_INVLV	NFOTS821	NFOPDBII	89,280
INTAKE_ASGN	NFOTS822	NFOPDBII	33,840
INTAKE_CHAR	NFOTS812	NFOPDBII	10,800
INTAKE_HIST	NFOTS823	NFOPDBII	179,280
INTAKE_NTFCN	NFOTS849	NFOPDBII	7,200
INTAKE_ORG_INVLV	NFOTS824	NFOPDBII	22,320
INTAKE_PRIRTY	NFOTS236	NFOPDBII	2,160
INTAKE_PRIRTY_DTL	NFOTS237	NFOPDBII	2,160
INTAKE_PRIRTY_OVRD	NFOTS238	NFOPDBII	2,160
INTAKE_SCR	NFOTS211	NFOPDBII	2,160
INTAKE_SCR_DTL	NFOTS229	NFOPDBII	4,320
INTAKE_SCR_OVRD	NFOTS234	NFOPDBII	7,200
INTAKE_SCR_VADLT	NFOTS231	NFOPDBII	2,160
INTAKE_TL_REC	NFOTS834	NFOPDBII	49,680
INTC_IUC_OTH_INC	NFOTS470	NFOPDBII	987,840
INTERNET_ADDR	NFOTS007	NFOPDBII	6,480
INTERVIEW	NFOTS602	NFOPDBII	100,800
INTK_PRS_INT_INVLV	NFOTS361	NFOPDBII	33,120
IN_CARE	NFOTS787	NFOPDBII	5,040
IN_CARE_RSN	NFOTS788	NFOPDBII	2,880
ITV_APPT	NFOTS604	NFOPDBII	26,640
ITV_PGM_CASE_INVLV	NFOTS603	NFOPDBII	126,720
ITV_SCH_CAPEXC	NFOTS605	NFOPDBII	720
ITV_SCH_CAPEXC_DTL	NFOTS606	NFOPDBII	2,160
IUC_CLM_BEN_BAL	NFOTS437	NFOPDBII	74,880
KNOWN_CASE	NFOTS999	NFOPDBII	75,600
LEGAL_AGNT	NFOTS799	NFOPDBII	5,040
LEGAL_AT	NFOTS825	NFOPDBII	113,760
LEGAL_AT_ARP_INVLV	NFOTS871	NFOPDBII	32,400
LEGAL_AT_OPI	NFOTS835	NFOPDBII	19,440
LEGAL_AT_PRS_INVLV	NFOTS826	NFOPDBII	87,840
LEGAL_AT_RE	NFOTS829	NFOPDBII	5,040
LEGAL_AT_SP_INVLV	NFOTS818	NFOPDBII	2,880
LEGAL_HRNG	NFOTS794	NFOPDBII	3,600
LICENSE_APRV	NFOTS827	NFOPDBII	11,520
LICENSE_APRV_HIST	NFOTS828	NFOPDBII	4,320
LICENSE_FCLTY_INVL	NFOTS862	NFOPDBII	3,600
LICENSE_HIST	NFOTS847	NFOPDBII	10,800
LIHEAP_CASEORG_ACT	NFOTS250	NFOPDBII	7,200
LIHEAP_CASE_INFO	NFOTS251	NFOPDBII	6,480
LIV_ARR	NFOTS482	NFOPDBII	93,600
LIV_PLACE	NFOTS050	NFOPDBII	60,480
MASS_CHG	NFOTS527	NFOPDBII	1,440
MASS_CHG_DTL	NFOTS528	NFOPDBII	90,720
MCPCI	NFOTS485	NFOPDBII	115,920
MDCR	NFOTS490	NFOPDBII	22,320
MDCR_BUYIN_INP	NFOTS492	NFOPDBII	28,080
MDCR_FORCE_BUYIN	NFOTS491	NFOPDBII	432
MED_DETRMN	NFOTS500	NFOPDBII	38,880
MED_INFO	NFOTS830	NFOPDBII	4,320
MODULE_TO_DO	NFOTS510	NFOPDBII	1,121,040
MST_CASE	NFOTS515	NFOPDBII	34,560
MST_CASE_PRS	NFOTS520	NFOPDBII	164,160
MST_CASE_UNT_TST	NFOTS522	NFOPDBII	720
NARR_ENT	NFOTS525	NFOPDBII	4,194,720

NARR_HDR	NFOTS831	NFOPDBII	4,034,160
NARR_TMPL	NFOTS532	NFOPDBII	720
NARR_TMPL_STAGING	NFOTS533	NFOPDBII	720
NARR_TXT	NFOTS832	NFOPDBII	16,778,880
NCANDS	NFOTS902	NFOPDBII	1,002,240
NEW_HIRE_INF	NFOTS461	NFOPDBII	239,040
NME_HIST	NFOTS535	NFOPDBII	288,000
NON_ISS_PMT	NFOTS537	NFOPDBII	3,600
NTC_HDR	NFOTS541	NFOPDBII	144
NTC_MSG	NFOTS543	NFOPDBII	288
NYTD_SEL	NFOTS498	NFOPDBII	432
NYTD_SURV	NFOTS499	NFOPDBII	432
NYTD_SURV_QUES	NFOTS497	NFOPDBII	1,440
OJS_CMNT_HIST	NFOTS879	NFOPDBII	2,160
OLTRAN	NFOTS545	NFOPDBII	600,480
ORG	NFOTS550	NFOPDBII	48,960
ORG_ADDRSE	NFOTS555	NFOPDBII	22,320
ORG_ASGN	NFOTS833	NFOPDBII	4,320
ORG_CONT_ASGN	NFOTS557	NFOPDBII	6,480
ORG_DUP_XREF	NFOTS560	NFOPDBII	432
ORG_PMT	NFOTS642	NFOPDBII	193,680
ORG_PREF_CHAR	NFOTS837	NFOPDBII	5,040
ORG_PREF_CHAR_HIST	NFOTS867	NFOPDBII	2,880
ORG_PROVD_FUEL	NFOTS254	NFOPDBII	1,488
ORG_PRS_INVLV	NFOTS570	NFOPDBII	25,920
ORG_TX_INFO	NFOTS551	NFOPDBII	16,560
ORG_TX_INFO_HIST	NFOTS553	NFOPDBII	3,600
ORG_TX_INFO_INVLV	NFOTS552	NFOPDBII	7,200
PA_ARP_INVLV	NFOTS103	NFOPDBII	432
PA_STAT_HIST	NFOTS104	NFOPDBII	432
PCAI	NFOTS580	NFOPDBII	431,280
PCA_ARP_INVLV	NFOTS113	NFOPDBII	432
PCA_STAT_HIST	NFOTS112	NFOPDBII	2,160
PCPI	NFOTS585	NFOPDBII	215,280
PCPI_HIST	NFOTS590	NFOPDBII	2,097,360
PCPI_STAT_TRKG	NFOTS591	NFOPDBII	732,240
PERM_OBJ	NFOTS840	NFOPDBII	17,280
PGM_CASE	NFOTS595	NFOPDBII	332,640
PGM_CASE_ASGN	NFOTS600	NFOPDBII	200,160
PGM_CASE_COR	NFOTS610	NFOPDBII	344,160
PGM_CASE_HIST	NFOTS615	NFOPDBII	1,170,000
PGM_CASE_MODE_HIST	NFOTS594	NFOPDBII	467,280
PGM_CASE_NARR_ENT	NFOTS620	NFOPDBII	1,756,800
PGM_CASE_RVW	NFOTS632	NFOPDBII	243,360
PGM_CASE_STAT_TRKG	NFOTS616	NFOPDBII	230,400
PGM_SVC_TYP	NFOTS625	NFOPDBII	432
PGM_SVC_TYP_SEL	NFOTS630	NFOPDBII	60,480
PHN_NBR	NFOTS635	NFOPDBII	205,200
PKSET_LIST	NFOTS213	NFOPDBII	144
PKSET_RESVTN	NFOTS214	NFOPDBII	1,440
PLMNT	NFOTS843	NFOPDBII	30,960
PLMNT_HIST	NFOTS870	NFOPDBII	33,840
PLMNT_MNGC_DCSN	NFOTS712	NFOPDBII	432
PLMNT_MNGC_DNL_RSN	NFOTS713	NFOPDBII	432
PLMNT_PCPI_INVLV	NFOTS865	NFOPDBII	17,280
PLMNT_PREF	NFOTS844	NFOPDBII	2,016
PLMNT_PREF_HIST	NFOTS845	NFOPDBII	1,680

PMT	NFOTS640	NFOPDBII	806,400
PMT_DETRMN	NFOTS838	NFOPDBII	5,040
PMT_DETRMN_HIST	NFOTS839	NFOPDBII	7,920
POSTN_ALRT_DSP	NFOTS645	NFOPDBII	69,840
PRCTV_CPCTY_ASSMNT	NFOTS111	NFOPDBII	720
PRCTV_CPCTY_SKL	NFOTS115	NFOPDBII	6,480
PREG	NFOTS650	NFOPDBII	25,200
PROF	NFOTS657	NFOPDBII	1,440
PROF_STAGING	NFOTS658	NFOPDBII	720
PROTECTIVE_AT	NFOTS102	NFOPDBII	432
PRSN_ASTNC_CRTR	NFOTS404	NFOPDBII	8,640
PRSN_ASTNC_ND	NFOTS403	NFOPDBII	16,560
PRSN_ASTNC_PLN	NFOTS402	NFOPDBII	5,040
PRS_ADD_DTL	NFOTS841	NFOPDBII	41,040
PRS_ADD_DTL_HIST	NFOTS861	NFOPDBII	27,360
PRS_ASSET	NFOTS123	NFOPDBII	432
PRS_CHAR	NFOTS842	NFOPDBII	555,120
PRS_LEG_OFNS	NFOTS858	NFOPDBII	1,440
PRS_OF_INT	NFOTS360	NFOPDBII	46,800
PRS_POP_SERV	NFOTS857	NFOPDBII	9,360
PRS_TRKNG	NFOTS786	NFOPDBII	10,080
PRTL_INVLV	NFOTS795	NFOPDBII	2,880
PRTL_RIGHTS	NFOTS044	NFOPDBII	2,880
PRTL_RI_APPL	NFOTS048	NFOPDBII	7,200
PRTL_RI_TRMN_EXCP	NFOTS046	NFOPDBII	7,200
PYEPMT_MTH_ST_HIST	NFOTS638	NFOPDBII	9,360
PYE_PMT_MTHD	NFOTS637	NFOPDBII	20,160
RACE_ETHNICITY	NFOTS043	NFOPDBII	83,520
REMOVAL	NFOTS848	NFOPDBII	4,320
REMOVAL_PCPI_INVLV	NFOTS866	NFOPDBII	7,200
REPY_MTHD	NFOTS690	NFOPDBII	6,480
RESTRAINT	NFOTS910	NFOPDBII	240
RET_COND	NFOTS089	NFOPDBII	2,160
RET_COND_PRS_INVLV	NFOTS090	NFOPDBII	720
RET_COND_STAT_HIST	NFOTS091	NFOPDBII	2,160
REVIEW	NFOTS761	NFOPDBII	5,760
RFND_DOC_DTL	NFOTS256	NFOPDBII	720
RFND_DOC_DTL_AMT	NFOTS257	NFOPDBII	720
RISK_DTL	NFOTS851	NFOPDBII	6,480
RISK_ITEM	NFOTS852	NFOPDBII	93,600
RMVL_RSN	NFOTS850	NFOPDBII	4,320
RPT_ARCH	NFOTS692	NFOPDBII	1,039,680
RPT_ARCH	NFOTS692	NFOPDBII	401,040
RPT_ARCH	NFOTS692	NFOPDBII	277,200
RPT_ARCH	NFOTS692	NFOPDBII	162,720
RPT_ARCH	NFOTS692	NFOPDBII	144
RPT_ARCH	NFOTS692	NFOPDBII	144
RPT_ARCH	NFOTS692	NFOPDBII	144
RPT_ARCH	NFOTS692	NFOPDBII	144
RPT_ARCH	NFOTS692	NFOPDBII	144
RPT_ARCH	NFOTS692	NFOPDBII	56,880
RPT_ARCH	NFOTS692	NFOPDBII	116,640
RPT_ARCH	NFOTS692	NFOPDBII	3,600
RPT_FRM_TRKNG	NFOTS328	NFOPDBII	6,480
RPT_INFO	NFOTS694	NFOPDBII	192
RPT_STAT	NFOTS695	NFOPDBII	144
RSRC	NFOTS200	NFOPDBII	192,240

RSRC_EXCLSN_DISRD	NFOTS210	NFOPDBII	10,080
RSRC_OWNER	NFOTS195	NFOPDBII	72,720
RSRC_VALUATION	NFOTS205	NFOPDBII	205,920
RVW_BOARD_RSLT	NFOTS768	NFOPDBII	9,360
RVW_CNTCT	NFOTS767	NFOPDBII	10,800
RVW_DTL	NFOTS764	NFOPDBII	9,360
RVW_INJ	NFOTS763	NFOPDBII	720
RVW_RSTRT	NFOTS762	NFOPDBII	432
RVW_SERV_PROVD	NFOTS766	NFOPDBII	3,600
SAFETY_PLAN_DTL	NFOTS853	NFOPDBII	4,320
SAFETY_PLAN_ITM	NFOTS854	NFOPDBII	92,880
SANCTION	NFOTS053	NFOPDBII	9,360
SA_POSTN_ALRT_DSP	NFOTS697	NFOPDBII	1,440
SA_RENEWAL_DT	NFOTS698	NFOPDBII	7,920
SCHL_ATTNDCE	NFOTS700	NFOPDBII	18,000
SDM_CP	NFOTS380	NFOPDBII	2,160
SDM_CP_ARP_INVLV	NFOTS382	NFOPDBII	3,600
SDM_CP_CPLY	NFOTS386	NFOPDBII	720
SDM_CP_ILP_INVLV	NFOTS384	NFOPDBII	720
SDM_CP_PERM_OBJ	NFOTS383	NFOPDBII	2,160
SDM_CP_STAT_HIST	NFOTS381	NFOPDBII	2,160
SDM_FSNA	NFOTS223	NFOPDBII	4,320
SDM_FSNA_RTNG	NFOTS204	NFOPDBII	42,480
SDM_FSNA_STAT_HIST	NFOTS206	NFOPDBII	10,800
SDM_HH	NFOTS216	NFOPDBII	7,920
SDM_HH_ARP_INVLV	NFOTS218	NFOPDBII	5,760
SDM_HH_NME	NFOTS209	NFOPDBII	6,480
SDM_HH_RLE_HIST	NFOTS219	NFOPDBII	7,200
SDM_HH_STAT_HIST	NFOTS217	NFOPDBII	6,480
SDM_PCA	NFOTS208	NFOPDBII	1,440
SDM_PCA_ARP_INVLV	NFOTS224	NFOPDBII	1,440
SDM_PCA_CHLD_SFTY	NFOTS199	NFOPDBII	1,440
SDM_PCA_CNTCT_DTL	NFOTS193	NFOPDBII	2,160
SDM_PCA_STAT_HIST	NFOTS207	NFOPDBII	1,440
SDM_RA	NFOTS198	NFOPDBII	5,040
SDM_RA_CNTCT_DTL	NFOTS228	NFOPDBII	7,920
SDM_RA_IDX	NFOTS202	NFOPDBII	22,320
SDM_RA_OVERRD	NFOTS203	NFOPDBII	5,040
SDM_RA_STAT_HIST	NFOTS201	NFOPDBII	7,920
SDM_RUA	NFOTS366	NFOPDBII	1,440
SDM_RUA_ARP_INVLV	NFOTS367	NFOPDBII	3,600
SDM_RUA_CHLD_SFTY	NFOTS373	NFOPDBII	2,160
SDM_RUA_OVERRD	NFOTS370	NFOPDBII	2,880
SDM_RUA_PRTME_OVRD	NFOTS372	NFOPDBII	1,440
SDM_RUA_PRT_TME	NFOTS371	NFOPDBII	2,160
SDM_RUA_RSK_IDX	NFOTS369	NFOPDBII	2,880
SDM_RUA_STAT_HIST	NFOTS368	NFOPDBII	4,320
SDM_SA	NFOTS220	NFOPDBII	7,200
SDM_SA_ARP_INVLV	NFOTS221	NFOPDBII	4,320
SDM_SA_CHLD_SFTY	NFOTS188	NFOPDBII	7,200
SDM_SA_CNTCT_DTL	NFOTS222	NFOPDBII	7,200
SDM_SA_STAT_HIST	NFOTS189	NFOPDBII	6,480
SDM_SP	NFOTS192	NFOPDBII	1,440
SDM_SP_MNTR	NFOTS191	NFOPDBII	6,480
SDM_SP_MNTR_ASSMNT	NFOTS194	NFOPDBII	3,600
SDX_MEDI	NFOTS703	NFOPDBII	326,880
SDX_UEI	NFOTS707	NFOPDBII	272,880

SEQ_NBR_ASGN	NFOTS710	NFOPDBII	144
SERVICE_PAYMENT	NFOTS899	NFOPDBII	12,960
SFTY_ASSMNT	NFOTS094	NFOPDBII	6,480
SFTY_ASSMNT_ASGN	NFOTS100	NFOPDBII	5,040
SFTY_ASSMNT_RVW	NFOTS105	NFOPDBII	54,720
SFTY_AST_ARP_INVLV	NFOTS096	NFOPDBII	28,800
SFTY_AST_STAT_HIST	NFOTS101	NFOPDBII	18,000
SFTY_FACTOR	NFOTS097	NFOPDBII	78,480
SFTY_PLN	NFOTS106	NFOPDBII	3,600
SFTY_PLN_ANLYS	NFOTS077	NFOPDBII	4,320
SFTY_PLN_ARP_INVLV	NFOTS107	NFOPDBII	13,680
SFTY_PLN_PRTC_AST	NFOTS098	NFOPDBII	25,920
SFTY_PLN_RVW	NFOTS109	NFOPDBII	432
SFTY_PLN_STAT_HIST	NFOTS108	NFOPDBII	5,040
SHDW_ATTR	NFOTS518	NFOPDBII	21,600
SLF_EMP_FED_TX_RET	NFOTS675	NFOPDBII	4,320
SLF_EMP_FED_TX_SCH	NFOTS680	NFOPDBII	8,640
SLF_EMP_LDG	NFOTS685	NFOPDBII	37,440
SSN_HIST	NFOTS047	NFOPDBII	84,240
STN_NARR	NFOTS156	NFOPDBII	2,697,840
STN_NARR_SBH	NFOTS157	NFOPDBII	699,120
STN_PGM_TYP	NFOTS159	NFOPDBII	1,154,160
STN_SBH_DPRM_TMPL	NFOTS304	NFOPDBII	432
STN_SBH_PG_TYP_TMP	NFOTS303	NFOPDBII	432
STN_SBH_TMPL	NFOTS302	NFOPDBII	432
STN_SBH_TXT_TMPL	NFOTS305	NFOPDBII	720
STN_SBJ_TMPL	NFOTS300	NFOPDBII	720
STN_SSH_INVLV_TMPL	NFOTS301	NFOPDBII	432
STN_TEXT	NFOTS158	NFOPDBII	5,243,760
ST_WARD_DTL	NFOTS122	NFOPDBII	2,160
SUBSIDY	NFOTS856	NFOPDBII	2,160
SUBSIDY_PMT	NFOTS875	NFOPDBII	2,880
SUBSIDY_RSN	NFOTS874	NFOPDBII	2,880
SUBS_ADOP_DTL	NFOTS724	NFOPDBII	1,440
SUBS_GRDN_DTL	NFOTS329	NFOPDBII	720
SUSP_CLM	NFOTS721	NFOPDBII	2,880
SVC_APRV	NFOTS725	NFOPDBII	11,520
SVC_APRV_ALRT	NFOTS727	NFOPDBII	15,120
SVC_APRV_ASGN	NFOTS730	NFOPDBII	16,560
SVC_AUTHN	NFOTS735	NFOPDBII	717,840
SVC_REF	NFOTS868	NFOPDBII	31,680
SVC_REQ	NFOTS742	NFOPDBII	2,880
SVC_TYP	NFOTS740	NFOPDBII	144
SVES_REQUEST	NFOTS442	NFOPDBII	185,760
SVES_TRIGGER	NFOTS441	NFOPDBII	432
SWTF_ACCT	NFOTS116	NFOPDBII	2,160
SWTF_ACCT_BAL_HIST	NFOTS114	NFOPDBII	427,680
SWTF_ACCT_HIST	NFOTS117	NFOPDBII	2,880
SWTF_BTCH_HDR	NFOTS136	NFOPDBII	3,600
SWTF_MO_MNT_HIST	NFOTS124	NFOPDBII	2,160
SWTF_REQ	NFOTS133	NFOPDBII	2,160
SWTF_REQ_HIST	NFOTS134	NFOPDBII	5,040
SWTF_TRAN	NFOTS131	NFOPDBII	59,040
TANF_HRDSHP_TRKNG	NFOTS057	NFOPDBII	432
TAX_HH	NFOTS414	NFOPDBII	720
TAX_HH_PRS	NFOTS415	NFOPDBII	720
TRAN_RGST	NFOTS132	NFOPDBII	2,880

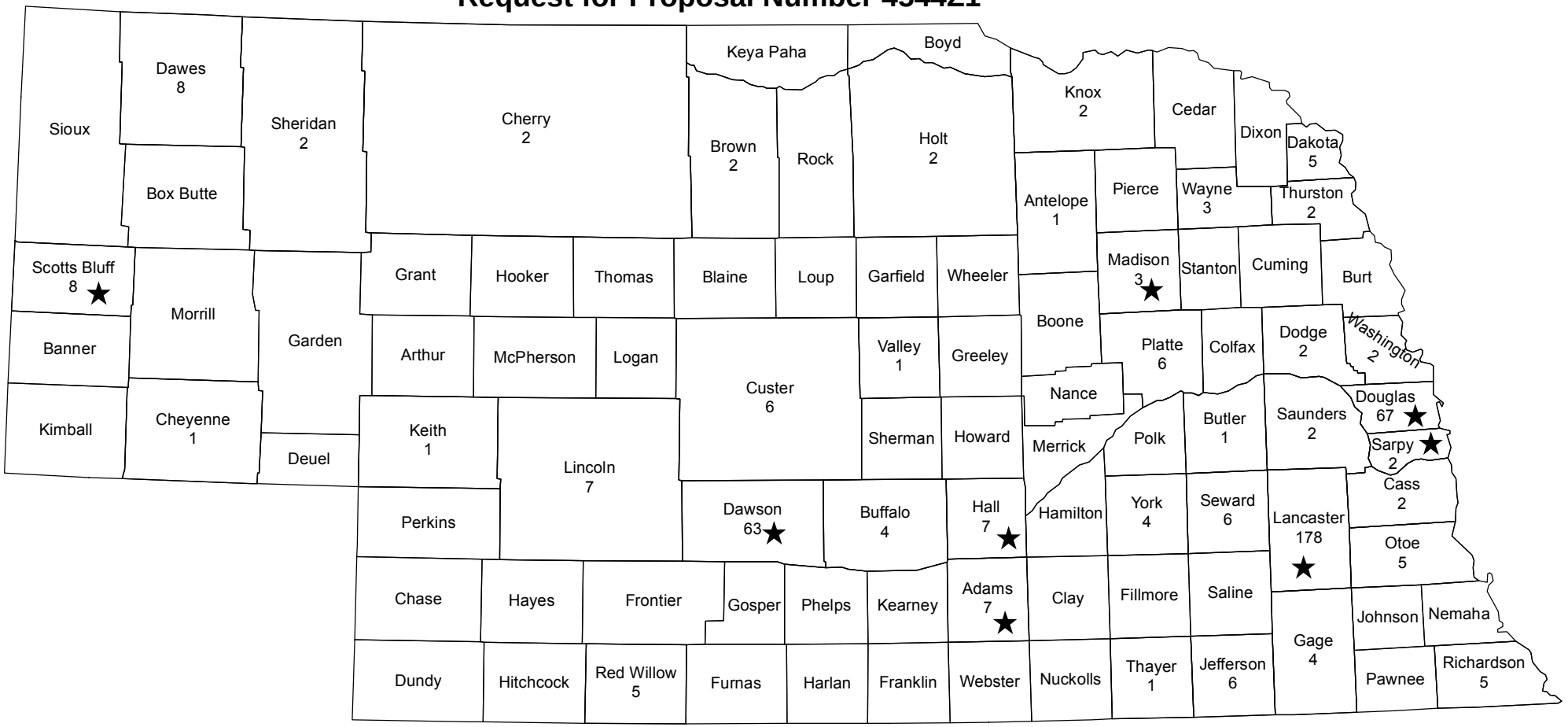
REVISED Appendix A
Production Database Size by table for N-Focus
NOVEMBER 26, 2013

TRIBAL_INFO	NFOTS836	NFOPDBII	1,584
UAM_ASGN_PIN	NFOTS379	NFOPDBII	17,280
UAM_PIN	NFOTS378	NFOPDBII	29,520
UI_AMT	NFOTS688	NFOPDBII	514,080
UMP_TX_DTL	NFOTS031	NFOPDBII	2,160
UMP_TX_DTL_HIST	NFOTS036	NFOPDBII	720
UMP_TX_WGE_DTL	NFOTS034	NFOPDBII	2,880
UNCOPE_ASSMNT	NFOTS307	NFOPDBII	2,880
UNCOPE_ASSMNT_DTL	NFOTS308	NFOPDBII	4,320
UNT_AND_RTE	NFOTS732	NFOPDBII	367,200
UNT_AND_RTE_OVERRD	NFOTS733	NFOPDBII	7,200
USR_FNC_AUD	NFOTS747	NFOPDBII	842,400
USR_FNC_AUD_ALL	NFOTS747	NFOPDBII	842,400
US_IMMGRTN_STAT	NFOTS745	NFOPDBII	7,920
VERF_REQ	NFOTS312	NFOPDBII	82,080
VERF_REQ_DTL	NFOTS313	NFOPDBII	208,080
VERF_REQ_TRKNG	NFOTS316	NFOPDBII	42,480
VERF_REQ_TRKNG_DTL	NFOTS317	NFOPDBII	54,720
VERF_REQ_TRKNG_PGM	NFOTS318	NFOPDBII	27,360
VIT_CERT_REQ	NFOTS410	NFOPDBII	10,080
VIT_CERT_REQ_PRS	NFOTS411	NFOPDBII	20,160
VIT_OUT_ST_REQ	NFOTS409	NFOPDBII	720
VIT_REQ_STAT_HIST	NFOTS412	NFOPDBII	7,200
VOCHR	NFOTS755	NFOPDBII	336
VOCHR_SUMMARY_LNE	NFOTS760	NFOPDBII	7,920
VSTN_PLAN	NFOTS859	NFOPDBII	7,200
VSTN_PLAN_PCPI	NFOTS860	NFOPDBII	5,040
WRK_REG_ET	NFOTS051	NFOPDBII	47,520
WRK_TSK	NFOTS478	NFOPDBII	43,200
WRK_TSK_PGM	NFOTS479	NFOPDBII	13,680
YLS_ASSMNT	NFOTS646	NFOPDBII	3,600
YLS_ASSMNT_CHAR	NFOTS643	NFOPDBII	4,320
YLS_ASSMNT_DOMN	NFOTS647	NFOPDBII	11,520
YLS_ASSMNT_HIST	NFOTS649	NFOPDBII	6,480
YLS_DOMN_CHAR	NFOTS648	NFOPDBII	38,160
661 TABLES IN PRODUCTION			**251,708,544**
			SIZE IN KBYTES

349,595
SIZE IN CYLINDERS

Staff in County

Request for Proposal Number 4544Z1



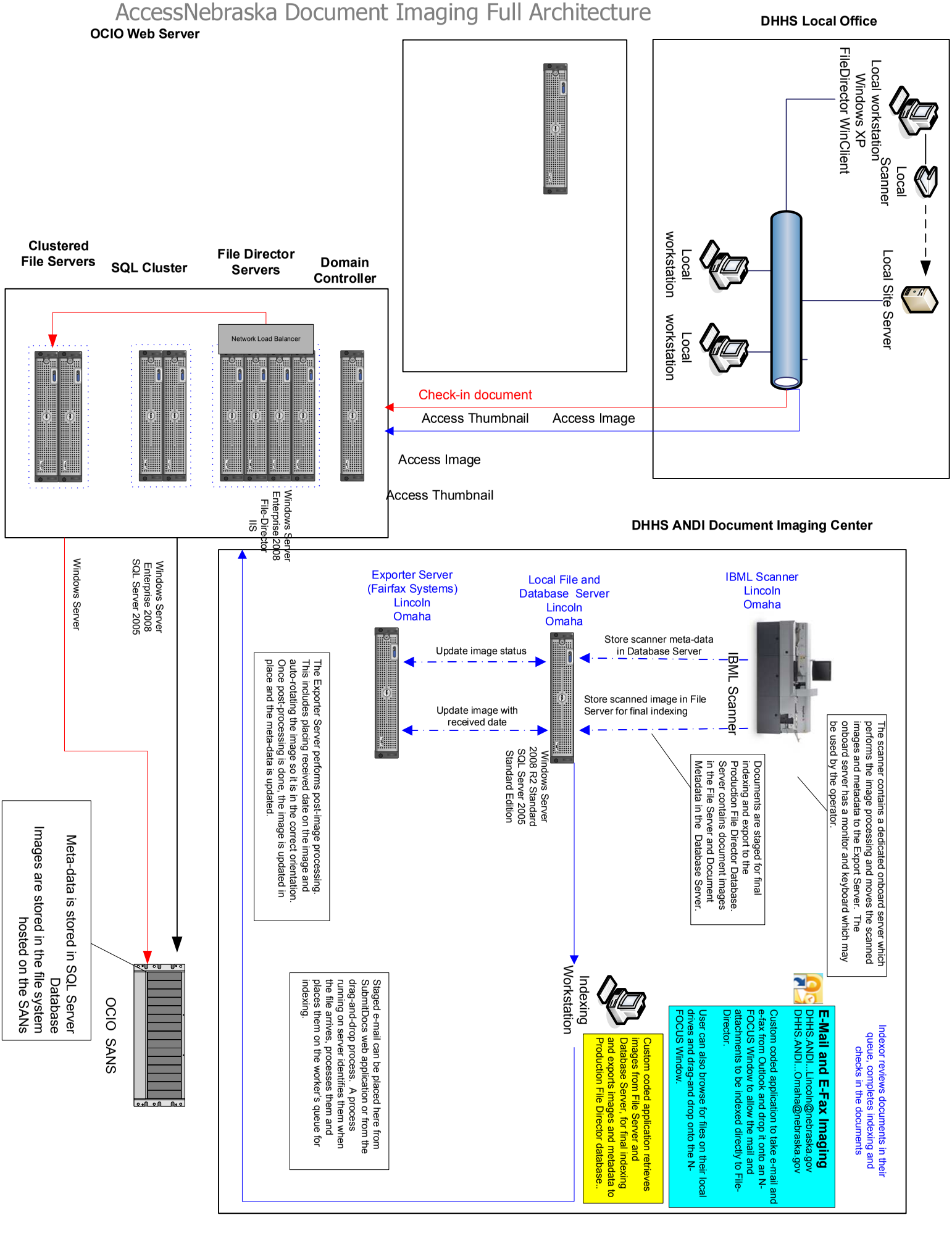
Legend:

Number in County Represents: Number of Staff

★ Training Sites

Request for Proposal Number 4544Z1

AccessNebraska Document Imaging Full Architecture



Appendix A

Bidder Library Content

Request for Proposal Number 4544Z1

The Procurement Library contains information which should be of use to the vendor in developing their proposed solution.

Medicaid Eligibility and Enrollment System
MMIS Existing Infrastructure
N-FOCUS Overview
N-FOCUS Interface Documentation and Schedule
N-FOCUS Technical Overview
Technical Framework
Nebraska EES Analysis
EES IV&V RFP
Production Database Size by table for N.Focus
Staff in County
ANDI Full Architecture
Excerpt from DHHS IT Securing Hardware and Software Standard DHHS-2013-001-A

Medicaid Eligibility and Enrollment System

Request for Proposal Number 4544Z1

There are two existing systems that Nebraska will be modifying for ACA compliance.

Nebraska's current functional environment is called ACCESSNebraska. ACCESSNebraska provides service delivery for Nebraska Medicaid and the Economic Assistance Programs (Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), Low Income Home Energy Assistance Program (LIHEAP) and several smaller programs. The environment contains the following components:

1. Web site
2. Customer Service Centers
3. Local Offices
4. Universal and Assigned Case Management model
5. Functional Case Management Assignments
6. Document Imaging

The web site ACCESSNebraska.ne.gov contains the following: Do I Qualify? (screening tool), Application, Change Reporting, Benefit Accounts, Submit Documents and information on Community Partners, Local Offices, etc. The Benefit Accounts contains information on benefit eligibility and copies of correspondence sent to the account holder. The accounts require a PIN authentication process and security questions to set up.

ACCESSNebraska has four (4) Customer Service Centers with a total of 400 staff. The Customer Service Centers utilize a single 800 telephone number for access with local calling available in Lincoln. With ACA implementation, a new phone number is being set up for Medicaid. Two of the Customer Service Centers will begin taking these calls for a total of 150 staff. The phone system utilizes an Integrated Voice Response System that retrieves customer data from N-FOCUS and is available 24 hours a day, seven days a week. They system is connected to an Automated Call Distribution System which directs callers to specific routing with case managers who have knowledge and expertise to answer the question. The system utilizes Call Quality Recording and Monitoring (CQRM) to store data. The voice signature will be stored as a part of this. It is currently envisioned that a staff member will take the application over the telephone. Eventually the application process will be moved to the IVR with the data transmitted to the new EES. The system is managed utilizing Contact Center Manager software that allows for reporting.

Nebraska has local offices throughout the state where customers can walk in. The local offices accept applications, conduct interviews, determine eligibility and have kiosks available for customers to utilize the web site and contact the Customer Service Center.

ACCESSNebraska utilizes a Universal Case Management system for most of its case management. In the Universal Case Management System, work tasks are created for staff to act on the cases as the need arises. Work is prioritized inside the work queues. Work queues in use include: Document Imaging, Application Management, Interviewing, Eligibility Processing, and Change Management. Some cases are assigned to a case manager and processed with the single case manager completing all case actions.

Staff is assigned to work out of queues according to functions. Staff complete all tasks for the function assigned. Staff is also divided into Service Delivery Groups known as adult and family. With ACA implementation, staff will now be divided by MAGI, Non-MAGI and Combined. Combined is a case with both MAGI and Non-MAGI eligible people.

The system is supported by two Document Imaging Centers. These centers contain two high speed IBML scanners that scan documents. In addition, documents can be moved electronically to be stored in the system. All documents are indexed by person and category. Local offices have Canon Scanners to scan documents received locally. The Document Imaging System is integrated and viewable through N-FOCUS.

MMIS Existing Infrastructure

Request for Proposal Number 4544Z1

The foundation of the current MMIS technical architecture was developed in 1973. The current MMIS has been fully operational since 1978 and became HIPAA compliant in October 2003. The MMIS consists of batch and online CICS mainframe components and a front-end HIPAA compliant Sybase Translator.

The Nebraska MMIS currently consists of the following 16 subsystems:

1. Data Management – The Nebraska DHHS currently contracts with Truven Health Analytics for data management, housing ten years of Medicaid claims and provider and client information used to facilitate management reporting, including the Management & Administrative Reporting Subsystem (MARS), the Surveillance and Utilization Review Subsystem (SURS) and the Medicaid Statistical Information System (MSIS) reporting.
2. Drug Claims Processing – The Nebraska DHHS currently contracts with Magellan Medicaid Administration (MMA) for drug claims receipt and adjudication. MMA's Point of Service (POS) system supports the National Council for Prescription Drug Programs standards, including currently D.0 and 1.1 (batch) formats. The POS sends processed pharmacy claims to the State's MMIS on a daily basis, where the claims are passed into the MMIS weekly payment cycle for final adjudication, payment, and reporting.
3. Management & Administrative Reporting Subsystem (MARS) – Provides system generated reports. The Nebraska DHHS also contracts with Truven Health Analytics to provide management information.
4. Medicaid Drug Rebate (MDR) – A PC-based extract from MMIS claims history to prepare quarterly invoices for drug rebates from manufacturers.
5. Medical Claims Processing (MCP) – Edits claims and calculates reimbursement amounts.
6. Medical Non-Federal (MNF) – Ensures that Title XIX Federal matching funds are not used to pay for health care services otherwise available through Title XVIII (Medicare) funding.
7. Medical Provider Subsystem (MPS) – Maintains demographic, eligibility, and licensing data for all enrolled Medicaid providers.
8. Nebraska Aging Management Information System (NAMIS II) – This application supports the activities of the State Unit on Aging. It was developed to enter, edit, monitor, and report services provided by Area Agencies on Aging in Nebraska, track services required by the U.S. Administration on Aging (AoA), and to compile information required by the AoA for NAPIS, the National Aging Program Information System. It is also used to manage programs, track costs in certain services, track program usage, and analyze client demographics.
9. Nebraska Disability Program (NDP) – Accounts for the separate funding of health care services for disabled persons who do not meet the SSI disability duration requirements but are eligible for the same medical services as Medicaid.
10. Nebraska Managed Care System (NMC) – Provides plan and PCP enrollment of Medicaid clients into managed care, and documentation of communications between the client, the enrollment broker, and the managed care plans. The NMC offers basic case management functionality.

11. Nebraska Medicaid Eligibility System (NMES) – An automated voice response system used to verify client Medicaid or managed care eligibility for Nebraska Medicaid. The current Interactive Voice Response Unit also supports the Nebraska's Child Support system, known as Children Have A Right To Support (CHARTS), which serves as Nebraska's statewide Child Support Enforcement (CSE) system.
12. Recipient File Subsystem (RFS) – Uses and maintains Medicaid client eligibility data obtained from N-FOCUS.
13. Reference File Subsystem (RSS) – A database containing various reference information that includes but is not limited to, procedure, diagnosis and drug codes, and fee schedules.
14. Screening Eligible Children (SEC) – Facilitates comprehensive, preventative health care and early detection and treatment of health problems in Medicaid eligible children.
15. Surveillance and Utilization Review Subsystem (SURS) – Provides system generated reports. MLTC also contracts with Truven Health Analytics for reports and tools to support the investigation of potential provider fraud, abuse, or misuse.
16. Third Party Liability (TPL) – Stores information on Medicaid clients with private insurance; contains edits and produces reports for coordination of benefits and recovery.

Current System

Current System Overview

- Current solution is comprised of two primary components
  - N-FOCUS and ACCESSNebraska

- Nebraska Family Online Client User System (N-FOCUS)
  - Integrated service delivery and case management system
  - Supports over 30 programs overseen by the Nebraska Department of Health and Human Services (DHHS)
  - Functions include client/case intake, eligibility determination, case management, service authorization, benefit payments, claims processing and payment, provider contract management, and government and management reporting.
  - Supports Medicaid Eligibility, as well as other programs such as SNAP and TANF
  - Statewide Automated Child Welfare Information System (SACWIS)
  - Interfaces with Medicaid Management Information System (MMIS)

Current System Overview

- ACCESSNebraska
  - Public facing web front-end
  - Provides the public a means to apply on-line for public aid
  - Supports subset of programs in N-FOCUS
  - Umbrella Application which includes the following functions:
    - Screening – survey that assists applicants in understanding their potential eligibility
    - E-App – electronic application for benefits
    - Change Reporting – update name, address other demographic data
    - Inquiry – check status of benefits
  - Call Centers
    - Operate in conjunction with the AccessNebraska system
    - Four centers located across the state
    - Functions include conducting interviews, taking customer changes, and providing information and referral services via the telephone

Current System Architecture

- N-FOCUS
  - Highly integrated client/server application built in 1996
  - On-line system
    - Client
      - Windows 7/XP
      - developed using CA Gen and AION to generate windows and C code
      - some custom developed C code
      - External Call Interface (ECI) used to connect to server components
      - 475 windows, 490 +client procedures
    - Server components
      - Z/OS
      - CICS transactions
      - CA Gen generated and in house developed COBOL
      - 470 server procedures
    - AION
      - Supports complex eligibility data gathering
      - Automated determination and noticing processes

Current System Architecture

- N-FOCUS On-line System (continued)
  - Web components
    - Java Server Faces and Facelets developed using Eclipse IDE
    - Tomcat WAS on Linux

- Batch System
  - Z/OS COBOL
    - 700+ procedures, 640+ programs, 220+ stored procedures
  - Crystal Reports
    - 540+ reports distributed via Business Objects Enterprise

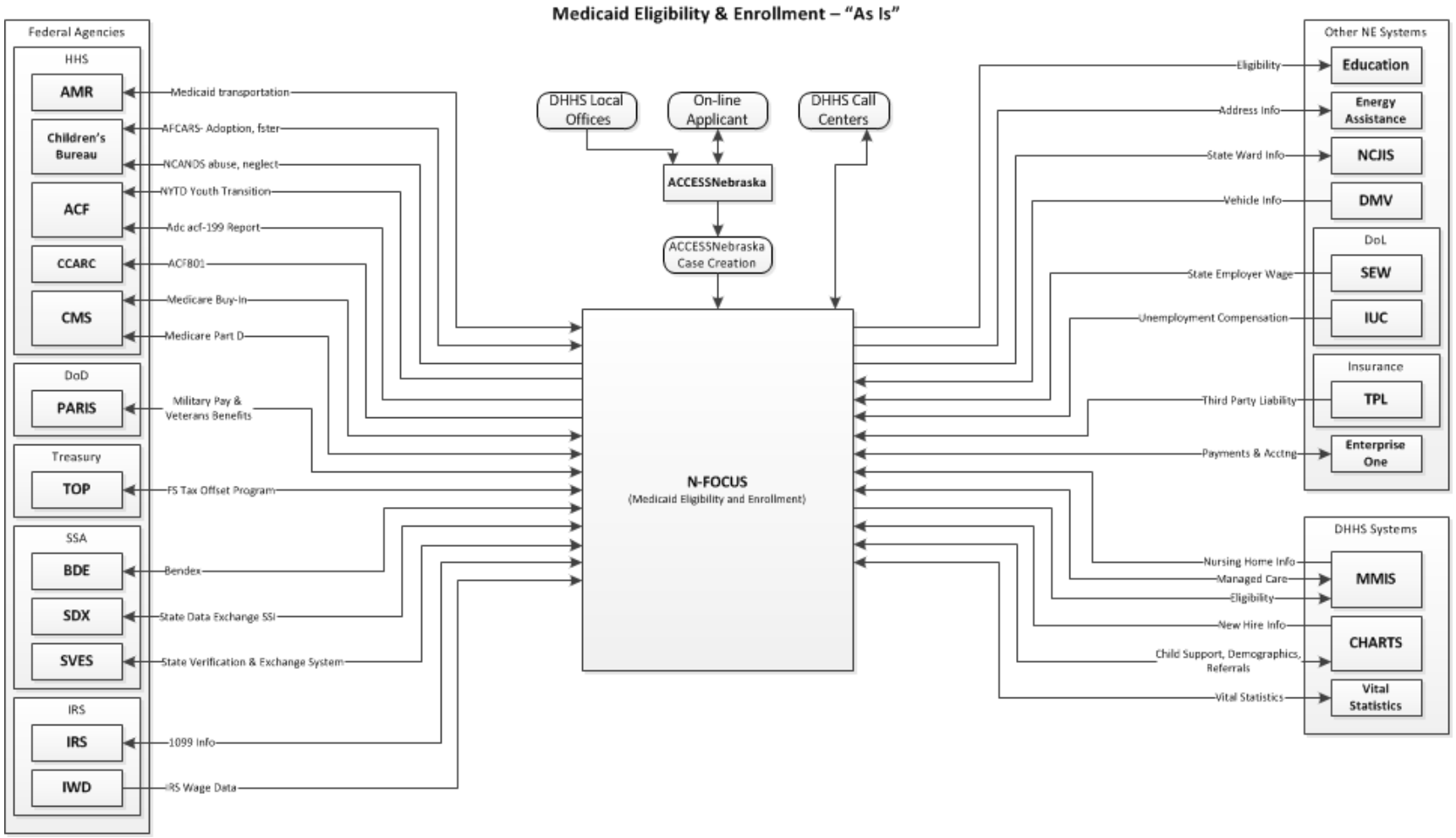
- Database
  - Z/OS based DB2 database
  - 500+ tables, 550+ table relationships, 935 indexes, 8700+ attributes
  - Over 1.3 billion rows, largest table exceeds 200 million rows

Current System Architecture

- ACCESSNebraska
  - Established in 2008
  - Web-Based Java application
  - Utilizes SQL server for temporary data and DB2 for long terms storage
  - Call Center Telephony Components
    - Interactive Voice Response System (IVR)
    - Automated Call Distribution (ACD)
    - Dashboard Client – provide CTI capabilities
    - Contact Recording and Quality Monitoring (CRQM) – provides call recording and playback capabilities
    - Dashboard Manager Shortcut – provides ability to review call statistics in real time

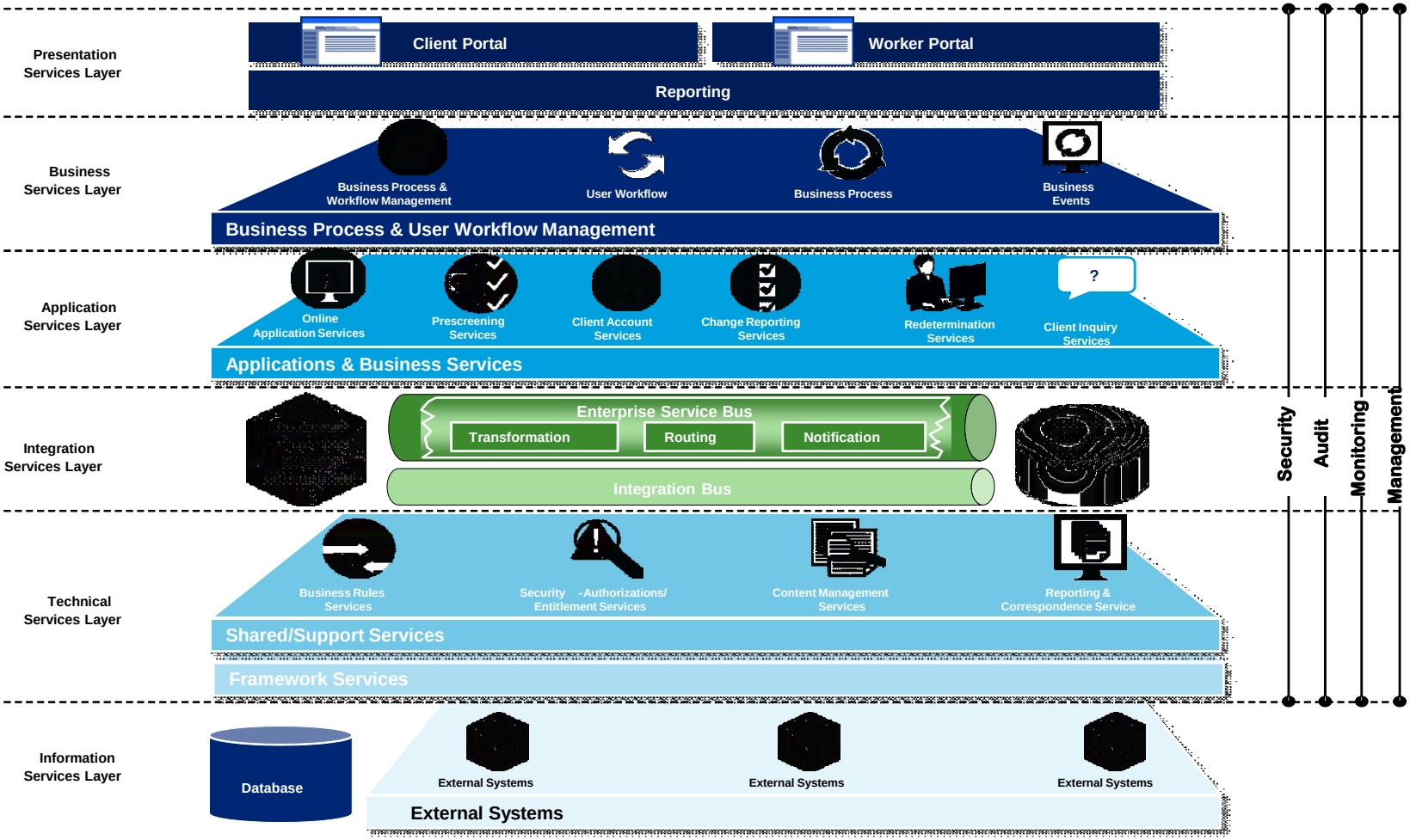
- N-FOCUS and ACCESSNebraska are not currently integrated electronically, therefore information is manually re-entered into N-FOCUS to initiate the eligibility process.

Current System



Proposed System

Proposed System
Conceptual Architecture



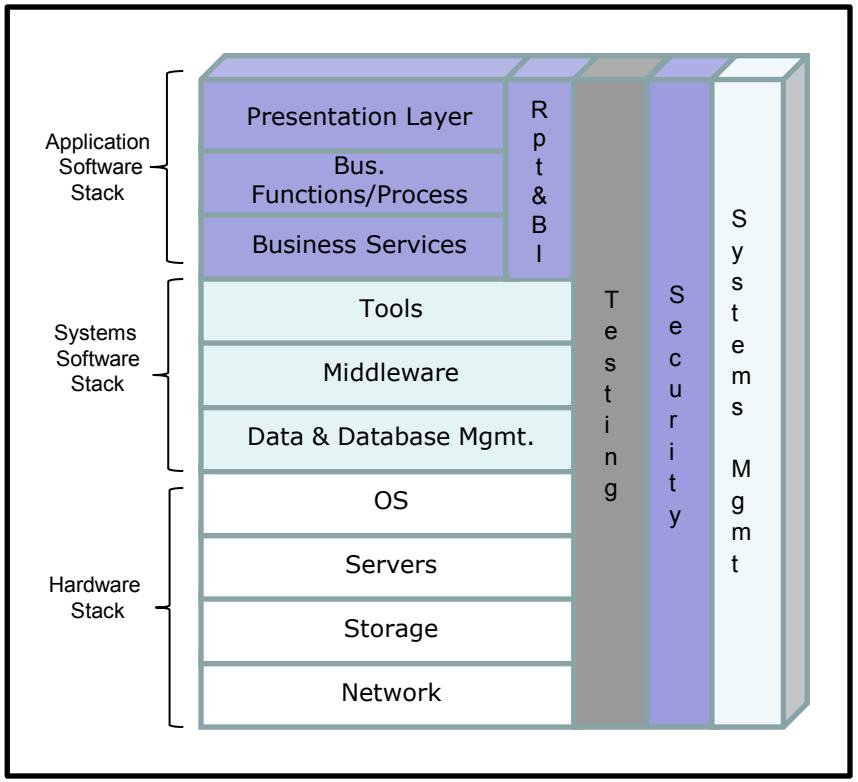
Proposed System Conceptual Architecture

Presentation Layer includes:
- User Interface(s)
  - Lightweight
  - Role based
  - Access Method based
- Data Entry validation
  - Complete
  - Type
  - Logical
- Help screens/prompts
- Standards compliant

Business Functions/Processes:
- Predefined Business processes/workflows like:
  - Eligibility
  - Enrollment
  - Plan Selection
  - Change of Circumstances
  - Renewal
- Configurable through external rules and/or business process/workflow definitions

Business Services:
- Predefined services used to construct Business Functions:
  - Determine Medicaid Eligibility
  - Conduct Verification
  - Verify Citizenship
  - Determine MAGI Eligibility
  - Calculate MAGI
  - Transfer Account
  - Check Exchange Enrollment
- Configurable through external rules

Data & Database Management includes:
- Enterprise Content Management (ECM)
- Document Management & Imaging (DM)
- Extraction, Transformation, Load (ETL)
- Data Conversion
- Data Migration & Transfer
- Data Quality (DQ)
- Database Management Software (DBMS)
- Database Management & Monitoring
- Database Backup & Recovery
- Data Archival & Retrieval



Middleware includes:
- Business Process Management/Workflow (BPM/WF)
- Business Rules Management/Rules Engine (BRM/RE)
- Enterprise Service Bus/Message Broker (ESB/MB)
- Enterprise Application Integration (EAI)
- Electronic Data Integration (EDI)
- Web Application Server (WAS)
- Web Server (WS)
- Interactive Voice Response System (IVR)
- Computer Telephony Integration (CTI)

Tools includes:
- Integrated Development Environment (IDE)
- Source code control (check in/out, versioning, etc)
- Debuggers
- Report Development and Generation
- Ad-hoc Query & Reporting
- On-line Analytical Processing (OLAP, ROLAP,MOLAP,OOLAP)
- Data Mining

Systems Management includes:
- Performance Monitoring & Reporting
- Business Activity Monitoring (BAM)
- Workload/Job Scheduling
- System Backup & Recovery
- Configuration Management
- Release Management
- Change Management
- Event/Incident Management
- Problem Management
- Capacity Management
- Financial Management/Cost Allocation

Security includes:
- Identity Management
  - Authentication
  - Authorization
  - Access Control
  - Single Sign-On (SSO)
- Non-Repudiation
- Auditability
- Data Integrity
- Data Protection & Confidentiality
- Encryption (static and in motion)
- Intrusion Detection System (IDS)
- Firewalls
- Virus and Malware Detection

Testing includes:
- Test Management
- Functional/Regression Test
- Load & Performance Test
- Test Case Development
- Test Data Generator
- Capture & Playback
- Web App/UI
- Standards Compliance

N-FOCUS Interfaces

Interface Name	Incoming / Outgoing / Both	Recipient / Sender	Frequency	Transfer	Function
ADC ACF-199 Reporting	Both	Administration of Children and Families (ACF), Federal	Quarterly	Connect/Direct	ADC ACF-199 federal reports.
Child Care ACF-801 Reporting	Outgoing	Child Care Automation Resource Center (CCARC), Federal	Monthly	Connect/Direct	Child Care ACF-801 federal report.
Child Support (CHARTS)	Both	CHARTS State Application	Daily	State Mainframe File	Child Support data interface including eligibility, demographic, referral information. CHARTS also directly accesses some N-FOCUS table information.
Child Welfare AFCARS Reporting	Both	HHS Children's Bureau, Federal	Semiannual	Tibco Managed File Transfer (formerly named Cyberfusion)	Child Welfare AFCARS adoption and foster care information; incoming files are not automatically processed.
Child Welfare CONNECT	Outgoing	CONNECT State Application	Weekly	Invoked DB2 Stored Procedure	EDN and CAPTA referrals.
Child Welfare Court (JUSTICE)	Outgoing	JUSTICE State Application	Daily	FTP	Child Welfare state ward information for county courts.
Child Welfare Criminal Justice (NCJIS)	Outgoing	NCJIS State Application	Hourly, Daily	Hourly: invoked DB2 stored procedure; daily FTP	Child Welfare Nebraska Crime Commission information for state wards and law enforcement.
Child Welfare NCANDS Reporting	Outgoing	HHS Children's Bureau, Federal	Annual	Upload to NCANDS Portal	Child Welfare NCANDS (National Child Abuse and Neglect Data System) information.
Child Welfare Project Impact	Outgoing	Project Impact - Juvenile Accountability Impact Block Grant (Omaha)	Monthly	SFTP	Child Welfare Project Impact state ward information.
Child Welfare Quality Assurance	Outgoing	Child Welfare Quality Assurance State Application	Monthly	State Mainframe File	Child Welfare case information.
Debit Card (Reliacard)	Both	US Bank	Daily	Connect/Direct	Electronic payment debit card information.
Developmental Disabilities Therap	Outgoing	Therap vendor	Daily	SFTP	Client eligibility information. Future phases in 2012 will include Provider information as well as incoming service authorization/claim information.
Education	Outgoing	Department of Education, State	Daily	FTP	Client eligibility information.
Energy Assistance	Outgoing	Energy Assistance State Application	Monthly	Direct Data Access	Energy Assistance directly accesses N-FOCUS address information. LIHEAP is scheduled to be incorporated into N-FOCUS July 2012.
Enterprise One (NIS)	Both	Enterprise One (NIS) State Application	Daily	FTP	Payment and accounting information for clients and providers.
Interactive Voice Response (IVR)	Both	HHS Voice Response Unit	Real Time	Invoked DB2 Stored Procedure	Client and provider eligibility information.
IRS 1099	Both	Internal Revenue Service, Federal	Monthly	Axway Secure Transport (formerly named Tumbleweed)	IRS 1099 information.
Labor Employment	Incoming	State Department of Labor	Daily	State Mainframe File	Labor employer wage information (SEW).
Labor Unemployment	Incoming	State Department of Labor	Daily	State Mainframe File	Labor unemployment benefit information.
Labor Unemployment Compensation Tax	Both	State Department of Labor	Weekly, Quarterly	SFTP	Labor unemployment compensation tax information and reporting.

N-FOCUS Interfaces

Interface Name	Incoming / Outgoing / Both	Recipient / Sender	Frequency	Transfer	Function
Medicaid Cards	Outgoing	Lasermark Vendor	Daily	SFTP	Medicaid card information for printing/mailing.
Medicaid (MMIS)	Outgoing	MMIS State Application (RFS, SEC)	Daily	State Mainframe File; Direct Data Access	Medicaid data interface including eligibility, demographic information. MMIS also directly accesses some N-FOCUS table information.
Medicaid Long Term Care (MMIS)	Incoming	MMIS State Application (RFS)	Daily	State Mainframe File	Medicaid nursing home per diem rate information (Long Term Care interface)
Medicaid Managed Care (MMIS)	Both	MMIS Managed Care State Application (NMC)	Daily	State Mainframe File; Direct Data Access	Medicaid managed care information. Managed Care also directly accesses some N-FOCUS table information.
Medicaid Transportation Broker	Both	American Medical Response (AMR) Vendor	Daily	SFTP	Medicaid transportation and authorization information.
Medicare Buy-In	Both	Centers for Medicare and Medicaid Services (CMS), Federal	Monthly	Connect/Direct	Medicare buy-in information exchange.
Medicare Part D	Both	Centers for Medicare and Medicaid Services (CMS), Federal	Monthly	Connect/Direct	Medicare Part D information.
Motor Vehicles	Incoming	Department of Motor Vehicles (DMV) State Application	Real Time	Direct Data Access	Motor vehicle registration information.
New Hire	Incoming	CHARTS State Application	Daily	State Mainframe File	New Hire employment information which originates federally and is transmitted to N-FOCUS via CHARTS.
NTAP	Outgoing	Public Service Commision	Monthly	FTP	Nebraska Telephone Assistance Program (NTAP).
NYTD	Outgoing	Administration of Children and Families (ACF), Federal	Semiannual	Tibco Managed File Transfer (formerly named Cyberfusion)	National Youth Transition Database (NYTD)
OnBase Claims & Service Authorizations	Both	Enterprise Content Manager (ECM), State	Daily, Real Time	SFTP, invoked DB2 stored procedure	Child Care provider and client claims and service authorization information (will be expanded to other programs later in 2012).
PARIS	Both	Department of Defense, Federal	Quarterly / Request	Connect/Direct	PARIS military benefits information; matches from other states.
Provider Rating and Review Reporting	Outgoing	Center for Children, Family, and the Law (CCFL) Answer 4 Families, University	Monthly	SFTP	Client, provider, and service authorization information.
SNAP EBT	Both	JP Morgan Electronic Financial Services, EBT Vendor	Daily	Connect/Direct	SNAP electronic benefits transfer.
SNAP Treasury Offset	Both	Financial Management Services (FMS) Treasury Offset Program, Federal	Weekly	Connect/Direct	SNAP Treasury Offset Program.
Social Security (Bendex)	Both	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security beneficiary and earnings data exchange (BENDEX/SVES).
Social Security (LIS)	Incoming	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security medicaid applications for Low Income Subsidy (LIS)
Social Security (SDX)	Both	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security supplemental security income information (SDX/SVES).
Social Security (SVES)	Both	Social Security Administration, Federal	Daily	Tibco Managed File Transfer (formerly named Cyberfusion)	Social Security verification exchange system (SVES); includes SNAP forty quarters information and citizenship verifications.
Third Party Liability (TPL)	Incoming	TPL State Application	Daily	State Mainframe File	Third Party Liability insurance information.
Vital Statistics	Both	Vital Statistics State Application	Daily	Connect/Direct	Vital Statistics information (passed on to the CHARTS application too)

N-FOCUS Technical Overview

Request for Proposal Number 4544Z1

N-FOCUS (Nebraska Family Online Client User System) is an integrated system that automates benefit/service delivery and case management for more than 30 Nebraska Department of Health and Human Services (DHHS) programs, including Child Welfare, Aid to Dependent Children, Supplemental Nutrition Assistance Program, and Medicaid. N-FOCUS functions include client/case intake, eligibility determination, case management, service authorization, benefit payments, claims processing and payments, provider contract management, interfacing with other private, state and federal organizations, and management and government reporting. N-FOCUS was implemented in production in mid-1996 and is operational statewide.

The typical N-FOCUS user is a DHHS or contracted employee. N-FOCUS daily supports over 2500 workers, operating from offices around the State as well as from 4 customer service centers and 2 hub scanning facilities. Some cases are assigned to specific workers; however the majority of cases are managed via a universal caseload methodology coordinated by the customer service centers.

The application has both batch and online components and stores data in DB2, V9. The DB2 database has over 500 tables, some with a corresponding archive table. There are over 642 relationships between tables, 1054 indexes, and over 7839 attributes. There are over 1.6 billion rows of production data with over 206 million rows in one table with an average table size of 2.8 million rows.

The batch system is coded in Z/OS COBOL and executes in a Z/OS environment. There are more than 660 procedures, over 720 programs, and over 230 stored procedures. The application generates over 540 reports using Crystal Reports that are published to a web portal through Business Objects Enterprise software. Another 100 reports generated independently are published to the portal for viewing.

The online system is an integrated client/server based software system. The client software executes on Windows 7 and resides on Windows 2008 servers located throughout the State. Computer Associates Gen and AION toolsets are used to generate windows and C code, along with custom in-house architecture code written in C. The server components are Z/OS CICS transactions. The CICS programs are Gen-generated COBOL, along with in-house written COBOL and Assembler externals. The CICS programs access DB2 on the Z/OS mainframe. The Gen clients use External Call Interface (ECI), IBM's CICS Universal Client to connect to the Z/OS CICS using TCP/IP protocol. The Gen online system consists of over 570 client procedures, 555 server procedures, 550 windows, and 1450 dialog boxes. The AION online system supports the complex eligibility data gathering and automated determination and noticing processes.

N-FOCUS web applications consist of public applications, including dashboard applications, and applications launched directly from N-FOCUS. Eclipse is the IDE used to generate the Java Server Faces and Facelets code. These Java applications run on Tomcat application servers on the Linux Operating System. The Java applications call stored procedures to access DB2 data and SQL to access SQL server data.

The primary role of the N-FOCUS team today is to maintain and enhance the N-FOCUS application. This includes providing users with technical and business support to keep the system current with government policy and industry technology, both of which continue to change at a rapid pace. The N-FOCUS team works in the Nebraska State Office Building in Lincoln. Business and technical contract and full-time State team members are organized into teams that are involved in application development (Gen, AION, COBOL, Web, Reporting), technical architecture (workstation communications, mainframe communications, print architecture, reporting architecture administration, document imaging administration), database administration, configuration management, project management, business requirements and testing, application and production support, and training. Approximately 40 technical and 30 business team members are assigned to the N-FOCUS team.

Technology Framework

Request for Proposal Number 4544Z1

1.1 General

As part of this RFP procurement process the Department is looking for systems and technologies that can form the basis for an Enterprise Architecture that can be utilized and leveraged across Divisions and/or Programs. As such, we are looking for a solution that is built upon a technology framework that will support and promote this goal. The remaining sections of this document describe what the Department considers a "technology framework".

1.2 Definitions

Architecture - the fundamental organization of a system embodied in its components, their relationships to each other, and to the environment, and the principles guiding its design and evolution.

Service-Oriented Architecture – an architecture that aims to enhance efficiency, agility, and productivity of an enterprise by positioning services as the primary means through which solution logic is represented. Services act as containers of related capabilities. High-quality service-oriented architectures are consistent with the following principles:

- Standardized service contract – services within the same service inventory are in compliance with the same contract design standards.
- Service loose coupling – service contracts impose low consumer coupling requirements and are themselves decoupled from their surrounding environment.
- Service abstraction – service contracts only contain essential information, and information about services is limited to what is publish in the service contracts.
- Service reusability – services contain and express agnostic logic and can be positioned as reusable enterprise resources.
- Service autonomy – services exercise a high level of control over their underlying runtime execution environment.
- Service statelessness – services minimize resource consumption by deferring the management of state information when necessary.
- Service discoverability – services are supplemented with communicative meta data by which that can be effectively discovered and interpreted.
- Service composability – services are effective composition participants, regardless of the size and complexity of the composition.

Framework – for the purposes of this RFP, a framework is an extensible software platform providing general purpose and domain-specific services in the context of a uniform, reusable, service-oriented architecture with consistent abstractions. A framework may include the ability to both directly instantiate end-user capabilities and to provide developer-centric capabilities.

1.3 MITA Technical Principles

The Framework should support the MITA technical principles:

- **Business driven.** Technology will only be used when it supports a business goal or objective; technology will not be used for technology's sake alone.
- **Implementation neutral.**
- **Platform independent.** Application software and infrastructure components should be developed for reusability and platform independence.
- **Adaptable, extensible, and scalable.**
- **Open technology and standards based.** The advantages of standardization (e.g., data sharing and interoperability) should be leveraged.
- **Security and privacy** must be integrated into a system.
- **Interoperability standards** are established and followed.
- **Quality data** are enabled to support good decision making.
- **Current and proven technology** is selected.

1.4 Seven Conditions and Standards

In order to receive enhanced Federal financial participation (FFP), the Department must implement solutions that are consistent with 42 CFR 433.112 and related guidance from the Centers for Medicare and Medicaid Services (CMS), e.g., *Medicaid IT Supplement MITS-11-01-V1.0*, commonly referred to as the seven conditions and standards ("Seven Conditions"). The Framework must allow the Department to satisfy, to the greatest extent practical, those portions of the Seven Conditions that are system-related. The Seven Conditions are:

- Modularity Standard
- MITA Condition
- Industry Standards Condition
- Leverage Condition
- Business Results Condition
- Reporting Condition
- Interoperability Condition

1.5 Framework Attributes, and Areas of Commonality

1.5.1 Attributes

The following attributes are required in the proposed framework:

The Framework for the Solution must be consistent. A framework is not merely a random or semi-related set of utilities or generic services. Various services, tools, and data structures should use a unified design paradigm and design patterns (service calls; service arguments and return values; data types, etc.) to improve productivity and reduce defects driven by "impedance mismatches." Frameworks encourage the use of helpful design patterns, but don't force developers into deep levels of abstraction that detract from their productivity (e.g., factories of factories of factories). Database schema are normalized; data are stored in only one place within the framework and its resulting applications; and these data are accessible only by service calls to the services "owning" the data.

The Framework for the Solution must promote interoperability. The use of standards (where standards exist) and the use of well-documented information interchange specifications (where standards do not exist) assist the using organization in producing and consuming information and services that are interoperable with other systems and organizations. Frameworks should make using interoperable standards easier than creating homegrown interface solutions.

The Framework for the Solution must externalize parameters that are prone to frequent change. These include:

- Business rules
- Workflows
- Configuration, environment, and startup parameters
- Localization resources
- Security roles
- User interface elements

The Framework for the Solution must be service-oriented. The Framework should provide a discoverable service inventory containing service contracts having granularity that is neither so coarse as to result in performance and governance issues nor so fine as to result in excessive developer burden and poor reuse. Service orientation principles may be compromised to the extent necessary to meet performance standards.

The Framework for the Solution must enable functional build out by configuration rather than customization as much as is practical. This likely requires that the base functionality, as delivered, has been used and is configured to support the Medicaid and health insurance domains.

The Framework for the Solution should have a standard, domain-specific base data model. This data model should be consistent, normalized, and incorporate the common data elements used in Medicaid eligibility, enrollment, and member management. The data model must be extensible via documented processes, and must not have any proprietary restrictions on the State's use or extension of the data model.

The Framework for the Solution must encourage reuse. Areas of reuse may include:

- Intra-application. Developers on a single team should find it easy to reuse base framework services or custom services built by other team members.
- Inter-application. Developers on different teams within the same organization should find it easy to reuse base framework services to promote commonality and to discover and use services created by other application teams.
- Inter-enterprise. Developers in sister human and social services agencies and in sister states should find it easy to reuse base framework services to promote commonality and to discover and use services created by other agencies.

The Framework for the Solution must have a security architecture that supports standard security principles. These principles are:

- **Confidentiality** – prevent disclosure to unauthorized persons or systems.
- **Integrity** – data cannot be modified undetectably.

- **Availability** – access is not inappropriately blocked or denied.
- **Authenticity** – validation that the parties to a transaction are who they say they are and that their communications are genuine.
- **Non-repudiation** – parties to a transaction cannot deny their participation in the transaction.
- **Auditability** – track and log data changes including the user or system making the change. Track and log any inquires, views or access of data that may require such tracking as a result of law, policy or data use agreements including user or system making inquiry, doing the viewing or accessing the data along with the data and time of the inquiry, view or access.

The Framework for the Solution must be architecturally-rich. A framework should have a thoughtful architecture that is better than one in which an organization would normally invest for a single project. Because a framework is intended to be reusable, the framework developer must ensure that the breadth and depth of the services extend to cover the uses that can be reasonably foreseen. Other attributes of the architecture are:

- The functional and structural abstractions chosen to implement the architecture are intuitive, robust, and consistent. Confusing, frail, or inconsistent architectures can destroy using development organization productivity and induce high defect rates.
- The framework is easily extensible. Lacking extensibility, a framework is merely an incomplete software application.
- The framework supports scalable, high-performance applications.
- Security and privacy are built into the architecture as primary considerations rather than as afterthoughts.

The Framework for the Solution must enhance the productivity of the using organization. An important reason for an organization to use a framework is to improve productivity. The increase in productivity should enable an organization to deliver needed capabilities more rapidly and at a lower cost. It should also enable the organization to respond to life-cycle changes in business needs with greater agility. Frameworks enhance productivity by:

- Providing tools that assist the using organization in performing common, redundant, or complex tasks with ease.
- Providing pre-constructed features, services, and capabilities with default behavior that shorten the time from inception to deployment while allowing fine-grained control to avoid the need for workarounds.
- Being supported by a long-term maintenance concept that continues to improve the features and usability of the framework, reduces the burden of workarounds (particularly security workarounds), and minimizes "reinventing the wheel" by the using organization.
- Using self-documenting tools (e.g., maintaining the official business process diagrams in the business process management system) to avoid having to maintain business and technical design artifacts in multiple locations.

The Framework for the Solution should be multi-platform unless user or enterprise needs require targeting specific hardware/operating system platforms. As the use of specific CPUs, hardware architectures, and operating systems change rapidly, the Department prefers not to be tightly bound to a particular platform. Support for various platforms such as Windows,

z/OS, Linux, and various UNIX is desirable. In addition, the Department strongly prefers the use of products that can be run in virtualized environments while recognizing that some components may have performance needs that preclude or contraindicate the use of virtualization.

Additionally, the current migration towards mobile platforms is likely to continue for the foreseeable future. A framework should assist with and automate activities needed to optimize applications for mobile devices as well as desktop devices, including addressing touch interfaces; limited display sizes; limited bandwidth and intermittent network connectivity; limited processor capabilities; and the movement towards standards-based Web technologies, such as HTML 5.

Frameworks should minimize the number of programming languages necessary for their use, consistent with developer need and balanced against other principles. The Department has the following goals for various types of programming languages:

- General – the Department prefers using open, standards-defined programming languages to the greatest extent practical. The Department understands that there are some domains today (particularly business rules and business process management) where standards are still emerging and permeating the market.
- Object-oriented – the Department prefers the use of a single object-oriented language, that uses automated memory management, to create the majority of custom services and to extend the Framework. While it would consider other languages, the Department prefers Java.
- Procedural – the Department prefers little or no use of procedural languages (e.g., C) in the Framework.
- Declarative – the Department prefers that declarative languages (e.g., HTML) largely be limited to displaying Web-based user interfaces. Even when building user interfaces, the Department prefers to substantially limit the amount of hand-coding necessary by using graphical design and construction tools.
- Scripting – the Department prefers that scripting languages be limited to functions such as user interface code , build management, system startup, and integration with non-service based external systems. Even when performing these functions, the Department prefers to substantially limit the amount of hand-coding necessary by using graphical design and construction tools.
- Business rules – the Department prefers that business rules are represented in English-like statements that are easy to interpret by business users and business analysts. While the Department is not currently planning to allow business analysts to make changes directly to a production system, the ability for these analysts to create and interpret the business rules in the Framework's native rules language will substantially improve productivity and agility in managing business rules. Based on the Department of the market, the Department would be willing to accept rules languages that are more developer-focused.
- Business Process Management System (BPMS) – the Department prefers the use of Business Process Execution Language (BPEL) for executing managed business processes. Direct consumption of Business Process Model and Notation models (perhaps via the XML Process Definition Language format) is also acceptable. As this area is still maturing, the Department would accept other languages for BPMS process execution, particularly if they are transformable to BPEL for forward compatibility. While the

Department would like direct access to the process execution files for manipulation, including the ability to "round trip" modifications through the Integrated Development Environment, the BPMS must have graphical design and construction tools as directly coding BPEL and other related languages would likely result in substantial productivity reductions and an increase in defects.

- Database – the Department prefers the use of standards-based Structured Query Language (SQL) for database queries. Based on the use of other languages and general purpose frameworks within the Framework (e.g., Java), programming language-specific query languages may also be acceptable (either for relational or object queries). The Department discourages the use of database stored procedures or DBMS specific functionality other than in those instances where needed performance can only be obtained with such use.
- XML-based – the Department encourages the use of XML-based documents for purposes such as system configuration and messaging. The Framework should generate documents without requiring the developer to hand-code XML; however, direct access to the XML documents for manipulation is desirable, including the ability to "round trip" modifications through the Integrated Development Environment.
- Proprietary languages – while there may be specific needs for using proprietary programming languages, the Department prefers to avoid proprietary languages to the greatest extent practical.

1.5.2 Areas of Commonality

In the list below, the Department has identified the areas of commonality it expects to be supplied by the Framework or supplied by the Department to supplement the Framework. These have been identified using common product-oriented terminology, but that does not mean that each capability must be satisfied by a separate, self-contained product. While the Department has a preference for using general purpose COTS products to perform major functions (where Framework capabilities and performance are not compromised), it is not mandating that the functions of the major capabilities be supplied by general purpose COTS products nor is it mandating that the functions are even performed by standalone software services partitioned as listed below. For example, while the Department prefers the use of general purpose COTS business process management and business rules management components, it would be willing to accept an integrated business process/business rules capability as part of the Contractor's COTS suite. The Department does not intend the list of capabilities to be all-inclusive. Bidders must propose a complete suite of capabilities to comprise the Framework.

1.5.2.1 Framework Areas of Commonality

The following areas of commonality and capabilities are consistent with the State's goals for the Framework and should be addressed in system solutions:

- **Unified data source/database** – this is a capability to store/persist information using a unified data model on a common database product. The unified data source should support the use of effective time segments and a "never delete a record" approach to enable maintaining complete historical data and referential integrity.
- **Business Process Management** – this is a capability to design and execute business processes enabled by automation for the purposes of orchestration (automated execution

of a workflow) and choreography (coordinated interaction between two or more independent parties or services). While these may include steps executed synchronously, business process management tools excel at automating processes where most or all tasks are executed asynchronously, potentially over extended periods of time.

- **Business Activity Monitoring (BAM)** – this is a capability to monitor and manage business processes, transaction volumes, and quality indicators, in real time and retrospectively. This capability may include statistical analyses of the execution of the indicators being monitored.
- **Business Rules Management** – this is a capability to design and manage the business rules logic within the system and is supported by a repository for the rules.
- **Interaction Management** – this is a capability that allows an organization to manage information about and interactions with stakeholders or clients via multiple channels including easy access to historical data.
- **Case Management** – this is a capability that allows an organization to manage information and transactional activities over time relative to a specific entity.
- **Correspondence** – this is a capability to generate and manage communications with stakeholders via multiple channels, and includes the ability to generate canned, semi-custom, and custom messages.
- **Service Integration/Enterprise Service Bus** – this is a capability that allows the discovery and interaction of distributed services via synchronous and asynchronous messaging in a service-oriented architecture. Through adapters, service integration should also allow interaction with non-service based capabilities.
- **Web Portal** – this is a capability that allows for configurable Web access to backend services. While any sort of Web page could conceivably allow access, a Web portal automates the access, security, and configuration of Web access, and is configurable by not only the developers, but to a limited extent by the end users (e.g., what information is shown and where on the page is it shown).
- **Reporting/Business Intelligence** – this is a capability that allows for textual, tabular, and graphical representations of data needed to answer questions, monitor/control parameters, and make decisions and querying to gather data to fill these reports.
- **Call Center Integration** – this is a capability for the Framework (and resulting system) to integrate with common call center technology to be able to link telephone calls to records, automatically call up useful information for the call center operator, etc.
- **Integrated Development Environment** – this is a capability to develop, integrate, build, test, deploy, and control configuration of software using a unified, integrated, and coherent suite of tools.
- **Security** – while security is an attribute that should apply across the suite of capabilities in the Framework, in this particular case it is a capability to manage authentication, authorization, and access to the system, including a single sign-on capability.
- **Data Management Tools** - This is the capability of collecting, aggregating, matching, consolidating, persisting, securing and distributing data and its meta data to ensure consistency and control in the ongoing maintenance and use of the information.
- **Online Help** – this is the capability to manage, produce, and publish help files, training, and reference information that is integrated in a context-sensitive fashion with the Framework and resulting applications.

- **Document Management*** - this is a capability to store, index, and access electronic documents and images of paper documents in a structured and scalable manner. The capability may have standalone uses or be integrated into an enterprise system via documented interfaces or services.

  *Note that the State has designated and procured Hyland OnBase as the enterprise document management system. The preference would be to leverage OnBase as part of the Framework, therefore the Bidder should provide details regarding how their proposed Framework could integrate seamlessly with OnBase.

Nebraska EES Analysis

Request for Proposal Number 4544Z1

1. Summary of the Alternatives Analysis

As part of the systems strategy development process for the Medicaid Eligibility & Enrollment and Information Systems project, we considered a number of system options for delivering integrated eligibility, enrollment and case management functionality which satisfies the requirements of the ACA. The options were ultimately consolidated into four primary alternatives for comparison and evaluation purposes. Those options were:

1. Maintain Status Quo

2. Ground Up Development

3. Incremental Modernization

4. Transfer/COTS System

2. Evaluation Criteria and Results

The set of criteria that was used to evaluate these alternatives was primarily based upon the architectural principles set forth by the Centers for Medicare & Medicaid Services (CMS), which are presented and described in the following table.

Table 2-1: Description of Evaluation Criteria Used	**Description**
System Integration	Applies a modular, flexible approach to systems development, including the use of open interfaces and exposed application programming interfaces, and the separation of business rules from core programming, available in both human and machine readable formats. Ensures seamless coordination between Medicaid, DHCP, and the Exchange, and allows interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services.
Service-Oriented Architecture (SOA)	Employs common authoritative data sources and data exchange services such as but not limited to, federal and state agencies or other commercial entities.
Isolation of Business Rules	Uses standards-based business rules and a technology-neutral business rules repository. Enables the business rules to be accessible and adaptable by other states.

State of Nebraska

REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM

RETURN TO:
State Purchasing Bureau
301 Centennial Mall South, 1st Fl
Lincoln, Nebraska 68508
OR
P.O. Box 94847
Lincoln, Nebraska 68509-4847
Phone: 402-471-2401
Fax: 402-471-2089

SOLICITATION NUMBER	RELEASE DATE
RFP 4468Z1	**August 16, 2013**
OPENING DATE AND TIME	PROCUREMENT CONTACT
September 24, 2013 2:00 p.m. Central Time	**Peter A. Kroll** **Robert Thompson**

This form is part of the specification package and must be signed and returned, along with proposal documents, by the opening date and time specified.

PLEASE READ CAREFULLY!

SCOPE OF SERVICE

The State of Nebraska, Administrative Services (AS), Materiel Division, Purchasing Bureau, is issuing this Request for Proposal, RFP Number 4468Z1 for the purpose of selecting a qualified contractor to provide Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services.

.

Written questions are due no later than August 30, 2013, and should be submitted via e-mail to as.materielpurchasing@nebraska.gov. Written questions may also be sent by facsimile to (402) 471-2089.

Bidder should submit one (1) original and six (6) hardcopies of the entire proposal. In the event of any inconsistencies among the proposals, the language contained in the original proposal shall govern. Proposals must be submitted by the proposal due date and time.

PROPOSALS MUST MEET THE REQUIREMENTS OUTLINED IN THIS REQUEST FOR PROPOSAL TO BE CONSIDERED VALID. PROPOSALS WILL BE REJECTED IF NOT IN COMPLIANCE WITH THESE REQUIREMENTS.

1. Sealed proposals must be received in State Purchasing by the date and time of proposal opening indicated above. No late proposals will be accepted. No electronic, e-mail, fax, voice, or telephone proposals will be accepted.
2. This form "REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES" MUST be manually signed, in ink, and returned by the proposal opening date and time along with bidder's proposal and any other requirements as specified in the Request for Proposal in order to be considered for an award.
3. It is the responsibility of the bidder to check the website for all information relevant to this solicitation to include addenda and/or amendments issued prior to the opening date. Website address is as follows: http://das.nebraska.gov/materiel/purchasing/rfp.htm
4. It is understood by the parties that in the State of Nebraska's opinion, any limitation on the contractor's liability is unconstitutional under the Nebraska State Constitution, Article XIII, Section 3, and that any limitation of liability shall not be binding on the State of Nebraska despite inclusion of such language in documents supplied with the contractor's bid or in the final contract.

BIDDER MUST COMPLETE THE FOLLOWING

By signing this Request for Proposal For Contractual Services form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions (see Section III) and certifies that bidder maintains a drug free work place environment.

FIRM: _____

COMPLETE ADDRESS: _____

TELEPHONE NUMBER: _____ FAX NUMBER: _____

SIGNATURE: _____ DATE: _____

TYPED NAME & TITLE OF SIGNER: _____

TABLE OF CONTENTS

REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES FORM i

TABLE OF CONTENTS ii

GLOSSARY OF TERMS iv

ACRONYM LIST xi

I. SCOPE OF THE REQUEST FOR PROPOSAL 1

A. SCHEDULE OF EVENTS 1

II. PROCUREMENT PROCEDURES 2

A. PROCURING OFFICE AND CONTACT PERSON 2
B. GENERAL INFORMATION 2
C. COMMUNICATION WITH STATE STAFF 2
D. WRITTEN QUESTIONS AND ANSWERS 3
E. ORAL INTERVIEWS/PRESENTATIONS AND/OR DEMONSTRATIONS 3
F. SUBMISSION OF PROPOSALS 4
G. PROPOSAL OPENING 4
H. LATE PROPOSALS 5
I. REJECTION OF PROPOSALS 5
J. EVALUATION OF PROPOSALS 5
K. EVALUATION COMMITTEE 5
L. MANDATORY REQUIREMENTS 6
M. REFERENCE CHECKS 6
N. SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS 6
O. VIOLATION OF TERMS AND CONDITIONS 6

III. TERMS AND CONDITIONS 8

A. GENERAL 8
B. AWARD 9
C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION 9
D. PERMITS, REGULATIONS, LAWS 9
E. OWNERSHIP OF INFORMATION AND DATA 10
F. INSURANCE REQUIREMENTS 10
G. COOPERATION WITH OTHER CONTRACTORS 12
H. INDEPENDENT CONTRACTOR 12
I. CONTRACTOR RESPONSIBILITY 12
J. CONTRACTOR PERSONNEL 12
K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION 13
L. CONFLICT OF INTEREST 13
M. PROPOSAL PREPARATION COSTS 14
N. ERRORS AND OMISSIONS 14
O. BEGINNING OF WORK 14
P. ASSIGNMENT BY THE STATE 14
Q. ASSIGNMENT BY THE CONTRACTOR 14
R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL 14
S. GOVERNING LAW 15
T. ATTORNEY'S FEES 15
U. ADVERTISING 15

V. STATE PROPERTY 15
W. SITE RULES AND REGULATIONS 15
X. NOTIFICATION 15
Y. EARLY TERMINATION 16
Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS 17
AA. BREACH BY CONTRACTOR 17
BB. ASSURANCES BEFORE BREACH 17
CC. PENALTY 18
DD. FORCE MAJEURE 18
EE. PROHIBITION AGAINST ADVANCE PAYMENT 18
FF. PAYMENT 18
GG. INVOICES 19
HH. AUDIT REQUIREMENTS 19
II. TAXES 19
JJ. INSPECTION AND APPROVAL 19
KK. CHANGES IN SCOPE/CHANGE ORDERS 20
LL. SEVERABILITY 20
MM. CONFIDENTIALITY 20
NN. PROPRIETARY INFORMATION 21
OO. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING 21
PP. PRICES 21
QQ. BEST AND FINAL OFFER 22
RR. ETHICS IN PUBLIC CONTRACTING 22
SS. INDEMNIFICATION 23
TT. NEBRASKA TECHNOLOGY ACCESS STANDARDS 23
UU. ANTITRUST 24
VV. DISASTER RECOVERY/BACK UP PLAN 24
WW. TIME IS OF THE ESSENCE 24
XX. RECYCLING 24
YY. DRUG POLICY 24
ZZ. NEW EMPLOYEE WORK ELIGIBILITY STATUS 24
AAA. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY 25

IV. PROJECT DESCRIPTION AND SCOPE OF WORK 26

A. PROJECT OVERVIEW 27
B. PROJECT REQUIREMENTS 27
C. BUSINESS REQUIREMENTS 34
D. SCOPE OF WORK 35
E. EES TECHNOLOGY REVIEW 35
F. PROJECT PLANNING AND MANAGEMENT 36
G. DELIVERABLES 36
H. REPORTING REQUIREMENTS 39

V. PROPOSAL INSTRUCTIONS 40

A. TECHNICAL PROPOSAL 40
B. COST PROPOSAL REQUIREMENTS 46
C. PAYMENT SCHEDULE 46

Form A Bidder Contact Sheet 47

GLOSSARY OF TERMS

AABD (Assistance to the Aged, Blind and Disabled): Medicaid available to certain Nebraskans to assist with medical expenses. Nebraskans who are aged, blind or have a disability (as classified by the Social Security Administration) must meet established financial guidelines in order to be eligible. Some consumers in the AABD Medicaid program access services through managed care while the remaining population access care through a fee-for-service delivery system.

Acceptance Test Procedure: Benchmarks and other performance criteria, developed by the State of Nebraska or other sources of testing standards, for measuring the effectiveness of products or services and the means used for testing such performance.

ACA (Affordable Care Act): On March 23, 2010, President Obama signed into law the Patient Protection and Affordable Care Act. On March 30, 2010, the Health Care and Education Reconciliation Act of 2010 was signed into law. The two laws are collectively referred to as the Affordable Care Act (ACA). ACA is also referred to as the "health reform act" or "Patient Protection and Affordable Care Act (PPACA).

ACCESSNebraska Web Portal: The public application portal for various Nebraska public assistance benefit programs such as: Medicaid, Supplemental Nutritional Assistance Program (SNAP), Aid to Dependent Children (ADC), Aid to Aged, Blind and Disabled, Energy Assistance, Kids Connection, and Child Care Subsidy.

Addendum: Something added or deleted.

Agency: Any state agency, board, or commission other than the University of Nebraska, the Nebraska State colleges, the courts, the Legislature, or any officer or agency established by the Constitution of Nebraska.

Agent: A person authorized by a superior or organization to act on their behalf.

Amend: To alter or change by adding, subtracting, or substituting. A contract can be amended only by the parties participating in the contract. A written contract can only be amended in writing.

Amendment: Written correction or alteration.

Appropriation: Legislative authorization to expend public funds for a specific purpose. Money set apart for a specific use.

Award: All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

Best and Final Offer (BAFO): A second-stage bid in a public procurement for services.

Bid: The executed document submitted by a bidder in response to a Request for Proposal.

Bid Bond: A bond given by a surety on behalf of the bidder to ensure that the bidder will enter into the contract as bid and is retained by the State from the date of the bid opening to the date of contract signing.

Bidder: Any person or entity submitting a competitive bid response to a solicitation.

Business: Any corporation, partnership, individual, sole proprietorship, joint-stock company, joint venture, or any other private legal entity.

Business Day: Any weekday, excepting public holidays.

Calendar Day: Every day shown on the calendar; Saturdays, Sundays and State/Federal holidays included. Not to be confused with "Work Day".

Centers for Medicare & Medicaid Services (CMS): is a federal agency within the United States Department of Health and Human Services (DHHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program (CHIP), and health insurance portability standards.

CHIP (Children's Health Insurance Program): Enacted in 1997, CHIP is a federal-state program that provides health care coverage for uninsured low-income children who are not eligible for Medicaid. States have the option of administering CHIP through their Medicaid programs or through a separate program (or a combination of both). The federal government matches state spending for CHIP but federal CHIP funds are capped.

Collusion: A secret agreement or cooperation between two or more persons or entities to accomplish a fraudulent, deceitful or unlawful purpose.

Competition: The process by which two or more vendors vie to secure the business of a purchaser by offering the most favorable terms as to price, quality, delivery and/or service.

Confidential Information: Unless otherwise defined below, "Confidential Information" shall also mean proprietary trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Nebraska Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would provide.

Configure: Modification to software that does not require changes to the Source Code for such software. This includes rules-based, rules engine based, or parameter driven modification.

Contract: An agreement between two or more persons to perform a specific act or acts.

Contract Administration: The Management of various facets of contracts to assure that the contractors total performance is in accordance with the contractual commitments and obligations to the purchaser are fulfilled.

Contract Management: Includes reviewing and approving of changes, executing renewals, handling disciplinary actions, adding additional users, and any other form of action that could change the contract.

Contractor: Any person or entity that supplies goods and/or services.

Conversion Period: A period of time not to exceed six (6) months, during which the State converts to a new Operating System under "Conversion" as per this RFP.

Copyright: A grant to a writer/artist that recognizes sole authorship/creation of a work and protects the creator's interest(s) therein.

CPU: Any computer or computer system that is used by the State to store, process, or retrieve data or perform other functions using Operating Systems and applications software.

Critical Program Error: Any Program Error, whether or not known to the State, which prohibits or significantly impairs use of the Licensed Software as set forth in the documentation and intended in the contract.

Default: The omission or failure to perform a contractual duty.

Deviation: Any proposed change(s) or alteration(s) to either the contractual language or deliverables within the scope of this Request for Proposal.

Documentation: The user manuals and any other materials in any form or medium customarily provided by the contractor to the users of the Licensed Software which will provide the State with sufficient information to operate, diagnose, and maintain the Licensed Software properly, safely, and efficiently.

Evaluation Committee: A committee (or committees) appointed by the requesting agency that advises and assists the procuring office in the evaluation of proposals.

Evaluation of Proposal: The process of examining a proposal after opening to determine the bidder's responsibility, responsiveness to requirements, and to ascertain other characteristics of the proposal that relate to determination of the successful bidder.

Extension: A provision, or exercise of a provision, of a contract that allows a continuance of the contract (at the option of the State of Nebraska) for an additional time according to contract conditions. Not to be confused with "Renewals."

FOA (Funding Opportunity Announcement): A publicly available document by which a U.S. Federal agency makes known its intentions to award discretionary grants or cooperative agreements, usually as a result of competition for funds. Funding opportunity announcements may be known as program announcements, requests for applications, notices of funding availability, solicitations, or other names depending on the agency and type of program

F.O.B. Destination: Free on Board. The delivery charges have been included in the quoted price and prepaid by the vendor. Vendor is responsible for all claims associated with damages during delivery of product.

Foreign Corporation: A foreign corporation is a corporation that was formed (i.e. incorporated) in another state but transacting business in Nebraska pursuant to a certificate of authority issued by the Nebraska Secretary of State.

HIPAA (Health Insurance Portability and Accountability Act of 1996): The Standards for Security and Privacy of Individually Identifiable Health Information found in the Health Insurance Portability and Accountability Act of 1996, Public Law 104-91, as amended and related HIPAA regulations at 45 C.F.R. part 160-164, as in effect or as amended.

Installation Date: The date when the procedures described in "Installation by Contractor, and Installation by State", as found in the RFP, are completed.

Late Proposal: A proposal received at the place specified in the solicitation after the date and time designated for all proposals to be received.

Licensed Software: Any and all software and documentation by which the State acquires or is granted any rights under this contract

Local Time: Central Time in Lincoln, NE.

MAGI (Modified Adjusted Gross Income): A definition of income from the tax system that will be used to determine eligibility for certain categories of Medicaid eligibility in addition to tax credits available to people buying insurance in exchanges.

Mandatory: Required, compulsory or obligatory.

May: Denotes discretion.

MITA (Medicaid Information Technology Architecture): an initiative of the Centers for Medicare and Medicaid Services (CMS), aligned with the National Health Infrastructure Initiative (NHII), and intended to foster integrated business and information technology transformation across the Medicaid enterprise to improve the administration of the Medicaid program.

Module: A collection of routines and data structures that perform a specific function of the Licensed Software.

Must: Denotes the imperative, required, compulsory or obligatory

N-FOCUS: (Nebraska Family Online Client User System) The Department's software application used to support eligibility determinations for Nebraska Medicaid, Nebraska CHIP and various Economic Assistance Programs. This system also provides additional functionality such as case management, provider management and payment calculations.

Opening Date: Specified date and time for the public opening of received, labeled and sealed formal proposals. Not to be confused with "Release Date".

Operating System: The control program in a computer that provides the interface to the computer hardware and peripheral devices, and the usage and allocation of memory resources, processor resources, input/output resources, and security resources.

Outsourcing: Acquiring computing or related services from a source outside of the State of Nebraska which may include programming and/or executing the State's Licensed Software on the State's CPU's, programming, and/or executing the State's programs and Licensed Software on the contractor's CPU's or any mix thereof.

Outsourcing Company: A company that provides Outsourcing Services under contract to the State.

Performance Bond: A bond given by a surety on behalf of the contractor to ensure the timely and proper (in sole estimation of the State) performance of a contract.

PHI (Protected Health Information): Individually identifiable health information that is transmitted by, or maintained in, electronic media or any other form or medium. Individually identifiable health information is information that is a subset of health information, including demographic information collected from an individual, and 1) is created or received by a healthcare provider, health plan, employer, or healthcare clearinghouse; and 2) related to the past, present, or future physical or

mental health or condition of an individual; the provision of healthcare to an individual; or the past, pre-sent, or future payment for the provision of healthcare to an individual; (i) that identifies the individual; or (ii) with respect to which there is a reasonable basis to believe the information can be used to identify the individual.

PII (Personally Identifiable Information): Information: 1) that directly identifies an individual (e.g., name, address, social security number or other identifying number or code, telephone number, email, address, etc.), or 2) by which an agency intends to identify specific individuals in conjunction with other data elements, e.g., indirect identification. (These data elements may include a combination of gender, race, birth date, geographic indicator, and other descriptors.)

Platform: A specific hardware and Operating System combination that is different from other hardware and Operating System combinations to the extent that a different version of the Licensed Software product is required to execute properly in the environment established by such hardware and Operating System combination.

PPACA (Patient Protection and Affordable Care Act): See ACA: Affordable Care Act.

Pre-Proposal Conference: A meeting scheduled for the purpose of providing clarification regarding a Request for Proposal and related expectations.

Product: A module, a system, or any other software-related item provided by the contractor to the State.

Program Error: Code in Licensed Software which produces unintended results or actions, or which produces results or actions other than those described in the specifications. A program error includes, without limitation, any "Critical Program Error."

Program Set: The group of programs and products, including the Licensed Software specified in the RFP, plus any additional programs and products licensed by the State under this contract for use by the State.

Project: The total of all software, documentation, and services to be provided by the contractor under this contract.

Proposal: The executed document submitted by a bidder in response to a Request for Proposal.

Proprietary Information: Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive.

Protest: A complaint about a governmental action or decision related to a Request for Proposal or the resultant contract, brought by a prospective bidder, a bidder, a contractor, or other interested party to AS Materiel Division or another designated agency with the intention of achieving a remedial result.

Public Proposal Opening: The process of opening proposals, conducted at the time and place specified in the Request for Proposal, and in the presence of anyone who wishes to attend.

Recommended Hardware Configuration: The data processing hardware (including all terminals, auxiliary storage, communication, and other peripheral devices) to the extent utilized by the State as

recommended by the contractor.

Release Date: Date of release of the Request for Proposal to the public for submission of proposal responses. Not to be confused with "Opening Date".

Renewal: Continuance of a contract for an additional term after a formal signing by the parties.

Representative: Includes an agent, an officer of a corporation or association, a trustee, executor or administrator of an estate, or any other person legally empowered to act for another.

Request for Proposal (RFP): All documents, whether attached or incorporated by reference, utilized for soliciting competitive proposals.

Responsible Bidder: A bidder who has the capability in all respects to perform fully all requirements with integrity and reliability to assure good faith performance.

Responsive Bidder: A bidder who has submitted a bid which conforms in all respects to the solicitation document.

Seven Standards and Conditions for Enhanced Funding: The Centers for Medicare & Medicaid Services (CMS) issued standards and conditions that must be met by the states in order for Medicaid technology investments (including traditional claims processing systems, as well as eligibility systems) to be eligible for enhanced match funding.

Shall: Denotes the imperative, required, compulsory or obligatory.

Should: Indicates an expectation.

SOA (Service Oriented Architecture): A set of principles and methodologies for designing and developing software in the form of interoperable services. These services are well-defined business functionalities that are built as software components (discrete pieces of code and/or data structures) that can be reused for different purposes. SOA design principles are used during the phases of systems development and integration.

Solicitation: The process of notifying prospective bidders or offerors that the State of Nebraska wishes to receive proposals for furnishing services. The process may consist of public advertising, posting notices, or mailing Request for Proposals and/or Request for Proposal announcement letter to prospective bidders, or all of these.

Solicitation Document: Request for Proposal.

Specifications: The information provided by or on behalf of the contractor that fully describes the capabilities and functionality of the Licensed Software as set forth in any material provided by the contractor, including the documentation and User's Manuals described herein.

System: Any collection or aggregation of two (2) or more Modules that is designed to function, or is represented by the contractor as functioning or being capable of functioning as an entity.

Termination: Occurs when either party pursuant to a power created by agreement or law puts an end to the contract. All obligations which are still executory on both sides are discharged but any right based on prior breach or performance survives.

Trademark: A distinguishing sign, symbol, mark, word, or arrangement of words in the form of a label

or other indication, that is adopted and used by a manufacturer or distributor to designate its particular goods and which no other person has the legal right to use.

Trade Secret: Information, including, but not limited to, a drawing, formula, pattern, compilation, program, device, method, technique, code, or process that; (a) derives independent economic value, actual or potential, from not being known to, and not being ascertainable by proper means, other persons who can obtain economic value from its disclosure or use; and (b) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy (see Neb. Rev. Stat. §87-502(4)).

Upgrade: Any improvement or change in the Software that improves or alters its basic function.

Vendor: An actual or potential contractor; a contractor

Will: Denotes the imperative, required, compulsory or obligatory.

ACRONYM LIST

AABD	Assistance to the Aged, Blind and Disabled
ACA	Affordable Care Act
ADC	Aid to Dependent Children
ARRA	American Recovery and Reinvestment Act of 2009
CCIIO	Center for Consumer Information and Insurance Oversight
CFR	Code of Federal Regulation
CHIP	Children's Health Insurance Program
CMMI	Capability Maturity Model Integration
CMS	Centers for Medicare & Medicaid Services
DDI	Design, Develop and Implement
DED	Deliverables Expectation Document
EDI	Electronic Data Interchange
EES	Eligibility and Enrollment Solution
FPL	Federal Poverty Level
FFM	Federal Financial Management
FFP	Federal Financial Participation
FOA	Funding Opportunity Announcement
DHHS	Nebraska Department of Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act
IEEE	Institute of Electrical and Electronic Engineers
IS&T	Information Systems and Technology Division
IV&V	Independent Verification and Validation
JAD	Joint Application Development
MAGI	Modified Adjusted Gross Income
MITA	Medicaid Information Technology Architecture
MLTC	Division of Medicaid and Long-Term Care
MMIS	Medicaid Management Information Systems
NE	Nebraska
N-FOCUS	Nebraska Family Online Client User System
O-CIO	Office of the CIO
PHI	Protected Health Information
PII	Personally Identifiable Information
PMI	Project Management Institute
PMBOK	Project Management Book of Knowledge
PMP	Project Management Plan
PPACA	Patient Protection and Affordable Care Act
RFP	Request for Proposal
RTM	Requirements Traceability Matrix
SDLC	Software Development Life Cycle
SHOP	Small Business Health Options Plan
SOA	Service Oriented Architecture
WBS	Work Breakdown Structure

I. SCOPE OF THE REQUEST FOR PROPOSAL

The State of Nebraska, Administrative Services (AS), Materiel Division, Purchasing Bureau, is issuing this Request for Proposal, RFP Number 4468Z1 for the purpose of selecting a qualified contractor to provide Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services.

The IV&V contractor awarded the IV&V contract for the EES project, their subcontractor(s) and vendor(s) are precluded from submitting an EES proposal, assisting another company in making a proposal, or otherwise materially participating in any subsequent contract related to the EES project.

A contract resulting from this Request for Proposal will be issued from the date of the award through December 31, 2015, with the option to renew for one (1) additional six-month period as mutually agreed upon by all parties.

ALL INFORMATION PERTINENT TO THIS REQUEST FOR PROPOSAL CAN BE FOUND ON THE INTERNET AT: http://www.das.state.ne.us/materiel/purchasing/rfp.htm

A. SCHEDULE OF EVENTS

The State expects to adhere to the tentative procurement schedule shown below. It should be noted, however, that some dates are approximate and subject to change.

	ACTIVITY	DATE/TIME
1.	Release Request for Proposal	August 16, 2013
2.	Last day to submit written questions	August 30, 2013
3.	State responds to written questions through Request for Proposal "Addendum" and/or "Amendment" to be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm	September 6, 2013
4.	Proposal opening Location: Nebraska State Office Building State Purchasing Bureau 301 Centennial Mall South, Mall Level Lincoln, NE 68508	September 24, 2013 2:00 PM Central Time
5.	Review for conformance of mandatory requirements	September 24, 2013
6.	Evaluation period	September 25, 2013 To October 11, 2013
7.	"Oral Interviews/Presentations and/or Demonstrations" (if required)	October 11, 2013 To November 1, 2013
8.	Post "Letter of Intent to Contract" to Internet at: http://www.as.materielpurchasing@nebraska.gov/rfp.htm	November 4, 2013
9.	Performance bond submission	November 11, 2013
10.	Contract award	November 11, 2013
11.	Contractor start date	November 15, 2013

II. PROCUREMENT PROCEDURES

A. PROCURING OFFICE AND CONTACT PERSON

Procurement responsibilities related to this Request for Proposal reside with the State Purchasing Bureau. The point of contact for the procurement is as follows:

Name: Peter Kroll/Robert Thompson
Agency: State Purchasing Bureau
Address: 301 Centennial Mall South, Mall Level
Lincoln, NE 68508

OR

Address: P.O. Box 94847
Lincoln, NE 68509
Telephone: 402-471-2401
Facsimile: 402-471-2089
E-Mail: as.materielpurchasing@nebraska.gov

B. GENERAL INFORMATION

The Request for Proposal is designed to solicit proposals from qualified vendors who will be responsible for providing Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services at a competitive and reasonable cost. Proposals that do not conform to the mandatory items as indicated in the Request for Proposal will not be considered.

Proposals shall conform to all instructions, conditions, and requirements included in the Request for Proposal. Prospective bidders are expected to carefully examine all documentation, schedules and requirements stipulated in this Request for Proposal, and respond to each requirement in the format prescribed.

A fixed-price contract will be awarded as a result of this proposal. In addition to the provisions of this Request for Proposal and the awarded proposal, which shall be incorporated by reference in the contract, any additional clauses or provisions required by the terms and conditions will be included as an amendment to the contract.

C. COMMUNICATION WITH STATE STAFF

From the date the Request for Proposal is issued until a determination is announced regarding the selection of the contractor, contact regarding this project between potential contractors and individuals employed by the State is restricted to only written communication with the staff designated above as the point of contact for this Request for Proposal.

Once a contractor is preliminarily selected, as documented in the intent to contract, that contractor is restricted from communicating with State staff until a contract is signed. Violation of this condition may be considered sufficient cause to reject a contractor's proposal and/or selection irrespective of any other condition.

The following exceptions to these restrictions are permitted:

1. written communication with the person(s) designated as the point(s) of contact for this Request for Proposal or procurement;
2. contacts made pursuant to any pre-existing contracts or obligations; and

3. state-requested presentations, key personnel interviews, clarification sessions or discussions to finalize a contract.

Violations of these conditions may be considered sufficient cause to reject a bidder's proposal and/or selection irrespective of any other condition. No individual member of the State, employee of the State, or member of the Evaluation Committee is empowered to make binding statements regarding this Request for Proposal. The buyer will issue any clarifications or opinions regarding this Request for Proposal in writing.

D. WRITTEN QUESTIONS AND ANSWERS

Any explanation desired by a bidder regarding the meaning or interpretation of any Request for Proposal provision must be submitted in writing to the State Purchasing Bureau and clearly marked "RFP Number 4468Z1; Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services Questions". It is preferred that questions be sent via e-mail to as.materielpurchasing@nebraska.gov Questions may also be sent by facsimile to 402-471-2089, but must include a cover sheet clearly indicating that the transmission is to the attention of Buyer, showing the total number of pages transmitted, and clearly marked "RFP Number 4468Z1; Eligibility and Enrollment Solution (EES) Independent Verification and Validation (IV&V) Services Questions".

It is recommended that Bidders submit questions sequentially numbered, include the RFP reference and page number using the following format:

Question Number	RFP Section Reference	RFP Page Number	Question

Written answers will be provided through an addendum to be posted on the Internet at http://das.nebraska.gov/materiel/purchasing/rfp.htm on or before the date shown in the Schedule of Events.

E. ORAL INTERVIEWS/PRESENTATIONS AND/OR DEMONSTRATIONS

The Evaluation Committee(s) may conclude after the completion of the Technical and Cost Proposal evaluation that oral interviews/presentations and/or demonstrations are required in order to determine the successful bidder. All bidders may not have an opportunity to interview/present and/or give demonstrations; the State reserves the right to select only the top scoring bidders to present/give oral interviews in its sole discretion. The scores from the oral interviews/presentations and/or demonstrations will be added to the scores from the Technical and Cost Proposals. The presentation process will allow the bidders to demonstrate their proposal offering, explaining and/or clarifying any unusual or significant elements related to their proposals. Bidders' key personnel will be requested to participate in a structured interview to determine their understanding of the requirements of this proposal, their authority and reporting relationships within their firm, and their management style and philosophy. Bidders shall not be allowed to alter or amend their proposals. Only representatives of the State and the presenting bidders will be permitted to attend the oral interviews/presentations and/or demonstrations.

Once the oral interviews/presentations and/or demonstrations have been completed the State reserves the right to make a contract award without any further discussion with the bidders regarding the proposals received.

Detailed notes of oral interviews/presentations and/or demonstrations may be recorded and supplemental information (such as briefing charts, et cetera) may be accepted; however, such supplemental information shall not be considered an amendment to a bidders' proposal.

Additional written information gathered in this manner shall not constitute replacement of proposal contents.

Any cost incidental to the oral interviews/presentations and/or demonstrations shall be borne entirely by the bidder and will not be compensated by the State.

F. SUBMISSION OF PROPOSALS

The following describes the requirements related to proposal submission, proposal handling and review by the State.

To facilitate the proposal evaluation process, one (1) original, clearly identified as such, and six (6) hardcopies of the entire proposal should be submitted. The copy marked "original" shall take precedence over any other copies, should there be a discrepancy. Proposals must be submitted by the proposal due date and time. A separate sheet must be provided that clearly states which sections have been submitted as proprietary or have copyrighted materials. All proprietary information the bidder wishes the State to withhold must be submitted in accordance with the instructions outlined in Section III, Proprietary Information. Proposal responses should include the completed Form A, Bidder Contact Sheet. Proposals must reference the request for proposal number and be sent to the specified address. Container(s) utilized for original documents should be clearly marked "ORIGINAL DOCUMENTS". Please note that the address label should appear in Section II part A as specified on the face of each container or bidder's bid response packet. Rejected late proposals will be returned to the bidder unopened, if requested, at bidder's expense. If a recipient phone number is required for delivery purposes, 402-471-2089 should be used. The request for proposal number must be included in all correspondence.

Emphasis should be concentrated on conformance to the Request for Proposal instructions, responsiveness to requirements, completeness and clarity of content. If the bidder's proposal is presented in such a fashion that makes evaluation difficult or overly time consuming, it is likely that points will be lost in the evaluation process. Elaborate and lengthy proposals are neither necessary nor desired.

The Technical and Cost Proposals should be packaged separately (loose-leaf binders are preferred) on standard 8 ½" by 11" paper, except that charts, diagrams and the like may be on fold-outs which, when folded, fit into the 8 ½" by 11" format. Pages may be consecutively numbered for the entire proposal, or may be numbered consecutively within sections. Figures and tables must be numbered and referenced in the text by that number. They should be placed as close as possible to the referencing text. The Technical Proposal must not contain any reference to dollar amounts. However, information such as data concerning labor hours and categories, materials, subcontracts and so forth, shall be considered in the Technical Proposal so that the bidder's understanding of the scope of work may be evaluated. The Technical Proposal shall disclose the bidder's technical approach in as much detail as possible, including, but not limited to, the information required by the Technical Proposal instructions.

G. PROPOSAL OPENING

The sealed proposals will be publicly opened and the bidding entities announced on the date, time and location shown in the Schedule of Events. Proposals will be available for viewing by those present after the proposal opening. Vendors may also contact the State to schedule an appointment for viewing proposals after the opening date.

H. LATE PROPOSALS

Proposals received after the time and date of the proposal opening will be considered late proposals. Rejected late proposals will be returned to the bidder unopened, if requested, at bidder's expense. The State is not responsible for proposals that are late or lost due to mail service inadequacies, traffic or any other reason(s).

I. REJECTION OF PROPOSALS

The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State.

J. EVALUATION OF PROPOSALS

All responses to this Request for Proposal which fulfill all mandatory requirements will be evaluated. Each category will have a maximum possible point potential. The State will conduct a fair, impartial and comprehensive evaluation of all proposals in accordance with the criteria set forth below. Areas that will be addressed and scored during the evaluation include:

1. Executive Summary;
2. Corporate Overview shall include but is not limited to;

- **a.** the ability, capacity and skill of the bidder to deliver and implement the system or project that meets the requirements of the Request for Proposal;
- **b.** the character, integrity, reputation, judgment, experience and efficiency of the bidder;
- **c.** whether the bidder can perform the contract within the specified time frame;
- **d.** the quality of bidder performance on prior contracts;
- **e.** such other information that may be secured and that has a bearing on the decision to award the contract;

3. Technical Approach

- **a.** Program Management/IV&V Project Plan
- **b.** Deliverables Review and Acceptance
- **c.** Quality Assurance
- **d.** Contract Compliance

4. Cost Proposal.

Evaluation criteria will become public information at the time of the Request for Proposal opening. Evaluation criteria and a list of respondents will be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm. Evaluation criteria will not be released prior to the proposal opening.

K. EVALUATION COMMITTEE

Proposals will be independently evaluated by members of the Evaluation Committee(s). The committee(s) will consist of staff with the appropriate expertise to conduct such proposal evaluations. Names of the members of the Evaluation Committee(s) will not become public information.

Prior to award, bidders are advised that only the point of contact indicated on the front cover of this Request For Proposal For Contractual Services Form can clarify issues or render any

opinion regarding this Request for Proposal. No individual member of the State, employee of the State or member of the Evaluation Committee(s) is empowered to make binding statements regarding this Request for Proposal.

L. MANDATORY REQUIREMENTS

The proposals will first be examined to determine if all mandatory requirements listed below have been addressed to warrant further evaluation. Proposals not meeting mandatory requirements will be excluded from further evaluation. The mandatory requirement items are as follows:

1. signed Request For Proposal For Contractual Services form in ink;
2. Executive Summary;
3. Corporate Overview;
4. Technical Approach; and
5. Cost Proposal.

M. REFERENCE CHECKS

The State reserves the right to check any reference(s), regardless of the source of the reference information, including but not limited to, those that are identified by the company in the proposal, those indicated through the explicitly specified contacts, those that are identified during the review of the proposal, or those that result from communication with other entities involved with similar projects.

Information to be requested and evaluated from references may include, but is not limited to, some or all of the following: project description and background, job performed, functional and technical abilities, communication skills and timeliness, cost and schedule estimates and accuracy, problems (poor quality deliverables, contract disputes, work stoppages, et cetera), overall performance, and whether or not the reference would rehire the firm or individual. Only top scoring bidders may receive reference checks and negative references may eliminate bidders from consideration for award.

N. SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS

All bidders shall be authorized to transact business in the State of Nebraska. All bidders are expected to comply with all Nebraska Secretary of State registration requirements. It is the responsibility of the bidder to comply with any registration requirements pertaining to types of business entities (e.g. person, partnership, foreign or domestic limited liability company, association, or foreign or domestic corporation or other type of business entity). The Bidder who is the recipient of an Intent to Award will be required to certify that it has so complied and produce a true and exact copy of its current (within 90 days), valid Certificate of Good Standing or Letter of Good Standing; or in the case registration is not required, to provide, in writing, the reason as to why none is required. This must be accomplished prior to the award of the contract. Construction contractors are expected to meet all applicable requirements of the Nebraska Contractor Registration Act and provide a current, valid certificate of registration. Further, all bidders shall comply with any and all other applicable Nebraska statutes regarding transacting business in the State of Nebraska. Bidders should submit the above certification(s) with their bid.

O. VIOLATION OF TERMS AND CONDITIONS

Violation of the terms and conditions contained in this Request for Proposal or any resultant contract, at any time before or after the award, shall be grounds for action by the State which may include, but is not limited to, the following:

1. rejection of a bidder's proposal;

2. suspension of the bidder from further bidding with the State for the period of time relative to the seriousness of the violation, such period to be within the sole discretion of the State.

III. TERMS AND CONDITIONS

By signing the "Request For Proposal For Contractual Services" form, the Bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the terms and conditions and certifies bidder maintains a drug free work place environment.

Bidders are expected to closely read the Terms and Conditions and provide a binding signature of intent to comply with the Terms and Conditions; provided, however, a bidder may indicate any exceptions to the Terms and Conditions by (1) clearly identifying the term or condition by subsection, (2) including an explanation for the bidder's inability to comply with such term or condition which includes a statement recommending terms and conditions the bidder would find acceptable. Rejection in whole or in part of the Terms and Conditions may be cause for rejection of a bidder's proposal.

The Contractor awarded the IV&V contract for the EES project, their subcontractor(s) and vendor(s) are precluded from submitting an EES proposal, assisting another company in making a proposal, or otherwise materially participating in any subsequent contract related to the EES project.

A. GENERAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract resulting from this Request for Proposal shall incorporate the following documents:

1. Amendment to Contract Award with the most recent dated amendment having the highest priority;
2. Contract Award and any attached Addenda;
3. The signed Request for Proposal form and the Contractor's Proposal;
4. Amendments to RFP and any Questions and Answers; and
5. The original RFP document and any Addenda.

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to Contract Award with the most recent dated amendment having the highest priority, 2) Contract Award and any attached Addenda, 3) the signed Request for Proposal form and the Contractor's Proposal, 4) Amendments to RFP and any Questions and Answers, 5) the original RFP document and any Addenda.

Any ambiguity in any provision of this contract which shall be discovered after its execution shall be resolved in accordance with the rules of contract interpretation as established in the State of Nebraska.

Once proposals are opened they become the property of the State of Nebraska and will not be returned.

B. AWARD

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All purchases, leases, or contracts which are based on competitive proposals will be awarded according to the provisions in the Request for Proposal. The State reserves the right to reject any or all proposals, wholly or in part, or to award to multiple bidders in whole or in part, and at its discretion, may withdraw or amend the Request for Proposal at any time. The State reserves the right to waive any deviations or errors that are not material, do not invalidate the legitimacy of the proposal, and do not improve the bidder's competitive position. All awards will be made in a manner deemed in the best interest of the State. The Request for Proposal does not commit the State to award a contract. If, in the opinion of the State, revisions or amendments will require substantive changes in proposals, the due date may be extended.

By submitting a proposal in response to this Request for Proposal, the bidder grants to the State the right to contact or arrange a visit in person with any or all of the bidder's clients.

Once an intent to award decision has been determined, it will be posted to the Internet at: http://www.das.state.ne.us/materiel/purchasing/rfp.htm

Grievance and protest procedure is available on the Internet at: http://www.das.state.ne.us/materiel/purchasing/agencyservicesprocurementmanual/ProtestGrievanceProcedureForServices.doc

Any protests must be filed by a vendor within ten (10) calendar days after the intent to award decision is posted to the Internet.

C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall comply with all applicable local, State and Federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits contractors of the State of Nebraska, and their subcontractors, from discriminating against any employee or applicant for employment, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin (Neb. Rev. Stat. §48-1101 to 48-1125). The contractor guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this Request for Proposal.

D. PERMITS, REGULATIONS, LAWS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall procure and pay for all permits, licenses and approvals necessary for the execution of the contract. The contractor shall comply with all applicable local, state, and federal laws, ordinances, rules, orders and regulations.

E. OWNERSHIP OF INFORMATION AND DATA

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State of Nebraska shall have the unlimited right to publish, duplicate, use and disclose all information and data developed or derived by the contractor pursuant to this contract.

The contractor must guarantee that it has the full legal right to the materials, supplies, equipment, and other rights or titles (e.g. rights to licenses transfer or assign deliverables) necessary to execute this contract. The contract price shall, without exception, include compensation for all royalties and costs arising from patents, trademarks and copyrights that are in any way involved in the contract. It shall be the responsibility of the contractor to pay for all royalties and costs, and the State must be held harmless from any such claims.

F. INSURANCE REQUIREMENTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall not commence work under this contract until he or she has obtained all the insurance required hereunder and such insurance has been approved by the State. If contractor will be utilizing any subcontractors, the contractor is responsible for obtaining the certificate(s) of insurance required herein under from any and all subcontractor(s). Contractor is also responsible for ensuring subcontractor(s) maintain the insurance required until completion of the contract requirements. The contractor shall not allow any subcontractor to commence work on his or her subcontract until all similar insurance required of the subcontractor has been obtained and approved by the contractor. Approval of the insurance by the State shall not limit, relieve or decrease the liability of the contractor hereunder.

If by the terms of any insurance a mandatory deductible is required, or if the contractor elects to increase the mandatory deductible amount, the contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.

1. WORKERS' COMPENSATION INSURANCE

The contractor shall take out and maintain during the life of this contract the statutory Workers' Compensation and Employer's Liability Insurance for all of the contactors' employees to be engaged in work on the project under this contract and, in case any such work is sublet, the contractor shall require the subcontractor similarly to provide Worker's Compensation and Employer's Liability Insurance for all of the subcontractor's employees to be engaged in such work. This policy shall be written to meet the statutory requirements for the state in which the work is to be performed, including Occupational Disease. This policy shall include a waiver of subrogation in favor of the State. The amounts of such insurance shall not be less than the limits stated hereinafter.

2. COMMERCIAL GENERAL LIABILITY INSURANCE AND COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The contractor shall take out and maintain during the life of this contract such Commercial General Liability Insurance and Commercial Automobile Liability Insurance as shall protect contractor and any subcontractor performing work covered by this contract from claims for damages for bodily injury, including death, as well as from claims for property damage, which may arise from operations under this contract, whether such operation be by the contractor or by any subcontractor or by anyone

directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than limits stated hereinafter.

The Commercial General Liability Insurance shall be written on an occurrence basis, and provide Premises/Operations, Products/Completed Operations, Independent Contractors, Personal Injury and Contractual Liability coverage. The policy shall include the State, and others as required by the contract documents, as an Additional Insured. This policy shall be primary, and any insurance or self-insurance carried by the State shall be considered excess and non-contributory. The Commercial Automobile Liability Insurance shall be written to cover all Owned, Non-owned and Hired vehicles.

3. INSURANCE COVERAGE AMOUNTS REQUIRED

a. WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY

Coverage A	Statutory
Coverage B	
Bodily Injury by Accident	$100,000 each accident
Bodily Injury by Disease	$500,000 policy limit
Bodily Injury by Disease	$100,000 each employee

b. COMMERCIAL GENERAL LIABILITY

General Aggregate	$2,000,000
Products/Completed Operations Aggregate	$2,000,000
Personal/Advertising Injury	$1,000,000 any one person
Bodily Injury/Property Damage	$1,000,000 per occurrence
Fire Damage	$50,000 any one fire
Medical Payments	$5,000 any one person

c. COMMERCIAL AUTOMOBILE LIABILITY

Bodily Injury/Property Damage	$1,000,000 combined single limit

d. UMBRELLA/EXCESS LIABILITY

Over Primary Insurance	$1,000,000 per occurrence

4. EVIDENCE OF COVERAGE

The Contractor should furnish the State, with their proposal response, a certificate of insurance coverage complying with the above requirements, which shall be submitted to the Buyer, Administrative Services, State Purchasing Bureau, 301 Centennial Mall S, 1st Fl., Lincoln, NE 68508 (facsimile 402-471-2089). These certificates or the cover sheet shall reference the RFP number, and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration and amounts and types of coverage afforded. If the State is damaged by the failure of the contractor to maintain such insurance, then the contractor shall be responsible for all reasonable costs properly attributable thereto.

Notice of cancellation of any required insurance policy must be submitted to Buyer, Administrative Services, State Purchasing Bureau, 301 Centennial Mall S, 1st Fl, Lincoln, NE 68508 (facsimile 402-471-2089 when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

G. COOPERATION WITH OTHER CONTRACTORS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may already have in place or choose to award supplemental contracts for work related to this Request for Proposal, or any portion thereof.

1. The State reserves the right to award the contract jointly between two or more potential contractors, if such an arrangement is in the best interest of the State.
2. The contractor shall agree to cooperate with such other contractors, and shall not commit or permit any act which may interfere with the performance of work by any other contractor.

H. INDEPENDENT CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

It is agreed that nothing contained herein is intended or should be construed in any manner as creating or establishing the relationship of partners between the parties hereto. The contractor represents that it has, or will secure at its own expense, all personnel required to perform the services under the contract. The contractor's employees and other persons engaged in work or services required by the contractor under the contract shall have no contractual relationship with the State; they shall not be considered employees of the State.

All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination against the contractor, its officers or its agents) shall in no way be the responsibility of the State. The contractor will hold the State harmless from any and all such claims. Such personnel or other persons shall not require nor be entitled to any compensation, rights or benefits from the State including without limit, tenure rights, medical and hospital care, sick and vacation leave, severance pay or retirement benefits.

I. CONTRACTOR RESPONSIBILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor is solely responsible for fulfilling the contract, with responsibility for all services offered and products to be delivered as stated in the Request for Proposal, the contractor's proposal, and the resulting contract. The contractor shall be the sole point of contact regarding all contractual matters.

If the contractor intends to utilize any subcontractors' services, the subcontractors' level of effort, tasks and time allocation must be clearly defined in the contractor's proposal. The contractor shall agree that it will not utilize any subcontractors not specifically included in its proposal, in the performance of the contract, without the prior written authorization of the State. Following execution of the contract, the contractor shall proceed diligently with all services and shall perform such services with qualified personnel in accordance with the contract.

J. CONTRACTOR PERSONNEL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor warrants that all persons assigned to the project shall be employees of the contractor or specified subcontractors, and shall be fully qualified to perform the work required

herein. Personnel employed by the contractor to fulfill the terms of the contract shall remain under the sole direction and control of the contractor. The contractor shall include a similar provision in any contract with any subcontractor selected to perform work on the project.

Personnel commitments made in the contractor's proposal shall not be changed without the prior written approval of the State. Replacement of key personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

The State reserves the right to require the contractor to reassign or remove from the project any contractor or subcontractor employee.

In respect to its employees, the contractor agrees to be responsible for the following:

1. any and all employment taxes and/or other payroll withholding;
2. any and all vehicles used by the contractor's employees, including all insurance required by state law;
3. damages incurred by contractor's employees within the scope of their duties under the contract;
4. maintaining workers' compensation and health insurance and submitting any reports on such insurance to the extent required by governing State law; and
5. determining the hours to be worked and the duties to be performed by the contractor's employees.

Notice of cancellation of any required insurance policy must be submitted to the State when issued and a new coverage binder shall be submitted immediately to ensure no break in coverage.

K. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall not, at any time, recruit or employ any State employee or agent who has worked on the Request for Proposal or project, or who had any influence on decisions affecting the Request for Proposal or project.

L. CONFLICT OF INTEREST

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

By submitting a proposal, bidder certifies that there does not now exist any relationship between the bidder and any person or entity which is or gives the appearance of a conflict of interest related to this Request for Proposal or project.

The bidder certifies that it shall not take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its services hereunder or which creates an actual or appearance of conflict of interest.

The bidder certifies that it will not employ any individual known by bidder to have a conflict of interest.

M. PROPOSAL PREPARATION COSTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State shall not incur any liability for any costs incurred by bidders in replying to this Request for Proposal, in the demonstrations, or oral presentations, or in any other activity related to bidding on this Request for Proposal.

N. ERRORS AND OMISSIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The bidder shall not take advantage of any errors and/or omissions in this Request for Proposal or resulting contract. The bidder must promptly notify the State of any errors and/or omissions that are discovered.

O. BEGINNING OF WORK

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The bidder shall not commence any billable work until a valid contract has been fully executed by the State and the successful contractor. The contractor will be notified in writing when work may begin.

P. ASSIGNMENT BY THE STATE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State shall have the right to assign or transfer the contract or any of its interests herein to any agency, board, commission, or political subdivision of the State of Nebraska. There shall be no charge to the State for any assignment hereunder.

Q. ASSIGNMENT BY THE CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor may not assign, voluntarily or involuntarily, the contract or any of its rights or obligations hereunder (including without limitation rights and duties of performance) to any third party, without the prior written consent of the State, which will not be unreasonably withheld.

R. DEVIATIONS FROM THE REQUEST FOR PROPOSAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The requirements contained in the Request for Proposal become a part of the terms and conditions of the contract resulting from this Request for Proposal. Any deviations from the Request for Proposal must be clearly defined by the bidder in its proposal and, if accepted by the State, will become part of the contract. Any specifically defined deviations must not be in conflict with the basic nature of the Request for Proposal or mandatory requirements. “Deviation”, for the purposes of this RFP, means any proposed changes or alterations to either the contractual language or deliverables within the scope of this RFP. The State discourages deviations and reserves the right to reject proposed deviations.

S. GOVERNING LAW

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract shall be governed in all respects by the laws and statutes of the State of Nebraska. Any legal proceedings against the State of Nebraska regarding this Request for Proposal or any resultant contract shall be brought in the State of Nebraska administrative or judicial forums as defined by State law. The contractor must be in compliance with all Nebraska statutory and regulatory law.

T. ATTORNEY'S FEES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

In the event of any litigation, appeal or other legal action to enforce any provision of the contract, the contractor agrees to pay all expenses of such action, as permitted by law, including attorney's fees and costs, if the State is the prevailing party.

U. ADVERTISING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor agrees not to refer to the contract award in advertising in such a manner as to state or imply that the company or its services are endorsed or preferred by the State. News releases pertaining to the project shall not be issued without prior written approval from the State.

V. STATE PROPERTY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall be responsible for the proper care and custody of any State-owned property which is furnished for the contractor's use during the performance of the contract. The contractor shall reimburse the State for any loss or damage of such property, normal wear and tear is expected.

W. SITE RULES AND REGULATIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall use its best efforts to ensure that its employees, agents and subcontractors comply with site rules and regulations while on State premises. If the contractor must perform on-site work outside of the daily operational hours set forth by the State, it must make arrangements with the State to ensure access to the facility and the equipment has been arranged. No additional payment will be made by the State on the basis of lack of access, unless the State fails to provide access as agreed to between the State and the contractor.

X. NOTIFICATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

During the bid process, all communication between the State and a bidder shall be between the bidder’s representative clearly noted in its proposal and the buyer noted in Section II, A. Procuring Office and Contact Person of this RFP. After the award of the contract, all notices under the contract shall be deemed duly given upon delivery to the staff designated as the

point of contact for this Request for Proposal, in person, or upon delivery by U.S. Mail, facsimile, or e-mail. Each bidder should provide in its proposal the name, title and complete address of its designee to receive notices.

1. Except as otherwise expressly specified herein, all notices, requests or other communications shall be in writing and shall be deemed to have been given if delivered personally or mailed, by U.S. Mail, postage prepaid, return receipt requested, to the parties at their respective addresses set forth above, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or three (3) days following deposit in the mail.

2. Whenever the contractor encounters any difficulty which is delaying or threatens to delay its timely performance under the contract, the contractor shall immediately give notice thereof in writing to the State reciting all relevant information with respect thereto. Such notice shall not in any way constitute a basis for an extension of the delivery schedule or be construed as a waiver by the State of any of its rights or remedies to which it is entitled by law or equity or pursuant to the provisions of the contract. Failure to give such notice, however, may be grounds for denial of any request for an extension of the delivery schedule because of such delay.

Either party may change its address for notification purposes by giving notice of the change, and setting forth the new address and an effective date.

For the duration of the contract, all communication between contractor and the State regarding the contract shall take place between the contractor and individuals specified by the State in writing. Communication about the contract between contractor and individuals not designated as points of contact by the State is strictly forbidden.

Y. EARLY TERMINATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contract may be terminated as follows:

1. The State and the contractor, by mutual written agreement, may terminate the contract at any time.

2. The State, in its sole discretion, may terminate the contract for any reason upon 30 days written notice to the contractor. Such termination shall not relieve the contractor of warranty or other service obligations incurred under the terms of the contract. In the event of cancellation the contractor shall be entitled to payment, determined on a pro rata basis, for products or services satisfactorily performed or provided.

3. The State may terminate the contract immediately for the following reasons:

- **a.** if directed to do so by statute;
- **b.** contractor has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;
- **c.** a trustee or receiver of the contractor or of any substantial part of the contractor's assets has been appointed by a court;

d. fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its contractor, its employees, officers, directors or shareholders;

e. an involuntary proceeding has been commenced by any party against the contractor under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) days; or (ii) the contractor has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the contractor has been decreed or adjudged a debtor;

f. a voluntary petition has been filed by the contractor under any of the chapters of Title 11 of the United States Code;

g. contractor intentionally discloses confidential information;

h. contractor has or announces it will discontinue support of the deliverable;

i. second or subsequent documented "vendor performance report" form deemed acceptable by the State Purchasing Bureau.

Z. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may terminate the contract, in whole or in part, in the event funding is no longer available. The State's obligation to pay amounts due for fiscal years following the current fiscal year is contingent upon legislative appropriation of funds for the contract. Should said funds not be appropriated, the State may terminate the contract with respect to those payments for the fiscal years for which such funds are not appropriated. The State will give the contractor written notice thirty (30) days prior to the effective date of any termination, and advise the contractor of the location (address and room number) of any related equipment. All obligations of the State to make payments after the termination date will cease and all interest of the State in any related equipment will terminate. The contractor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date. In no event shall the contractor be paid for a loss of anticipated profit.

AA. BREACH BY CONTRACTOR

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may terminate the contract, in whole or in part, if the contractor fails to perform its obligations under the contract in a timely and proper manner. The State may, by providing a written notice of default to the contractor, allow the contractor to cure a failure or breach of contract within a period of thirty (30) days (or longer at State's discretion considering the gravity and nature of the default). Said notice shall be delivered by Certified Mail, Return Receipt Requested or in person with proof of delivery. Allowing the contractor time to cure a failure or breach of contract does not waive the State's right to immediately terminate the contract for the same or different contract breach which may occur at a different time. In case of default of the contractor, the State may contract the service from other sources and hold the contractor responsible for any excess cost occasioned thereby.

BB. ASSURANCES BEFORE BREACH

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

If any document or deliverable required pursuant to the contract does not fulfill the requirements of the Request for Proposal/resulting contract, upon written notice from the State, the contractor shall deliver assurances in the form of additional contractor resources at

no additional cost to the project in order to complete the deliverable, and to ensure that other project schedules will not be adversely affected.

CC. PENALTY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

In the event that the contractor fails to perform any substantial obligation under the contract, the State may withhold all monies due and payable to the contractor, without penalty, until such failure is cured or otherwise adjudicated. Failure to meet the dates stipulated in the contract for the deliverables may result in an assessment of penalty due the State of $1000.00 dollars per day, until the deliverables are approved. Contractor will be notified in writing when penalty will commence.

DD. FORCE MAJEURE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Neither party shall be liable for any costs or damages resulting from its inability to perform any of its obligations under the contract due to a natural disaster, or other similar event outside the control and not the fault of the affected party ("Force Majeure Event"). A Force Majeure Event shall not constitute a breach of the contract. The party so affected shall immediately give notice to the other party of the Force Majeure Event. The State may grant relief from performance of the contract if the contractor is prevented from performance by a Force Majeure Event. The burden of proof for the need for such relief shall rest upon the contractor. To obtain release based on a Force Majeure Event, the contractor shall file a written request for such relief with the State Purchasing Bureau. Labor disputes with the impacted party's own employees will not be considered a Force Majeure Event and will not suspend performance requirements under the contract.

EE. PROHIBITION AGAINST ADVANCE PAYMENT

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Payments shall not be made until contractual deliverable(s) are received and accepted by the State.

FF. PAYMENT

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

State will render payment to contractor when the terms and conditions of the contract and specifications have been satisfactorily completed on the part of the contractor as solely determined by the State. Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2401 through 81-2408). The State may require the contractor to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any services provided by the contractor prior to the Effective Date, and the contractor hereby waives any claim or cause of action for any such services.

GG. INVOICES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Invoices for payments must be submitted by the contractor to the agency requesting the services with sufficient detail to support payment. Invoices must be submitted to: Medicaid and Long-Term Care Division, P.O. Box 95026, Lincoln, NE 68509. The terms and conditions included in the contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract.

HH. AUDIT REQUIREMENTS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All contractor books, records and documents relating to work performed or monies received under the contract shall be subject to audit at any reasonable time upon the provision of reasonable notice by the State. These records shall be maintained for a period of five (5) full years from the date of final payment, or until all issues related to an audit, litigation or other action are resolved, whichever is longer. All records shall be maintained in accordance with generally accepted accounting principles.

In addition to, and in no way in limitation of any obligation in the contract, the contractor shall agree that it will be held liable for any State audit exceptions, and shall return to the State all payments made under the contract for which an exception has been taken or which has been disallowed because of such an exception. The contractor agrees to correct immediately any material weakness or condition reported to the State in the course of an audit.

II. TAXES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State is not required to pay taxes of any kind and assumes no such liability as a result of this solicitation. Any property tax payable on the contractor's equipment which may be installed in a state-owned facility is the responsibility of the contractor.

JJ. INSPECTION AND APPROVAL

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Final inspection and approval of all work required under the contract shall be performed by the designated State officials. The State and/or its authorized representatives shall have the right to enter any premises where the contractor or subcontractor duties under the contract are being performed, and to inspect, monitor or otherwise evaluate the work being performed. All inspections and evaluations shall be at reasonable times and in a manner that will not unreasonably delay work.

KK. CHANGES IN SCOPE/CHANGE ORDERS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State may, at any time with written notice to the contractor, make changes within the general scope of the contract. Changes in scope shall only be conducted with the written approval of the State's designee as so defined by the State from time to time. (The State retains the right to employ the services of a third party to perform any change order(s)).

The State may, at any time work is in progress, by written order, make alterations in the terms of work as shown in the specifications, require the performance of extra work, decrease the quantity of work, or make such other changes as the State may find necessary or desirable. The contractor shall not claim forfeiture of contract by reasons of such changes by the State. Changes in work and the amount of compensation to be paid to the contractor for any extra work so ordered shall be determined in accordance with the applicable unit prices of the contractor's proposal.

Corrections of any deliverable services or performance of work required pursuant to the contract shall not be deemed a modification requiring a change order.

LL. SEVERABILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

MM. CONFIDENTIALITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All materials and information provided by the State or acquired by the contractor on behalf of the State shall be regarded as confidential information. All materials and information provided by the State or acquired by the contractor on behalf of the State shall be handled in accordance with Federal and State Law, and ethical standards. The contractor must ensure the confidentiality of such materials or information. Should said confidentiality be breached by a contractor; contractor shall notify the State immediately of said breach and take immediate corrective action.

It is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable to contractors by 5 U.S.C. 552a (m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than $5,000.

NN. PROPRIETARY INFORMATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Data contained in the proposal and all documentation provided therein, become the property of the State of Nebraska and the data becomes public information upon opening the proposal. If the bidder wishes to have any information withheld from the public, such information must fall within the definition of proprietary information contained within Nebraska's public record statutes. All proprietary information the bidder wishes the State to withhold must be submitted in a sealed package, which is separate from the remainder of the proposal. The separate package must be clearly marked PROPRIETARY on the outside of the package. Bidders may not mark their entire Request for Proposal as proprietary. Bidder's cost proposals may not be marked as proprietary information. Failure of the bidder to follow the instructions for submitting proprietary and copyrighted information may result in the information being viewed by other bidders and the public. Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, bidders submitting information as proprietary may be required to prove specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive. Although every effort will be made to withhold information that is properly submitted as proprietary and meets the State's definition of proprietary information, the State is under no obligation to maintain the confidentiality of proprietary information and accepts no liability for the release of such information.

OO. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

By submission of this proposal, the bidder certifies, that he or she is the party making the foregoing proposal that the proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the proposal is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham proposal, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the proposal price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the proposal price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the proposal are true; and further that the bidder has not, directly or indirectly, submitted his or her proposal price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, proposal depository, or to any member or agent thereof to effectuate a collusive or sham proposal.

PP. PRICES

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

All prices, costs, terms and conditions outlined in the proposal shall remain fixed and valid commencing on the opening date of the proposal until an award is made (and for bidder

receiving award prices shall remain as bid for the duration of the contract unless otherwise so stated in the contract) or the Request for Proposal is cancelled.

Contractor represents and warrants that all prices for services, now or subsequently specified are as low as and no higher than prices which the contractor has charged or intends to charge customers other than the State for the same or similar products and services of the same or equivalent quantity and quality for delivery or performance during the same periods of time. If, during the term of the contract, the contractor shall reduce any and/or all prices charged to any customers other than the State for the same or similar products or services specified herein, the contractor shall make an equal or equivalent reduction in corresponding prices for said specified products or services.

Contractor also represents and warrants that all prices set forth in the contract and all prices in addition, which the contractor may charge under the terms of the contract, do not and will not violate any existing federal, state or municipal law or regulations concerning price discrimination and/or price fixing. Contractor agrees to hold the State harmless from any such violation. Prices quoted shall not be subject to increase throughout the contract period unless specifically allowed by these specifications.

QQ. BEST AND FINAL OFFER

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The State will compile the final scores for all parts of each proposal. The award may be granted to the highest scoring responsive and responsible bidder. Alternatively, the highest scoring bidder or bidders may be requested to submit best and final offers. If best and final offers are requested by the State and submitted by the bidder, they will be evaluated (using the stated criteria), scored and ranked by the Evaluation Committee. The award will then be granted to the highest scoring bidder. However, a bidder should provide its best offer in its original proposal. Bidders should not expect that the State will request a best and final offer.

RR. ETHICS IN PUBLIC CONTRACTING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

No bidder shall pay or offer to pay, either directly or indirectly, any fee, commission compensation, gift, gratuity, or anything of value to any State officer, legislator or employee based on the understanding that the receiving person's vote, actions or judgment will be influenced thereby. No bidder shall give any item of value to any employee of the State Purchasing Bureau.

Bidders shall be prohibited from utilizing the services of lobbyists, attorneys, political activists, or consultants to secure the contract. It is the intent of this provision to assure that the prohibition of state contact during the procurement process is not subverted through the use of lobbyists, attorneys, political activists, or consultants. It is the intent of the State that the process of evaluation of proposals and award of the contract be completed without external influence. It is not the intent of this section to prohibit bidders from seeking professional advice, for example consulting legal counsel, regarding terms and conditions of this Request for Proposal or the format or content of their proposal.
If the bidder is found to be in non-compliance with this section of the Request for Proposal, they may forfeit the contract if awarded to them or be disqualified from the selection process.

SS. INDEMNIFICATION

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

1. GENERAL

The contractor agrees to defend, indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State, arising out of, resulting from, or attributable to the willful misconduct, negligence, error, or omission of the contractor, its employees, subcontractors, consultants, representatives, and agents, except to the extent such contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

2. INTELLECTUAL PROPERTY

The contractor agrees it will at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all claims, to the extent such claims arise out of, result from, or are attributable to the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, trademark, or confidential information of any third party by the contractor or its employees, subcontractors, consultants, representatives, and agents; provided, however, the State gives the contractor prompt notice in writing of the claim. The contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason.

If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the contractor has indemnified the State, the contractor shall at the contractor's sole cost and expense promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality. At the State's election, the actual or anticipated judgment may be treated as a breach of warranty by the contractor, and the State may receive the remedies provided under this RFP.

3. PERSONNEL

The contractor shall, at its expense, indemnify and hold harmless the indemnified parties from and against any claim with respect to withholding taxes, worker's compensation, employee benefits, or any other claim, demand, liability, damage, or loss of any nature relating to any of the personnel provided by the contractor.

TT. NEBRASKA TECHNOLOGY ACCESS STANDARDS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Contractor shall review the Nebraska Technology Access Standards, found at http://nitc.nebraska.gov/standards/2-101.html and ensure that products and/or services provided under the contract comply with the applicable standards. In the event such standards change during the contractor's performance, the State may create an amendment to

the contract to request that contract comply with the changed standard at a cost mutually acceptable to the parties.

UU. ANTITRUST

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

VV. DISASTER RECOVERY/BACK UP PLAN

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor shall have a disaster recovery and back-up plan, of which a copy should be provided to the State, which includes, but is not limited to equipment, personnel, facilities, and transportation, in order to continue services as specified under these specifications in the event of a disaster.

WW. TIME IS OF THE ESSENCE

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Time is of the essence in this contract. The acceptance of late performance with or without objection or reservation by the State shall not waive any rights of the State nor constitute a waiver of the requirement of timely performance of any obligations on the part of the contractor remaining to be performed.

XX. RECYCLING

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Preference will be given to items which are manufactured or produced from recycled material or which can be readily reused or recycled after their normal use as per state statute (Neb. Rev. Stat. §81-15, 159).

YY. DRUG POLICY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

Contractor certifies that it maintains a drug free work place environment to ensure worker safety and workplace integrity. Contractor agrees to provide a copy of its drug free workplace policy at any time upon request by the State.

ZZ. NEW EMPLOYEE WORK ELIGIBILITY STATUS

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The Contractor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security

or other federal agency authorized to verify the work eligibility status of a newly hired employee.

If the Contractor is an individual or sole proprietorship, the following applies:

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us.

2. If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

3. The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

AAA. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY

_____Accept (Initial) _____Reject (Initial) _____Reject and Provide Alternative within RFP Response (Initial)

The contractor, by signature to this RFP, certifies that the contractor is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency from participating in transactions (debarred). The contractor also agrees to include the above requirements in any and all subcontracts into which it enters. The contractor shall immediately notify the Department if, during the term of this contract, contractor becomes debarred. The Department may immediately terminate this contract by providing contractor written notice if contractor becomes debarred during the term of this contract.

IV. PROJECT DESCRIPTION AND SCOPE OF WORK

In March 2010, PPACA and the Health Care and Education Reconciliation Act of 2010 were signed into law. The two laws are collectively referred to as the Affordable Care Act (ACA). Sections of the ACA, codified at 42 CFR 431, 435, and 437, require the creation of a health insurance exchange in each state, either by the state or by the federal government. The State of Nebraska will employ the Federally Facilitated Marketplace (Marketplace) option.

An analysis was conducted by the Nebraska Department of Health and Human Services' (Department) to determine the most desirable option for meeting ACA compliance, and CMS Seven Standards and Conditions as defined in Medicaid IT Supplement (MITS-11-01-v1.0). The analysis revealed that replacing the current Medicaid eligibility and enrollment system with a modern solution was the best course of action given the project constraints The same analysis revealed there was not enough time to procure and implement a solution by the ACA mandated deadline of October 1, 2013.

The purpose of this RFP is to select a Contractor who is responsible for performing Independent Verification and Validation (IV&V) services for implementing a new Eligibility and Enrollment Solution (EES). The Department plans to release an RFP to procure an Eligibility and Enrollment Solution. The RFP will procure the products and services of a Systems Integrator with an Eligibility and Enrollment Solution.

Nebraska's existing Eligibility and Enrollment System is almost twenty years old. The current system was developed with client/server technology. Nebraska intends to complete replacement of the existing Medicaid Eligibility and Enrollment System in order to access the enhanced federal matching funds for these legacy system replacements since the enhanced funding expires at the end of 2015.

The Department will award one Contractor to fulfill all the IV&V responsibilities described herein. The awarded IV&V Contractor shall review EES related artifacts defined by the Department to gain sufficient understanding of the EES project.

The IV&V services described in this RFP must comply with IV&V regulatory requirements detailed in 45 CFR 95.626, which requires that IV&V efforts be conducted by an entity that is independent. The IV&V contractor is required to:

1. Develop an IV&V Workplan. The plan must be provided directly to the Centers for Medicare and Medicaid (CMS) at the same time it is given to the Department.
2. Review and make recommendations on both the management of the EES project (Department and Contractor), and the technical aspects of the project. The IV&V Contractor must provide the results of its analysis directly to CMS at the same time it reports to the State.
3. Consult with all stakeholders and assesse the user involvement and buy-in regarding system functionality and the system's ability to support program business needs.
4. Conduct an analysis of past project performance sufficient to identify and make recommendations for improvement.
5. Provide EES risk management assessment.
6. Develop EES performance metrics which allow tracking project completion against milestones set by the Department.

The bidder must provide the following information in response to this Request for Proposal.

A. PROJECT OVERVIEW

The purpose of this procurement is to contract for the IV&V services to assist the Department to ensure the success of the EES project by facilitating early detection and correction of errors, enhance management insight into risks and ensure compliance with project performance, schedule, and budget requirements. The Information Systems and Technology (IS&T) Division provides leadership, project management, planning, implementation, and support services for information technology for the Department. IS&T will provide support for the project, including the technical planning, implementation, testing and maintenance of the new solution.

The Department is seeking proposals from qualified bidders with IV&V expertise, project management expertise, and relevant past experience performing IV&V work for Medicaid eligibility determination systems similar to the system that will be developed for the State.

The Department seeks an IV&V contractor who will bring project personnel, processes, approaches and tools to meet the requirements of the IV&V services for the EES Project.

The IV&V scope of work includes:

1. Program Management
2. Deliverables Review and Acceptance
3. Quality Assurance
4. Contract Compliance

The contractor awarded the IV&V contract for the EES project, their subcontractor(s) and vendor(s) are precluded from submitting an EES proposal, assisting another company in making a proposal, or otherwise materially participating in any subsequent contract related to the EES project.

B. PROJECT REQUIREMENTS

The IV&V Contractor will perform all IV&V responsibilities defined in this RFP throughout the life of the contract including the optional renewal period. The IV&V Contractor is expected to actively participate in meetings and to contribute IV&V expertise to all phases of the EES Project to ensure that the EES Contractor activities result in successful project completion.

The IV & V project requirements are outlined in the following sections. The tasks and activities within this section are not necessarily listed in the order that they should be completed. Bidders must reflect within their proposal and preliminary project plan their recommended approach to scheduling and accomplishing the tasks and activities identified within this RFP.

1. PROGRAM MANAGEMENT

Perform a review of IV&V project activities for the EES Project which shall be documented and submitted in the appropriate Management Briefing, EES Management, Project Status or Deliverable Review Report. Activities shall include but not be limited to:

a. Delivery of an Initial Project Assessment Report that includes the initial status of each activity shown on the IV&V Management Plan for the EES project.
b. A review of the EES Contractor's analysis of risk areas of the implementation of the EES Component and the risk mitigation plan for those identified risks. The IV&V Contractor shall include recommendations for any deficiencies it finds during its review of the risk mitigation plans. The results and recommendation

of the analysis shall be written and presented as part of the Risk Assessment Report.

c. Hosting the Monthly Management Briefings at times approved by the Department.

d. Attendance at all status meetings between the Department and the EES Contractor, which will occur on at least a monthly basis and may occur more regularly based on the phase and stage of the implementation of the EES.

e. Assessment of the methodology for maintaining requirements traceability throughout the transfer and development process.

f. A review all MITA documentation, guidance and rules promulgated by CMS..

g. A review all ACA Regulations documentation, guidance and rules promulgated by CMS.

h. Notification to the Department if any MITA documentation, guidance and rules, or any changes to those items, will impact the implementation of any EES Component or the work performed by any EES Contractor.

i. Notification to the Department if any ACA Regulation documentation, guidance and rules, or any changes to those items, will impact the implementation of any EES Component or the work performed by any EES Contractor.

j. Performance of program management services for all EES activities. These program management services shall include, at a minimum, all of the following:

- **i.** Assess the progress of the implementation of the entire EES project, and recommend improvements as necessary.
- **ii.** Verify that lines of reporting and associated responsibility within the EES Contractor to ensure adequate technical and managerial oversight of the project.
- **iii.** Verify the EES Contractor and the State are not independently duplicating effort toward the same end.
- **iv.** Evaluate project progress, resources, budget, schedules, work flow and reporting.
- **v.** Verify the EES Contractor has created a project management plan and that the EES Contractor is following the approved project management plan.
- **vi.** Evaluate the project management plans and procedures to verify that they are developed, communicated, implemented, monitored and complete.
- **vii.** Evaluate project reporting plan and actual project reports to verify project status is accurately traced using project metrics.
- **viii.** Verify milestones and completion dates contained in the EES Contractor's project management plan and contract are planned, monitored and met.
- **ix.** Verify the EES Contractor has created and implemented an appropriate project issue tracking mechanism that documents issues as they arise, enables communication of issues to proper stakeholders, documents a mitigation strategy as appropriate, and tracks the issue to closure.
- **x.** Evaluate the EES Contractor's planned life-cycle development methodology or methodologies (e.g. waterfall, evolutionary spiral, rapid prototyping, or incremental) to see if they are appropriate for the EES component that EES Contractor is developing.
- **xi.** Verify that all business process reengineering recommendations are strategic, have management backing, resources, skills and incentives necessary for effective change.

xii. Verify that the EES Contractor has a change management plan and that the change management plan and procedures to verify them are developed, communicated, implemented, monitored and complete.

xiii. Verify that the EES Contractor has a communication plan and that that plan is being followed.

xiv. Evaluate the EES Contractor's communication plans and procedures to verify that they support communications and work product sharing between all project stakeholders and that the communication plans and strategies are effective, implemented, monitored and complete.

k. Manage the identification, resolution and tracking of stakeholder concerns, both internal and external.

l. All documentation and deliverables produced in the performance by the IV&V Contractor must be stored in a central repository to be designated by the Department.

2. DELIVERABLE REVIEW AND ACCEPTANCE

As part of the Deliverable Review Report, the IV&V Contractor shall assess the EES Deliverables based upon quality attributes including:

a. Adherence to Requirements;
b. Clarity;
c. Completeness;
d. Consistency;
e. Traceability: and
f. Adherence to laws, rules and guideline.

Deliverable review shall be performed by identified IV&V resources that are experienced and/or certified in the related technical, functional, and federal requirements of the deliverable under review, and comments shall be submitted to Department as part of the Deliverable Review Report within a timeframe that allows inclusion of IV&V feedback in Department's response to the EES Contractor.

The IV&V Contractor shall perform the following Deliverable Review and Acceptance tasks:

a. Develop and submit a Performance Metrics Document to track project completion against milestones set by the Department using Department approved performance metrics.

b. Review each deliverable and report submitted by the EES Contractor, as directed by the Department, for content, quality and timeliness.

c. Notify the Department of any EES Contractor submitted management reports that do not contain the content required for that report, are of not sufficient quality or were not submitted in a timely manner.

d. Participate in walk-through of EES Contractor deliverables as requested by the Department.

e. Assess each reviewed deliverable and recommend a corrective action plan for each deliverable that fails to achieve the standards or timelines in that EES Contractor's contract with the Department.

f. The IV&V Contractor will work with the Department to define criteria for a Critical Incident which could adversely affect the outcome of the EES Project.

g. Notify the Department immediately when the IV&V Contractor discovers any Critical Incident. Provide an EES Contractor Critical Incident Report for each Critical Incident that summarizes the incident, how it may affect the project, notes any discrepancies found by the IV&V Contractor and provides a proposed action plan to resolve the incident and mitigate its impact.

3. QUALITY ASSURANCE

The IV&V Contractor shall perform the following Quality Assurance tasks:

a. Write and verbally present Management Briefings on a monthly basis regarding the performance of the EES Contractor and the monitoring performed by the IV&V Contractor. This Management Briefing shall include, at a minimum, all of the following:

- **i.** The current general status of the EES Contractor in relation to the EES Contractor's work plans and implementation plans.
- **ii.** Any flaws or issues with the system design for each EES Component that may negatively impact the implementation of the EES with recommendations to mitigate or eliminate those flaws or issues.
- **iii.** Any flaws or issues regarding system security for each EES component that may negatively impact the implementation of the EES with recommendations to mitigate or eliminate those flaws or issues.
- **iv.** The results of any system testing or retesting performed during the prior month and recommendations on how to resolve any flaws or issues identified as a result of that system testing or retesting.
- **v.** Any flaws or issues with the interfaces within each EES Component, between each of the EES Components or between the EES Components and external systems that may negatively impact the implementation of the EES with recommendations to mitigate or eliminate those flaws or issues.
- **vi.** Any delays or issues with the transition from the Department's current Eligibility and Enrollment System to any EES Contractor and recommendations to mitigate or eliminate those delays or issues.
- **vii.** The results of all acceptance testing performed during the prior month and recommendations on how to resolve any flaws or issues identified as a result of that testing.
- **viii.** The status of the overall implementation and operation of each EES Component and any flaws or issues that are negatively impacting the operation of any EES Component with recommendations on how to resolve those issues or flaws.
- **ix.** Any recommendations regarding training provided by the EES Contractor to system users.
- **x.** Any recommendations regarding the EES Contractors' progress and procedures for managing requirements.
- **xi.** Any recommendations regarding each EES Contractor's policies and procedures for ensuring that each EES Component is secure and that the privacy of Client data is maintained.

4. CONTRACT COMPLIANCE

The IV&V Contractor shall perform the following EES Contract Compliance tasks which shall be documented and submitted in the appropriate Management Briefing, EES Management, Project Status or Deliverable Review Report:

a. As part of developing and submitting the Estimating and Schedule Review Recommendation Report evaluate and make recommendations on the estimating and scheduling process of the EES Project to ensure that the project budget and EES resources are adequate for the work break-down structure and schedule.

b. Review EES schedules to verify that adequate time and resources are assigned for planning, development, review, testing and rework.

c. Perform ongoing assessments of EES Contractor staffing, which include key and non-key personnel, to ensure adequate staffing for the EES Contractor to comply with their contract and maintain service levels defined throughout the EES contract.

d. Examine the job assignments, skills, training and experience of the EES Contractor personnel involved in program development to verify that they are adequate for the development task.

e. Verify that the EES Contractor's organizational structure supports training, process definition, independent Quality Assurance, Configuration Management, product evaluation, and any other functions critical for the project's success.

f. Monitor the performance of the EES Contractor to ensure that EES Contractor is in compliance with its contract with the Department and that the solution that EES Contractor is developing meets all requirements of its contract with the Department. This shall include, but is not limited to, monitoring all of the following:

- **i.** EES Contractor work plans.
- **ii.** EES Contractor implementation plans.
- **iii.** General Solution design for each EES Component.
- **iv.** Detailed Solution design for each EES Component.
- **v.** Solution security for each EES Component.
- **vi.** Solution testing for each EES Component.
- **vii.** EES Contractor transition from the Department's existing NE Eligibility and Enrollment System.
- **viii.** Acceptance Testing for each EES Component.

g. The IV&V Contractor shall evaluate the EES Contractor's progress and procedures for managing requirements. This shall include at minimum all of the following:

- **i.** Verify that system requirements are well-defined, understood and documented.
- **ii.** Verify that software requirements can be traced through design, code and test phases to verify that the system performs as intended and contains no unnecessary software elements.
- **iii.** Verify that requirements are under formal configuration control.
- **iv.** Evaluate on the EES Contractor's policies and procedures for ensuring that each EES Component is secure and that the privacy of Client data is maintained. This shall include all of the following:

a) Evaluate the restrictions on system and data access.
b) Evaluate the system security plan to ensure it meets Department standards.

v. Verify that EES processes and equipment are in place to back up client and project data files and archive them safely at appropriate levels.
vi. The IV&V Contractor shall verify that the EES Contractor has performed an adequate requirements analysis for that EES Contractor's deliverables. This shall include a verification of all of the following:

a) An analysis of client, State, and Federal needs and objectives has been performed to verify that requirements of the system are well understood, well defined and satisfy federal regulations.
b) All stakeholders have been consulted to the desired functionality of the system, and that users have been involved in prototyping of the user interface.

vii. All stakeholders have bought-in to all changes with impact project objectives, cost and schedule.
viii. EES Performance requirements satisfy user needs.
ix. User's maintenance requirements for the system are completely specified.

h. The IV&V Contractor shall verify that the EES Contractor has described all system interfaces for each EES Component exactly, by medium and by function, including input/output control codes, data format, polarity, range, units and frequency. The IV&V Contractor shall also verify that all approved interface documents are available and that appropriate relationships are in place with all agencies and organizations supporting the interfaces.
i. The IV&V Contractor shall verify that there is a well-defined plan for transferring data from the legacy system to the new EES.

5. EES SOFTWARE DEVELOPMENT

The IV&V Contractor shall evaluate both the high level and detailed design of any custom software developed or used by the EES Contractor for any EES component. The Design and Analysis Review Report shall include at minimum all of the following:

a. Evaluate all high-level design products to verify the design is workable, efficient, and satisfies all system and system interface requirements.
b. Evaluate all detail design products to verify that the design is workable, efficient, and satisfies all high level design requirements.
c. Evaluate the design products for adherence to the project design methodology and standards.
d. Evaluate the design and analysis process used to develop the design and make recommendations for improvements.
e. Evaluate design standards, methodology and CASE tools used.
f. Verify that design requirements can be traced back to system requirements.
g. Verify that all design products are under configuration control and formally approved before detailed design begins.
h. Verify that all design products are under configuration control and formally approved before coding begins.

i. The IV&V Contractor shall evaluate the plans, requirements, environment, tools, and procedures used for unit testing system modules as well as the level of test automation, interactive testing, and interactive debugging available in the test environment.

j. The IV&V Contractor shall review all unit testing to ensure that an appropriate level of test coverage was achieved by the test process, that test results were verified, that the correct code configuration was tested, and that the tests were appropriately documented. The IV&V Contractor shall develop and submit a Unit Testing Review Report documenting the results of all unit testing reviews and evaluations.

6. SYSTEM TESTING

The IV&V Contractor shall review all system testing performed on each EES component and submit all findings as part of the Management Briefing, Unit Testing or Critical Incident Reports. This review shall include the following:

a. Assess planned testing activities, results reporting, and error correction/resolution, including an appropriate change control and configuration management process, to include all of the following:

- **i.** Assess test efforts and schedules are based on defined requirements priorities as well as project risk.
- **ii.** Assess test scenarios address the testable requirements.
- **iii.** Assess specific business cases and test verification efforts for each case has been defined.
- **iv.** Conduct reviews of testing to ensure that critical elements of the EES are stable and comply with Department requirements as detailed in the Department's contract with the EES Contractor.
- **v.** Evaluate the plans, requirements, environment, tools, and procedures used for system testing.
- **vi.** Evaluate the level of automation and the availability of the system test environment.

b. Verify that an appropriate level of test coverage is achieved by the test process, that test results are verified, that the correct code configuration has been tested, and that the tests are appropriately documented, including formal logging of errors found in testing.

c. Verify that the individuals conducting the test have an appropriate level of independence from those completing the development.

d. Verify that a sufficient number and type of case scenarios are used to ensure comprehensive but manageable testing and those tests are run in a realistic, real-time environment.

e. Verify that test scripts are complete, with step-by-step procedures, required pre-existing events or triggers and expected results.

7. DATA MANAGEMENT

The IV&V Contractor shall evaluate the EES Contractors' proposed plans, procedures and software for data conversion and submit a Data Conversion Process Review Report. This evaluation shall include, at a minimum, all of the following:

a. Verify that procedures are in place and are being followed to review the completed data for completeness and accuracy and to perform data clean-up as required.

b. As part of developing the Data Conversion Error Report, determine conversion error rates and if the error rates are manageable.

c. Make recommendations on the conversion process to make it more efficient and on maintain the integrity of data during the conversion.

d. The IV&V Contractor shall evaluate all EES Contractor database designs and system processes/workflows to determine if they meet system requirements contained in the EES Contractor's contract with the Department. This shall include an evaluation of all of the following:

i. The design for maintainability, scalability, refresh-ability, concurrence, normalization and any other factors affecting performance and data integrity.

ii. The process for administering the database, including backup, recovery, performance analysis and control of data item creation.

C. BUSINESS REQUIREMENTS

The IV&V Contractor shall develop a comprehensive Project Management Plan (IV&V Project Management Plan) for Department approval, and shall manage and carry out the IV&V services in accordance with the IV&V Project Management Plan. The IV&V Project Management Plan (PMP) must include at a minimum the following elements:

1. Description of how the IV&V Contractor plans to carry out the IV&V services. This description should include methodologies, strategies, standards, and approaches employed by the IV&V Contractor for executing each of the IV&V activities within this Scope of Work.

2. High level IV&V services schedule which aligns with the EES Master Project Schedule.

3. Detailed schedule that includes activities, tasks, task work effort estimates, estimated start and end dates, durations, deliverables, and assigned resources.. Coordinate and align the IV&V deliverable schedule with the Department and the EES Contractors.

4. Organizational structure which reflects, among other things, the need to coordinate activities among the Department, IV&V, and EES Contractor.

5. Description of resources assigned to activities, tasks and the IV&V deliverable creation.

6. Assigned personnel dedicated to the IV&V reviews on the EES project.

7. Description of the deliverables produced as a result of IV&V activities.

The IV&V Contractor shall perform ongoing program monitoring activities and shall review and validate issues/deficiencies/risks identified with the Department Project Management Team and the EES Contractor. Project monitoring tasks include but are not limited to:

1. Review and validate all project work plans and schedules, including staffing levels.

2. Develop and submit an EES Project Status and Milestone Report to monitor all project milestones and costs.

3. Perform ongoing assessments of project staffing levels (key and non-key personnel) and report on the ability to meet project schedule and milestones.

4. Provide Risk Assessment Reports for all project risks, with proposed mitigation strategies.

5. Monitor the Department's ACA project management office practices, processes and deliverables.

The IV&V Contractor shall conduct verification and validation reviews of the quality and completeness of critical path deliverables produced by the awarded contractor for the EES Project to help ensure they meet the requirements and expectations of the Department, CMS, and internal and external stakeholders.

D. SCOPE OF WORK

The following Scope of Work sections focus on the key IV&V activities and requirements for the Eligibility and Enrollment Solution project. Specifically:

1. Program Management - Oversight and acceptance of PMP Deliverables, Executive Committee Participation and Monthly Status Reporting
2. Deliverables Review and Acceptance
3. Quality Assurance
4. Contract Compliance

E. EES TECHNOLOGY REVIEW

The IV&V Contractor shall develop and submit a Technical Recommendations Report as part of performing the following defined EES Technology Review tasks:

1. EES Operating Environment

The IV&V Contractor will evaluate each EES Component for all of the following:

- **a.** System hardware configurations to determine if their performance is adequate to meet proposed system requirements as defined in the EES contract.
- **b.** Compatibility with the State's existing processing environment, if it is maintainable, and if it is easily upgradeable. This evaluation will include, but is not limited to Central Processing Units (CPUs) and other processors, memory, network connections, and bandwidth, communication controllers, telecommunications systems (Local Area Network/Wide Area Network [LAN/WAN]), terminals, printers, and storage devices.
- **c.** System software to determine if its capabilities are adequate to meet proposed system requirements.
- **d.** Whether the software is maintainable and easily upgradeable.
- **e.** Projected service provider support of the hardware and software.
- **f.** Database products to determine if their capabilities are adequate to meet proposed system requirements.
- **g.** The database's data format to determine if it is easily convertible to other formats, if it supports the addition of new data items, if it is scalable, if it is easily refreshable and if it is compatible with the State's existing hardware and software, including any on-line transaction processing environment.
- **h.** Processing capacity of the system to determine if it is adequate for current statewide needs for both batch and on-line processing.
- **i.** The system's capacity to support future growth.

The Contractor shall make recommendations on changes in processing hardware, storage, network systems, operating systems, consumer off the shelf software, and software design to meet future growth and improve system performance.

F. PROJECT PLANNING AND MANAGEMENT

The IV&V Contractor shall ensure that staff attending meetings between the Department and the IV&V Contractor has the authority to represent and commit the IV&V Contractor regarding work planning, problem resolution and program development.

At the Department's direction, the Contractor shall make its Key Personnel and other personnel assigned to the Contract available to attend meetings as subject matter experts with stakeholders both within the State government and external or private stakeholders. The IV&V Contractor shall be present at all scheduled status meetings between the Department and EES Vendor, unless the Department provides permission otherwise.

All of the IV&V Contractor's personnel that attend any meeting with the Department or other Department stakeholders shall be physically present at the location of the meeting, unless the Department gives prior, written permission to attend by telephone or video conference. In the event that the Contractor has any personnel attend by telephone or video conference and are the only entity not at the location of the meeting, the IV&V Contractor shall be responsible for providing the conference line or virtual meeting place.

The IV&V Contractor shall respond to all telephone calls, voicemails and emails from the Department within one (1) Business Day of receipt by the IV&V Contractor.

G. DELIVERABLES

The IV&V Contractor must provide the deliverables required by CMS and defined in the IV&V activities.

1. THE IV&V DELIVERABLES INCLUDE

- **a.** Initial Project Assessment Report
- **b.** IV&V Project Management Plan
- **c.** IV&V Project Status Report
- **d.** IV&V Project Schedule
- **e.** Performance Standards Planning Document
- **f.** Performance Metrics Document
- **g.** Monthly Management Briefing Report
- **h.** Risk Assessment Report
- **i.** EES Estimating and Schedule Review Recommendations Report
- **j.** EES Deliverable Review Report
- **k.** Critical Incident Report
- **l.** EES Project Milestone and Cost Status Report
- **m.** EES Estimating and Schedule Review Recommendations Report
- **n.** EES Design and Analysis Review Report
- **o.** Unit Testing Review Report
- **p.** EES Technical Recommendations Report
- **q.** Data Conversion Process Review Report
- **r.** Data Conversion Error Report

Once the detailed IV&V Project Plan is approved by the Department, the following sections detail the process for submission and review of deliverables during the life of the project/contract.

The IV&V Contractor must provide one electronic copy of each deliverable to the appropriate Department Project manager as identified in the contract. Once a deliverable is approved and

accepted by Department, the IV&V Contractor must upload an electronic copy into the designated Department SharePoint site.

Deliverables will be evaluated by the Department utilizing mutually agreed to acceptance/exit criteria.

2. DELIVERABLE SUBMISSION

Prior to development and submission of Department specified contract deliverable, a Deliverables Expectations Document (DED) containing a description of the format and content of each deliverable will be delivered to the Department for review and approval. The DED must contain, at a minimum, the following:

a. Cover letter;
b. Table of Contents with a brief description of the content of each section;
c. Anticipated number of pages; and
d. Identification of appendices/exhibits

The DED must contain an approval/rejection section that can be completed by the Department. The summary document will be returned to the IV&V Contractor within a mutually agreed upon time frame. Deliverables must be developed by the IV&V Contractor according to the approved format and content of the summary document for each specific deliverable.

At a mutually agreed to meeting, on or before the time of delivery to Department, the IV&V Contractor must provide a walkthrough of each IV&V deliverable. IV&V Deliverables must be submitted no later than 5:00 PM CST, per the approved contract deliverable schedule and must be accompanied by a deliverable sign-off form with the appropriate sections completed by the IV&V Contractor.

3. DELIVERABLE REVIEW

The Department's review time begins on the next business day following receipt of the deliverable. The Department's review time will be determined by the approved and accepted detailed project plan and the approved contract. The Department has up to five (5) working days to determine if a deliverable is complete and ready for review. Unless otherwise negotiated, this is part of the Department's review time.

Any subsequent deliverable dependent upon the Department's acceptance of a prior deliverable will not be accepted for review until all issues related to the previous deliverable have been resolved. Deliverables determined to be incomplete and/or unacceptable for review will be rejected, not considered delivered and returned to the IV&V Contractor. After review of a deliverable, the Department will return to the IV&V Contractor the project deliverable sign-off form with the deliverable submission and review history section completed.

4. DELIVERABLES ACCEPTANCE

If the deliverable is accepted, the original deliverable sign-off form signed by the appropriate Department representatives will be returned to the Contractor.

Comments/Revisions Requested by the State

If the Department has comments and/or revisions to a deliverable, the following will be provided to the IV&V Contractor:

a. The original deliverable sign-off form with an updated entry to the deliverable submission and review history section.
b. Attached to the deliverable sign-off form will be a detailed explanation of the revisions to be made and/or a marked up copy of the deliverable.
c. The Department's first review and return with comments will be completed within the times specified in the contract.
d. The IV&V Contractor will have five (5) working days, unless otherwise mutually agreed to, for review, acceptance and/or rejection of the Department's comments.

A meeting to resolve outstanding issues must be completed within three (3) business days after completion of the IV&V Contractor's review or a mutually agreed upon time frame. Agreements made during meetings to resolve issues must be documented separately. Once an agreement is reached regarding changes, the IV&V Contractor must incorporate them into the deliverable for resubmission to the Department. All changes must be easily identifiable by the Department.

Resubmission of the deliverable must occur within five (5) business days or a mutually agreed upon time frame of the resolution of any outstanding issues. The resubmitted deliverable must be accompanied by the original deliverable sign-off form. This review process continues until all issues have been resolved within a mutually agreed upon time frame.

During the re-review process, the Department will only comment on the original exceptions noted. All other items not originally commented on are considered to be accepted by the Department. Once all revisions have been accepted, the original deliverable sign-off form signed by the appropriate the Department representatives will be returned to the IV&V Contractor.

The IV&V Contractor must provide one (1) updated electronic copy of each deliverable after approval and acceptance by the Department. At this point the IV&V Contractor must submit the Department approved deliverable to CMS.

5. REJECTED, NOT CONSIDERED DELIVERED

If the Department considers a deliverable not ready for review, the following will be returned to the IV&V Contractor:

a. The original deliverable sign-off form with an updated entry to the deliverable submission and review history section.
b. The original deliverable and all copies with a written explanation as to why the deliverable is being rejected, not considered delivered.
c. The IV&V Contractor will have five (5) business days, unless otherwise mutually agreed to, for review, acceptance and/or rejection of the Department's comments.

A meeting to discuss the Department's position regarding the rejection of the deliverable must be completed within three (3) business days after completion of the IV&V Contractor's review or a mutually agreed upon time frame. Resubmission of the deliverable must occur within a mutually agreed upon time frame. The resubmitted deliverable must be accompanied by the original deliverable sign-off form.

Upon resubmission of the completed deliverable, the Department will follow the steps outlined in this process.

H. REPORTING REQUIREMENTS

The IV&V Contractor shall deliver the IV&V Project Status Report to the Department on a monthly basis. The monthly IV&V Project Status Report should contain, at a minimum, all of the following:

1. Written support and documentation of all items to be presented during the next Management Briefing.

2. The results or findings of any assessments, evaluations, reviews or verifications completed during the prior month or updates in relation to any of the following areas:

- **a.** CMS guidance.
- **b.** Operational oversight.
- **c.** Overview of IV&V Contractor Management Plan updates;
- **d.** Overview of periodic reviews of the EES Project;
- **e.** Updates to Risk Analysis and Mitigation Plan Review;
- **f.** Overview of Corrective Action Plans produced during the previous month;
- **g.** Overview of EES Contractor Critical Incident Reports;
- **h.** Project Management updates;
- **i.** Quality Assurance updates;
- **j.** EES Operating Environment updates;
- **k.** EES Software Development updates;
- **l.** EES System Testing updates;
- **m.** EES Data Management updates;
- **n.** Any recommendations to mitigate any risk, deficiency or issue discovered as a result of any assessment, evaluation, review or verification completed during the prior month;
- **o.** A Performance Standard Planning Document that includes the status of each activity shown on the IV&V Management Plan for that EES Component as well as the progress since the prior report; and
- **p.** Any updated Work Breakdown Structure developed during the prior month.

V. PROPOSAL INSTRUCTIONS

This section documents the mandatory requirements that must be met by bidders in preparing the Technical and Cost Proposal. Bidders should identify the subdivisions of "Project Description and Scope of Work" clearly in their proposals; failure to do so may result in disqualification. Failure to respond to a specific requirement may be the basis for elimination from consideration during the State's comparative evaluation.

Proposals are due by the date and time shown in the Schedule of Events. Content requirements for the Technical and Cost Proposal are presented separately in the following subdivisions:

A. TECHNICAL PROPOSAL

The Technical Proposal shall consist of four (4) sections:

1. SIGNED "State of Nebraska Request For Proposal For Contractual Services" form;
2. Executive Summary;
3. Corporate Overview; and
4. Technical Approach.

1. REQUEST FOR PROPOSAL FORM

By signing the "Request For Proposal For Contractual Services" form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the Terms and Conditions stated in this Request for Proposal and certifies bidder maintains a drug free work place environment.

The Request For Proposal For Contractual Services form must be signed in ink and returned by the stated date and time in order to be considered for an award.

2. EXECUTIVE SUMMARY

The Executive Summary shall condense and highlight the contents of the solution being proposed by the bidder in such a way as to provide the Evaluation Committee with a broad understanding of the Contractor's Technical Proposal. The Executive Summary should include:

a. A clear and concise summary of the bidder's understanding of the EES project, the IV&V Services and the Department's needs.
b. A clear and concise summary of the proposed approach.
c. A brief summary of the bidder's experience and ability to perform this project.
d. A general description of the capabilities and role of any subcontractors

Bidders must present their understanding of the problems being addressed by implementing a new system, the objectives and intended results of the project, and the scope of work. Bidders shall summarize how their Technical Proposal meets the requirements of the Request for Proposal, and why they are best qualified to perform the work required herein.

3. CORPORATE OVERVIEW

The Corporate Overview section of the Technical Proposal must consist of the following subdivisions:

a. BIDDER IDENTIFICATION AND INFORMATION

The bidder must provide the full company or corporate name, address of the company's headquarters, entity organization (corporation, partnership, proprietorship), state in which the bidder is incorporated or otherwise organized to do business, year in which the bidder first organized to do business, whether the name and form of organization has changed since first organized, and Federal Employer Identification Number and/or Social Security Number.

b. FINANCIAL STATEMENTS

The bidder must provide financial statements applicable to the firm. If publicly held, the bidder must provide a copy of the corporation's most recent audited financial reports and statements, and the name, address and telephone number of the fiscally responsible representative of the bidder's financial or banking organization.

If the bidder is not a publicly held corporation, either the reports and statements required of a publicly held corporation, or a description of the organization, including size, longevity, client base, areas of specialization and expertise, and any other pertinent information must be submitted in such a manner that proposal evaluators may reasonably formulate a determination about the stability and financial strength of the organization. Additionally, a non-publicly held firm must provide a banking reference.

The bidder must disclose any and all judgments, pending or expected litigation, or other real or potential financial reversals, which might materially affect the viability or stability of the organization, or state that no such condition is known to exist.

c. CHANGE OF OWNERSHIP

If any change in ownership or control of the company is anticipated during the twelve (12) months following the proposal due date, the bidder must describe the circumstances of such change and indicate when the change will likely occur. Any change of ownership to an awarded vendor(s) will require notification to the State.

d. OFFICE LOCATION

The bidder's office location responsible for performance pursuant to an award of a contract with the State of Nebraska must be identified.

e. RELATIONSHIPS WITH THE STATE

The bidder shall describe any dealings with the State over the previous two (2) years. If the organization, its predecessor, or any party named in the bidder's proposal response has contracted with the State, the bidder shall identify the contract number(s) and/or any other information available to identify such contract(s). If no such contracts exist, so declare.

f. BIDDER'S EMPLOYEE RELATIONS TO STATE

If any party named in the bidder's proposal response is or was an employee of the State within the past twenty-four (24) months, identify the individual(s) by name, State agency with whom employed, job title or position held with the State, and separation date. If no such relationship exists or has existed, so declare.

If any employee of any agency of the State of Nebraska is employed by the bidder or is a subcontractor to the bidder, as of the due date for proposal submission, identify all such persons by name, position held with the bidder, and position held with the State (including job title and agency). Describe the responsibilities of such persons within the proposing organization. If, after review of this information by the State, it is determined that a conflict of interest exists or may exist, the bidder may be disqualified from further consideration in this proposal. If no such relationship exists, so declare.

g. CONTRACT PERFORMANCE

If the bidder or any proposed subcontractor has had a contract terminated for default during the past five (5) years, all such instances must be described as required below. Termination for default is defined as a notice to stop performance delivery due to the bidder's non-performance or poor performance, and the issue was either not litigated due to inaction on the part of the bidder or litigated and such litigation determined the bidder to be in default.

It is mandatory that the bidder submit full details of all termination for default experienced during the past five (5) years, including the other party's name, address and telephone number. The response to this section must present the bidder's position on the matter. The State will evaluate the facts and will score the bidder's proposal accordingly. If no such termination for default has been experienced by the bidder in the past five (5) years, so declare.

If at any time during the past five (5)years, the bidder has had a contract terminated for convenience, non-performance, non-allocation of funds, or any other reason, describe fully all circumstances surrounding such termination, including the name and address of the other contracting party.

h. SUMMARY OF BIDDER'S CORPORATE EXPERIENCE

The bidder shall provide a summary matrix listing the bidder's previous projects similar to this Request for Proposal in size, scope and complexity, specifically:

- **i.** Experience performing IV&V services for governmental agencies or large private health insurance providers.
- **ii.** Experience with a highly similar task for providing IV&V services on projects of similar scope.
- **iii.** Experience performing IV&V services for a project that included transitioning data from a legacy or existing system into a new system.
- **iv.** Demonstrated knowledge and understanding of the CMS Enterprise Life Cycle Gate Review process including required documents and their associated templates.
- **v.** Experience with CMS's Medicaid Information Technology Architecture (MITA).
- **vi.** Experience working with CMS or projects that had CMS oversight.

The State will use no more than three (3) narrative project descriptions submitted by the bidder during its evaluation of the proposal.

The bidder must address the following:

vii. Bidder must provide narrative descriptions to highlight the similarities between their experience and this Request for Proposal. These descriptions must include:

a) the time period of the project;
b) the scheduled and actual completion dates;
c) the contractor's responsibilities;
d) for reference purposes, a customer name (including the name of a contact person, a current telephone number, a facsimile number and e-mail address); and
e) each project description shall identify whether the work was performed as the prime contractor or as a subcontractor. If a bidder performed as the prime contractor, the description must provide the originally scheduled completion date and budget, as well as the actual (or currently planned) completion date and actual (or currently planned) budget.

viii. Contractor and subcontractor(s) experience must be listed separately. Narrative descriptions submitted for subcontractors must be specifically identified as subcontractor projects.

ix. If the work was performed as a subcontractor, the narrative description shall identify the same information as requested for the contractors above. In addition, subcontractors shall identify what share of contract costs, project responsibilities, and time period were performed as a subcontractor.

i. SUMMARY OF BIDDER'S PROPOSED PERSONNEL/MANAGEMENT APPROACH

The bidder must present a detailed description of its proposed approach to the management of the project.

The bidder must identify the specific professionals who will work on the State's project if their company is awarded the contract resulting from this Request for Proposal. The names and titles of the team proposed for assignment to the State project shall be identified in full, with a description of the team leadership, interface and support functions, and reporting relationships. The primary work assigned to each person should also be identified.

The bidder shall provide resumes for all personnel proposed by the bidder to work on the project. The State will consider the resumes as a key indicator of the bidder's understanding of the skill mixes required to carry out the requirements of the Request for Proposal in addition to assessing the experience of specific individuals.

Resumes must not be longer than three (3) pages. Resumes shall include, at a minimum, academic background and degrees, professional certifications, understanding of the process, and at least three (3) client references (Client and Company Name, Project Name, address, email address and telephone number) who can attest to the competence and skill level of the individual. Any changes in proposed personnel shall only be implemented after written approval from the State.

A major factor in the success of the Project is the degree of collaboration between IV&V and EES Contractor staff and Department staff. The IV&V Contractor is expected to work with key Department stakeholders, management and subject matter experts throughout the business and technology enterprise when conducting the project activities and developing the work products and deliverables. The IV&V Contractor is expected to propose a project approach that incorporates the involvement of Department business and technology staff in order to obtain information and feedback necessary to produce quality work products and deliverables.

The Bidder will provide resume(s) for the key personnel proposed for this project. The Bidder is required to demonstrate that their consultant(s) or employee(s) will have the skills necessary to meet the objectives of this project as listed below. The resumes must include:

i. Educational qualifications
ii. Summary of employment experience
iii. Specific experience with the service areas for which they are being proposed
iv. Previous work assignments in a similar role for this type of engagement demonstrating ability to meet the objectives listed below:
v. Proven experience with Consulting, Project Administration and Technical Assistance for Commercial or State Government Eligibility Solutions for a period of at least two years within the last four years
vi. Core competency in IV&V and QA as demonstrated by the resume
vii. Experience in the design, development, testing, and implementation of Medicaid or Commercial eligibility system
viii. Government or public sector experience
ix. In-depth knowledge of ACA Regulations
x. Highly developed written and verbal communication skills

The Bidder's proposal shall describe policies, plans and intentions with regard to maintaining continuity of key personnel and the implementation team assigned to the project to avoid and minimize the impact of necessary staff changes.

The Department will provide workspace, equipment and conference telephone capabilities to house the IV&V Contractor staff in Lincoln, NE. Additionally, the IV&V Contractor will be assigned Department SharePoint repository capabilities for all IV&V Contractor project documents and deliverables.

In order to ensure the success of this project, it is important that there is a continuity of Key Staff assigned to the project. The Bidder's proposal must:

i. Describe policies, plans, and intentions with regard to maintaining continuity of personnel assignments throughout the performance of any agreement resulting from this RFP.
ii. Discuss the Bidder's plans to avoid and minimize the impact of personnel changes.
iii. Identify planned backup personnel assignments.

iv. Commit to using the personnel identified in the proposal and agree to DHHS' right to approve proposed personnel changes during the term of the contract.

v. Agree that the Bidder's proposed project personnel may not be reassigned, replaced, or added during the project without the prior written consent of the DHHS Project Manager. Should a key staff position be vacated, the IV&V Contractor must give DHHS resumes of, and an opportunity to interview and approve, potential replacements for that employee.

vi. Agree that the Bidder's proposed key project personnel may not be assigned new or additional contract assignments outside the State of Nebraska contract, without the prior written consent of the DHHS Project Manager.

vii. Agree that the DHHS Project Manager reserves the right to require a change in the IV&V Contractor's project personnel at the DHHS Project Manager's discretion and that DHHS must be given an opportunity to interview and approve potential replacements for that employee. However, DHHS will not unreasonably exercise this option and will take reasonable steps to work with the IV&V Contractor toward a solution.

j. SUBCONTRACTORS

If the bidder intends to subcontract any part of its performance hereunder, the bidder must provide:

i. name, address and telephone number of the subcontractor(s);
ii. specific tasks for each subcontractor(s);
iii. percentage of performance hours intended for each subcontract; and
iv. total percentage of subcontractor(s) performance hours.

4. TECHNICAL APPROACH

The technical approach section of the Technical Proposal must consist of the following subsections:

a. Description how the IV&V Bidder plans to carry out the IV&V Services for the EES Project. This description shall include methodologies, strategies, standards and approaches employed by the Bidder for executing each of the IV&V activities within the Scope of Work of this RFP.

b. Description of the deliverables produced as a result of IV&V activities, including sample reports.

c. A documented methodology for performing IV&V Services that has proved successful on past projects.

d. A documented methodology for developing performance matrices that has proved successful on past projects.

e. A documented methodology for developing the performance matrices.

f. Description for assessing risks, documenting findings and communicating them to the Department and contractors.

g. A preliminary project management plan that includes the activities and deliverables which are defined in this RFP and expected of the vendor.

B. COST PROPOSAL REQUIREMENTS

This section describes the requirements to be addressed by bidders in preparing the Cost Proposal. The bidder must submit the Cost Proposal in a section of the proposal that is a separate section or is packaged separately as specified in the RFP from the Technical Proposal section.

The component costs of the fixed price proposal for providing the services set forth in the Request for Proposal must be provided by submitting forms substantially equivalent to those described below.

1. PRICING SUMMARY

This summary shall present the total fixed price to perform all of the requirements of the Request for Proposal - Use Form B. The bidder must include details in the Cost Proposal supporting any and all costs. These details must include, at a minimum, detailed descriptions and/or specifications of the goods and/or services to be provided, quantities, and timing and unit costs, if applicable.

The State reserves the right to review all aspects of the Cost Proposal for reasonableness and to request clarification of any proposal where the cost component shows significant and unsupported deviation from industry standards or in areas where detailed pricing is required.

2. PRICES

Prices quoted shall be net, including transportation and delivery charges fully prepaid by the bidder, F.O.B. destination named in the Request for Proposal. No additional charges will be allowed for packing, packages, or partial delivery costs. When an arithmetic error has been made in the extended total, the unit price will govern.

C. PAYMENT SCHEDULE

The payment schedule for the project is tied to specific dates and deliverables. Invoices may be submitted by the contractor on specific dates based on the completion and acceptance of related deliverables. No invoice will be approved unless the associated deliverables have been approved. A percentage of the total contract cost may then be invoiced based on the following schedule.

Form A

Bidder Contact Sheet

Request for Proposal Number 4468Z1

The Bidder Contact Sheet should be completed and submitted with each response to this Request for Proposal. This is intended to provide the State with information on the bidder's name and address, and the specific person(s) who are responsible for preparation of the bidder's response. Each bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Preparation of Response Contact Information	
Bidder Name:	
Bidder Address:	
Contact Person & Title:	
E-mail Address:	
Telephone Number (Office):	
Telephone Number (Cellular):	
Fax Number:	

Each bidder shall also designate a specific contact person who will be responsible for responding to the State if any clarifications of the bidder's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Communication with the State Contact Information	
Bidder Name:	
Bidder Address:	
Contact Person & Title:	
E-mail Address:	
Telephone Number (Office):	
Telephone Number (Cellular):	
Fax Number:	

REVISED Appendix A
Production Database Size by table for N-Focus
NOVEMBER 26, 2013

TABLE NAME	TABLE SPACE	DATABASE	SIZE IN KBYTES
ACA_FED_REF	NFOTS418	NFOPDBII	720
ACA_HUB_REQ	NFOTS002	NFOPDBII	5,760
ACA_HUB_REQ_XML	NFOTS003	NFOPDBII	27,360
ACA_IRSINF_PRS_MSG	NFOTS416	NFOPDBII	720
ACA_IRS_INF	NFOTS428	NFOPDBII	720
ACA_IRS_INF_MSG	NFOTS434	NFOPDBII	720
ACA_IRS_INF_PRS	NFOTS429	NFOPDBII	720
ACA_IRS_REQ	NFOTS426	NFOPDBII	720
ACA_IRS_REQ_PRS	NFOTS427	NFOPDBII	720
ACA_SSA_INF	NFOTS432	NFOPDBII	97,920
ACA_SSA_REQ	NFOTS431	NFOPDBII	29,520
ACHUB_REQXML_AUX_1	NFOT1003	NFOPDBII	1,440,000
ADDR	NFOTS005	NFOPDBII	338,400
ADM_NTFCN	NFOTS607	NFOPDBII	720
ADOPTION	NFOTS792	NFOPDBII	2,160
ADOP_EXCP	NFOTS011	NFOPDBII	720
AFCARS_ADOP	NFOTS908	NFOPDBII	4,320
AFCARS_COMP_MSR	NFOTS905	NFOPDBII	81,360
AFCARS_EPSD	NFOTS032	NFOPDBII	4,320
AFCARS_FC	NFOTS907	NFOPDBII	221,040
ALLEGATION	NFOTS801	NFOPDBII	106,560
ALL_FNDNG_HIST	NFOTS802	NFOPDBII	57,600
ALL_INVSTGN	NFOTS462	NFOPDBII	5,760
ALL_INV_ARP_INVLV	NFOTS464	NFOPDBII	3,600
ALL_INV_ASGN	NFOTS469	NFOPDBII	720
ALL_INV_CNTCT_DTL	NFOTS468	NFOPDBII	6,480
ALL_INV_ORG_INVLV	NFOTS466	NFOPDBII	5,040
ALL_INV_POI_INVLV	NFOTS465	NFOPDBII	432
ALL_INV_RVW	NFOTS467	NFOPDBII	14,400
ALL_INV_STAT_HIST	NFOTS463	NFOPDBII	5,760
ALRT	NFOTS010	NFOPDBII	366,480
ANSWER	NFOTS803	NFOPDBII	783,360
APRV_ITM	NFOTS015	NFOPDBII	528
APRV_PGM_SVC	NFOTS020	NFOPDBII	26,640
APRV_PGM_SVC_HIST	NFOTS025	NFOPDBII	357,840
APRV_PGM_SVC_RTE	NFOTS030	NFOPDBII	90,720
APS_REGISTRY	NFOTS915	NFOPDBII	50,400
APS_SVC_AT	NFOTS033	NFOPDBII	432
AR	NFOTS035	NFOPDBII	15,120
ARP	NFOTS040	NFOPDBII	622,080
ARP_ADDRSE	NFOTS045	NFOPDBII	264,960
ARP_DTL	NFOTS042	NFOPDBII	390,240
ARP_EXPN	NFOTS340	NFOPDBII	162,720
ARP_EXPN_AMT	NFOTS345	NFOPDBII	251,280
ARP_FUNC_REL	NFOTS060	NFOPDBII	23,040
ARP_NARR_INVLV	NFOTS041	NFOPDBII	14,400
ARP_REL	NFOTS065	NFOPDBII	250,560
ARP_TANF_TRKNG	NFOTS055	NFOPDBII	4,320
ARP_TX_RET_INC	NFOTS433	NFOPDBII	720
ARP_VERF	NFOTS752	NFOPDBII	198,720
AR_BIL_DTL	NFOTS274	NFOPDBII	2,160
AR_STAT	NFOTS070	NFOPDBII	15,840
AR_TRN	NFOTS075	NFOPDBII	123,120
ASP	NFOTS080	NFOPDBII	3,600
ASP_CASE_INVLV	NFOTS082	NFOPDBII	19,440
ASSIGNHIST	NFOTS911	NFOPDBII	11,520

ASSMNT	NFOTS805	NFOPDBII	7,200
ATP	NFOTS272	NFOPDBII	5,040
ATP_ARP_INVLV	NFOTS273	NFOPDBII	9,360
AT_VAR (Partioned)	NFOTS120	NFOPDBII	776,160
AT_VAR (Partioned)	NFOTS120	NFOPDBII	790,560
AT_VAR (Partioned)	NFOTS120	NFOPDBII	777,600
AT_VAR (Partioned)	NFOTS120	NFOPDBII	797,760
AT_VAR (Partioned)	NFOTS120	NFOPDBII	770,400
AT_VAR (Partioned)	NFOTS120	NFOPDBII	772,560
AT_VAR (Partioned)	NFOTS120	NFOPDBII	774,000
AT_VAR (Partioned)	NFOTS120	NFOPDBII	781,200
AT_VAR (Partioned)	NFOTS120	NFOPDBII	767,520
AT_VAR (Partioned)	NFOTS120	NFOPDBII	777,600
AT_VAR (Partioned)	NFOTS120	NFOPDBII	771,120
AT_VAR (Partioned)	NFOTS120	NFOPDBII	771,120
AT_VAR (Partioned)	NFOTS120	NFOPDBII	768,240
AT_VAR (Partioned)	NFOTS120	NFOPDBII	775,440
AT_VAR (Partioned)	NFOTS120	NFOPDBII	776,160
AT_VAR (Partioned)	NFOTS120	NFOPDBII	768,960
AT_VAR (Partioned)	NFOTS120	NFOPDBII	781,200
AT_VAR (Partioned)	NFOTS120	NFOPDBII	789,840
AT_VAR (Partioned)	NFOTS120	NFOPDBII	817,200
AT_VAR (Partioned)	NFOTS120	NFOPDBII	807,840
BCKGRND_CHK	NFOTS095	NFOPDBII	54,720
CARD_HOLDER	NFOTS598	NFOPDBII	15,840
CASE_PLAN	NFOTS806	NFOPDBII	18,000
CASE_PLAN_GOAL	NFOTS807	NFOPDBII	31,680
CASE_PLAN_GOAL_TXT	NFOTS811	NFOPDBII	660,960
CASE_PLAN_PCPI	NFOTS810	NFOPDBII	18,000
CFS_ASSET_TEST	NFOTS877	NFOPDBII	64,800
CHG_RPT	NFOTS332	NFOPDBII	38,880
CHG_RPT_CAT	NFOTS335	NFOPDBII	7,920
CHG_RPT_MC_INVLV	NFOTS336	NFOPDBII	9,360
CHG_RPT_STAT_HIST	NFOTS334	NFOPDBII	26,640
CHG_RPT_XML	NFOTS333	NFOPDBII	9,360
CHG_RPT_XML_AUX_1	NFOT1333	NFOPDBII	511,920
CHLD_DTL	NFOTS084	NFOPDBII	105,120
CHLD_RVW	NFOTS715	NFOPDBII	5,760
CHLD_RVW_AT_TAKEN	NFOTS719	NFOPDBII	432
CHLD_RVW_BARR	NFOTS716	NFOPDBII	2,880
CHLD_RVW_LG_REF_AT	NFOTS720	NFOPDBII	720
CHLD_RVW_SEL	NFOTS717	NFOPDBII	1,440
CHLD_RVW_STAT	NFOTS718	NFOPDBII	1,440
CLM	NFOTS135	NFOPDBII	880,560
CLM_ITM	NFOTS140	NFOPDBII	3,575,520
CLM_ITM_ADJ_RSN	NFOTS142	NFOPDBII	10,800
CLM_ITM_EXPND	NFOTS145	NFOPDBII	227,520
CLM_ITM_FNDNG_EXCP	NFOTS148	NFOPDBII	15,840
CLM_ITM_OP	NFOTS150	NFOPDBII	10,080
CLM_ITM_STAT_RSN	NFOTS155	NFOPDBII	32,400
CNTCT_DTL	NFOTS099	NFOPDBII	20,160
CODE_DECODE	NFOTS160	NFOPDBII	16,560
CODE_DECODE_EXT	NFOTS162	NFOPDBII	1,488
CODE_STAGING	NFOTS161	NFOPDBII	17,280
COMPLAINANT	NFOTS564	NFOPDBII	2,160
COMPLAINT	NFOTS562	NFOPDBII	720
COMPLAINT_ASGN	NFOTS566	NFOPDBII	720

COM_BANK_ACCT	NFOTS118	NFOPDBII	720
COM_BANK_ACCT_ASGN	NFOTS119	NFOPDBII	720
COM_BANK_ACCT_TYP	NFOTS121	NFOPDBII	720
COM_BANK_STMNT	NFOTS137	NFOPDBII	432
CONT_BUD_TRKR	NFOTS297	NFOPDBII	720
CONT_BUD_TRKR_TRN	NFOTS298	NFOPDBII	720
CONV_CASE_XREF	NFOTS995	NFOPDBII	5,760
CONV_CLI_XREF	NFOTS990	NFOPDBII	10,800
CONV_FCRB_XREF	NFOTS797	NFOPDBII	2,160
CONV_FSP_DUPL_PMT	NFOTS164	NFOPDBII	2,160
CONV_PAE_DUPL_PMT	NFOTS997	NFOPDBII	288
COR	NFOTS170	NFOPDBII	1,002,240
COR_ARCH	NFOTS172	NFOPDBII	21,600
COR_DOC	NFOTS182	NFOPDBII	1,098,000
COR_ENT (Partioned)	NFOTS175	NFOPDBII	586,080
COR_ENT (Partioned)	NFOTS175	NFOPDBII	588,960
COR_ENT (Partioned)	NFOTS175	NFOPDBII	592,560
COR_ENT (Partioned)	NFOTS175	NFOPDBII	594,720
COR_ENT (Partioned)	NFOTS175	NFOPDBII	590,400
COR_ENT (Partioned)	NFOTS175	NFOPDBII	575,280
COR_ENT (Partioned)	NFOTS175	NFOPDBII	587,520
COR_ENT (Partioned)	NFOTS175	NFOPDBII	595,440
COR_ENT (Partioned)	NFOTS175	NFOPDBII	587,520
COR_ENT (Partioned)	NFOTS175	NFOPDBII	589,680
COR_ENT (Partioned)	NFOTS175	NFOPDBII	583,920
COR_ENT (Partioned)	NFOTS175	NFOPDBII	578,880
COR_ENT (Partioned)	NFOTS175	NFOPDBII	586,800
COR_ENT (Partioned)	NFOTS175	NFOPDBII	586,800
COR_ENT (Partioned)	NFOTS175	NFOPDBII	586,080
COR_ENT (Partioned)	NFOTS175	NFOPDBII	625,680
COR_ENT (Partioned)	NFOTS175	NFOPDBII	574,560
COR_ENT (Partioned)	NFOTS175	NFOPDBII	608,400
COR_ENT (Partioned)	NFOTS175	NFOPDBII	604,080
COR_ENT (Partioned)	NFOTS175	NFOPDBII	618,480
COR_HIST	NFOTS180	NFOPDBII	496,080
COR_TMPL_LINE	NFOTS185	NFOPDBII	432
COR_TMPL_NAME	NFOTS184	NFOPDBII	432
COR_TRIG	NFOTS187	NFOPDBII	25,920
COR_XML	NFOTS125	NFOPDBII	350,640
COR_XML_AUX_1	NFOT1125	NFOPDBII	55,952,640
COURT_DTL	NFOTS052	NFOPDBII	5,040
CPGI	NFOTS808	NFOPDBII	17,280
CPL_LEGAL_AT_INVLV	NFOTS809	NFOPDBII	432
CPS_CNTR_RGSTY_RPT	NFOTS506	NFOPDBII	159,840
CPS_NARR	NFOTS508	NFOPDBII	97,920
CPS_PRS	NFOTS507	NFOPDBII	149,760
CPS_PRS_DTL	NFOTS509	NFOPDBII	84,240
CRT_RPT_INFO	NFOTS086	NFOPDBII	9,360
CSE_NONCOOP	NFOTS420	NFOPDBII	5,040
CSE_NONCOOP_USRTRK	NFOTS422	NFOPDBII	4,320
CSH_REPY	NFOTS190	NFOPDBII	15,120
CS_REF	NFOTS885	NFOPDBII	28,080
CS_REF_RLE	NFOTS890	NFOPDBII	33,840
CURRENT_PKSET	NFOTS212	NFOPDBII	144
CURR_OFFICE_POSTN	NFOTS901	NFOPDBII	7,200
CUST_AGNCY	NFOTS789	NFOPDBII	2,880
CUST_AGNCY_CNTCT	NFOTS790	NFOPDBII	27,360

CW_AGE_REL_DTL	NFOTS896	NFOPDBII	720
CW_CHKLST	NFOTS894	NFOPDBII	720
CW_CHKLST_DTL	NFOTS895	NFOPDBII	720
DB_ASGN	NFOTS950	NFOPDBII	144
DB_BKUP	NFOTS955	NFOPDBII	144
DERIVED_PLMNT	NFOTS906	NFOPDBII	1,488
DISABILITY	NFOTS791	NFOPDBII	384
DISC_ARP_XREF	NFOTS215	NFOPDBII	2,880
DRV_PERF_ACBTY	NFOTS903	NFOPDBII	1,488
DRV_SF_PERF_ACBTY	NFOTS904	NFOPDBII	1,488
DSS_OFC	NFOTS225	NFOPDBII	144
DSS_OFC_ADDRSE	NFOTS227	NFOPDBII	144
DSS_OFC_FNC	NFOTS226	NFOPDBII	144
DSS_OFC_POSTN	NFOTS230	NFOPDBII	2,880
DSS_OFC_POSTN_EXP	NFOTS233	NFOPDBII	720
DSS_OFC_POSTN_STF	NFOTS235	NFOPDBII	3,600
DSS_PST_SVC_DLV_GR	NFOTS232	NFOPDBII	432
DSTR_SNAP_ADMIN	NFOTS586	NFOPDBII	1,440
DSTR_SNAP_DCL_AREA	NFOTS587	NFOPDBII	1,440
DSTR_SNAP_PC_INVLV	NFOTS588	NFOPDBII	1,440
EBT_ACCOUNT	NFOTS596	NFOPDBII	8,640
ED	NFOTS240	NFOPDBII	2,097,360
ED_AABD	NFOTS245	NFOPDBII	321,840
ED_ADC_RRP	NFOTS255	NFOPDBII	426,240
ED_ARP_ELIG_DTL	NFOTS281	NFOPDBII	43,200
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	182,880
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	192,960
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	199,440
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	187,200
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	195,120
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	184,320
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	198,000
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	190,800
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	189,360
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	203,760
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	190,800
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	192,960
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	192,240
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	200,160
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	187,200
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	190,800
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	186,480
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	203,040
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	303,840
ED_ARP_ELIG_SUMM	NFOTS252	NFOPDBII	304,560
ED_ARP_EXPN	NFOTS260	NFOPDBII	1,643,760
ED_ARP_EXPN_AMT	NFOTS262	NFOPDBII	1,001,520
ED_AR_INVLV	NFOTS290	NFOPDBII	11,520
ED_CC	NFOTS295	NFOPDBII	79,200
ED_CFS	NFOTS876	NFOPDBII	39,600
ED_CW_AGE_REL_DTL	NFOTS897	NFOPDBII	3,600
ED_DTL	NFOTS253	NFOPDBII	1,047,600
ED_EI_PMT_SCH	NFOTS266	NFOPDBII	945,360
ED_EI_PMT_STUB	NFOTS267	NFOPDBII	2,211,840
ED_EXPND	NFOTS320	NFOPDBII	1,516,320
ED_EXPN_EST_OCC_DT	NFOTS264	NFOPDBII	2,880
ED_FINANCIAL	NFOTS291	NFOPDBII	6,292,080

ED_FIN_ARP_INVLV	NFOTS292	NFOPDBII	4,012,560
ED_FSP	NFOTS325	NFOPDBII	1,263,600
ED_INC_ACTIVITY	NFOTS265	NFOPDBII	5,263,200
ED_INC_ACTY_TOT	NFOTS258	NFOPDBII	504,720
ED_LIHEAP	NFOTS248	NFOPDBII	10,800
ED_LIHEAP_PMT_SCH	NFOTS246	NFOPDBII	7,200
ED_MED	NFOTS327	NFOPDBII	4,194,720
ED_NON_FINANCIAL	NFOTS280	NFOPDBII	6,292,080
ED_OP	NFOTS330	NFOPDBII	21,600
ED_OTH_GRANT_AMT	NFOTS326	NFOPDBII	200,880
ED_OVERRD_DTL	NFOTS284	NFOPDBII	6,480
ED_PGM_ELIG_DTL	NFOTS282	NFOPDBII	1,556,640
ED_PLMNT_MNGD_CARE	NFOTS279	NFOPDBII	432
ED_REL	NFOTS242	NFOPDBII	5,040
ED_RSRC	NFOTS275	NFOPDBII	1,782,720
ED_RSRC_EXCLSN_DIS	NFOTS278	NFOPDBII	179,280
ED_RSRC_OWNER	NFOTS276	NFOPDBII	1,601,280
ED_RSRC_VALUATION	NFOTS277	NFOPDBII	1,832,400
ED_RVW	NFOTS249	NFOPDBII	720
ED_SANCTION_DTL	NFOTS287	NFOPDBII	10,080
ED_SHL_EXPN_DTL	NFOTS286	NFOPDBII	491,040
ED_SLF_EMP_FTX_RET	NFOTS270	NFOPDBII	25,920
ED_SLF_EMP_FTX_SCH	NFOTS271	NFOPDBII	164,880
ED_SLF_EMP_LDG	NFOTS269	NFOPDBII	336,240
ED_TAX_HH_PRS	NFOTS417	NFOPDBII	720
ED_TOTAL	NFOTS293	NFOPDBII	4,995,360
ED_UI_AMT	NFOTS268	NFOPDBII	1,973,520
EI_PMT_SCH	NFOTS665	NFOPDBII	156,960
EI_PMT_STUB	NFOTS670	NFOPDBII	516,240
ELEC_APP	NFOTS126	NFOPDBII	451,440
ELEC_APP_CMNT	NFOTS141	NFOPDBII	256,320
ELEC_APP_PC_INVLV	NFOTS139	NFOPDBII	155,520
ELEC_APP_PGM	NFOTS138	NFOPDBII	46,080
ELEC_APP_PRITY_RSN	NFOTS147	NFOPDBII	4,320
ELEC_APP_PSTN_ASGN	NFOTS128	NFOPDBII	50,400
ELEC_APP_RPT_DATA	NFOTS067	NFOPDBII	720
ELEC_APP_STAT_HIST	NFOTS129	NFOPDBII	216,000
ELEC_APP_XML	NFOTS127	NFOPDBII	20,160
ELEC_APP_XML_AUX_1	NFOT1127	NFOPDBII	19,127,520
ELIG_RQMT	NFOTS350	NFOPDBII	143,280
ES_CASE_STAT	NFOTS110	NFOPDBII	1,111,680
ES_TRIG	NFOTS547	NFOPDBII	23,040
ES_UPLD_COMM	NFOTS477	NFOPDBII	720
EXT_OP	NFOTS365	NFOPDBII	5,040
EXT_PRSNL	NFOTS088	NFOPDBII	7,920
FAMILY_DTL	NFOTS880	NFOPDBII	5,040
FAM_STRENGTH	NFOTS816	NFOPDBII	73,440
FCLTY_TYPE	NFOTS815	NFOPDBII	5,040
FCLTY_TYPE_HIST	NFOTS864	NFOPDBII	8,640
FCLTY_TYP_ACCRDTN	NFOTS881	NFOPDBII	1,440
FCRB_LEGAL_AT	NFOTS793	NFOPDBII	2,880
FCRB_PLMNT	NFOTS796	NFOPDBII	27,360
FCRB_REL	NFOTS798	NFOPDBII	4,320
FCRHISTORY	NFOTS914	NFOPDBII	59,040
FCRMASTER1	NFOTS912	NFOPDBII	165,600
FCRMASTER2	NFOTS913	NFOPDBII	70,560
FSP_CERT_PRD	NFOTS283	NFOPDBII	225,360

FS_ISSU	NFOTS375	NFOPDBII	982,800
GENR_ALRT	NFOTS872	NFOPDBII	9,360
GENR_POSTN_ALRT_DS	NFOTS873	NFOPDBII	2,880
GOA_TSK	NFOTS385	NFOPDBII	140,400
GOA_TSK_MOPLHRS	NFOTS395	NFOPDBII	80,640
HHS_ALIEN_DTLS	NFOTS960	NFOPDBII	432
HHS_CHLD_SUPP	NFOTS961	NFOPDBII	432
HHS_CLMNT_CNTCT	NFOTS966	NFOPDBII	432
HHS_CLMNT_HIST	NFOTS967	NFOPDBII	432
HHS_CLM_BAL_INFO	NFOTS962	NFOPDBII	432
HHS_CLM_BEN_DTLS	NFOTS963	NFOPDBII	432
HHS_CLM_CLMNT_KEY	NFOTS976	NFOPDBII	15,840
HHS_CLM_ISS	NFOTS964	NFOPDBII	432
HHS_CLM_VRSN	NFOTS965	NFOPDBII	432
HHS_EMPLM_VRSN	NFOTS968	NFOPDBII	432
HHS_EMPLR	NFOTS969	NFOPDBII	432
HHS_ISS_DETRM	NFOTS970	NFOPDBII	1,440
HHS_OVPT	NFOTS971	NFOPDBII	432
HHS_PMT_CHK_DTLS	NFOTS972	NFOPDBII	432
HHS_PMT_DEDN_DTLS	NFOTS973	NFOPDBII	2,880
HHS_REOPN_CLM	NFOTS974	NFOPDBII	432
HHS_WKLY_ERNG	NFOTS975	NFOPDBII	432
HH_ID_CRD	NFOTS597	NFOPDBII	51,120
HH_ID_CRD_PRSN	NFOTS599	NFOPDBII	34,560
HLTH_CHK	NFOTS400	NFOPDBII	32,400
HOME_DTL	NFOTS817	NFOPDBII	14,400
HOME_INQUIRY	NFOTS863	NFOPDBII	336
HOME_STUDY	NFOTS355	NFOPDBII	5,040
HOME_STUDY_APP	NFOTS357	NFOPDBII	3,600
ICPC	NFOTS819	NFOPDBII	240
ILP_ARP_INVLV	NFOTS167	NFOPDBII	2,880
ILP_GOAL	NFOTS168	NFOPDBII	9,360
ILP_PLN	NFOTS165	NFOPDBII	6,480
ILP_PROVD_SVC	NFOTS169	NFOPDBII	4,320
ILP_RVW_HIST	NFOTS163	NFOPDBII	432
ILP_STAT_HIST	NFOTS166	NFOPDBII	3,600
INCLD_NARR_INVLV	NFOTS092	NFOPDBII	40,320
INC_ACTIVITY	NFOTS660	NFOPDBII	259,920
INFRML_LA_ARP_INVL	NFOTS311	NFOPDBII	432
INFRML_LIV_ARR	NFOTS310	NFOPDBII	432
INF_AUD	NFOTS425	NFOPDBII	272,160
INF_DD_STAT_TRKNG	NFOTS451	NFOPDBII	2,880
INF_FORTY_QTR	NFOTS443	NFOPDBII	10,800
INF_IUC	NFOTS435	NFOPDBII	342,720
INF_MDCR_RSPNS	NFOTS493	NFOPDBII	979,920
INF_MMA	NFOTS457	NFOPDBII	2,548,800
INF_MMA_D_ENR_DATA	NFOTS456	NFOPDBII	393,840
INF_SDX	NFOTS440	NFOPDBII	640,080
INF_SEW_EMP	NFOTS445	NFOPDBII	39,600
INF_SEW_QTR	NFOTS450	NFOPDBII	906,480
INF_SSA_BENDEX	NFOTS455	NFOPDBII	955,440
INF_SSA_WA	NFOTS460	NFOPDBII	144
INF_VIT_BIRTH	NFOTS405	NFOPDBII	542,160
INF_VIT_DEATH	NFOTS406	NFOPDBII	151,920
INF_VIT_DIVORCE	NFOTS408	NFOPDBII	60,480
INF_VIT_MARRIAGE	NFOTS407	NFOPDBII	93,600
INSTC_STAT	NFOTS517	NFOPDBII	39,600

INS_CARRIER	NFOTS869	NFOPDBII	432
INTAKE	NFOTS820	NFOPDBII	52,560
INTAKE_ARP_INVLV	NFOTS821	NFOPDBII	89,280
INTAKE_ASGN	NFOTS822	NFOPDBII	33,840
INTAKE_CHAR	NFOTS812	NFOPDBII	10,800
INTAKE_HIST	NFOTS823	NFOPDBII	179,280
INTAKE_NTFCN	NFOTS849	NFOPDBII	7,200
INTAKE_ORG_INVLV	NFOTS824	NFOPDBII	22,320
INTAKE_PRIRTY	NFOTS236	NFOPDBII	2,160
INTAKE_PRIRTY_DTL	NFOTS237	NFOPDBII	2,160
INTAKE_PRIRTY_OVRD	NFOTS238	NFOPDBII	2,160
INTAKE_SCR	NFOTS211	NFOPDBII	2,160
INTAKE_SCR_DTL	NFOTS229	NFOPDBII	4,320
INTAKE_SCR_OVRD	NFOTS234	NFOPDBII	7,200
INTAKE_SCR_VADLT	NFOTS231	NFOPDBII	2,160
INTAKE_TL_REC	NFOTS834	NFOPDBII	49,680
INTC_IUC_OTH_INC	NFOTS470	NFOPDBII	987,840
INTERNET_ADDR	NFOTS007	NFOPDBII	6,480
INTERVIEW	NFOTS602	NFOPDBII	100,800
INTK_PRS_INT_INVLV	NFOTS361	NFOPDBII	33,120
IN_CARE	NFOTS787	NFOPDBII	5,040
IN_CARE_RSN	NFOTS788	NFOPDBII	2,880
ITV_APPT	NFOTS604	NFOPDBII	26,640
ITV_PGM_CASE_INVLV	NFOTS603	NFOPDBII	126,720
ITV_SCH_CAPEXC	NFOTS605	NFOPDBII	720
ITV_SCH_CAPEXC_DTL	NFOTS606	NFOPDBII	2,160
IUC_CLM_BEN_BAL	NFOTS437	NFOPDBII	74,880
KNOWN_CASE	NFOTS999	NFOPDBII	75,600
LEGAL_AGNT	NFOTS799	NFOPDBII	5,040
LEGAL_AT	NFOTS825	NFOPDBII	113,760
LEGAL_AT_ARP_INVLV	NFOTS871	NFOPDBII	32,400
LEGAL_AT_OPI	NFOTS835	NFOPDBII	19,440
LEGAL_AT_PRS_INVLV	NFOTS826	NFOPDBII	87,840
LEGAL_AT_RE	NFOTS829	NFOPDBII	5,040
LEGAL_AT_SP_INVLV	NFOTS818	NFOPDBII	2,880
LEGAL_HRNG	NFOTS794	NFOPDBII	3,600
LICENSE_APRV	NFOTS827	NFOPDBII	11,520
LICENSE_APRV_HIST	NFOTS828	NFOPDBII	4,320
LICENSE_FCLTY_INVL	NFOTS862	NFOPDBII	3,600
LICENSE_HIST	NFOTS847	NFOPDBII	10,800
LIHEAP_CASEORG_ACT	NFOTS250	NFOPDBII	7,200
LIHEAP_CASE_INFO	NFOTS251	NFOPDBII	6,480
LIV_ARR	NFOTS482	NFOPDBII	93,600
LIV_PLACE	NFOTS050	NFOPDBII	60,480
MASS_CHG	NFOTS527	NFOPDBII	1,440
MASS_CHG_DTL	NFOTS528	NFOPDBII	90,720
MCPCI	NFOTS485	NFOPDBII	115,920
MDCR	NFOTS490	NFOPDBII	22,320
MDCR_BUYIN_INP	NFOTS492	NFOPDBII	28,080
MDCR_FORCE_BUYIN	NFOTS491	NFOPDBII	432
MED_DETRMN	NFOTS500	NFOPDBII	38,880
MED_INFO	NFOTS830	NFOPDBII	4,320
MODULE_TO_DO	NFOTS510	NFOPDBII	1,121,040
MST_CASE	NFOTS515	NFOPDBII	34,560
MST_CASE_PRS	NFOTS520	NFOPDBII	164,160
MST_CASE_UNT_TST	NFOTS522	NFOPDBII	720
NARR_ENT	NFOTS525	NFOPDBII	4,194,720

NARR_HDR	NFOTS831	NFOPDBII	4,034,160
NARR_TMPL	NFOTS532	NFOPDBII	720
NARR_TMPL_STAGING	NFOTS533	NFOPDBII	720
NARR_TXT	NFOTS832	NFOPDBII	16,778,880
NCANDS	NFOTS902	NFOPDBII	1,002,240
NEW_HIRE_INF	NFOTS461	NFOPDBII	239,040
NME_HIST	NFOTS535	NFOPDBII	288,000
NON_ISS_PMT	NFOTS537	NFOPDBII	3,600
NTC_HDR	NFOTS541	NFOPDBII	144
NTC_MSG	NFOTS543	NFOPDBII	288
NYTD_SEL	NFOTS498	NFOPDBII	432
NYTD_SURV	NFOTS499	NFOPDBII	432
NYTD_SURV_QUES	NFOTS497	NFOPDBII	1,440
OJS_CMNT_HIST	NFOTS879	NFOPDBII	2,160
OLTRAN	NFOTS545	NFOPDBII	600,480
ORG	NFOTS550	NFOPDBII	48,960
ORG_ADDRSE	NFOTS555	NFOPDBII	22,320
ORG_ASGN	NFOTS833	NFOPDBII	4,320
ORG_CONT_ASGN	NFOTS557	NFOPDBII	6,480
ORG_DUP_XREF	NFOTS560	NFOPDBII	432
ORG_PMT	NFOTS642	NFOPDBII	193,680
ORG_PREF_CHAR	NFOTS837	NFOPDBII	5,040
ORG_PREF_CHAR_HIST	NFOTS867	NFOPDBII	2,880
ORG_PROVD_FUEL	NFOTS254	NFOPDBII	1,488
ORG_PRS_INVLV	NFOTS570	NFOPDBII	25,920
ORG_TX_INFO	NFOTS551	NFOPDBII	16,560
ORG_TX_INFO_HIST	NFOTS553	NFOPDBII	3,600
ORG_TX_INFO_INVLV	NFOTS552	NFOPDBII	7,200
PA_ARP_INVLV	NFOTS103	NFOPDBII	432
PA_STAT_HIST	NFOTS104	NFOPDBII	432
PCAI	NFOTS580	NFOPDBII	431,280
PCA_ARP_INVLV	NFOTS113	NFOPDBII	432
PCA_STAT_HIST	NFOTS112	NFOPDBII	2,160
PCPI	NFOTS585	NFOPDBII	215,280
PCPI_HIST	NFOTS590	NFOPDBII	2,097,360
PCPI_STAT_TRKG	NFOTS591	NFOPDBII	732,240
PERM_OBJ	NFOTS840	NFOPDBII	17,280
PGM_CASE	NFOTS595	NFOPDBII	332,640
PGM_CASE_ASGN	NFOTS600	NFOPDBII	200,160
PGM_CASE_COR	NFOTS610	NFOPDBII	344,160
PGM_CASE_HIST	NFOTS615	NFOPDBII	1,170,000
PGM_CASE_MODE_HIST	NFOTS594	NFOPDBII	467,280
PGM_CASE_NARR_ENT	NFOTS620	NFOPDBII	1,756,800
PGM_CASE_RVW	NFOTS632	NFOPDBII	243,360
PGM_CASE_STAT_TRKG	NFOTS616	NFOPDBII	230,400
PGM_SVC_TYP	NFOTS625	NFOPDBII	432
PGM_SVC_TYP_SEL	NFOTS630	NFOPDBII	60,480
PHN_NBR	NFOTS635	NFOPDBII	205,200
PKSET_LIST	NFOTS213	NFOPDBII	144
PKSET_RESVTN	NFOTS214	NFOPDBII	1,440
PLMNT	NFOTS843	NFOPDBII	30,960
PLMNT_HIST	NFOTS870	NFOPDBII	33,840
PLMNT_MNGC_DCSN	NFOTS712	NFOPDBII	432
PLMNT_MNGC_DNL_RSN	NFOTS713	NFOPDBII	432
PLMNT_PCPI_INVLV	NFOTS865	NFOPDBII	17,280
PLMNT_PREF	NFOTS844	NFOPDBII	2,016
PLMNT_PREF_HIST	NFOTS845	NFOPDBII	1,680

PMT	NFOTS640	NFOPDBII	806,400
PMT_DETRMN	NFOTS838	NFOPDBII	5,040
PMT_DETRMN_HIST	NFOTS839	NFOPDBII	7,920
POSTN_ALRT_DSP	NFOTS645	NFOPDBII	69,840
PRCTV_CPCTY_ASSMNT	NFOTS111	NFOPDBII	720
PRCTV_CPCTY_SKL	NFOTS115	NFOPDBII	6,480
PREG	NFOTS650	NFOPDBII	25,200
PROF	NFOTS657	NFOPDBII	1,440
PROF_STAGING	NFOTS658	NFOPDBII	720
PROTECTIVE_AT	NFOTS102	NFOPDBII	432
PRSN_ASTNC_CRTR	NFOTS404	NFOPDBII	8,640
PRSN_ASTNC_ND	NFOTS403	NFOPDBII	16,560
PRSN_ASTNC_PLN	NFOTS402	NFOPDBII	5,040
PRS_ADD_DTL	NFOTS841	NFOPDBII	41,040
PRS_ADD_DTL_HIST	NFOTS861	NFOPDBII	27,360
PRS_ASSET	NFOTS123	NFOPDBII	432
PRS_CHAR	NFOTS842	NFOPDBII	555,120
PRS_LEG_OFNS	NFOTS858	NFOPDBII	1,440
PRS_OF_INT	NFOTS360	NFOPDBII	46,800
PRS_POP_SERV	NFOTS857	NFOPDBII	9,360
PRS_TRKNG	NFOTS786	NFOPDBII	10,080
PRTL_INVLV	NFOTS795	NFOPDBII	2,880
PRTL_RIGHTS	NFOTS044	NFOPDBII	2,880
PRTL_RI_APPL	NFOTS048	NFOPDBII	7,200
PRTL_RI_TRMN_EXCP	NFOTS046	NFOPDBII	7,200
PYEPMT_MTH_ST_HIST	NFOTS638	NFOPDBII	9,360
PYE_PMT_MTHD	NFOTS637	NFOPDBII	20,160
RACE_ETHNICITY	NFOTS043	NFOPDBII	83,520
REMOVAL	NFOTS848	NFOPDBII	4,320
REMOVAL_PCPI_INVLV	NFOTS866	NFOPDBII	7,200
REPY_MTHD	NFOTS690	NFOPDBII	6,480
RESTRAINT	NFOTS910	NFOPDBII	240
RET_COND	NFOTS089	NFOPDBII	2,160
RET_COND_PRS_INVLV	NFOTS090	NFOPDBII	720
RET_COND_STAT_HIST	NFOTS091	NFOPDBII	2,160
REVIEW	NFOTS761	NFOPDBII	5,760
RFND_DOC_DTL	NFOTS256	NFOPDBII	720
RFND_DOC_DTL_AMT	NFOTS257	NFOPDBII	720
RISK_DTL	NFOTS851	NFOPDBII	6,480
RISK_ITEM	NFOTS852	NFOPDBII	93,600
RMVL_RSN	NFOTS850	NFOPDBII	4,320
RPT_ARCH	NFOTS692	NFOPDBII	1,039,680
RPT_ARCH	NFOTS692	NFOPDBII	401,040
RPT_ARCH	NFOTS692	NFOPDBII	277,200
RPT_ARCH	NFOTS692	NFOPDBII	162,720
RPT_ARCH	NFOTS692	NFOPDBII	144
RPT_ARCH	NFOTS692	NFOPDBII	144
RPT_ARCH	NFOTS692	NFOPDBII	144
RPT_ARCH	NFOTS692	NFOPDBII	144
RPT_ARCH	NFOTS692	NFOPDBII	144
RPT_ARCH	NFOTS692	NFOPDBII	56,880
RPT_ARCH	NFOTS692	NFOPDBII	116,640
RPT_ARCH	NFOTS692	NFOPDBII	3,600
RPT_FRM_TRKNG	NFOTS328	NFOPDBII	6,480
RPT_INFO	NFOTS694	NFOPDBII	192
RPT_STAT	NFOTS695	NFOPDBII	144
RSRC	NFOTS200	NFOPDBII	192,240

RSRC_EXCLSN_DISRD	NFOTS210	NFOPDBII	10,080
RSRC_OWNER	NFOTS195	NFOPDBII	72,720
RSRC_VALUATION	NFOTS205	NFOPDBII	205,920
RVW_BOARD_RSLT	NFOTS768	NFOPDBII	9,360
RVW_CNTCT	NFOTS767	NFOPDBII	10,800
RVW_DTL	NFOTS764	NFOPDBII	9,360
RVW_INJ	NFOTS763	NFOPDBII	720
RVW_RSTRT	NFOTS762	NFOPDBII	432
RVW_SERV_PROVD	NFOTS766	NFOPDBII	3,600
SAFETY_PLAN_DTL	NFOTS853	NFOPDBII	4,320
SAFETY_PLAN_ITM	NFOTS854	NFOPDBII	92,880
SANCTION	NFOTS053	NFOPDBII	9,360
SA_POSTN_ALRT_DSP	NFOTS697	NFOPDBII	1,440
SA_RENEWAL_DT	NFOTS698	NFOPDBII	7,920
SCHL_ATTNDCE	NFOTS700	NFOPDBII	18,000
SDM_CP	NFOTS380	NFOPDBII	2,160
SDM_CP_ARP_INVLV	NFOTS382	NFOPDBII	3,600
SDM_CP_CPLY	NFOTS386	NFOPDBII	720
SDM_CP_ILP_INVLV	NFOTS384	NFOPDBII	720
SDM_CP_PERM_OBJ	NFOTS383	NFOPDBII	2,160
SDM_CP_STAT_HIST	NFOTS381	NFOPDBII	2,160
SDM_FSNA	NFOTS223	NFOPDBII	4,320
SDM_FSNA_RTNG	NFOTS204	NFOPDBII	42,480
SDM_FSNA_STAT_HIST	NFOTS206	NFOPDBII	10,800
SDM_HH	NFOTS216	NFOPDBII	7,920
SDM_HH_ARP_INVLV	NFOTS218	NFOPDBII	5,760
SDM_HH_NME	NFOTS209	NFOPDBII	6,480
SDM_HH_RLE_HIST	NFOTS219	NFOPDBII	7,200
SDM_HH_STAT_HIST	NFOTS217	NFOPDBII	6,480
SDM_PCA	NFOTS208	NFOPDBII	1,440
SDM_PCA_ARP_INVLV	NFOTS224	NFOPDBII	1,440
SDM_PCA_CHLD_SFTY	NFOTS199	NFOPDBII	1,440
SDM_PCA_CNTCT_DTL	NFOTS193	NFOPDBII	2,160
SDM_PCA_STAT_HIST	NFOTS207	NFOPDBII	1,440
SDM_RA	NFOTS198	NFOPDBII	5,040
SDM_RA_CNTCT_DTL	NFOTS228	NFOPDBII	7,920
SDM_RA_IDX	NFOTS202	NFOPDBII	22,320
SDM_RA_OVERRD	NFOTS203	NFOPDBII	5,040
SDM_RA_STAT_HIST	NFOTS201	NFOPDBII	7,920
SDM_RUA	NFOTS366	NFOPDBII	1,440
SDM_RUA_ARP_INVLV	NFOTS367	NFOPDBII	3,600
SDM_RUA_CHLD_SFTY	NFOTS373	NFOPDBII	2,160
SDM_RUA_OVERRD	NFOTS370	NFOPDBII	2,880
SDM_RUA_PRTME_OVRD	NFOTS372	NFOPDBII	1,440
SDM_RUA_PRT_TME	NFOTS371	NFOPDBII	2,160
SDM_RUA_RSK_IDX	NFOTS369	NFOPDBII	2,880
SDM_RUA_STAT_HIST	NFOTS368	NFOPDBII	4,320
SDM_SA	NFOTS220	NFOPDBII	7,200
SDM_SA_ARP_INVLV	NFOTS221	NFOPDBII	4,320
SDM_SA_CHLD_SFTY	NFOTS188	NFOPDBII	7,200
SDM_SA_CNTCT_DTL	NFOTS222	NFOPDBII	7,200
SDM_SA_STAT_HIST	NFOTS189	NFOPDBII	6,480
SDM_SP	NFOTS192	NFOPDBII	1,440
SDM_SP_MNTR	NFOTS191	NFOPDBII	6,480
SDM_SP_MNTR_ASSMNT	NFOTS194	NFOPDBII	3,600
SDX_MEDI	NFOTS703	NFOPDBII	326,880
SDX_UEI	NFOTS707	NFOPDBII	272,880

SEQ_NBR_ASGN	NFOTS710	NFOPDBII	144
SERVICE_PAYMENT	NFOTS899	NFOPDBII	12,960
SFTY_ASSMNT	NFOTS094	NFOPDBII	6,480
SFTY_ASSMNT_ASGN	NFOTS100	NFOPDBII	5,040
SFTY_ASSMNT_RVW	NFOTS105	NFOPDBII	54,720
SFTY_AST_ARP_INVLV	NFOTS096	NFOPDBII	28,800
SFTY_AST_STAT_HIST	NFOTS101	NFOPDBII	18,000
SFTY_FACTOR	NFOTS097	NFOPDBII	78,480
SFTY_PLN	NFOTS106	NFOPDBII	3,600
SFTY_PLN_ANLYS	NFOTS077	NFOPDBII	4,320
SFTY_PLN_ARP_INVLV	NFOTS107	NFOPDBII	13,680
SFTY_PLN_PRTC_AST	NFOTS098	NFOPDBII	25,920
SFTY_PLN_RVW	NFOTS109	NFOPDBII	432
SFTY_PLN_STAT_HIST	NFOTS108	NFOPDBII	5,040
SHDW_ATTR	NFOTS518	NFOPDBII	21,600
SLF_EMP_FED_TX_RET	NFOTS675	NFOPDBII	4,320
SLF_EMP_FED_TX_SCH	NFOTS680	NFOPDBII	8,640
SLF_EMP_LDG	NFOTS685	NFOPDBII	37,440
SSN_HIST	NFOTS047	NFOPDBII	84,240
STN_NARR	NFOTS156	NFOPDBII	2,697,840
STN_NARR_SBH	NFOTS157	NFOPDBII	699,120
STN_PGM_TYP	NFOTS159	NFOPDBII	1,154,160
STN_SBH_DPRM_TMPL	NFOTS304	NFOPDBII	432
STN_SBH_PG_TYP_TMP	NFOTS303	NFOPDBII	432
STN_SBH_TMPL	NFOTS302	NFOPDBII	432
STN_SBH_TXT_TMPL	NFOTS305	NFOPDBII	720
STN_SBJ_TMPL	NFOTS300	NFOPDBII	720
STN_SSH_INVLV_TMPL	NFOTS301	NFOPDBII	432
STN_TEXT	NFOTS158	NFOPDBII	5,243,760
ST_WARD_DTL	NFOTS122	NFOPDBII	2,160
SUBSIDY	NFOTS856	NFOPDBII	2,160
SUBSIDY_PMT	NFOTS875	NFOPDBII	2,880
SUBSIDY_RSN	NFOTS874	NFOPDBII	2,880
SUBS_ADOP_DTL	NFOTS724	NFOPDBII	1,440
SUBS_GRDN_DTL	NFOTS329	NFOPDBII	720
SUSP_CLM	NFOTS721	NFOPDBII	2,880
SVC_APRV	NFOTS725	NFOPDBII	11,520
SVC_APRV_ALRT	NFOTS727	NFOPDBII	15,120
SVC_APRV_ASGN	NFOTS730	NFOPDBII	16,560
SVC_AUTHN	NFOTS735	NFOPDBII	717,840
SVC_REF	NFOTS868	NFOPDBII	31,680
SVC_REQ	NFOTS742	NFOPDBII	2,880
SVC_TYP	NFOTS740	NFOPDBII	144
SVES_REQUEST	NFOTS442	NFOPDBII	185,760
SVES_TRIGGER	NFOTS441	NFOPDBII	432
SWTF_ACCT	NFOTS116	NFOPDBII	2,160
SWTF_ACCT_BAL_HIST	NFOTS114	NFOPDBII	427,680
SWTF_ACCT_HIST	NFOTS117	NFOPDBII	2,880
SWTF_BTCH_HDR	NFOTS136	NFOPDBII	3,600
SWTF_MO_MNT_HIST	NFOTS124	NFOPDBII	2,160
SWTF_REQ	NFOTS133	NFOPDBII	2,160
SWTF_REQ_HIST	NFOTS134	NFOPDBII	5,040
SWTF_TRAN	NFOTS131	NFOPDBII	59,040
TANF_HRDSHP_TRKNG	NFOTS057	NFOPDBII	432
TAX_HH	NFOTS414	NFOPDBII	720
TAX_HH_PRS	NFOTS415	NFOPDBII	720
TRAN_RGST	NFOTS132	NFOPDBII	2,880

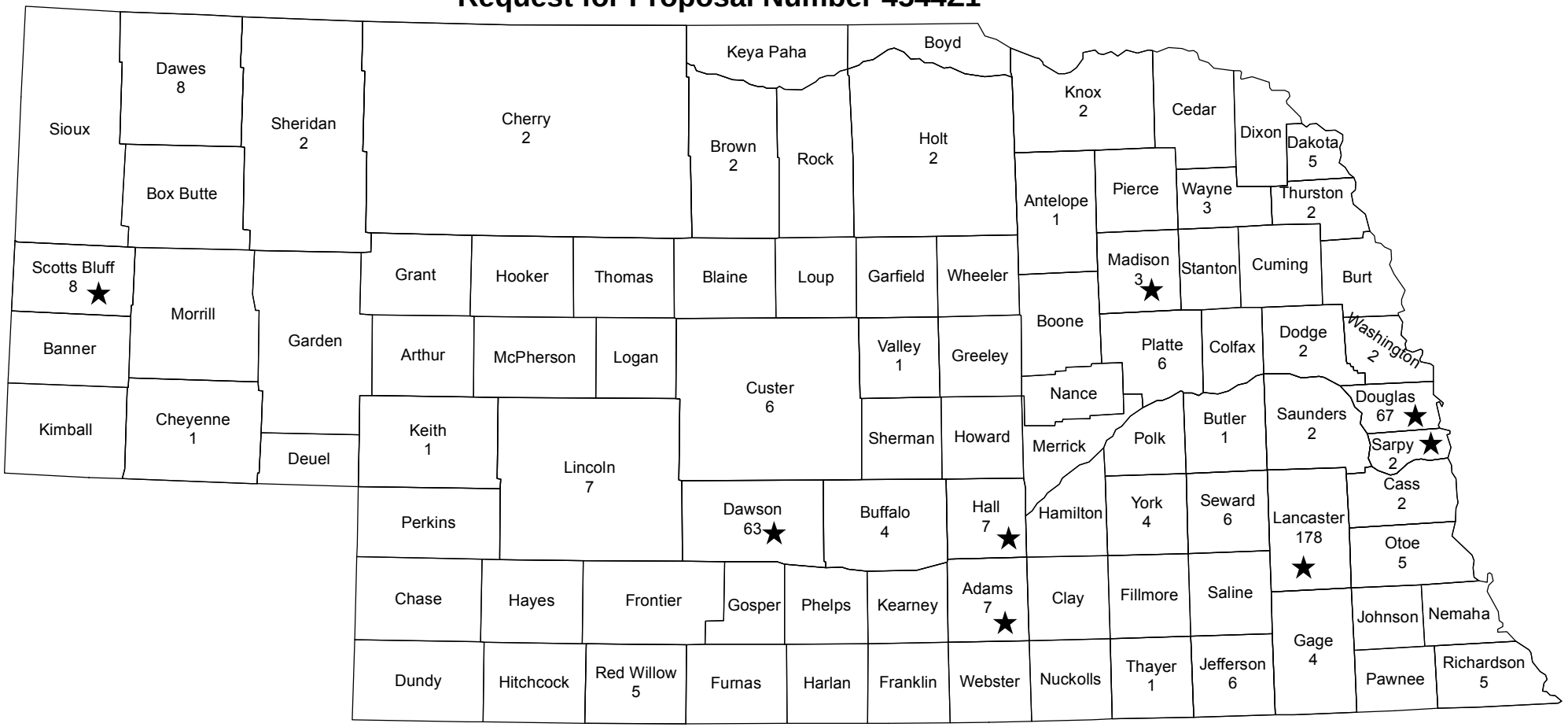
REVISED Appendix A
Production Database Size by table for N-Focus
NOVEMBER 26, 2013

TRIBAL_INFO	NFOTS836	NFOPDBII	1,584
UAM_ASGN_PIN	NFOTS379	NFOPDBII	17,280
UAM_PIN	NFOTS378	NFOPDBII	29,520
UI_AMT	NFOTS688	NFOPDBII	514,080
UMP_TX_DTL	NFOTS031	NFOPDBII	2,160
UMP_TX_DTL_HIST	NFOTS036	NFOPDBII	720
UMP_TX_WGE_DTL	NFOTS034	NFOPDBII	2,880
UNCOPE_ASSMNT	NFOTS307	NFOPDBII	2,880
UNCOPE_ASSMNT_DTL	NFOTS308	NFOPDBII	4,320
UNT_AND_RTE	NFOTS732	NFOPDBII	367,200
UNT_AND_RTE_OVERRD	NFOTS733	NFOPDBII	7,200
USR_FNC_AUD	NFOTS747	NFOPDBII	842,400
USR_FNC_AUD_ALL	NFOTS747	NFOPDBII	842,400
US_IMMGRTN_STAT	NFOTS745	NFOPDBII	7,920
VERF_REQ	NFOTS312	NFOPDBII	82,080
VERF_REQ_DTL	NFOTS313	NFOPDBII	208,080
VERF_REQ_TRKNG	NFOTS316	NFOPDBII	42,480
VERF_REQ_TRKNG_DTL	NFOTS317	NFOPDBII	54,720
VERF_REQ_TRKNG_PGM	NFOTS318	NFOPDBII	27,360
VIT_CERT_REQ	NFOTS410	NFOPDBII	10,080
VIT_CERT_REQ_PRS	NFOTS411	NFOPDBII	20,160
VIT_OUT_ST_REQ	NFOTS409	NFOPDBII	720
VIT_REQ_STAT_HIST	NFOTS412	NFOPDBII	7,200
VOCHR	NFOTS755	NFOPDBII	336
VOCHR_SUMMARY_LNE	NFOTS760	NFOPDBII	7,920
VSTN_PLAN	NFOTS859	NFOPDBII	7,200
VSTN_PLAN_PCPI	NFOTS860	NFOPDBII	5,040
WRK_REG_ET	NFOTS051	NFOPDBII	47,520
WRK_TSK	NFOTS478	NFOPDBII	43,200
WRK_TSK_PGM	NFOTS479	NFOPDBII	13,680
YLS_ASSMNT	NFOTS646	NFOPDBII	3,600
YLS_ASSMNT_CHAR	NFOTS643	NFOPDBII	4,320
YLS_ASSMNT_DOMN	NFOTS647	NFOPDBII	11,520
YLS_ASSMNT_HIST	NFOTS649	NFOPDBII	6,480
YLS_DOMN_CHAR	NFOTS648	NFOPDBII	38,160
661 TABLES IN PRODUCTION			**251,708,544**
			SIZE IN KBYTES

349,595
SIZE IN CYLINDERS

Staff in County

Request for Proposal Number 4544Z1



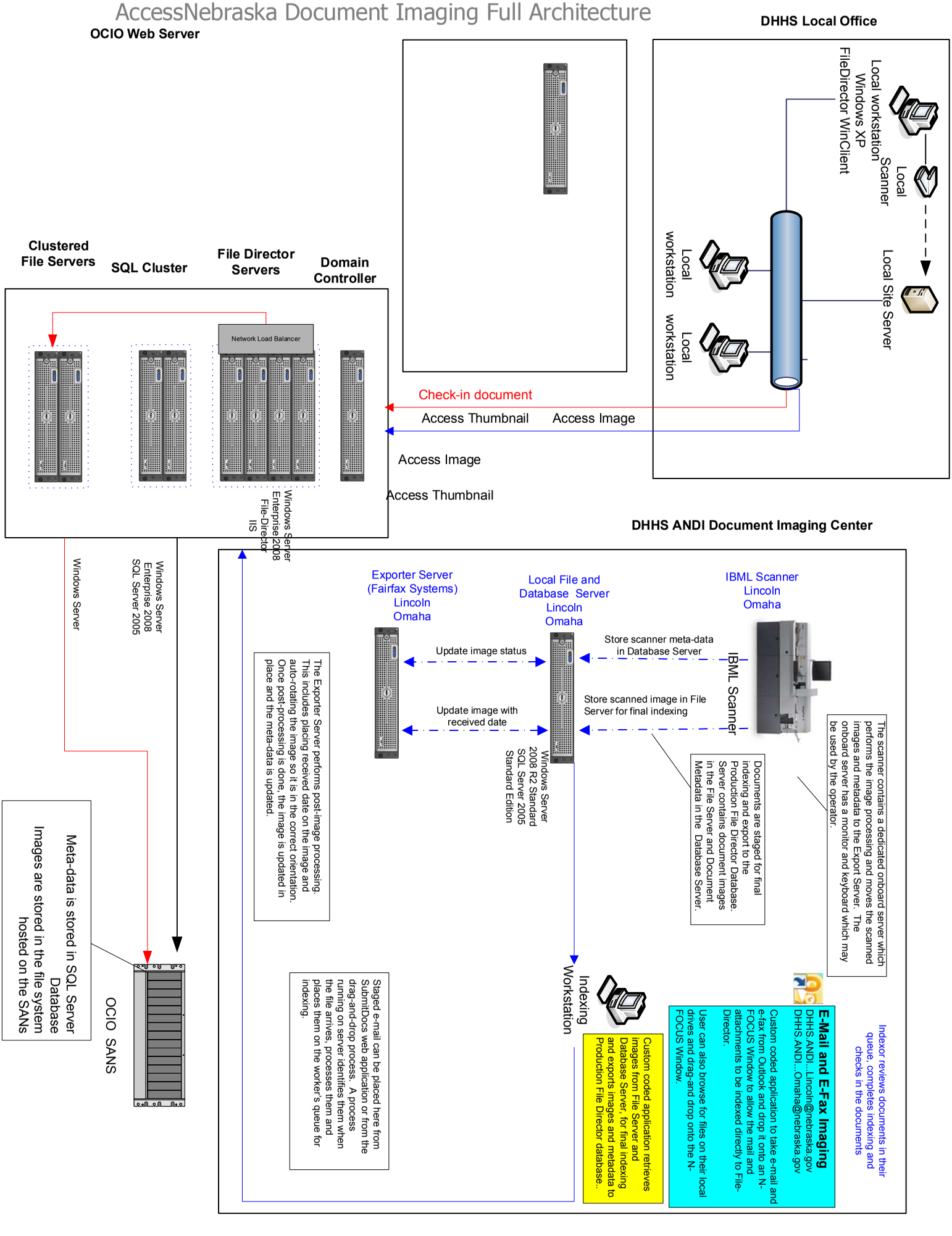
Legend:

Number in County Represents: Number of Staff

★ Training Sites

Request for Proposal Number 4544Z1

AccessNebraska Document Imaging Full Architecture



Excerpt from DHHS IT Securing Hardware and Software Standard DHHS-2013-001-A

3.8 Security Requirements for Cloud Services and Cloud Service Providers

All Cloud Service Providers (CSP's) must have an official FedRAMP certification by an accredited third-Party Assessor Organization (3PAO), or alternatively, the following conditions must be met or addressed via contractual agreement before engaging any cloud service providers or third-party hosting for DHHS when that cloud service may store or process any Confidential or Highly Restricted data:

1. The Cloud Service Provider or third-party host (CSP/3PH) must provide evidence of secure storage of access credentials that are at least equal to that of DHHS internal systems.
2. Access to the cloud service will require multi-factor authentication based on data classification levels.
3. De-provisioning of credentials must occur within two (2) hours of de-provisioning of the internal system credentials.
4. Information will be encrypted using IS&T approved technology for information in transit as well as information stored or at rest.
5. Encryption key management will be controlled and managed by DHHS unless explicit approval for key management is provided to CSP/3PH by IS&T. This may require an escrow service for key storage.
6. All equipment removed from service, information storage areas, or electronic media that contained DHHS information must have all DHHS information over-written, sanitized, and data destruction verified by DHHS before allowing that equipment, information storage space, or media to be destroyed or assigned for reuse.
7. CSP/3PH will provide vulnerability scanning and testing on a schedule approved by the DHHS ISO. Results will be provided to DHHS as needed.
8. Patch management of hardware and software at the CSP/3PH are required to meet the same standards that are required at DHHS.
9. CSP/3PH will meet all DHHS requirements for chain of custody and PHI or PII breach notification in the event that DHHS requires forensic analysis. CSP/3PH will maintain an incident management program that notifies DHHS within one (1) hour of a breach.
10. CSP/3PH will provide evidence of audit and assessment of the security of the service environment, and will agree to reasonable inspection of such security by DHHS-authorized parties.
11. CSP/3PH is required to advise DHHS on all geographic locations of DHHS information. CSP/3PH will not allow DHHS information to be stored or accessed outside the USA without explicit approval by DHHS. This includes both primary and alternate sites.

12. Privileged access roles at the CSP/3PH are required to meet the same vetting standards of privileged access personnel at DHHS, such as background checks, etc.
13. Contracts with CSP/3PH's shall have SLAs in place that clearly define security and performance standards. Contracts will address how performance and security will be measured, monitored, and reported. Contracts will also establish an enforcement mechanism for SLA compliance.
14. CSP/3PH will provide assurance of compliance with the Privacy Act, HIPAA regulations, and IRS 1075 regulations. CSP/3PH will provide adequate security and privacy training to its associates, and provide the DHHS security officer with adequate evidence of this training.
15. CSP/3PH will provide DHHS with the ability to conduct a reasonable search to meet Nebraska Public Records Law.
16. Before contracting with a CSP/3PH, DHHS shall have proactive records planning in place to ensure the ability to have timely and actual destruction of records in accordance with DHHS record retention policies.
17. CSP/3PH will provide documentation, evidence, or reasonable access by IS&T and ISO to ensure compliance with these standards.

REVISED Appendix B Functional Requirements
November 26, 2013
Request for Proposal Number 4544Z1

The Functional Requirements Traceability Matrix (RTM) is used to document and track the project requirements from the proposal through to testing to verify that the requirement has been completely fulfilled. The Contractor will be responsible for maintaining the set of Baseline Requirements directly related to the configuration of the EES. Additions, modifications, and deletions to these requirements will be added and modified throughout the project so it is imperative that a current version of the matrix be maintained at all times.

Bidders must provide an initial RTM as part of its proposal. The RTM shall follow the instructions below. The Bidder must state requirements exactly as they are provided in this RFP. The Bidder must indicate how it will achieve full compliance (i.e., requirement fulfilled 100%). Any requirements that the Bidder cannot attest to full compliance must be documented as outlined in Appendix D: Gap Analysis.

Bidders are required to provide a response, using the appropriate codes provided in the tables below, for each requirements listed in the Functional Requirements Response Matrix. Scoring for each requirement will directly relate to the Ability Code indicated by the Bidder.

Ability Code	Condition	Description
S	Standard Function	The proposed EES fully satisfies the requirement as stated. The Bidder must describe how the requirement is satisfied by the EES.
W	Workflow or System Configuration Required	Current functionality of the proposed EES exists in the EES and can be modified by a system administrator to meet this requirement. The Bidder must describe how the requirement will be satisfied.
M	Modification Required	The proposed EES requires a modification to existing functionality to meet this requirement which requires a source code modification. The EES will be modified to satisfy the requirements as stated or in a different format. The Bidder must describe the modifications. If the modification requires 1000 or more hours the Bidder must also complete Appendix D Gap Analysis.
F	Planned for Future Release	This functionality is planned for a future release. The Bidder must describe how the requirement will be satisfied by the EES and when the release will be available.
C	Custom Design and Development	The proposed EES requires new functionality to meet this requirement which requires a source code addition. The Bidder must describe the feature and its value. If the custom design and development requires 1000 or more hours the Bidder must also complete Appendix D Gap Analysis.
N	Cannot Meet Requirement	The proposed EES will not satisfy the requirement. The Bidder must explain why the requirement cannot be satisfied. The Bidder must complete Appendix D Gap Analysis.
O	Other Software	If the requirement is to be satisfied through the use of a separate software package(s), the Bidder must identify those package(s) and describe how the functionality is integrated into the base system.

REVISED Appendix B Functional Requirements
November 26, 2013
Request for Proposal Number 4544Z1

1. General Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 001	The EES shall be branded using official State of Nebraska and Nebraska Department of Health and Human Services logos, images, etc.		
GEN 002	The EES shall provide customized local office information, through public-facing front-end (i.e. physical location of nearest local office, driving directions and name, email and phone number).		
GEN 003	The EES shall ensure alignment with HIPAA security, privacy and transaction standards		
GEN 004	The EES shall implement and support functionality to meet the requirements of the Affordable Care Act (ACA) and achieve compliance deadlines.		
GEN 005	The EES shall assure that all processes, user interfaces and documents produced by the system meet applicable State and federal accessibility standards for the life of the contract.		
GEN 006	The EES shall separate business rules from the application logic. Business rules will be contained in a COTS rules engine.		
GEN 007	The EES shall provide a scalable solution to allow for the incorporation of shared eligibility determination rules to support the State's phased approach.		
GEN 008	The EES will facilitate a “no wrong door” approach to insurance coverage as required in the ACA. The EES will accept account/application transfers to/from the Exchange to seamlessly facilitate eligibility determination for all Insurance Affordability Programs.		
GEN 009	The EES will allow applications and renewals via all ACA required media. E.G. Paper, online, phone, fax, in person and other commonly available electronic means.		
GEN 010	The EES shall leverage existing systems (where appropriate) and is built on system architecture that is scalable, flexible, modular and dynamic.		
GEN 011	The EES shall leverage connections to the federal data hub to access and verify data from participating agencies such as the IRS, federal DHHS, the Department and others. Hub – Required State - Required		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
	Financial Institutions- Future		
GEN 012	The EES shall achieve the necessary degree of interoperability between technology components to determine eligibility for Medicaid or CHIP or if the customer is not eligible for Medicaid a transfer to the FFM.		
GEN 013	The EES shall support a timed release schedule.		
GEN 014	The EES shall support all Nebraska DHHS Medicaid programs.		
GEN 015	The EES shall allow business users, as determined by the Department, to easily read/modify the eligibility determination rules.		
GEN 016	The EES shall support client facing services and documents in English and Spanish languages.		
GEN 017	The EES shall screen for language needs (LEP) at first point of contact		
GEN 018	The EES shall provide functionality to interface with Multi-channel Workforce Management software, such as Verint.		
GEN 019	The EES shall have the ability to schedule staff performing call center functions, back office functions, local office appointments, and be integrated with task manager.		
GEN 020	The EES shall have the ability to interface with the quality management system.		
GEN 021	The EES shall have the ability to interface with the LINKS Performance Management and Training System.		
GEN 022	The EES should have the ability to measure case review and customer service contact review. It should utilize a scorecard or similar tool to provide feedback down to staff level.		
GEN 023	The EES shall have the ability to interface with the NE Financial and Accounting system.		
GEN 024	The EES shall accommodate phone application voice signature mechanism.		
GEN 025	The EES shall validate and return address information errors as entered in the system.		
GEN 026	The EES shall provide functionality to allow applicants to provide a signature via all ACA required modes of application.		
GEN 027	The EES shall provide free-form narrative notes capabilities with no character limit, wrap-around text, sortable and searchable.		
GEN	The EES shall auto-populate notes based on predefined business rules.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
028			
GEN 029	The EES shall provide templates for notes entry.		
GEN 030	The EES shall provide mechanism to spell-check notes.		
GEN 031	The EES shall provide mechanism to associate notes to multiple beneficiary/households without retyping.		
GEN 032	The EES shall provide a mechanism to automatically date/time stamp all notes.		
GEN 033	The EES shall provide a mechanism for eligibility workers to edit their own notes with appropriate audit trails.		
GEN 034	The EES shall provide a mechanism for all system events, including system, user and administrative actions to be auditable.		
GEN 035	The EES shall provide a mechanism to restrict notes from being edited after the initial entry.		
GEN 036	The EES shall allow for any data element to be exported into an industry standard format.		
GEN 037	The EES shall allow applicant/beneficiaries to self-report changes in their personal information online, notify the appropriate eligibility worker based on parameters described by the Department when changes are made		
GEN 038	The EES shall re-determine eligibility when a Change of Circumstance is received electronically or entered by a worker.		
GEN 039	The EES shall provide the capability to view the new determination of eligibility after the change in information.		
GEN 040	The EES shall place an individual from one program into another, based on a Change of Circumstance or eligibility rules, without affecting other individuals in that household.		
GEN 041	The EES shall provide the capability to track and record any changes to an individual's information.		
GEN 042	The EES shall provide a mass change capability by a non-technical user to affect all or part of the Department caseload for any or all programs.		
GEN 043	The EES shall allow authorized users to update, add persons, and relationships to an existing household and maintain a history thereof.		
GEN 044	The EES shall close eligibility to a program without closing other programs associated with that household or individuals in the household.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 045	The EES shall change the status of any individual in a household without terminating eligible household members.		
GEN 046	The EES shall provide web-based functionality to allow the applicant to renew and initially apply for eligibility online.		
GEN 047	The EES shall allow for renewals via all ACA required modalities.		
GEN 048	The EES shall accept a renewal prior to the 12 month renewal date. The renewal period may vary by case/household/individual and program.		
GEN 049	The EES shall track and allow beneficiaries who did not return the pre-populated renewal form or the required documentation and are terminated on that basis a reconsideration period, as defined the Department, when the Department would reconsider eligibility without a new application and renew eligibility if necessary information is provided.		
GEN 050	The EES shall allow an individual who regains coverage during the reconsideration period, retroactive coverage back to date of termination.		
GEN 051	The EES shall automate the renewal process if all information remains the same or if verified information remains within applicable limits.		
GEN 052	The EES shall integrate with various systems within the State for the purpose of data sharing, eligibility determination and data verification (i.e. incarceration, Unemployment Insurance benefits, child support income, State wage information)		
GEN 053	The EES shall adjust eligibility determination resulting from appeal.		
GEN 054	The EES shall notify the applicant/beneficiary, electronically and via paper, of adjusted eligibility within 30 days of the adjustment, regardless of the reason for the eligibility adjustment.		
GEN 055	The EES shall track timeframes and deadlines of the appeal process and alert a worker or management of overdue status.		
GEN 056	The EES shall allow a worker to view appeal progress/status to report back to the applicant/beneficiary.		
GEN 057	The EES shall support an integrated and customizable applicant complaint and grievance process, with reporting capabilities.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 058	The EES shall be scalable and flexible enough to accommodate and adapt to changes required by State and/or federal statute, regulation, mandate, decision, or policy without significant changes to the architecture and without impacting the scalability or response times of the system.		
GEN 059	The EES shall incorporate the policy choices and priorities of the Nebraska policymakers.		
GEN 060	The EES shall meet the requirements of the RFP and be compliant with MITA 3.0 standards.		
GEN 061	The EES shall be based on an orientation of business processes, business rules and data and metadata management that allows modular componentized design approach that enhances interoperability across service modules and with external applications and data sources.		
GEN 062	The EES shall identify individuals who are dual eligible (Medicare plus federal Medicaid) and determine eligibility for dual-eligibles, as well as for those who are eligible for other Medicare savings programs.		
GEN 063	The EES shall support secure messaging between the Department and the federal data hub and/or the Connector via federally defined interfaces and Business Service Descriptions.		
GEN 064	The EES shall include workflow management based on whether an applicant is MAGI-based and/or MAGI-excepted households.		
GEN 065	The EES shall allow individuals in a household to be eligible under different categories and receive different benefits based upon individual information.		
GEN 066	The EES shall provide the capability to defined and stored DDHS specific data. The ability to use the data to drive workflow or pre-populate forms.		
GEN 067	The EES shall be scalable so that it can identify those applicants that are potentially eligible for express lane eligibility should the Department choose to adopt Express Lane Eligibility Program.		
GEN 068	The EES shall provide the capability for presumptive eligibility as defined by the Department and include provider web access for application purposes.		
GEN 069	The EES shall provide a mechanism to define required and optional fields, including default data values as applicable, based on program rules.		
GEN 070	The EES shall provide an alert system to notify workers when action items are assigned, have been completed, or are past due.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 071	The EES shall manually/automatically assign priority to alerts.		
GEN 072	The EES shall automatically escalate an alert if not addressed within the time limits.		
GEN 073	The EES shall provide mechanism for supervisors to be able to view alerts for any individual or group.		
GEN 074	The EES shall provide a mechanism to associate and tie alerts to household or applicant/beneficiary and have alerts accessible when household is reviewed.		
GEN 075	The EES shall automatically delete alerts when action is taken.		
GEN 076	The EES shall manually create, assign, update, change, and delete alerts.		
GEN 077	The EES shall automatically or manually archive alerts when the required action is completed.		
GEN 078	The EES shall provide a sortable and searchable history of alerts that display all actions taken in regards to that alert.		
GEN 079	The EES shall provide a mechanism to indicate that a beneficiary/household is under review.		
GEN 080	The EES shall provide a mechanism to alert management that pending applications have exceeded specified time limits.		
GEN 081	The EES shall create an alert of approaching deadlines.		
GEN 082	The EES shall create and assign alerts associated with pending tasks.		
GEN 083	The EES shall alert specified work units when specific beneficiary/household changes are made based on program rules (e.g. customer/beneficiary/eligibility worker changes the address, certain demographic information, etc.		
GEN 084	The EES shall not allow any duplication or potential duplication of services to the beneficiary.		
GEN 085	The EES shall provide the capability to alert eligibility worker of multiple households at same physical and/or mailing address.		
GEN 086	The EES shall maintain individual and household information.		

2. Reporting Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 001	The EES shall make available all business data elements for use with the business intelligence tool.		
RPT 002	The EES shall generate graphical representation of report data (e.g. pie charts, graphs, histograms, line plots, scatter plots)		
RPT 003	The EES shall generate all required Department and federal reports, in the format, media and schedule specified by the Department.		
RPT 004	The EES shall create 'canned' reports to be run on a scheduled basis. The schedule for each report should be easily changed through the system user interface by a non-IT worker.		
RPT 005	The EES shall retain report results in a manner that complies with Nebraska and applicable federal data retention policies, based on data type and program rules. The time period for which the reports are retained shall be mutually determined and shall be aligned with ongoing capacity planning exercise.		
RPT 006	The EES shall store all reports in such a manner as to allow online access to and retrieval of both current and historical reports via a user-friendly parameter and/or menu-driven access to reports, based on user permissions, as defined by the Department.		
RPT 007	The EES shall provide a mechanism to view online, save and print ad-hoc reports, based on user roles and program rules.		
RPT 008	The EES shall tabulate data by worker, county, region, etc.		
RPT 009	The EES shall provide a mechanism to perform a QC sampling by maintaining the current functionality for sampling methodology (regions, clusters, random, and stratification), including designating sampling size for random, designating month and year of a sample, designating regions and/or clusters (counties) of a sample.		
RPT 010	The EES shall provide a mechanism to create the universe from which the system pulls the samples.		
RPT 011	The EES shall provide a mechanism to manually eliminate a case from a sample and replace it with a replacement sample based on user roles. The EES shall capture a reason for eliminating/ replacing a case.		
RPT 012	The EES shall create, maintain and store QC review results for different program types, by office, sample month and year, sample ID.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 013	The EES shall define, implement, collect, and report using a set of business process-related performance metrics that conform to MITA defined performance metrics such as tracking changes in programs and policies and evaluating corresponding changes in health outcomes.		
RPT 014	The EES shall create case load reports such as active case list, active person list, pending application, review lists by manager, location, region and statewide.		
RPT 015	The EES shall provide multiple reports to include, but not limited to, fraud hearings, number and type of appeals decisions.		
RPT 016	The EES shall provide a dashboard summary view of the status of households across units for managers as for example, active, critical, error, quality assurance corrective action, QC reviews, pending reviews, etc.		
RPT 017	The EES shall provide a comprehensive reporting solution that will generate standard operating, pre-defined or operational reports without an adverse effect on system performance or response time.		
RPT 018	The EES shall generate standardized or ad-hoc reports without affecting worker response times.		
RPT 019	The EES shall store all reports in such a manner to allow online access to and retrieval of report information via a user-friendly parameter and/or menu-driven access to reports.		
RPT 020	The EES shall identify the date and time on all reports when it was generated and allow the worker to save the report multiple industry standard formats.		
RPT 021	The EES shall allow authorized workers to access, generate, and print reports.		
RPT 022	The EES shall save reports or raw data in multiple outputs formats (e.g. CSV, tab delimited, text, HTML, XML, XLS) in conformance to security standards and shall provide reports to be exported to an electronic file, PDF, Excel, Text, or Word format depending on the type of report.		
RPT 023	The EES shall maintain a history of documents and reports received, track these items and make them accessible in the electronic case file, so that information can be shared across programs and agencies using a HIPAA compliant method.		
RPT 024	The EES shall have standard reports to measure progress against the Department goals, initiatives, and policy changes, including, but not limited to, policy initiatives, budget initiatives, Affordable Care Act requirements, and grant opportunities.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 025	The EES shall generate ad-hoc and standard reports in real-time as well as historical.		
RPT 026	The EES shall provide summary tables of reports.		
RPT 027	The EES shall ensure that the reports are print-ready, visually acceptable to the user and provide the ability to format, set headers, labels.		
RPT 028	The EES shall be scalable to produce ad hoc reports on request without impacting system response times.		
RPT 029	The EES shall create reports using all current data elements available at the point of creation.		
RPT 030	The EES shall produce control and error reports from mass change processing.		
RPT 031	The EES shall have the capability to import data from other data sources.		
RPT 032	The EES shall support the ability to run online queries at the worker level.		
RPT 033	The EES shall produce reports on frequencies specified by the Department with the ability to change those frequencies at any time with minimal IT support.		
RPT 034	The EES shall allow users to sort, search, filter and drill down on any parameter of a standard report.		
RPT 035	The EES shall include version control for all reports.		
RPT 036	The EES shall generate data and reports needed to comply with federal audit and oversight requirements.		
RPT 037	The EES shall generate data and reports needed to apply for and demonstrate appropriate use of federal grant funding sources.		
RPT 038	The EES shall document the appropriate benefit programs, projects or other categories impacted by system or human actions to support claims for federal matching funds.		
RPT 039	The EES shall provide reports or data to support the cost allocation strategies (e.g., numbers and types of applications processed etc.).		
RPT 040	The EES shall differentiate funding source based on Department - specified criteria.		
RPT 041	The EES shall automate reports to support accurate forecasting of program costs.		
RPT 042	The EES shall automate reports to support evaluation of cost-containment and quality improvement initiatives		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 043	The EES shall create standard reports defined by the Department to compare program expenses to budgeted expenses for the State and federal fiscal year-to-date, prior State and federal fiscal year, and projected through the remainder of the State and federal fiscal year.		
RPT 044	The EES shall generate an inventory of current and available reports.		
RPT 045	The EES shall support the ability to produce formatted reports based on online queries.		
RPT 046	The EES shall provide access to Query builder application.		
RPT 047	The EES shall support the preparation of a branch report, i.e., standard template with pre-populated data.		

3. Business Requirements/Processes Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 001	The EES shall create easy, efficient, and accurate interfaces with other systems, including the federal data hub, state and other data sources to verify application information		
OPS 002	The EES shall support integrated eligibility system and/or reduce errors associated with processing eligibility for more complex populations		
OPS 003	The EES shall support workers to improve workflow and reduce errors including:		
OPS 004	• Computerized case files and online case histories		
OPS 005	• Automated assignments of case files to workers according to their expertise and availability		
OPS 006	• Logic flags		
OPS 007	• Online policy and procedure manuals		
OPS 008	• Integrated document imaging		
OPS 009	The EES shall contain the business rules and technical capability to determine online, real-time eligibility for Medicaid MAGI and non-MAGI based eligibility		
OPS 010	The EES shall automate eligibility verification including electronic acceptance of verification documents; validation of applicant data through electronic data exchanges with valid sources		
OPS 011	The EES shall centralize User Account Management, Authentication and Authorization		
OPS 012	The EES shall display and print stored or imaged forms		
OPS 013	The EES shall allow documents to be scanned into and associated with the electronic application/renewal individual, and/or household.		
OPS 014	The EES shall upload attachments to correspondence records.		
OPS 015	The EES shall link scanned images to correspondence and records to provide one view of all related material (images, letters, or contacts with		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
	staff), with multiple links.		
OPS 016	The EES shall provide the ability to view related correspondence records from a single correspondence record.		
OPS 017	The EES shall meet federal and State records retention and purging standards		
OPS 018	The EES shall provide a searchable library, with highly flexible search criteria to enable a user to quickly find needed information in policy manuals, policy memos, training material, implementation memos and all help functions without affecting work in progress.		
OPS 019	The EES shall support both task-based, individual-based, and household-based operations.		
OPS 020	The EES shall forward finished tasks to the next responsible party or parties, when multiple levels of effort are required for resolution.		
OPS 021	The EES shall save work in progress, exit the workflow, access work at a later point with all of the information still populated from the previous worker's actions so previous work will not need to be repeated and the worker can enter the workflow where they left off.		
OPS 022	The EES shall track, monitor, and display work done/ in queue to supervisors.		
OPS 023	The EES shall create and maintain eligibility worker availability information at the local office level.		
OPS 024	The EES shall monitor caseload size in real time and support an automated workload assignment process.		
OPS 025	The EES shall weigh caseloads and provide recommended distribution.		
OPS 026	The EES shall establish a flexible assigned workload management hierarchy that identifies the responsible organizational unit.		
OPS 027	The EES shall provide an automated and manual benefit card generation capability.		
OPS 028	The EES shall provide a mechanism to override automatic mailing of benefit card.		
OPS 029	The EES shall provide a mechanism to indicate a replacement benefit card is needed.		
OPS 030	The EES shall assign work using flexible criteria; for example, assign work by worker or the type of work..		
OPS 031	The EES shall transfer a single case, or a collection of cases in mass, including all electronic supporting documentation to and from any		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
	organizational unit.		
OPS 032	The EES shall automatically create a notification of a case transfer.		
OPS 033	The EES shall allow a worker to manually create a notification of case transfer.		
OPS 034	The EES shall evaluate a case prior to a transfer, prompt user if established transfer criteria are not met and not allow transfer until criteria is met.		
OPS 035	The EES shall allow user to override assignment rules and process a transfer when defined criteria are not met based on security rule and audit trail.		
OPS 036	The EES shall have the flexibility to assign a Single Point of Contact (SPOC) to a case or use a universal assignment.		
OPS 037	The EES shall identify if and when a SPOC is assigned to a case so all communications go through the SPOC.		
OPS 038	The EES shall update case and/or household members' information, based on user roles and business functions.		
OPS 039	The EES shall have a real time, comprehensive listing of workers per customer and/or case.		
OPS 040	The EES shall sort and display the type and number of cases assigned to a specific caseload.		
OPS 041	The EES shall add, subtract or modify the number of caseloads supported within the system.		
OPS 042	The EES shall assign a unique identifier to each caseload.		
OPS 043	The EES shall recommend transfer of cases from one caseload to another.		
OPS 044	The EES shall identify when a referral is required and automatically generate and track a referral.		
OPS 045	The EES shall allow and track manually generated referrals.		
OPS 046	The EES shall track status of referrals to monitor for required or expected action by the receiving entity.		
OPS 047	The EES shall provide the ability to differentiate types of referrals within programs. (e.g. Child only CSE referrals, ERU spousal elective share, TPL lead vs. change, HIPPS, subrogation)		
OPS	The EES shall identify when a Change referral is necessary (e.g.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
048	employment changes, household changes, entering or leaving foster care, etc.) and send the referral.		
OPS 049	The EES shall associate a consumer notice related to the specific Cost Avoidance and Recovery area (CSE, TPL, HIPPS, ERU, and Medical Subrogation).		
OPS 050	The EES shall identify, generate and send potential resource situations to work unit as specified. (e.g. Annuities, Trust like Devices, Spousal Elective Shares, Personal Injury cases, Workers Comp, etc.)		
OPS 051	The EES shall display a summary of case information by user role (e.g. head of household, members, relationships, addresses, date of birth, caseworker or process queue, office location, case status, recertification date, simplified report date, current benefit amount, sanction status, etc.).		
OPS 052	The EES shall provide a mechanism to provide custom views of case summary information, based on user roles, program rules, and office procedure.		
OPS 053	The EES shall match and merge duplicate case information, based on user role and program rules.		
OPS 054	The EES shall automatically update case information received through electronic access.		
OPS 055	The EES shall update and track reported changes which do not affect eligibility and do not require verification that are submitted electronically (e.g. phone number, cell number, e-mail address, change in income which remains below program threshold, etc.)		
OPS 056	The EES shall have the ability to close or deny a Category of Eligibility when business rules dictate.		
OPS 057	The EES shall close a Category of Eligibility without closing other active Category of Eligibility s associated with that case.		
OPS 058	The EES shall close any individual other than the program case name in a Category of Eligibility without closing the entire Category of Eligibility that has other active members.		
OPS 059	The EES shall provide a mechanism for authorized users to manually override a category of eligibility and/or allow opt-in/opt-out functionality within an active Category of Eligibility.		
OPS 060	The EES shall provide a mechanism to automatically change Category of Eligibility within an active program.		
OPS 061	The EES shall assign a new eligibility begin date for a new Category of Eligibility and automatically assign eligibility end date for a Category of Eligibility being closed.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 062	The EES shall provide a mechanism to release the hold after final disposition by the secondary reviewer.		
OPS 063	The EES shall share common data elements across multiple programs for selected fields.		
OPS 064	The EES shall have the capability to automatically reassign categories according to business rules.		
OPS 065	The EES shall apply specific eligibility rules during renewal, a reported change or processing simplified reporting for a program(s).		
OPS 066	The EES shall provide a mechanism to collect all information required to auto-populate all necessary Procuring Agency case processing forms, based on program rules.		

4. Eligibility Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 001	The EES shall support eligibility determination in keeping with federal "timeliness" guidelines and State performance standards.		
ELG 002	The EES shall support electronic verification of application data, using State or federal sources, where possible, and support post-enrollment verification where electronic data cannot be obtained.		
ELG 003	The EES shall use the CMS Single Streamlined Application or a modified version of the Single Streamlined Application.		
ELG 004	The EES shall support the use of supplemental application for initial eligibility determinations, renewals or changes to existing Medicaid clients.		
ELG 005	The EES shall electronically capture and store all data elements on the CMS Single Streamlined Application, even if the data elements are not needed for Medicaid eligibility determination.		
ELG 006	The EES shall support the use of alternative applications such as shorten form for non-MAGI, and assessment of resources.		
ELG 007	The EES shall support multiple non-MAGI specific programs, such as spousal impoverishment, Medicare buy-in program; etc.		
ELG 008	The EES shall maintain beneficiary eligibility data and information on each beneficiary's benefits.		
ELG 009	Where an existing case (account) exists, the EES shall reuse relevant information and/or selections		
ELG 010	The EES shall ensure seamless transfer of customers between the EES and the FFM as appropriate.		
ELG 011	The EES shall provide beneficiaries with periodic notifications by mail, e-mail, text, telephone and/or other format according to their stated preference for receiving such communications. The EES shall follow-up electronic notifications with paper notifications where required by federal rules or desired by State operations.		
ELG 012	The EES shall provide the capability to determine eligibility, and make changes to eligibility, on a retroactive basis as allowed by federal and State statuses and regulations		
ELG 013	The EES shall provide beneficiaries with clearly stated details as to rights and opportunity for appeal and grievance processes		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 014	The EES shall provide beneficiaries with clear information about privacy and confidentiality protections in the application process		
ELG 015	The EES shall provide beneficiaries with clear information about the Department's protocols in case of an information breach		
ELG 016	The EES shall integrate with the existing or replace a self-assessment tool to be used by external partners and customers to evaluate potential eligibility.		
ELG 017	The EES shall integrate with the existing or replace pre-application screening without entering any personal identifying information.		
ELG 018	The EES shall allow a customer to securely access an electronic account containing application information, notices and appeals information and Fair Hearing information.		
ELG 019	The EES shall use summarized household data for the pre-application process. (e.g. two adults with two children and estimated income).		
ELG 020	The EES shall apply eligibility rules to identify and flag potential financial and non-financial eligibility.		
ELG 021	The EES shall provide the customer information on eligibility and general verification requirements for Medicaid eligibility and timelines for applications and verification processes.		
ELG 022	The EES shall access educational materials on functions of Medicaid and on other state programs.		
ELG 023	The EES shall provide informational fact sheets on programs for which the customer is potentially eligible.		
ELG 024	The EES shall populate the online application with data entered in the pre-application screening tool, if a customer chooses to apply in the same session, where data elements are compatible**.**		
ELG 025	The EES shall track applications that originate from pre-application screening.		
ELG 026	The EES shall identify and flag expedited benefit cases, with user configurable triggers for expedited cases		
ELG 027	The EES shall use existing information on a known customer to preview the impact of potential changes via a new self-assessment.		
ELG 028	The EES shall assure consistency in eligibility determination processing when applicants attempt to access services through different entry points.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 029	The EES shall accept complete applications from the Marketplace electronically and make Medicaid eligibility determination without requiring additional information from the applicant consistent with the policies set in the State Plan Amendment.		
ELG 030	The EES shall specify beginning coverage date for those who know their existing employer coverage will be ending.		
ELG 031	The EES shall determine eligibility for all Medical Assistance programs.		
ELG 032	The EES shall validate all data fields for valid format (e.g. valid text, numbers, currency, dates, special characters allowed etc.)		
ELG 033	The EES shall upload, store and index verification documents such that they are tied to the appropriate case and searchable.		
EIG 034	The EES shall provide electronic signature capabilities for customers applying in a local office using an electronic signature pad.		
ELG 035	The EES shall provide an electronic signature for an application		
ELG 036	The EES shall record and store a telephonic signature for an application		
ELG 037	The EES shall provide the customer with a notification of approval or denial**.**		
ELG 038	The EES shall confirm for customers or workers that submitted applications are complete.		
ELG 039	The EES shall maintain data privacy and security requirements consistent with applicable laws.		
ELG 040	The EES shall retain completed applications with various retention schedules. All application data will be easily searchable and retrievable.		
ELG 041	The EES shall allow the customers to track their status via online or telephone during the application process.		
ELG 042	The EES shall store a version of the completed application form and allow the customer to retrieve it.		
ELG 043	The EES shall save and print a version of a completed application form that was saved online.		
ELG 044	The EES shall auto-populate known data within the system between modules, functions and applications within the life of the household.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 045	The EES shall process household with more than one applicant		
ELG 046	The EES shall refer cases with potentially fraudulent activity to appropriate agency		
ELG 047	The EES shall identify applications which are pending HUB Citizenship etc. verification		
ELG 048	The EES shall establish an eligibility base period from one to twelve months.		
ELG 049	The EES shall determine the correct eligibility base period automatically and manually.		
ELG 050	The EES shall retain a viewable history of changes to the eligibility base period.		
ELG 051	The EES shall place cases in a pending status if eligibility cannot be determined in real time due to system unavailability. The case will be flagged for follow up and verification of the required information		
ELG 052	The EES shall place cases in a pending status if eligibility cannot be determined in real time due to data inconsistencies in accordance with 155.315(f). The case will be flagged for follow up and verification of the required information		
ELG 053	The EES shall support multiple budgeting methodologies (e.g. perform multiple tests on a single household when family beneficiaries may be eligible for multiple programs).		
ELG 054	The EES shall identify all types of incomes (e.g. countable or exempt statuses of incomes, and resources by program or individual).		
ELG 055	The EES shall document case notes of actions which have occurred on case		
ELG 056	The EES shall calculate start and end dates of presumptive eligibility periods based on user configurable rules		
ELG 057	The EES shall create automatic and manual alerts to internal and external users upon the occurrence of specified events.		
ELG 058	The EES shall automatically re-determine eligibility for customers based on specified events (e.g. cost-of-living adjustment, changes in insurance premium amounts).		
ELG 059	The EES shall calculate customer responsibility/cost sharing for Long Term Care or Home and Community Based waiver programs.		
ELG 060	The EES shall determine applicant eligibility for specific non-independent living Long Term Care or waiver programs. (e.g. Institutional Living).		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 061	The EES shall set a period of ineligibility for a Long Term Care or waiver customer who commits a prohibited transfer of resources.		
ELG 062	The EES shall track movement from one facility to another to re-determine insurance eligibility, and cost sharing based on regulations. (e.g. hospitalization, nursing home, independent living).		
ELG 063	The EES shall identify resources excluded due to Long Term Care insurance.		
ELG 064	The EES shall complete and retain a resource assessment.		
ELG 065	The EES shall support the process of reviewing program eligibility.		
ELG 066	The EES shall display the basis of the eligibility budget calculations.		
ELG 067	The EES shall support varying methods of reviewing program eligibility (e.g. paper process where a review form is generated with pre-populated information).		
ELG 068	The EES shall trigger redetermination on cases with a fixed schedule of timed intervals.		
ELG 069	The EES shall track eligibility determinations separately. (e.g., income used to determine eligibility for Program 1 may be different than the income used to determine eligibility for Program2, etc.)		
ELG 070	The EES shall send notification of eligibility determination.		
ELG 071	The EES shall use the available interfaces to process redetermination for the MAGI qualifying population.		
ELG 072	The EES shall provide the capability to create and maintain an electronic household file of all applicants and families requesting services from the time that they first make an entry to the system.		
ELG 073	The EES shall support a range of disposition action triggers including event-based triggers (e.g., creation date, closing date, date of last review).		
ELG 074	The EES shall allow authorized users to review disposition actions prior to their execution.		
ELG 075	The EES shall allow users to apply disposition action holds on records.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 076	The EES shall have the flexibility to process individuals in the newly created categories.		
ELG 077	The EES shall provide a mechanism to generate a list of received and pending verifications including eligibility worker entered comments.		
ELG 078	The EES shall provide the ability to allow applicants to view, confirm, dispute and submit corrections to verification results.		
ELG 079	The EES shall provide applicants the ability to address inconsistencies reported by external entities (i.e. income, citizenship, etc.) within a timeframe defined by the Department.		
ELG 080	The EES shall update the applicant's record with the verification results as appropriate.		
ELG 081	The EES shall utilize master indexes to avoid duplicates.		
ELG 082	The EES shall search and match the existing client data before assigning new unique number (e.g., for example, search/match criteria could be the following, including but not limited to, "Fuzzy search", first name, last name, DOB, unique id, SSN, address, aliases, case number, etc.).		
ELG 083	The EES shall have the capability to reconcile duplicate records.		
ELG 084	The EES shall provide the data reports or file extracts to reconcile data between the EES and other systems.		
ELG 085	The EES shall capture alias information.		
ELG 086	The EES shall search account by multiple criteria (e.g., name, ID#, phone number, date of birth, county, assigned worker, etc.).		
ELG 087	The EES shall perform compound searches (e.g., names of married couple, names of parent and child, name of siblings, etc.).		
ELG 088	The EES shall easily modify list criteria while searching.		
ELG 089	The EES shall perform responsible person searches.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 090	The EES shall automatically identify a customer currently known to the system (e.g applicant pending determination, past member not currently enrolled, etc.)		
ELG 091	The EES shall electronically or manually assign a customer to a case.		
ELG 092	The EES shall conduct a manual case registration by a worker.		
ELG 093	The EES shall create a case by grouping associated customers together.		
ELG 094	The EES shall allow a worker to manually create a case.		
ELG 095	The EES shall use an existing case number per policy.		
ELG 096	The EES shall assign a unique case number to a case.		
ELG 097	The EES shall allow a customer to be associated to multiple cases at the same time. (e.g. customer may receive insurance products on one case number and be the case name for a different case number on which their child is receiving insurance products, etc.)		
ELG 098	The EES shall associate multiple cases to each other. (e.g. cases that share customers).		
ELG 199	The EES shall allow manually associate multiple cases to each other. (e.g. cases that share customers).		
ELG 100	The EES shall close beneficiaries/households/categories based on applicable eligibility rules resulting from changes in information and track closure reasons.		
ELG 101	The EES shall provide a process to override system closures.		
ELG 102	The EES shall provide functionality to manually close beneficiaries/households/categories based on applicable eligibility rules resulting from changes in information and track closure reasons.		
ELG 103	The EES shall allow the user to manually associate customers to each other.		
ELG 104	The EES shall create multiple cases based on regulations. (e.g. Disabled parent with a child).		
ELG 105	The EES shall manually separate cases per regulations.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 106	The EES shall automatically create a task for updates in the eligibility determination of insurance products/other public assistance programs (e.g., child turning 18, 21 or an adult turning 65, etc.).		
ELG 107	The EES shall provide Medicaid enrollment roster to Marketplace at stipulated frequency.		
ELG 108	The EES shall display or capture prior insurance requests.		
ELG 109	The EES shall set 'special situation' indicators based on rules maintained in the system. (e.g. language, confidentiality situations).		
ELG 110	The EES shall allow manually override all automatically set 'special situation' indicators.		
ELG 111	The EES shall provide the customer with a paper receipt of the documentation (e.g. paystub or birth certificate) that has been turned in to a worker.		
ELG 112	The EES shall have the capability for the Department to notify Marketplace of Medicaid Determination		
ELG 113	The EES shall provide a mechanism to manually extend verification timeframes.		
ELG 114	The EES shall point out missing data, errors and inconsistencies as they progress through the application, performing verification in real time where possible		
ELG 115	The EES shall provide a mechanism to have a "same as" selection to enter repetitive data.		
ELG 116	The EES shall allow a worker to jump back to sections previously completed without losing data entered.		
ELG 117	The EES shall provide a mechanism to manually navigate/skip to any screens that the worker is authorized to access.		
ELG 118	The EES shall identify and display verifications required for the applicant based on program rules.		
ELG 119	The EES shall produce a customized listing of verification documents for an eligibility criteria required to complete eligibility determination.		
ELG 120	The EES shall allow a worker to upload and attach source documents to support eligibility determination.		
ELG 121	The EES shall present worker with a summary view of the information entered prior to submission.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 122	The EES shall provide applicants the ability to submit alternative verification via multiple avenues (e.g., email, mail, phone, fax, walk- in).		
ELG 123	The EES shall assign a unique identifier as specified by the Department to be for each person entered.		
ELG 124	The EES shall allow an applicant or applicant's authorized representative to review the current application before and after formal submission with the appropriate safeguards and security measures.		
ELG 125	The EES shall not allow an applicant and applicant's authorized representative to submit more than one application within 30 days from the initial submission unless the application was denied.		
ELG 126	The EES shall allow an applicant or applicant's representative to amend an application as long as a determination has not been made.		
ELG 127	The EES shall allow the applicant or applicant's authorized representative to save and amend the application or renewal for up to 30 days in order to gather additional information prior to submittal.		
ELG 128	The EES shall allow and record an applicant's request to withdraw an application.		
ELG 129	The EES shall only collect applicant/household information once and share across Department designated fields.		
ELG 130	The EES shall provide an automated or guided application process to enable the worker to easily enter required information.		
ELG 131	The EES shall capture and track from which organization an application was submitted.		
ELG 132	The EES shall monitor the number of applications submitted and abandoned and the number of applicants who requested assistance via chat, telephonic, etc.		
ELG 133	The EES shall monitor and report on number of applications received and the method by which they were submitted.		
ELG 134	The EES shall capture interview dates.		
ELG 135	The EES shall provide system-generated date and time stamp for receipt of electronic applications to be used in monitoring standards of promptness by program.		
ELG 136	The EES shall provide system-generated date and time stamp for registration of paper applications.		
ELG 137	The EES shall provide a mechanism to begin benefits on a date different than the application date and system-generated date.		
ELG 138	The EES shall capture and display date that a disposition was made on an application/renewal.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 139	The EES shall check each incoming applicant against existing eligibility database to determine if the incoming applicant is new to the system, reopening a prior category, or adding applicants to existing household.		
ELG 140	The EES shall allow continuance of the application process for applicants without an SSN and assign pseudo-number and ensure pseudo number allows match to get correct SSN.		
ELG 141	The EES shall provide a mechanism to match and replace the pseudo-SSN with the actual SSN.		
ELG 142	The EES shall route applications to the appropriate staff, based on business rules.		
ELG 143	The EES shall display to the applicant discrepant information between the new application and information stored in the existing household.		
ELG 144	The EES shall provide a mechanism through which an applicant could check the applicant's status.		
ELG 145	The EES shall provide the ability to allow applicants to submit paper applications, whether through walk-in, fax or mail-in.		
ELG 146	The EES shall provide capability to track incomplete, new, add-on, and pending applications.		
ELG 147	The EES shall allow for a manual verification process when the Marketplace hub verification service is not available.		
ELG 148	The EES shall provide a mechanism to indicate which verification documents have already been provided.		
ELG 149	The EES shall send notification of alternative verification options to the applicant when electronic verification is not available.		
ELG 150	The EES shall provide the capability to determine and correct eligibility for current and prior months.		
ELG 151	The EES shall determine eligibility without worker intervention, as allowed by policy (e.g., exceeds the Medical Assistance income limit).		
ELG 152	The EES shall allow designated users to override eligibility determinations.		
ELG 153	The EES shall send eligibility determinations to the MMIS enrollment system on a real-time basis to support plan enrollment and claims processing functions.		
ELG 154	The EES shall generate reports related to eligibility decisions.		
ELG 155	The EES shall be flexible enough to add additional Medical Assistance programs.		
ELG 156	The EES shall display the eligibility results in a manner that is comprehensive and easy to understand.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 157	The EES shall have spenddown capability, including automating a spenddown of resources and income calculation.		
ELG 158	The EES shall allow the Department to set enrollment limits and provide a mechanism to manage applications for programs that are at whose enrollment is capped.		
ELG 159	The EES shall provide the capability for certain programs, as identified by the Department, to be flagged according to funding source.		
ELG 160	The EES shall evaluate the resource/asset eligibility of an applicant when determining eligibility for those programs requiring a resource / asset test.		
ELG 161	The EES shall allow authorized users to search online household files using key fields such as name, SSN, ID, date of birth, etc.		
ELG 162	The EES shall provide a mechanism for authorized users to access beneficiary/household summary from any screen.		
ELG 163	The EES shall provide the capability to re-open a category that is closed in the status it was before the closure.		
ELG 164	The EES shall provide a mechanism to indicate relationships between all members of a household.		
ELG 165	The EES shall provide a mechanism to automatically create the inverse family relationships (e.g., parent - child, child - parent, etc.).		
ELG 166	The EES shall provide the capability to perform mass terminations due to changes in status as well as program changes.		
ELG 167	The EES shall provide household-based activity checklists (to-do lists) to assist in prompting the workers in the completion of required household activities		
ELG 168	The EES shall allow for interview scheduling and tracking of completed interviews. Send client notification of interview is not completed.		
ELG 169	The EES shall include workflow management based on whether an applicant is MAGI-based and/or MAGI-excepted households.		
ELG 170	The EES shall identify all types of incomes (e.g. countable or exempt statuses of incomes, and resources by program or individual).		
ELG 171	The EES shall provide the capability at an individual level to be able to rework a prior case that is closed even if an open case exists.		
ELG 172	The EES shall track program requirements for individuals, e.g., those who are penalized due to transfer of assets.		
ELG 173	The EES shall provide an automated screening tool to determine potential eligibility status using predefined rules and to route to the next step in the process.		

5. Appeals Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 001	The EES shall support an electronic appeals process, which includes transmission of data to the federal Hub, interfacing with document imaging, and a client web accessibility		
APP 002	If an Appeals decision is in favor of The Department, the EES shall automate the recovery of premiums or medical services that were paid and auto-generate form to Finance Office for recovery.		
APP 003	The EES shall capture and track the disposition of appeals (including status, assignments, and relevant household notes).		
APP 004	The EES shall record the detailed results and supporting documentation that result from or support an appeals decision.		
APP 005	The EES shall have the ability to be notified of results of Appeals		
APP 006	The EES shall automatically capture, retain, and display receipt of eligibility appeals.		
APP 007	The EES shall allow manually entered eligibility appeals.		
APP 008	The EES shall record the reporter/source (name, address, associated agency of person expressing the eligibility appeals, etc.), if applicable.		
APP 009	The EES shall provide a mechanism to generate a list of received and pending verifications including eligibility worker entered comments.		
APP 010	The EES shall assign a unique tracking number to the eligibility appeals.		
APP 011	The EES shall assign a worker, or group of workers, to manage eligibility appeals.		
APP 012	The EES shall update/change manager assigned to a eligibility appeal.		
APP 013	The EES shall identify and assign the priority of eligibility appeals.		
APP 014	The EES shall cross reference common eligibility appeals (e.g. receiving 100 fair appeals requests from a single customer on a single policy change).		
APP 015	The EES shall track when a request for reconsideration becomes an appeal request.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 016	The EES shall provide the facility to export and print case histories and case notes for the purposes of appeals.		
APP 017	The EES shall support the appeals process for customer exemption decision.		
APP 018	The EES shall accept and adjudicate customers appeals regarding eligibility determinations and exemptions from the customer responsibility requirement.		
APP 019	The EES shall associate the eligibility appeals to a case(s) and /or a customer(s).		
APP 020	The EES shall track all eligibility appeals.		
APP 021	The EES shall track multiple eligibility appeals from a single contact.		
APP 022	The EES shall store all eligibility appeals in a central location.		
APP 023	The EES shall track a request for reconsideration outside of standard case notes		
APP 024	The EES shall log updates to an appeal in case notes		
APP 025	The EES shall add notes to appeals		
APP 026	The EES shall capture history of eligibility appeals by multiple parameters (e.g. source, subject, date, etc.)		
APP 027	The EES shall sort history of eligibility appeals by multiple parameters (e.g. source, subject, date, etc.).		
APP 028	The EES shall document an audit trail which reflect who updated associated details to a case.		
APP 029	The EES shall provide the capability to record all decisions of appeals.		
APP 030	The EES shall alert appropriate staff when action is needed or information is due to ensure timely processing of the eligibility appeals.		
APP 031	The EES shall support an appeals process on individual exemption decisions from the individual responsibility requirement.		
APP 032	The EES shall provide the functionality to reinstate service coverage until the Administrative Appeals decision is rendered.		
APP 033	The EES shall provide the ability to allow applicants to view, confirm, dispute and submit corrections to verification results.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 034	The EES shall have the ability for customers to request a postponement of an appeal if the request is made in compliance with State and federal guidelines.		
APP 035	The EES shall have the ability for the customers to request for reconsideration to handle inquiries.		
APP 036	The EES shall have an appeal request submitted through multiple channels including phone, e-mail, letter, etc.		
APP 037	The EES shall provide an electronic template for eligibility appeal process.		
APP 038	The EES shall generate a referral to a third party assignee. (e.g. regular letter, email, automated referral, etc.).		
APP 039	The EES shall require a response by the third party assignee on a case by case basis.		
APP 040	The EES shall have the ability for customers to request an appeal in written form or verbally and followed up in writing.		
APP 041	The EES shall maintain health benefit plan at the current level after an appeal is requested by the customer on a timely manner until the decision of appeal is made (for a discontinuance of an active case).		
APP 042	The EES shall notify customer, third party entity, worker, etc. that the status of an eligibility appeal has changed. (e.g. pending hearing, withdraw, referred, etc.).		
APP 043	The EES shall notify applicants of failed verifications.		
APP 044	The EES shall notify the customer that their eligibility appeal has been received.		
APP 045	The EES shall notify the customer who their eligibility appeal has been referred to.		
APP 046	The EES shall provide a mechanism to track required verification timeframes.		
APP 047	The EES shall provide the capability to create an electronic household file that records all application data and organizes all supporting documentation and images in an easy-to-use format.		
APP 048	The EES shall allow all individuals to exercise their right to appeal any eligibility determination for Medicaid, premium tax credits, cost sharing subsidies, or QHP eligibility.		

6. Notifications Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 001	The EES shall generate notices by applicant/beneficiary preferred method of communication e.g., mail, email, or fax.		
NOT 002	The EES shall support multiple pages and applicant/beneficiaries standard "Rights and Responsibilities" text, including, but not limited to, applicant/beneficiary's right to an Administrative Appeal.		
NOT 003	The EES shall allow applicant/beneficiaries to choose the method of preferred communication.		
NOT 004	The EES shall record and track how correspondence was issued to the applicant/beneficiary.		
NOT 005	The EES shall provide the capability for mass notifications to applicant/beneficiaries or groups of applicant/beneficiaries.		
NOT 006	The EES shall auto-populate all forms with required information from the system (e.g., applicable dates, missing and provided verifications, notes, etc.).		
NOT 007	The EES shall not have page limits.		
NOT 008	The EES shall produce notices and forms in English and Spanish languages as required by the federal and State statutes, regulations, and policies.		
NOT 009	The EES shall issue notices at set timeframes according to program rules.		
NOT 010	The EES shall provide the capability to set and change release dates.		
NOT 011	The EES shall provide a mechanism to suppress and track any specific notice (one-time notice suppression).		
NOT 012	The EES shall provide a mechanism to suspend any notice type.		
NOT 013	The EES shall provide a mechanism for designated persons to create new versions of notices/forms/correspondence from templates.		
NOT 014	The EES shall provide standard letter templates and the ability to add free form text to customize a letter to the customer's specific issue.		
NOT 015	The EES shall allow workers to generate or regenerate a notice/form upon demand.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 016	The EES shall generate a notice which includes a list of needed actions by the applicant/beneficiary by a standard due date (with a worker override), depending on the status or type of program applied for.		
NOT 017	The EES shall notify the beneficiary when their enrollment status has changed based on pre-set parameters so that the appropriate notice is generated for the circumstance.		
NOT 018	The EES shall provide the capability to electronically generate notices to obtain missing information.		
NOT 019	The EES shall create a sortable history of all notices associated with the applicant/beneficiary, including specific dates, and have the ability to view notices.		
NOT 020	The EES shall provide the capability to bundle and send out multiple notices and/or send out notices with corresponding forms together.		
NOT 021	The EES shall provide the capability to change information in a notice or delete a notice if it has not been 'sent'.		
NOT 022	The EES shall identify whether notice was auto-generated or worker-generated.		
NOT 023	The EES shall have noticing tightly integrated with the Marketplace and complying with all ACA regulations for such integration.		
NOT 024	The EES shall send electronic and/or paper renewal notices to beneficiaries.		
NOT 025	The EES shall pre-populate electronic and/or paper renewal forms with beneficiary information that is currently on file and allow the beneficiary to change or add information.		
NOT 026	The EES shall renew eligibility based on current federal and State statutes and regulations. The system shall be modified as required to meet all federal and State statues that are changed during the life of the contract.		
NOT 027	The EES shall track and provide notification to users when a renewal is due.		
NOT 028	The EES shall track which electronic and/or paper renewals have been sent and which have been returned,		
NOT 029	The EES shall allow workers to generate notices, compliant with State and federal regulations at the time of notice generation, throughout the appeal process.		
NOT 030	The EES shall accept automated and manual responses received on referrals sent and associate them with initial referral.		
NOT 031	The EES shall retain history of all referrals sent and responses received.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 032	The EES shall store a copy of notices. These notices shall be available to the work units that support these functions (CSE, TPL, HIPPS, ERU, and Medical Subrogation).		
NOT 033	The EES shall generate Notice to customer that the full application must be completed to continue coverage beyond the presumptive eligibility period.		

REVISED Appendix B Functional Requirements
December 20, 2013
Request for Proposal Number 4544Z1

The Functional Requirements Traceability Matrix (RTM) is used to document and track the project requirements from the proposal through to testing to verify that the requirement has been completely fulfilled. The Contractor will be responsible for maintaining the set of Baseline Requirements directly related to the configuration of the EES. Additions, modifications, and deletions to these requirements will be added and modified throughout the project so it is imperative that a current version of the matrix be maintained at all times.

Bidders must provide an initial RTM as part of its proposal. The RTM shall follow the instructions below. The Bidder must state requirements exactly as they are provided in this RFP. The Bidder must indicate how it will achieve full compliance (i.e., requirement fulfilled 100%). Any requirements that the Bidder cannot attest to full compliance must be documented as outlined in Appendix D: Gap Analysis.

Bidders are required to provide a response, using the appropriate codes provided in the tables below, for each requirements listed in the Functional Requirements Response Matrix. Scoring for each requirement will directly relate to the Ability Code indicated by the Bidder.

Ability Code	Condition	Description
S	Standard Function	The proposed EES fully satisfies the requirement as stated. The Bidder must describe how the requirement is satisfied by the EES.
W	Workflow or System Configuration Required	Current functionality of the proposed EES exists in the EES and can be modified by a system administrator to meet this requirement. The Bidder must describe how the requirement will be satisfied.
M	Modification Required	The proposed EES requires a modification to existing functionality to meet this requirement which requires a source code modification. The EES will be modified to satisfy the requirements as stated or in a different format. The Bidder must describe the modifications. If the modification requires 1000 or more hours the Bidder must also complete Appendix D Gap Analysis.
F	Planned for Future Release	This functionality is planned for a future release. The Bidder must describe how the requirement will be satisfied by the EES and when the release will be available.
C	Custom Design and Development	The proposed EES requires new functionality to meet this requirement which requires a source code addition. The Bidder must describe the feature and its value. If the custom design and development requires 1000 or more hours the Bidder must also complete Appendix D Gap Analysis.
N	Cannot Meet Requirement	The proposed EES will not satisfy the requirement. The Bidder must explain why the requirement cannot be satisfied. The Bidder must complete Appendix D Gap Analysis.
O	Other Software	If the requirement is to be satisfied through the use of a separate software package(s), the Bidder must identify those package(s) and describe how the functionality is integrated into the base system.

REVISED Appendix B Functional Requirements
December 20, 2013
Request for Proposal Number 4544Z1

1. General Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 001	The EES shall be branded using official State of Nebraska and Nebraska Department of Health and Human Services logos, images, etc.		
GEN 002	The EES shall provide customized local office information, through public-facing front-end (i.e. physical location of nearest local office, driving directions and name, email and phone number).		
GEN 003	The EES shall ensure alignment with HIPAA security, privacy and transaction standards		
GEN 004	The EES shall implement and support functionality to meet the requirements of the Affordable Care Act (ACA) and achieve compliance deadlines.		
GEN 005	The EES shall assure that all processes, user interfaces and documents produced by the system meet applicable State and federal accessibility standards for the life of the contract.		
GEN 006	The EES shall separate business rules from the application logic. Business rules will be contained in a COTS rules engine.		
GEN 007	The EES shall provide a scalable solution to allow for the incorporation of shared eligibility determination rules to support the State's phased approach.		
GEN 008	The EES will facilitate a “no wrong door” approach to insurance coverage as required in the ACA. The EES will accept account/application transfers to/from the Exchange to seamlessly facilitate eligibility determination for all Insurance Affordability Programs.		
GEN 009	The EES will allow applications and renewals via all ACA required media. E.G. Paper, online, phone, fax, in person and other commonly available electronic means.		
GEN 010	The EES shall leverage existing systems (where appropriate) and is built on system architecture that is scalable, flexible, modular and dynamic.		
GEN 011	The EES shall leverage connections to the federal data hub to access and verify data from participating agencies such as the IRS, federal DHHS, the Department and others. Hub – Required State - Required		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
	Financial Institutions- Future		
GEN 012	The EES shall achieve the necessary degree of interoperability between technology components to determine eligibility for Medicaid or CHIP or if the customer is not eligible for Medicaid a transfer to the FFM.		
GEN 013	The EES shall support a timed release schedule.		
GEN 014	The EES shall support all Nebraska DHHS Medicaid programs.		
GEN 015	The EES shall allow business users, as determined by the Department, to easily read/modify the eligibility determination rules.		
GEN 016	The EES shall support client facing services and documents in English and Spanish languages.		
GEN 017	The EES shall screen for language needs (LEP) at first point of contact		
GEN 018	The EES shall provide functionality to interface with Multi-channel Workforce Management software, such as Verint.		
GEN 019	The EES shall have the ability to schedule staff performing call center functions, back office functions, local office appointments, and be integrated with task manager.		
GEN 020	The EES shall have the ability to interface with the quality management system.		
GEN 021	The EES shall have the ability to interface with the LINKS Performance Management and Training System.		
GEN 022	The EES should have the ability to measure case review and customer service contact review. It should utilize a scorecard or similar tool to provide feedback down to staff level.		
GEN 023	The EES shall have the ability to interface with the NE Financial and Accounting system.		
GEN 024	The EES shall accommodate phone application voice signature mechanism.		
GEN 025	The EES shall validate and return address information errors as entered in the system.		
GEN 026	The EES shall provide functionality to allow applicants to provide a signature via all ACA required modes of application.		
GEN 027	The EES shall provide free-form narrative notes capabilities with no character limit, wrap-around text, sortable and searchable.		
GEN	The EES shall auto-populate notes based on predefined business rules.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
028			
GEN 029	The EES shall provide templates for notes entry.		
GEN 030	The EES shall provide mechanism to spell-check notes.		
GEN 031	The EES shall provide mechanism to associate notes to multiple beneficiary/households without retyping.		
GEN 032	The EES shall provide a mechanism to automatically date/time stamp all notes.		
GEN 033	The EES shall provide a mechanism for eligibility workers to edit their own notes with appropriate audit trails.		
GEN 034	The EES shall provide a mechanism for all system events, including system, user and administrative actions to be auditable.		
GEN 035	The EES shall provide a mechanism to restrict notes from being edited after the initial entry.		
GEN 036	The EES shall allow for any data element to be exported into an industry standard format.		
GEN 037	The EES shall allow applicant/beneficiaries to self-report changes in their personal information online, notify the appropriate eligibility worker based on parameters described by the Department when changes are made		
GEN 038	The EES shall re-determine eligibility when a Change of Circumstance is received electronically or entered by a worker.		
GEN 039	The EES shall provide the capability to view the new determination of eligibility after the change in information.		
GEN 040	The EES shall place an individual from one program into another, based on a Change of Circumstance or eligibility rules, without affecting other individuals in that household.		
GEN 041	The EES shall provide the capability to track and record any changes to an individual's information.		
GEN 042	The EES shall provide a mass change capability by a non-technical user to affect all or part of the Department caseload for any or all programs.		
GEN 043	The EES shall allow authorized users to update, add persons, and relationships to an existing household and maintain a history thereof.		
GEN 044	The EES shall close eligibility to a program without closing other programs associated with that household or individuals in the household.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 045	The EES shall change the status of any individual in a household without terminating eligible household members.		
GEN 046	The EES shall provide web-based functionality to allow the applicant to renew and initially apply for eligibility online.		
GEN 047	The EES shall allow for renewals via all ACA required modalities.		
GEN 048	The EES shall accept a renewal prior to the 12 month renewal date. The renewal period may vary by case/household/individual and program.		
GEN 049	The EES shall track and allow beneficiaries who did not return the pre-populated renewal form or the required documentation and are terminated on that basis a reconsideration period, as defined the Department, when the Department would reconsider eligibility without a new application and renew eligibility if necessary information is provided.		
GEN 050	The EES shall allow an individual who regains coverage during the reconsideration period, retroactive coverage back to date of termination.		
GEN 051	The EES shall automate the renewal process if all information remains the same or if verified information remains within applicable limits.		
GEN 052	The EES shall integrate with various systems within the State for the purpose of data sharing, eligibility determination and data verification (i.e. incarceration, Unemployment Insurance benefits, child support income, State wage information)		
GEN 053	The EES shall adjust eligibility determination resulting from appeal.		
GEN 054	The EES shall notify the applicant/beneficiary, electronically and via paper, of adjusted eligibility within 30 days of the adjustment, regardless of the reason for the eligibility adjustment.		
GEN 055	The EES shall track timeframes and deadlines of the appeal process and alert a worker or management of overdue status.		
GEN 056	The EES shall allow a worker to view appeal progress/status to report back to the applicant/beneficiary.		
GEN 057	The EES shall support an integrated and customizable applicant complaint and grievance process, with reporting capabilities.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 058	The EES shall be scalable and flexible enough to accommodate and adapt to changes required by State and/or federal statute, regulation, mandate, decision, or policy without significant changes to the architecture and without impacting the scalability or response times of the system.		
GEN 059	The EES shall incorporate the policy choices and priorities of the Nebraska policymakers.		
GEN 060	The EES shall meet the requirements of the RFP and be compliant with MITA 3.0 standards.		
GEN 061	The EES shall be based on an orientation of business processes, business rules and data and metadata management that allows modular componentized design approach that enhances interoperability across service modules and with external applications and data sources.		
GEN 062	The EES shall identify individuals who are dual eligible (Medicare plus federal Medicaid) and determine eligibility for dual-eligibles, as well as for those who are eligible for other Medicare savings programs.		
GEN 063	The EES shall support secure messaging between the Department and the federal data hub and/or the Connector via federally defined interfaces and Business Service Descriptions.		
GEN 064	The EES shall include workflow management based on whether an applicant is MAGI-based and/or MAGI-excepted households.		
GEN 065	The EES shall allow individuals in a household to be eligible under different categories and receive different benefits based upon individual information.		
GEN 066	The EES shall provide the capability to defined and stored DDHS specific data. The ability to use the data to drive workflow or pre-populate forms.		
GEN 067	The EES shall be scalable so that it can identify those applicants that are potentially eligible for express lane eligibility should the Department choose to adopt Express Lane Eligibility Program.		
GEN 068	The EES shall provide the capability for presumptive eligibility as defined by the Department and include provider web access for application purposes.		
GEN 069	The EES shall provide a mechanism to define required and optional fields, including default data values as applicable, based on program rules.		
GEN 070	The EES shall provide an alert system to notify workers when action items are assigned, have been completed, or are past due.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
GEN 071	The EES shall manually/automatically assign priority to alerts.		
GEN 072	The EES shall automatically escalate an alert if not addressed within the time limits.		
GEN 073	The EES shall provide mechanism for supervisors to be able to view alerts for any individual or group.		
GEN 074	The EES shall provide a mechanism to associate and tie alerts to household or applicant/beneficiary and have alerts accessible when household is reviewed.		
GEN 075	The EES shall automatically delete alerts when action is taken.		
GEN 076	The EES shall manually create, assign, update, change, and delete alerts.		
GEN 077	The EES shall automatically or manually archive alerts when the required action is completed.		
GEN 078	The EES shall provide a sortable and searchable history of alerts that display all actions taken in regards to that alert.		
GEN 079	The EES shall provide a mechanism to indicate that a beneficiary/household is under review.		
GEN 080	The EES shall provide a mechanism to alert management that pending applications have exceeded specified time limits.		
GEN 081	The EES shall create an alert of approaching deadlines.		
GEN 082	The EES shall create and assign alerts associated with pending tasks.		
GEN 083	The EES shall alert specified work units when specific beneficiary/household changes are made based on program rules (e.g. customer/beneficiary/eligibility worker changes the address, certain demographic information, etc.		
GEN 084	The EES shall not allow any duplication or potential duplication of services to the beneficiary.		
GEN 085	The EES shall provide the capability to alert eligibility worker of multiple households at same physical and/or mailing address.		
GEN 086	The EES shall maintain individual and household information.		

2. Reporting Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 001	The EES shall make available all business data elements for use with the business intelligence tool.		
RPT 002	The EES shall generate graphical representation of report data (e.g. pie charts, graphs, histograms, line plots, scatter plots)		
RPT 003	The EES shall generate all required Department and federal reports, in the format, media and schedule specified by the Department.		
RPT 004	The EES shall create 'canned' reports to be run on a scheduled basis. The schedule for each report should be easily changed through the system user interface by a non-IT worker.		
RPT 005	The EES shall retain report results in a manner that complies with Nebraska and applicable federal data retention policies, based on data type and program rules. The time period for which the reports are retained shall be mutually determined and shall be aligned with ongoing capacity planning exercise.		
RPT 006	The EES shall store all reports in such a manner as to allow online access to and retrieval of both current and historical reports via a user-friendly parameter and/or menu-driven access to reports, based on user permissions, as defined by the Department.		
RPT 007	The EES shall provide a mechanism to view online, save and print ad-hoc reports, based on user roles and program rules.		
RPT 008	The EES shall tabulate data by worker, county, region, etc.		
RPT 009	The EES shall provide a mechanism to perform a QC sampling by maintaining the current functionality for sampling methodology (regions, clusters, random, and stratification), including designating sampling size for random, designating month and year of a sample, designating regions and/or clusters (counties) of a sample.		
RPT 010	The EES shall provide a mechanism to create the universe from which the system pulls the samples.		
RPT 011	The EES shall provide a mechanism to manually eliminate a case from a sample and replace it with a replacement sample based on user roles. The EES shall capture a reason for eliminating/ replacing a case.		
RPT 012	The EES shall create, maintain and store QC review results for different program types, by office, sample month and year, sample ID.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 013	The EES shall define, implement, collect, and report using a set of business process-related performance metrics that conform to MITA defined performance metrics such as tracking changes in programs and policies and evaluating corresponding changes in health outcomes.		
RPT 014	The EES shall create case load reports such as active case list, active person list, pending application, review lists by manager, location, region and statewide.		
RPT 015	The EES shall provide multiple reports to include, but not limited to, fraud hearings, number and type of appeals decisions.		
RPT 016	The EES shall provide a dashboard summary view of the status of households across units for managers as for example, active, critical, error, quality assurance corrective action, QC reviews, pending reviews, etc.		
RPT 017	The EES shall provide a comprehensive reporting solution that will generate standard operating, pre-defined or operational reports without an adverse effect on system performance or response time.		
RPT 018	The EES shall generate standardized or ad-hoc reports without affecting worker response times.		
RPT 019	The EES shall store all reports in such a manner to allow online access to and retrieval of report information via a user-friendly parameter and/or menu-driven access to reports.		
RPT 020	The EES shall identify the date and time on all reports when it was generated and allow the worker to save the report multiple industry standard formats.		
RPT 021	The EES shall allow authorized workers to access, generate, and print reports.		
RPT 022	The EES shall save reports or raw data in multiple outputs formats (e.g. CSV, tab delimited, text, HTML, XML, XLS) in conformance to security standards and shall provide reports to be exported to an electronic file, PDF, Excel, Text, or Word format depending on the type of report.		
RPT 023	The EES shall maintain a history of documents and reports received, track these items and make them accessible in the electronic case file, so that information can be shared across programs and agencies using a HIPAA compliant method.		
RPT 024	The EES shall have standard reports to measure progress against the Department goals, initiatives, and policy changes, including, but not limited to, policy initiatives, budget initiatives, Affordable Care Act requirements, and grant opportunities.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 025	The EES shall generate ad-hoc and standard reports in real-time as well as historical.		
RPT 026	The EES shall provide summary tables of reports.		
RPT 027	The EES shall ensure that the reports are print-ready, visually acceptable to the user and provide the ability to format, set headers, labels.		
RPT 028	The EES shall be scalable to produce ad hoc reports on request without impacting system response times.		
RPT 029	The EES shall create reports using all current data elements available at the point of creation.		
RPT 030	The EES shall produce control and error reports from mass change processing.		
RPT 031	The EES shall have the capability to import data from other data sources.		
RPT 032	The EES shall support the ability to run online queries at the worker level.		
RPT 033	The EES shall produce reports on frequencies specified by the Department with the ability to change those frequencies at any time with minimal IT support.		
RPT 034	The EES shall allow users to sort, search, filter and drill down on any parameter of a standard report.		
RPT 035	The EES shall include version control for all reports.		
RPT 036	The EES shall generate data and reports needed to comply with federal audit and oversight requirements.		
RPT 037	The EES shall generate data and reports needed to apply for and demonstrate appropriate use of federal grant funding sources.		
RPT 038	The EES shall document the appropriate benefit programs, projects or other categories impacted by system or human actions to support claims for federal matching funds.		
RPT 039	The EES shall provide reports or data to support the cost allocation strategies (e.g., numbers and types of applications processed etc.).		
RPT 040	The EES shall differentiate funding source based on Department - specified criteria.		
RPT 041	The EES shall automate reports to support accurate forecasting of program costs.		
RPT 042	The EES shall automate reports to support evaluation of cost-containment and quality improvement initiatives		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
RPT 043	The EES shall create standard reports defined by the Department to compare program expenses to budgeted expenses for the State and federal fiscal year-to-date, prior State and federal fiscal year, and projected through the remainder of the State and federal fiscal year.		
RPT 044	The EES shall generate an inventory of current and available reports.		
RPT 045	The EES shall support the ability to produce formatted reports based on online queries.		
RPT 046	The EES shall provide access to Query builder application.		
RPT 047	The EES shall support the preparation of a branch report, i.e., standard template with pre-populated data.		

3. Business Requirements/Processes Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 001	The EES shall create easy, efficient, and accurate interfaces with other systems, including the federal data hub, state and other data sources to verify application information		
OPS 002	The EES shall support integrated eligibility system and/or reduce errors associated with processing eligibility for more complex populations		
OPS 003	The EES shall support workers to improve workflow and reduce errors including:		
OPS 004	• Computerized case files and online case histories		
OPS 005	• Automated assignments of case files to workers according to their expertise and availability		
OPS 006	• Logic flags		
OPS 007	• Online policy and procedure manuals		
OPS 008	• Integrated document imaging		
OPS 009	The EES shall contain the business rules and technical capability to determine online, real-time eligibility for Medicaid MAGI and non-MAGI based eligibility		
OPS 010	The EES shall automate eligibility verification including electronic acceptance of verification documents; validation of applicant data through electronic data exchanges with valid sources		
OPS 011	The EES shall centralize User Account Management, Authentication and Authorization		
OPS 012	The EES shall display and print stored or imaged forms		
OPS 013	The EES shall allow documents to be scanned into and associated with the electronic application/renewal individual, and/or household.		
OPS 014	The EES shall upload attachments to correspondence records.		
OPS 015	The EES shall link scanned images to correspondence and records to provide one view of all related material (images, letters, or contacts with		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
	staff), with multiple links.		
OPS 016	The EES shall provide the ability to view related correspondence records from a single correspondence record.		
OPS 017	The EES shall meet federal and State records retention and purging standards		
OPS 018	The EES shall provide a searchable library, with highly flexible search criteria to enable a user to quickly find needed information in policy manuals, policy memos, training material, implementation memos and all help functions without affecting work in progress.		
OPS 019	The EES shall support both task-based, individual-based, and household-based operations.		
OPS 020	The EES shall forward finished tasks to the next responsible party or parties, when multiple levels of effort are required for resolution.		
OPS 021	The EES shall save work in progress, exit the workflow, access work at a later point with all of the information still populated from the previous worker's actions so previous work will not need to be repeated and the worker can enter the workflow where they left off.		
OPS 022	The EES shall track, monitor, and display work done/ in queue to supervisors.		
OPS 023	The EES shall create and maintain eligibility worker availability information at the local office level.		
OPS 024	The EES shall monitor caseload size in real time and support an automated workload assignment process.		
OPS 025	The EES shall weigh caseloads and provide recommended distribution.		
OPS 026	The EES shall establish a flexible assigned workload management hierarchy that identifies the responsible organizational unit.		
OPS 027	The EES shall provide an automated and manual benefit card generation capability.		
OPS 028	The EES shall provide a mechanism to override automatic mailing of benefit card.		
OPS 029	The EES shall provide a mechanism to indicate a replacement benefit card is needed.		
OPS 030	The EES shall assign work using flexible criteria; for example, assign work by worker or the type of work..		
OPS 031	The EES shall transfer a single case, or a collection of cases in mass, including all electronic supporting documentation to and from any		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
	organizational unit.		
OPS 032	The EES shall automatically create a notification of a case transfer.		
OPS 033	The EES shall allow a worker to manually create a notification of case transfer.		
OPS 034	The EES shall evaluate a case prior to a transfer, prompt user if established transfer criteria are not met and not allow transfer until criteria is met.		
OPS 035	The EES shall allow user to override assignment rules and process a transfer when defined criteria are not met based on security rule and audit trail.		
OPS 036	The EES shall have the flexibility to assign a Single Point of Contact (SPOC) to a case or use a universal assignment.		
OPS 037	The EES shall identify if and when a SPOC is assigned to a case so all communications go through the SPOC.		
OPS 038	The EES shall update case and/or household members' information, based on user roles and business functions.		
OPS 039	The EES shall have a real time, comprehensive listing of workers per customer and/or case.		
OPS 040	The EES shall sort and display the type and number of cases assigned to a specific caseload.		
OPS 041	The EES shall add, subtract or modify the number of caseloads supported within the system.		
OPS 042	The EES shall assign a unique identifier to each caseload.		
OPS 043	The EES shall recommend transfer of cases from one caseload to another.		
OPS 044	The EES shall identify when a referral is required and automatically generate and track a referral.		
OPS 045	The EES shall allow and track manually generated referrals.		
OPS 046	The EES shall track status of referrals to monitor for required or expected action by the receiving entity.		
OPS 047	The EES shall provide the ability to differentiate types of referrals within programs. (e.g. Child only CSE referrals, ERU spousal elective share, TPL lead vs. change, HIPPS, subrogation)		
OPS	The EES shall identify when a Change referral is necessary (e.g.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
048	employment changes, household changes, entering or leaving foster care, etc.) and send the referral.		
OPS 049	~~The EES shall associate a consumer notice related to the specific Cost Avoidance and Recovery area (CSE, TPL, HIPPS, ERU, and Medical Subrogation).~~ The EES shall capture third party coverage information for applicable Medicaid clients and pass the third party payer information to the MMIS system for collection of TPL as appropriate.		
OPS 050	The EES shall identify, generate and send potential resource situations to work unit as specified. (e.g. Annuities, Trust like Devices, Spousal Elective Shares, Personal Injury cases, Workers Comp, etc.)		
OPS 051	The EES shall display a summary of case information by user role (e.g. head of household, members, relationships, addresses, date of birth, caseworker or process queue, office location, case status, recertification date, simplified report date, current benefit amount, sanction status, etc.).		
OPS 052	The EES shall provide a mechanism to provide custom views of case summary information, based on user roles, program rules, and office procedure.		
OPS 053	The EES shall match and merge duplicate case information, based on user role and program rules.		
OPS 054	The EES shall automatically update case information received through electronic access.		
OPS 055	The EES shall update and track reported changes which do not affect eligibility and do not require verification that are submitted electronically (e.g. phone number, cell number, e-mail address, change in income which remains below program threshold, etc.)		
OPS 056	The EES shall have the ability to close or deny a Category of Eligibility when business rules dictate.		
OPS 057	The EES shall close a Category of Eligibility without closing other active Category of Eligibility s associated with that case.		
OPS 058	The EES shall close any individual other than the program case name in a Category of Eligibility without closing the entire Category of Eligibility that has other active members.		
OPS 059	The EES shall provide a mechanism for authorized users to manually override a category of eligibility and/or allow opt-in/opt-out functionality within an active Category of Eligibility.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
OPS 060	The EES shall provide a mechanism to automatically change Category of Eligibility within an active program.		
OPS 061	The EES shall assign a new eligibility begin date for a new Category of Eligibility and automatically assign eligibility end date for a Category of Eligibility being closed.		
OPS 062	The EES shall provide a mechanism to release the hold after final disposition by the secondary reviewer.		
OPS 063	The EES shall share common data elements across multiple programs for selected fields.		
OPS 064	The EES shall have the capability to automatically reassign categories according to business rules.		
OPS 065	The EES shall apply specific eligibility rules during renewal, a reported change or processing simplified reporting for a program(s).		
OPS 066	The EES shall provide a mechanism to collect all information required to auto-populate all necessary Procuring Agency case processing forms, based on program rules.		

4. Eligibility Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 001	The EES shall support eligibility determination in keeping with federal "timeliness" guidelines and State performance standards.		
ELG 002	The EES shall support electronic verification of application data, using State or federal sources, where possible, and support post-enrollment verification where electronic data cannot be obtained.		
ELG 003	The EES shall use the CMS Single Streamlined Application or a modified version of the Single Streamlined Application.		
ELG 004	The EES shall support the use of supplemental application for initial eligibility determinations, renewals or changes to existing Medicaid clients.		
ELG 005	The EES shall electronically capture and store all data elements on the CMS Single Streamlined Application, even if the data elements are not needed for Medicaid eligibility determination.		
ELG 006	The EES shall support the use of alternative applications such as shorten form for non-MAGI, and assessment of resources.		
ELG 007	The EES shall support multiple non-MAGI specific programs, such as spousal impoverishment, Medicare buy-in program; etc.		
ELG 008	The EES shall maintain beneficiary eligibility data and information on each beneficiary's benefits.		
ELG 009	Where an existing case (account) exists, the EES shall reuse relevant information and/or selections		
ELG 010	The EES shall ensure seamless transfer of customers between the EES and the FFM as appropriate.		
ELG 011	The EES shall provide beneficiaries with periodic notifications by mail, e-mail, text, telephone and/or other format according to their stated preference for receiving such communications. The EES shall follow-up electronic notifications with paper notifications where required by federal rules or desired by State operations.		
ELG 012	The EES shall provide the capability to determine eligibility, and make changes to eligibility, on a retroactive basis as allowed by federal and State statuses and regulations		
ELG 013	The EES shall provide beneficiaries with clearly stated details as to rights and opportunity for appeal and grievance processes		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 014	The EES shall provide beneficiaries with clear information about privacy and confidentiality protections in the application process		
ELG 015	The EES shall provide beneficiaries with clear information about the Department's protocols in case of an information breach		
ELG 016	The EES shall integrate with the existing or replace a self-assessment tool to be used by external partners and customers to evaluate potential eligibility.		
ELG 017	The EES shall integrate with the existing or replace pre-application screening without entering any personal identifying information.		
ELG 018	The EES shall allow a customer to securely access an electronic account containing application information, notices and appeals information and Fair Hearing information.		
ELG 019	The EES shall use summarized household data for the pre-application process. (e.g. two adults with two children and estimated income).		
ELG 020	The EES shall apply eligibility rules to identify and flag potential financial and non-financial eligibility.		
ELG 021	The EES shall provide the customer information on eligibility and general verification requirements for Medicaid eligibility and timelines for applications and verification processes.		
ELG 022	The EES shall access educational materials on functions of Medicaid and on other state programs.		
ELG 023	The EES shall provide informational fact sheets on programs for which the customer is potentially eligible.		
ELG 024	The EES shall populate the online application with data entered in the pre-application screening tool, if a customer chooses to apply in the same session, where data elements are compatible**.**		
ELG 025	The EES shall track applications that originate from pre-application screening.		
ELG 026	The EES shall identify and flag expedited benefit cases, with user configurable triggers for expedited cases		
ELG 027	The EES shall use existing information on a known customer to preview the impact of potential changes via a new self-assessment.		
ELG 028	The EES shall assure consistency in eligibility determination processing when applicants attempt to access services through different entry points.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 029	The EES shall accept complete applications from the Marketplace electronically and make Medicaid eligibility determination without requiring additional information from the applicant consistent with the policies set in the State Plan Amendment.		
ELG 030	The EES shall specify beginning coverage date for those who know their existing employer coverage will be ending.		
ELG 031	The EES shall determine eligibility for all Medical Assistance programs.		
ELG 032	The EES shall validate all data fields for valid format (e.g. valid text, numbers, currency, dates, special characters allowed etc.)		
ELG 033	The EES shall upload, store and index verification documents such that they are tied to the appropriate case and searchable.		
EIG 034	The EES shall provide electronic signature capabilities for customers applying in a local office using an electronic signature pad.		
ELG 035	The EES shall provide an electronic signature for an application		
ELG 036	The EES shall record and store a telephonic signature for an application		
ELG 037	The EES shall provide the customer with a notification of approval or denial**.**		
ELG 038	The EES shall confirm for customers or workers that submitted applications are complete.		
ELG 039	The EES shall maintain data privacy and security requirements consistent with applicable laws.		
ELG 040	The EES shall retain completed applications with various retention schedules. All application data will be easily searchable and retrievable.		
ELG 041	The EES shall allow the customers to track their status via online or telephone during the application process.		
ELG 042	The EES shall store a version of the completed application form and allow the customer to retrieve it.		
ELG 043	The EES shall save and print a version of a completed application form that was saved online.		
ELG 044	The EES shall auto-populate known data within the system between modules, functions and applications within the life of the household.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 045	The EES shall process household with more than one applicant		
ELG 046	The EES shall refer cases with potentially fraudulent activity to appropriate agency		
ELG 047	The EES shall identify applications which are pending HUB Citizenship etc. verification		
ELG 048	The EES shall establish an eligibility base period from one to twelve months.		
ELG 049	The EES shall determine the correct eligibility base period automatically and manually.		
ELG 050	The EES shall retain a viewable history of changes to the eligibility base period.		
ELG 051	The EES shall place cases in a pending status if eligibility cannot be determined in real time due to system unavailability. The case will be flagged for follow up and verification of the required information		
ELG 052	The EES shall place cases in a pending status if eligibility cannot be determined in real time due to data inconsistencies in accordance with 155.315(f). The case will be flagged for follow up and verification of the required information		
ELG 053	The EES shall support multiple budgeting methodologies (e.g. perform multiple tests on a single household when family beneficiaries may be eligible for multiple programs).		
ELG 054	The EES shall identify all types of incomes (e.g. countable or exempt statuses of incomes, and resources by program or individual).		
ELG 055	The EES shall document case notes of actions which have occurred on case		
ELG 056	The EES shall calculate start and end dates of presumptive eligibility periods based on user configurable rules		
ELG 057	The EES shall create automatic and manual alerts to internal and external users upon the occurrence of specified events.		
ELG 058	The EES shall automatically re-determine eligibility for customers based on specified events (e.g. cost-of-living adjustment, changes in insurance premium amounts).		
ELG 059	The EES shall calculate customer responsibility/cost sharing for Long Term Care or Home and Community Based waiver programs.		
ELG 060	The EES shall determine applicant eligibility for specific non-independent living Long Term Care or waiver programs. (e.g. Institutional Living).		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 061	The EES shall set a period of ineligibility for a Long Term Care or waiver customer who commits a prohibited transfer of resources.		
ELG 062	The EES shall track movement from one facility to another to re-determine insurance eligibility, and cost sharing based on regulations. (e.g. hospitalization, nursing home, independent living).		
ELG 063	The EES shall identify resources excluded due to Long Term Care insurance.		
ELG 064	The EES shall complete and retain a resource assessment.		
ELG 065	The EES shall support the process of reviewing program eligibility.		
ELG 066	The EES shall display the basis of the eligibility budget calculations.		
ELG 067	The EES shall support varying methods of reviewing program eligibility (e.g. paper process where a review form is generated with pre-populated information).		
ELG 068	The EES shall trigger redetermination on cases with a fixed schedule of timed intervals.		
ELG 069	The EES shall track eligibility determinations separately. (e.g., income used to determine eligibility for Program 1 may be different than the income used to determine eligibility for Program2, etc.)		
ELG 070	The EES shall send notification of eligibility determination.		
ELG 071	The EES shall use the available interfaces to process redetermination for the MAGI qualifying population.		
ELG 072	The EES shall provide the capability to create and maintain an electronic household file of all applicants and families requesting services from the time that they first make an entry to the system.		
ELG 073	The EES shall support a range of disposition action triggers including event-based triggers (e.g., creation date, closing date, date of last review).		
ELG 074	The EES shall allow authorized users to review disposition actions prior to their execution.		
ELG 075	The EES shall allow users to apply disposition action holds on records.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 076	The EES shall have the flexibility to process individuals in the newly created categories.		
ELG 077	The EES shall provide a mechanism to generate a list of received and pending verifications including eligibility worker entered comments.		
ELG 078	The EES shall provide the ability to allow applicants to view, confirm, dispute and submit corrections to verification results.		
ELG 079	The EES shall provide applicants the ability to address inconsistencies reported by external entities (i.e. income, citizenship, etc.) within a timeframe defined by the Department.		
ELG 080	The EES shall update the applicant's record with the verification results as appropriate.		
ELG 081	The EES shall utilize master indexes to avoid duplicates.		
ELG 082	The EES shall search and match the existing client data before assigning new unique number (e.g., for example, search/match criteria could be the following, including but not limited to, "Fuzzy search", first name, last name, DOB, unique id, SSN, address, aliases, case number, etc.).		
ELG 083	The EES shall have the capability to reconcile duplicate records.		
ELG 084	The EES shall provide the data reports or file extracts to reconcile data between the EES and other systems.		
ELG 085	The EES shall capture alias information.		
ELG 086	The EES shall search account by multiple criteria (e.g., name, ID#, phone number, date of birth, county, assigned worker, etc.).		
ELG 087	The EES shall perform compound searches (e.g., names of married couple, names of parent and child, name of siblings, etc.).		
ELG 088	The EES shall easily modify list criteria while searching.		
ELG 089	The EES shall perform responsible person searches.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 090	The EES shall automatically identify a customer currently known to the system (e.g applicant pending determination, past member not currently enrolled, etc.)		
ELG 091	The EES shall electronically or manually assign a customer to a case.		
ELG 092	The EES shall conduct a manual case registration by a worker.		
ELG 093	The EES shall create a case by grouping associated customers together.		
ELG 094	The EES shall allow a worker to manually create a case.		
ELG 095	The EES shall use an existing case number per policy.		
ELG 096	The EES shall assign a unique case number to a case.		
ELG 097	The EES shall allow a customer to be associated to multiple cases at the same time. (e.g. customer may receive insurance products on one case number and be the case name for a different case number on which their child is receiving insurance products, etc.)		
ELG 098	The EES shall associate multiple cases to each other. (e.g. cases that share customers).		
ELG 199	The EES shall allow manually associate multiple cases to each other. (e.g. cases that share customers).		
ELG 100	The EES shall close beneficiaries/households/categories based on applicable eligibility rules resulting from changes in information and track closure reasons.		
ELG 101	The EES shall provide a process to override system closures.		
ELG 102	The EES shall provide functionality to manually close beneficiaries/households/categories based on applicable eligibility rules resulting from changes in information and track closure reasons.		
ELG 103	The EES shall allow the user to manually associate customers to each other.		
ELG 104	The EES shall create multiple cases based on regulations. (e.g. Disabled parent with a child).		
ELG 105	The EES shall manually separate cases per regulations.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 106	The EES shall automatically create a task for updates in the eligibility determination of insurance products/other public assistance programs (e.g., child turning 18, 21 or an adult turning 65, etc.).		
ELG 107	The EES shall provide Medicaid enrollment roster to Marketplace at stipulated frequency.		
ELG 108	The EES shall display or capture prior insurance requests.		
ELG 109	The EES shall set 'special situation' indicators based on rules maintained in the system. (e.g. language, confidentiality situations).		
ELG 110	The EES shall allow manually override all automatically set 'special situation' indicators.		
ELG 111	The EES shall provide the customer with a paper receipt of the documentation (e.g. paystub or birth certificate) that has been turned in to a worker.		
ELG 112	The EES shall have the capability for the Department to notify Marketplace of Medicaid Determination		
ELG 113	The EES shall provide a mechanism to manually extend verification timeframes.		
ELG 114	The EES shall point out missing data, errors and inconsistencies as they progress through the application, performing verification in real time where possible		
ELG 115	The EES shall provide a mechanism to have a "same as" selection to enter repetitive data.		
ELG 116	The EES shall allow a worker to jump back to sections previously completed without losing data entered.		
ELG 117	The EES shall provide a mechanism to manually navigate/skip to any screens that the worker is authorized to access.		
ELG 118	The EES shall identify and display verifications required for the applicant based on program rules.		
ELG 119	The EES shall produce a customized listing of verification documents for an eligibility criteria required to complete eligibility determination.		
ELG 120	The EES shall allow a worker to upload and attach source documents to support eligibility determination.		
ELG 121	The EES shall present worker with a summary view of the information entered prior to submission.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 122	The EES shall provide applicants the ability to submit alternative verification via multiple avenues (e.g., email, mail, phone, fax, walk- in).		
ELG 123	The EES shall assign a unique identifier as specified by the Department to be for each person entered.		
ELG 124	The EES shall allow an applicant or applicant's authorized representative to review the current application before and after formal submission with the appropriate safeguards and security measures.		
ELG 125	The EES shall not allow an applicant and applicant's authorized representative to submit more than one application within 30 days from the initial submission unless the application was denied.		
ELG 126	The EES shall allow an applicant or applicant's representative to amend an application as long as a determination has not been made.		
ELG 127	The EES shall allow the applicant or applicant's authorized representative to save and amend the application or renewal for up to 30 days in order to gather additional information prior to submittal.		
ELG 128	The EES shall allow and record an applicant's request to withdraw an application.		
ELG 129	The EES shall only collect applicant/household information once and share across Department designated fields.		
ELG 130	The EES shall provide an automated or guided application process to enable the worker to easily enter required information.		
ELG 131	The EES shall capture and track from which organization an application was submitted.		
ELG 132	The EES shall monitor the number of applications submitted and abandoned and the number of applicants who requested assistance via chat, telephonic, etc.		
ELG 133	The EES shall monitor and report on number of applications received and the method by which they were submitted.		
ELG 134	The EES shall capture interview dates.		
ELG 135	The EES shall provide system-generated date and time stamp for receipt of electronic applications to be used in monitoring standards of promptness by program.		
ELG 136	The EES shall provide system-generated date and time stamp for registration of paper applications.		
ELG 137	The EES shall provide a mechanism to begin benefits on a date different than the application date and system-generated date.		
ELG 138	The EES shall capture and display date that a disposition was made on an application/renewal.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 139	The EES shall check each incoming applicant against existing eligibility database to determine if the incoming applicant is new to the system, reopening a prior category, or adding applicants to existing household.		
ELG 140	The EES shall allow continuance of the application process for applicants without an SSN and assign pseudo-number and ensure pseudo number allows match to get correct SSN.		
ELG 141	The EES shall provide a mechanism to match and replace the pseudo-SSN with the actual SSN.		
ELG 142	The EES shall route applications to the appropriate staff, based on business rules.		
ELG 143	The EES shall display to the applicant discrepant information between the new application and information stored in the existing household.		
ELG 144	The EES shall provide a mechanism through which an applicant could check the applicant's status.		
ELG 145	The EES shall provide the ability to allow applicants to submit paper applications, whether through walk-in, fax or mail-in.		
ELG 146	The EES shall provide capability to track incomplete, new, add-on, and pending applications.		
ELG 147	The EES shall allow for a manual verification process when the Marketplace hub verification service is not available.		
ELG 148	The EES shall provide a mechanism to indicate which verification documents have already been provided.		
ELG 149	The EES shall send notification of alternative verification options to the applicant when electronic verification is not available.		
ELG 150	The EES shall provide the capability to determine and correct eligibility for current and prior months.		
ELG 151	The EES shall determine eligibility without worker intervention, as allowed by policy (e.g., exceeds the Medical Assistance income limit).		
ELG 152	The EES shall allow designated users to override eligibility determinations.		
ELG 153	The EES shall send eligibility determinations to the MMIS enrollment system on a real-time basis to support plan enrollment and claims processing functions.		
ELG 154	The EES shall generate reports related to eligibility decisions.		
ELG 155	The EES shall be flexible enough to add additional Medical Assistance programs.		
ELG 156	The EES shall display the eligibility results in a manner that is comprehensive and easy to understand.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
ELG 157	The EES shall have spenddown capability, including automating a spenddown of resources and income calculation.		
ELG 158	The EES shall allow the Department to set enrollment limits and provide a mechanism to manage applications for programs that are at whose enrollment is capped.		
ELG 159	The EES shall provide the capability for certain programs, as identified by the Department, to be flagged according to funding source.		
ELG 160	The EES shall evaluate the resource/asset eligibility of an applicant when determining eligibility for those programs requiring a resource / asset test.		
ELG 161	The EES shall allow authorized users to search online household files using key fields such as name, SSN, ID, date of birth, etc.		
ELG 162	The EES shall provide a mechanism for authorized users to access beneficiary/household summary from any screen.		
ELG 163	The EES shall provide the capability to re-open a category that is closed in the status it was before the closure.		
ELG 164	The EES shall provide a mechanism to indicate relationships between all members of a household.		
ELG 165	The EES shall provide a mechanism to automatically create the inverse family relationships (e.g., parent - child, child - parent, etc.).		
ELG 166	The EES shall provide the capability to perform mass terminations due to changes in status as well as program changes.		
ELG 167	The EES shall provide household-based activity checklists (to-do lists) to assist in prompting the workers in the completion of required household activities		
ELG 168	The EES shall allow for interview scheduling and tracking of completed interviews. Send client notification of interview is not completed.		
ELG 169	The EES shall include workflow management based on whether an applicant is MAGI-based and/or MAGI-excepted households.		
ELG 170	The EES shall identify all types of incomes (e.g. countable or exempt statuses of incomes, and resources by program or individual).		
ELG 171	The EES shall provide the capability at an individual level to be able to rework a prior case that is closed even if an open case exists.		
ELG 172	The EES shall track program requirements for individuals, e.g., those who are penalized due to transfer of assets.		
ELG 173	The EES shall provide an automated screening tool to determine potential eligibility status using predefined rules and to route to the next step in the process.		

5. Appeals Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 001	The EES shall support an electronic appeals process, which includes transmission of data to the federal Hub, interfacing with document imaging, and a client web accessibility		
APP 002	If an Appeals decision is in favor of The Department, the EES shall automate the recovery of premiums or medical services that were paid and auto-generate form to Finance Office for recovery.		
APP 003	The EES shall capture and track the disposition of appeals (including status, assignments, and relevant household notes).		
APP 004	The EES shall record the detailed results and supporting documentation that result from or support an appeals decision.		
APP 005	The EES shall have the ability to be notified of results of Appeals		
APP 006	The EES shall automatically capture, retain, and display receipt of eligibility appeals.		
APP 007	The EES shall allow manually entered eligibility appeals.		
APP 008	The EES shall record the reporter/source (name, address, associated agency of person expressing the eligibility appeals, etc.), if applicable.		
APP 009	The EES shall provide a mechanism to generate a list of received and pending verifications including eligibility worker entered comments.		
APP 010	The EES shall assign a unique tracking number to the eligibility appeals.		
APP 011	The EES shall assign a worker, or group of workers, to manage eligibility appeals.		
APP 012	The EES shall update/change manager assigned to a eligibility appeal.		
APP 013	The EES shall identify and assign the priority of eligibility appeals.		
APP 014	The EES shall cross reference common eligibility appeals (e.g. receiving 100 fair appeals requests from a single customer on a single policy change).		
APP 015	The EES shall track when a request for reconsideration becomes an appeal request.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 016	The EES shall provide the facility to export and print case histories and case notes for the purposes of appeals.		
APP 017	The EES shall support the appeals process for customer exemption decision.		
APP 018	The EES shall accept and adjudicate customers appeals regarding eligibility determinations and exemptions from the customer responsibility requirement.		
APP 019	The EES shall associate the eligibility appeals to a case(s) and /or a customer(s).		
APP 020	The EES shall track all eligibility appeals.		
APP 021	The EES shall track multiple eligibility appeals from a single contact.		
APP 022	The EES shall store all eligibility appeals in a central location.		
APP 023	The EES shall track a request for reconsideration outside of standard case notes		
APP 024	The EES shall log updates to an appeal in case notes		
APP 025	The EES shall add notes to appeals		
APP 026	The EES shall capture history of eligibility appeals by multiple parameters (e.g. source, subject, date, etc.)		
APP 027	The EES shall sort history of eligibility appeals by multiple parameters (e.g. source, subject, date, etc.).		
APP 028	The EES shall document an audit trail which reflect who updated associated details to a case.		
APP 029	The EES shall provide the capability to record all decisions of appeals.		
APP 030	The EES shall alert appropriate staff when action is needed or information is due to ensure timely processing of the eligibility appeals.		
APP 031	The EES shall support an appeals process on individual exemption decisions from the individual responsibility requirement.		
APP 032	The EES shall provide the functionality to reinstate service coverage until the Administrative Appeals decision is rendered.		
APP 033	The EES shall provide the ability to allow applicants to view, confirm, dispute and submit corrections to verification results.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 034	The EES shall have the ability for customers to request a postponement of an appeal if the request is made in compliance with State and federal guidelines.		
APP 035	~~The EES shall have the ability for the customers to request for reconsideration to handle inquiries.~~ The EES shall have the ability for customers to appeal an eligibility determination.		
APP 036	The EES shall have an appeal request submitted through multiple channels including phone, e-mail, letter, etc.		
APP 037	The EES shall provide an electronic template for eligibility appeal process.		
APP 038	The EES shall generate a referral to a third party assignee. (e.g. regular letter, email, automated referral, etc.).		
APP 039	The EES shall require a response by the third party assignee on a case by case basis.		
APP 040	The EES shall have the ability for customers to request an appeal in written form or verbally and followed up in writing.		
APP 041	The EES shall maintain health benefit plan at the current level after an appeal is requested by the customer on a timely manner until the decision of appeal is made (for a discontinuance of an active case).		
APP 042	The EES shall notify customer, third party entity, worker, etc. that the status of an eligibility appeal has changed. (e.g. pending hearing, withdraw, referred, etc.).		
APP 043	The EES shall notify applicants of failed verifications.		
APP 044	The EES shall notify the customer that their eligibility appeal has been received.		
APP 045	The EES shall notify the customer who their eligibility appeal has been referred to.		
APP 046	The EES shall provide a mechanism to track required verification timeframes.		
APP 047	The EES shall provide the capability to create an electronic household file that records all application data and organizes all supporting documentation and images in an easy-to-use format.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
APP 048	The EES shall allow all individuals to exercise their right to appeal any eligibility determination for Medicaid, premium tax credits, cost sharing subsidies, or QHP eligibility.		

6. Notifications Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 001	The EES shall generate notices by applicant/beneficiary preferred method of communication e.g., mail, email, or fax.		
NOT 002	The EES shall support multiple pages and applicant/beneficiaries standard "Rights and Responsibilities" text, including, but not limited to, applicant/beneficiary's right to an Administrative Appeal.		
NOT 003	The EES shall allow applicant/beneficiaries to choose the method of preferred communication.		
NOT 004	The EES shall record and track how correspondence was issued to the applicant/beneficiary.		
NOT 005	The EES shall provide the capability for mass notifications to applicant/beneficiaries or groups of applicant/beneficiaries.		
NOT 006	The EES shall auto-populate all forms with required information from the system (e.g., applicable dates, missing and provided verifications, notes, etc.).		
NOT 007	The EES shall not have page limits.		
NOT 008	The EES shall produce notices and forms in English and Spanish languages as required by the federal and State statutes, regulations, and policies.		
NOT 009	The EES shall issue notices at set timeframes according to program rules.		
NOT 010	The EES shall provide the capability to set and change release dates.		
NOT 011	The EES shall provide a mechanism to suppress and track any specific notice (one-time notice suppression).		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 012	The EES shall provide a mechanism to suspend any notice type.		
NOT 013	The EES shall provide a mechanism for designated persons to create new versions of notices/forms/correspondence from templates.		
NOT 014	The EES shall provide standard letter templates and the ability to add free form text to customize a letter to the customer's specific issue.		
NOT 015	The EES shall allow workers to generate or regenerate a notice/form upon demand.		
NOT 016	The EES shall generate a notice which includes a list of needed actions by the applicant/beneficiary by a standard due date (with a worker override), depending on the status or type of program applied for.		
NOT 017	The EES shall notify the beneficiary when their enrollment status has changed based on pre-set parameters so that the appropriate notice is generated for the circumstance.		
NOT 018	The EES shall provide the capability to electronically generate notices to obtain missing information.		
NOT 019	The EES shall create a sortable history of all notices associated with the applicant/beneficiary, including specific dates, and have the ability to view notices.		
NOT 020	The EES shall provide the capability to bundle and send out multiple notices and/or send out notices with corresponding forms together.		
NOT 021	The EES shall provide the capability to change information in a notice or delete a notice if it has not been 'sent'.		
NOT 022	The EES shall identify whether notice was auto-generated or worker-generated.		
NOT 023	The EES shall have noticing tightly integrated with the Marketplace and complying with all ACA regulations for such integration.		
NOT 024	The EES shall send electronic and/or paper renewal notices to beneficiaries.		
NOT 025	The EES shall pre-populate electronic and/or paper renewal forms with beneficiary information that is currently on file and allow the beneficiary to change or add information.		
NOT 026	The EES shall renew eligibility based on current federal and State statutes and regulations. The system shall be modified as required to meet all federal and State statues that are changed during the life of the contract.		
NOT 027	The EES shall track and provide notification to users when a renewal is due.		

Req #	Requirement Description	Bidder Ability Code	Proposed Solution/Comments
NOT 028	The EES shall track which electronic and/or paper renewals have been sent and which have been returned,		
NOT 029	The EES shall allow workers to generate notices, compliant with State and federal regulations at the time of notice generation, throughout the appeal process.		
NOT 030	The EES shall accept automated and manual responses received on referrals sent and associate them with initial referral.		
NOT 031	The EES shall retain history of all referrals sent and responses received.		
NOT 032	The EES shall store a copy of notices. These notices shall be available to the work units that support these functions (CSE, TPL, HIPPS, ERU, and Medical Subrogation).		
NOT 033	The EES shall generate Notice to customer that the full application must be completed to continue coverage beyond the presumptive eligibility period.		

REVISED Appendix C Non-Functional Requirements
November 26, 2013
Request for Proposal Number 4544Z1

The Non-Functional Requirements Traceability Matrix (RTM) is used to document and track the project requirements from the proposal through to testing to verify that the requirement has been completely fulfilled. The Contractor will be responsible for maintaining the set of Baseline Requirements directly related to the configuration of the EES. Additions, modifications, and deletions to these requirements will be added and modified throughout the project so it is imperative that a current version of the matrix be maintained at all times.

Bidders must provide an initial RTM as part of its proposal. The RTM shall follow the instructions below. The Bidder must state requirements exactly as they are provided in this RFP. The Bidder must indicate how it will achieve full compliance (i.e., requirement fulfilled 100%). Any requirements that the Bidder cannot attest to full compliance must be documented as outlined in Appendix D: Gap Analysis.

Bidders are required to provide a response, using the appropriate codes provided in the tables below, for each requirements listed in the Functional Requirements Response Matrix. Scoring for each requirement will directly relate to the Ability Code indicated by the Bidder.

1.

Ability Code	Condition	Description
S	Standard Function	The proposed EES fully satisfies the requirement as stated. The Bidder must describe how the requirement is satisfied by the EES.
W	Workflow or System Configuration Required	Current functionality of the proposed EES exists in the EES and can be modified by a system administrator to meet this requirement. The Bidder must describe how the requirement will be satisfied.
M	Modification Required	The proposed EES requires a modification to existing functionality to meet this requirement which requires a source code modification. The EES will be modified to satisfy the requirements as stated or in a different format. The Bidder must describe the modifications. If the modification requires 1000 or more hours the Bidder must also complete Appendix D Gap Analysis.
F	Planned for Future Release	This functionality is planned for a future release. The Bidder must describe how the requirement will be satisfied by the EES and when the release will be available.
C	Custom Design and Development	The proposed EES requires new functionality to meet this requirement which requires a source code addition. The Bidder must describe the feature and its value. If the custom design and development requires 1000 or more hours the Bidder must also complete Appendix D Gap Analysis.
N	Cannot Meet Requirement	The proposed EES will not satisfy the requirement. The Bidder must describe why the requirement cannot be satisfied. The Bidder must complete Appendix D Gap Analysis.
O	Other Software	If the requirement is to be satisfied through the use of a separate software package(s), the Bidder must identify those package(s) and describe how the functionality is integrated into the base system

REVISED Appendix C Non-Functional Requirements
November 26, 2013
Request for Proposal Number 4544Z1

1. General System Requirements

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 001	The EES shall follow a modular, flexible approach to systems development which is consistent with the MITA 3.0 guidelines, the CMS Exchange Reference Architecture, and Service-Oriented Architecture (SOA) design principles.		
GSR 002	The EES shall follow an n-tiered (layered) architectural approach in which presentation, business logic, and data access are separated.		
GSR 003	The EES shall provide scalable architecture.		
GSR 004	The EES shall be architected with no single point of failure, supporting a high-availability enterprise.		
GSR 005	The EES shall be deployable to servers running one of the following operating systems: - Linux - Unix - Windows - z/OS		
GSR 006	The EES shall support deployment on virtualized servers to support scalability and flexibility.		
GSR 007	All infrastructure software used by the EES (operating system, databases, web servers, network management, etc.) shall be a version that is currently supported under standard maintenance agreements and is generally available during the life of the contract.		
GSR 008	The EES shall incorporate an externalized rules repository and engine that allows business rules (including, but not limited to eligibility rules, program determination rules, rate calculations, and application validation rules) to be separated from application logic and defined and maintained through graphical user interfaces or other non-programmatic means.		
GSR 009	The rules engine shall be scalable and flexible to allow it to support expanded eligibility and enrollment rules in the future.		
GSR 010	The EES shall use an enterprise workflow engine to support the routing of work items, work queues, etc.		
GSR 011	The EES shall leverage an electronic document management system that is integrated with the workflow engine to support the storage and retrieval of document images associated with member and eligibility and enrollment processes.		

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 012	The EES shall use an industry-standard commercial Relational Database Management System (RDBMS), Application Server, and Web Server infrastructure.		
GSR 013	The EES' transactional databases shall use data models, referential integrity, constraints, stored procedures, and other DB specific functions to ensure data is properly formatted and orphaned records are not allowed in the EES		
GSR 014	The EES shall support a multi-tiered network deployment model that allows some physical tiers (e.g. load balancers, web servers) to be deployed in one network zone and other tiers (e.g. application servers, databases) to be secured behind internal firewalls		
GSR 015	The EES shall employ an Enterprise Service Bus (ESB) that serves as the integration backbone and the broker between service consumers and producers.		
GSR 016	The EES shall provide a business process layer that manages/orchestrates executable business processes via the ESB, including reusable business services such as encryption, compression, validation, and dynamic routing.		
GSR 017	The EES shall be architected using Business Process Management and workflow technologies as the primary integrated vehicle to implement business processes by composing them from human interactions and coarse-grained services.		
GSR 018	The EES shall support multi-node application server processing so that application processing load can be distributed and balanced across multiple physical servers.		
GSR 019	The EES architecture shall ensure that reporting and batch processing does not interfere with general system responsiveness or availability.		
GSR 020	The EES workflow, web pages and program functions, shall be configurable and modifiable without changing program code.		
GSR 021	The EES shall be designed and developed using a component-based architecture that is modifiable and reusable.		
GSR 022	The EES shall be designed, built and deployed in accordance with Enterprise Architecture best practices.		
GSR 023	The EES shall be built upon an infrastructure that is easily upgradable through patches and point releases, including the upgrading of the EES software and all prerequisite infrastructure software and the application of data migration or update scripts.		

REVISED Appendix C Non-Functional Requirements
November 26, 2013
Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 024	The EES shall have the ability to interact with the N-FOCUS legacy system to allow for all functionality of the old and new systems to be available.		
GSR 025	The EES shall comply with CMS requirements to establish a framework of enabling technologies and processes that support improved administration of the Medicaid program.		
GSR 026	The EES shall provide the ability to terminate, reverse or back-out a software update in the event it is discovered the update is erroneous or corrupted. The EES shall provide the ability to restore the data to the state prior to the update.		
GSR 027	The EES shall provide a clearly defined promote-to-production process that enforces a strictly defined methodology for movement from development to QA and production.		
GSR 028	The EES shall provide the ability to roll back data and software releases/programs as requested by DHHS during testing cycles.		
GSR 029	The EES shall provide DHHS with all changes, modifications, enhancements, or customized features it makes to any licensed software approved by the Department to be used in The EES.		
GSR 030	The EES shall include appropriate checkpoint/restart capabilities, and other features necessary to ensure reliability and recovery, including telecommunications reliability, file backups, and disaster recovery.		
GSR 031	The EES shall be deployed primarily as a web-based interface, so that users only need a web browser to access the EES.		
GSR 032	The EES workflow, web pages, and program functions shall be configurable and modifiable without changing program code.		
GSR 033	The EES shall maintain the security requirements set forth by federal and Nebraska government.		
GSR 034	The EES shall be scalable and flexible enough to accommodate any changes required by Nebraska and/or federal statute, mandate, decision or policy.		
GSR 035	The EES shall support multiple deployment environments, including development, test, training, and production. (sandbox, break-fix)		

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 036	The EES shall provide the following testing functions: - Functional Testing - Regression Testing - Load & Performance Testing - Test case creation and tracking - Test data generation (i.e. data masking, data filtering, etc.)		
GSR 037	The EES should make the rules engine available in a shared services model to be accessed by other Nebraska systems.		
GSR 038	The EES should leverage an enterprise content management system to store digital content, downloadable forms, and personalized on-screen content.		
GSR 039	The EES should assure that third party software, used for ancillary aspects of the EES, that require distribution or maintenance to remote desktops or servers can be capable of being distributed and configured on user work stations from a central site and not require onsite intervention. In other words, software should support “silent" or unattended installation functionality for any non-web based features.		
GSR 040	The EES should be able to support the following multi-agency configurations:		
GSR 041	• Two or more independent yet integrated Agencies in a single instance of the business application running on a single instance of the technical infrastructure		
GSR 042	• Two or more independent yet integrated Agencies each with a separate instance of the business application which all run on the same instance of the technical infrastructure		
GSR 043	• Two or more independent, yet integrated, Agencies each with a separate instances of the business application which run on separate instances of the technical infrastructure.		
GSR 044	The EES should include a service management layer that provides the following:		
GSR 045	• A registry/repository in which all services related to the EES can be published. This registry should support Universal Description Discovery and Integration (UDDI) and the Web Services Description Language (WSDL)		
GSR 046	• Service monitoring, logging, and audit		

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
GSR 047	• Should be open to others and reusable by other systems and agencies		
GSR 048	The EES should ensure that the use of acronyms and codes are consistent across the EES components (windows, screens, reports and databases or data dictionary).		
GSR 049	The EES should provide the ability to support client services through a variety of channels. This may include, but is not limited to web, kiosks, call centers, other organizations, and walk ins.		
GSR 050	The EES should allow new data items to be automatically included in migration paths during software upgrades.		
GSR 051	The EES should document and expose all SOA services using standard WSDL and industry best practices.		
GSR 052	The EES should leverage webs services and adhere to key standards such as SOAP, XML, UDDI, WSDL, BPEL, SAML, and other standards as detailed by the Department.		
GSR 053	The EES should define service modules independently, with the interface modules bridging the gap between modules.		
GSR 054	The EES should provide the ability to refresh each environment.		
GSR 055	The EES should have the ability to backup, recover, restart, and cancel jobs.		
GSR 056	The EES should utilize a web portal that is scalable and has the ability to accommodate additional systems and content in the future.		

2. Service Oriented Architecture (SOA) Requirements

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SOA 001	The EES components shall be committed to an advanced approach to interoperability using web services and SOA aligned with Nebraska standards and vision for interoperability.		
SOA 002	The EES shall provide the ability to distribute services amongst different components and tiers of the architecture.		
SOA 003	The EES shall develop/integrate services using standardized Web Services formats.		
SOA 004	The EES shall allow for centralized service maintenance (new, update, delete).		
SOA 005	The EES shall provide the ability to publish services and related data to be used by different types and classes of service consumers.		
SOA 006	The EES shall ensure enterprise-wide access to services through all required channels such as Nebraska facilities, phone, mail, and online via the Internet.		
SOA 007	The EES shall provide the capabilities for a Real-Time (or near real-time) Integrated Enterprise where common data elements about the consumers served and services rendered are easily shared across organizational units with appropriate adherence to security and privacy restrictions.		
SOA 008	The EES shall establish an interoperability layer that supports interactions among components via a variety of protocols (HTTP/plain old XML, SOAP, Internet Inter-ORB Protocol [IIOP], .NET remoting, Message-Oriented Middleware [MOM] protocols, file transfer protocols and others) and interaction styles (request/reply, conversational, publish and subscribe, asynchronous messaging and others).		
SOA 009	The EES shall implement synchronous and asynchronous program-to-program communication, moving messages between SOA service consumer modules and service provider modules at runtime. The ESB component may also move files, database rows and other data.		

REVISED Appendix C Non-Functional Requirements
November 26, 2013
Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SOA 010	EES shall implement a SOA by using an ESB, responsible to monitor and control routing of message exchange between services, resolve contention between communicating service components, control deployment and versioning of services and marshal use of redundant services.		
SOA 011	EES shall support creation and extension of service interfaces through the use of WSDL.		

3. Interoperability & Interfaces Requirements

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
IOI 001	The EES shall provide a SOA based infrastructure (i.e. hub and spoke) for connecting to other EESs using an ESB infrastructure.		
IOI 002	The EES's Interface architecture for internal A2A (Application to Application) integration shall not have a negative impact on the user experience and expectation for application performance. All points of contacts for A2A communications shall be documented.		
IOI 003	The EES's interfaces shall secure and protect the data and the associated infrastructure from a confidentiality, integrity and availability perspective.		
IOI 004	The EES shall be able to support Application to Application (A2A) synchronous and asynchronous messaging using web services. The messaging capabilities will be able to support a wide variety of A2A patterns including, but not limited to, the following: -		
IOI 005	• Data look-up and retrieval		
IOI 006	• Data look-up with services provided by other applications		
IOI 007	• Simple bulk data transfer to/from other EES's.		
IOI 008	The EES' interface infrastructure shall continue to operate despite failure or unavailability of individual technology components such as a server platform or network connection.		
IOI 009	The EES shall have the capability to notify System Administrators/system support staff if an interface is not available for any reason. The notification and issue(s) shall be invisible to the applicant/beneficiary/client.		
IOI 010	The EES' interfaces must be scalable to accommodate changes in scale including changes in user population, transaction volume, throughput and geographical distribution.		
IOI 011	The EES shall be capable of making any changes to the interface data elements/layouts easily, and to test those changes.		
IOI 012	The EES shall implement, at a minimum, interfaces (both real-time or batch) with the applications and data sources listed in "Interface List - N-FOCUS" document included in the procurement library.		

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
IOI 013	The EES shall provide the capability to detect and remediate errors caused by batch processing and real time processing via user defined rules		
IOI 014	The EES shall provide the capability to perform source to destination file integrity checks for exchange data and alert appropriate parties with issues		
IOI 015	The EES shall build in contingencies for the storage of transactions where there is dependency on availability of data from business partners that provide authoritative data (e.g., the IRS, DHS, and SSA).		

4. Scalability and Extensibility Requirements

Req #	Requirement Description	Bidding Ability Code	Proposed EES/Comments
SCA 001	The EES shall be designed for ease of maintenance and readily allow future functional enhancements. This shall be accomplished through use of modern design principles for SOA, applying principles of modularity, interface abstraction, and loose coupling.		
SCA 002	The EES shall be adequately flexible to keep up with ever changing technology and regulatory changes. This shall be accomplished by separating workflow and business rules into their own separate tiers.		
SCA 003	The EES shall be scalable and adaptable to meet future growth and expansion/contraction needs such that the EES can be expanded on demand and be able to retain its performance levels when adding additional users, functions, and data.		
SCA 004	The screens shall be highly re-configurable, providing ability to reposition and rename field labels/data fields, remove or “turn-off” unused fields, maintain data, and allow addition of custom-defined fields.		
SCA 005	The Department shall be able to modify the labels and arrangement of information in the data model EES documentation templates and can create custom data fields.		
SCA 006	The EES shall provide the ability to create and/or modify edits and business rules which determine the correctness/integrity of data.		
SCA 007	The EES shall provide the ability for on-line access by any site connected to the organization WAN.		
SCA 008	The EES shall provide the capability for remote access in compliance with existing Nebraska / federal connectivity/security policies.		

5. EES Performance Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PER 001	The Contractor must build the EES such that expansion of the system can be achieved with a minimum of additional system administration burden and staffing.		
PER 002	EES Administration staffing requirements and workload should be minimally impacted with expanded system usage.		
PER 003	The Contractor must build the EES so that there is a near linear relationship between each additional server added, and the additional load that can be accommodated (load vs. capacity added), up to specified limit.		
PER 004	The EES shall use fully redundant network and hardware. Hardware components (such as processor and memory) should have built-in redundancy to allow a second component to take over in the event of a failure in the primary component. Similarly, redundant paths should also exist for networks.		
PER 005	The EES shall leverage virtualization to expedite disaster recovery.		
PER 006	The EES shall have the ability to support either a Production and hot (real time replication) disaster recovery design or a multi host site Production design that would allow one site to seamlessly be offline and the other site would maintain service without interruption.		
PER 007	The EES shall include a disaster recovery plan and provide contingency plans for client lookup capabilities and online collaboration in the event of a disaster.		
PER 008	The EES shall provide the ability to recover from data loss due to end user error and application error.		
PER 009	The EES shall provide the ability to perform archival/incremental backups and the ability to perform open/closed database backups.		
PER 010	The EES shall provide tools for managing an environment that supports both high availability and disaster recovery.		
PER 011	The EES shall include the capability to maintain all data according to Department defined records retention guidelines (i.e. record schedule). In general document retentions range from 3 to 10 years.		

REVISED Appendix C Non-Functional Requirements
November 26, 2013
Request for Proposal Number 4544Z1

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PER 012	The EES shall include the capability to maintain all images and electronic documents according to Department defined document retention guidelines (i.e. record schedule).		

6. Regulatory & Security Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 001	The EES must provide a mechanism to comply with EES security requirements and safeguards requirements following federal agencies/entities:		
RSR 002	• United States Department of Agriculture (USDA)		
RSR 003	• Food & Nutrition Services (FNS)		
RSR 004	• Internal Revenue Service (IRS)		
RSR 005	• Social Security Administration (SSA)		
RSR 006	• Department of Health & Human Services (DHHS) Center for Medicare & Medicaid Services (CMS)		
RSR 007	• Administration for Children & Families (ACF)		
RSR 008	• NIST 800-53 and DOD 8500.2		
RSR 009	• Federal Information Security Management Act (FISMA) of 2002		
RSR 010	• Health Insurance Portability and Accountability Act (HIPAA) of 1996		
RSR 011	• Health Information Technology for Economic and Clinical Health Act (HITECH) of 2009		
RSR 012	• Privacy Act of 1974		
RSR 013	• e-Government Act of 2002		
RSR 014	• Patient Protection and Affordable Care Act of 2010, Section 1561 Recommendations		
RSR 015	• Safeguards for Protecting Federal Tax Returns and Return Information (26 U.S.C. Section 6103 and related provisions)		
RSR 016	• Health Insurance Portability and Accountability Act (HIPAA)		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 017	• Family Educational Rights and Privacy Act (FERPA)		
RSR 018	• Health Information Technology for Economic and Clinical Health (HITECH) Act		
RSR 019	• NIST 800-53A		
RSR 020	• NIST 800-53 version 4 Recommended Security Controls for Federal Information Systems Information Security		
RSR 021	• NIST 800-44 version 2 Guidelines on Security Public Web Servers		
RSR 022	• NIST 800-77 Security Configuration Checklist Program for IT Products – Guidance for checklist Users and Developers.		
RSR 023	• IRS Publication 1075, Tax Information Security Guidelines for Federal State and Local agencies, which points back to NIST 800-53 rev 3		
RSR 024	• CMS requirements, which points back to NIST 800-53 rev3 moderate baseline		
RSR 025	• Guidance from CMS including MITA Framework 2.0 and Harmonized Security and Privacy Framework		
RSR 026	• 45 CFR Part 95.621(f) ADP System Security Requirements and Review Process		
RSR 027	• Standards defined in federal Information Processing Standards (FIPS) issued by the National Institute of Standards and Technology (NIST)		
RSR 028	• FIPS PUB 112 Password Usage Procedure		
RSR 029	• FIPS PUB 186-3 Digital Signature Standard June 2009		
RSR 030	• Nebraska Electronic Signature Statute http://www.legislature.ne.gov/laws/statutes.php?statute=86-611		
RSR 031	• Records Usage, Duplication, Retention, Re-disclosure and Timely Destruction Procedures/Restrictions 5 U.S.C. 552a (o)(1)(F), (H) and (I)		
RSR 032	• Federal Records Retention Schedule 44 U.S.C. 3303a		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 033	• Computer Matching and Privacy Protection Act of 1988 (CMPPA)		
RSR 034	• SSA Information System Security Guidelines for federal, State, and Local Agencies		
RSR 035	• Title XIX Confidentiality Rules		
RSR 036	The EES shall conform to the sub-parts of Section 508 of the Americans with Disabilities Act (ADA), and any other appropriate Nebraska or federal disability legislation.		
RSR 037	The EES shall comply with all applicable Nebraska security policies and adhere to all legal, statutory, and regulatory requirements, as determined by Nebraska Leadership.		
RSR 038	The EES should have a unique identifier which is not the SSN.		
RSR 039	The EES shall comply with accessibility requirements described in 45 CFR 85 and with Nebraska accessibility requirements.		
RSR 040	The EES shall comply with Nebraska branding standards as defined by the Department.		
RSR 041	The Contractor shall adhere to the principle of “Fail Safe” to ensure that a system in a failed state does not reveal any sensitive information or leave any access controls open for attacks.		
RSR 042	The EES shall allow for controlled access to participant records. Users will be able to view participant data within the EES at the Department defined levels of access based on user security privileges.		
RSR 043	The EES shall maintain a level of security that is commensurate with the risk and magnitude of the harm that could result from the loss, misuse, disclosure, or modification of information.		
RSR 044	Information security shall be built into the EES from its inception rather than “bolted on” after the EES has been implemented.		
RSR 045	The EES shall support security at the object level (e.g. Table, View, Index).		
RSR 046	The EES shall support security at the row and column level.		
RSR 047	The EES shall support auditing at the object level (i.e. Table, Column).		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 048	The EES shall provide the ability for concurrent users to simultaneously view the same record, documentation and/or template.		
RSR 049	The EES shall provide protection to maintain the integrity of data during concurrent access.		
RSR 050	The software used to install and update the systems, independent of the mode or method of conveyance, shall be certified free of malevolent software (“malware”). Contractor may self-certify compliance with this standard through procedures that make use of commercial malware scanning software.		
RSR 051	The EES shall be configurable to prevent corruption or loss of data already accepted into the EES in the event of an EES failure (e.g. integrating with a UPS, etc.).		
RSR 052	The EES shall support protection of confidentiality of all Protected Health Information (PHI) delivered over the Internet or other known open networks via encryption using triple-DES (3DES) or the Advanced Encryption Standard (AES) and an open protocol such as Transport Layer Security (TLS), Secure Sockets Layer (SSL), Internet Protocol Security (IPsec), XML encryptions, or Secure/Multipurpose Internet Mail Extensions(S/MIME) or their successors.		
RSR 053	The EES, when storing PHI on any device intended to be portable/removable (e.g. smartphones, portable computers, portable storage devices), shall support use of a standards based encrypted format using 3DES, AES or their successors.		
RSR 054	The EES, prior to access to any PHI, shall display a configurable warning or login banner (e.g. "The EES should only be accessed by authorized users"). In the event that an EES does not support pre-login capabilities, the EES shall display the banner immediately following authorization.		
RSR 055	The EES shall comply with Title XIX and related regulations and guidance.		
RSR 056	The EES shall comply with Title XXI and related regulations and guidance.		
RSR 057	The EES shall comply with the Office of the National Coordinator’s Nationwide Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 058	The EES shall comply with the Section 504 of the Rehabilitation Act.		
RSR 059	The EES shall comply with the Section 6103 of the Internal Revenue Code.		
RSR 060	The EES should comply with the National Information Exchange Model (NIEM).		
RSR 061	The EES should support processing of data in multiple formats such as XML, X12, and other industry standard formats.		
RSR 062	The EES shall provide for security concepts covering the following components: Virtual Private Network (VPN), firewall technology and Demilitarized Zone (DMZ), virus-/intrusion detection, mail/content filtering avoiding fault positives, encryption, Public Key Infrastructure (PKI).		
RSR 063	The EES upon detection of inactivity of an interactive session shall prevent further viewing and access to the EES by that session by terminating the session, or by initiating a session lock that remains in effect until the user reestablishes access using appropriate identification and authentication procedures. The inactivity timeout shall be configurable.		
RSR 064	The EES shall enforce a limit of (configurable) consecutive invalid access attempts by a user. The EES shall protect against further, possibly malicious, user authentication attempts using an appropriate mechanism (e.g. locks the account/node until released by an administrator, locks the account/node for a configurable time period, or delays the next login prompt according to a configurable delay algorithm).		
RSR 065	The EES shall provide the capability to prevent database administrators from seeing the data in databases they maintain.		
RSR 066	The EES shall provide the ability to maintain a directory of all personnel who currently use or access the system/IVR/SQL database.		
RSR 067	The EES shall provide the ability to create and maintain a directory of external providers to facilitate communication and information exchange.		
RSR 068	The EES shall provide the ability to identify certain information as confidential (e.g. PII, PHI, etc.) and only make that accessible by appropriately authorized users.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 069	The EES shall restrict access to summarized information according to organizational policy, scope of practice, and jurisdictional law.		
RSR 070	The EES must be able to associate permissions with a user using one or more of the following access controls:		
RSR 071	• User-based (access rights assigned to each user)		
RSR 072	• Role-Based Access Controls (RBAC; users are grouped by role and access rights assigned to these groups)		
RSR 073	• Context-based (role-based with additional access rights assigned or restricted based on the context of the transaction such as time-of-day, workstation-location, emergency-mode, etc.)		
RSR 074	The EES shall provide the ability to prevent specified user(s) or groups from accessing confidential information such as a patient's chart.		
RSR 075	The EES should preserve and report specified audit data when potential security violations are detected.		
RSR 076	When access to a user's account is restricted, the EES shall provide a means for appropriately authorized users to "break the glass" and obtain access for emergency situations, as defined by Nebraska policy.		
RSR 077	When access to a chart is restricted and the "break the glass" has occurred, the EES shall provide the ability to notify specified users and provide an audit trail for this access.		
RSR 078	The EES shall enforce the most restrictive set of rights/privileges or accesses needed by users/groups or processes acting on behalf of users, for the performance of specified tasks.		
RSR 079	The EES shall provide the ability for authorized administrators to assign restrictions or privileges to users/groups.		
RSR 080	The EES shall support removal of a user's privileges without deleting the user from the EES to ensure history of user's identity and actions.		
RSR 081	The EES shall be able to support RBAC in compliance with the HL7 Permissions Catalog.		
RSR 082	The EES shall provide more-advanced session management abilities such as prevention of duplicate logins, remote logout and location-specific session timeouts.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 083	The EES shall provide the ability to perform EES administration functions such as reference table maintenance and adding/ removing users from the system.		
RSR 084	The EES shall allow users access based on their roles irrespective of their geographical location.		
RSR 085	The EES shall provide the capability to integrate with existing authentication and authorization mechanisms (RACF on the mainframe).		
RSR 086	The EES shall provide the capability to create temporary and emergency accounts and terminate those accounts automatically after a user defined period of time.		
RSR 087	The EES shall provide the capability to override a role and restrict access to information by users or groups of users.		
RSR 088	The EES shall allow an individual with active eligibility under a different user ID to reapply under their own user ID.		
RSR 089	The EES shall provide the capability to monitor events on the information system, detect attacks, and provide identification of unauthorized use of the system.		
RSR 090	The EES shall provide the capability to identify and report on inappropriate access to information in the system, based on user defined criteria.		
RSR 091	The EES shall manage user profiles, including enforcing role-based security access to system data and functions.		
RSR 092	The EES shall enforce strong password rules per NITC & IRS requirements.		
RSR 093	The EES support the use of Multi-factor authentication		
RSR 094	The EES shall support the ability to disable user accounts and ensure no disabled accounts can log in or access the solution.		
RSR 095	The EES shall provide the same security provisions for all the environments as those used in the production environment.		
RSR 096	The EES shall support user account authentication procedures with configurable parameters (time, cipher strength, logon attempts, etc.).		
RSR 097	The EES shall implement appropriate encryption mechanisms to protect the confidentiality and integrity of critical types of data, including but not limited to passwords, social security numbers, and bank account numbers.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 098	All sensitive data shall be encrypted in transit (including emails) to protect data confidentiality and integrity as appropriate based on the sensitivity of data.		
RSR 099	The EES shall provide the ability to implement security for transport and messaging via web services.		
RSR 100	The EES shall have the ability to support strong authentication through SSL, Kerberos, RADIUS, SAML, XACML, or OpenID.		
RSR 101	The EES shall provide the ability to virus scan uploaded files using Department approved virus scanning software.		
RSR 102	The EES shall provide the ability to administer user security based on organizational unit.		
RSR 103	The EES shall support the latest version of Secure Sockets Layer (SSL)/Transport Layer Security.		
RSR 104	The EES shall be able to use HTTPS/SSL for connections between interfaces.		
RSR 105	The EES shall pass vulnerability tests that are deemed industry standard for an application which hosts confidential information of clients like Social Security Numbers, dates of birth, addresses etc.		
RSR 106	The EES shall pass tests for common web vulnerabilities such as poor session controls, injection flaws, denial of service, un-validated input, and cross site scripting.		
RSR 107	The EES shall manage user authentication and authorization via LDAP version 3.0 or higher.		
RSR 108	The solution shall contain verification mechanisms that are capable of authenticating authority (as well as identify) for the use or disclosure requested.		
RSR 109	The EES should provide role-based security using unique identifiers (IDs), mandatory password standards, and profile or group access assignments. All users should be authenticated when establishing a connection to the solution. Authentication should be based on unique user IDs and should support separation of duties based on roles.		
RSR 110	The EES shall enforce password policies for length, character requirements, forced reset intervals, and updates, as defined by the Department.		
RSR 111	The EES shall have the ability to use secure (SSL/SSH) FTP to accommodate file transfers.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 112	The EES shall ensure a timely and reliable process for security breach notification to the appropriate entity.		
RSR 113	The EES shall alert appropriate staff authorities of potential violations of privacy safeguards, such as inappropriate access to confidential information.		
RSR 114	The EES shall assure strict adherence to IRS security and privacy requirements for data obtained from IRS and the federal Data Hub.		
RSR 115	The EES shall adhere to all Nebraska and federal requirements to secure, store, and dispose of data.		
RSR 116	The EES shall provide complete control and accounting of all data received, stored, accessed, or transmitted to ensure administrative, physical, and technical security of the data		
RSR 117	The EES shall ensure the security of all State documents and data ensuring that complete segregation of the State data and files exists from other selected Contractors/selected Contractor customers.		
RSR 118	The EES shall offer the latest, commercially available and industry accepted encryption technologies for any file transfers or information exchanges within the solution network through the Internet and with any potentially unsecured network.		
RSR 119	The EES should implement a security architecture based on MITA 3.0 Security and Privacy model, including the following security architectural elements: - Multi-Level Security - Identity Management - Role Based Access Control (RBAC) - Decentralized Label Model (DLM)		
RSR 120	The EES should support a defense-in-depth, multi-zone computing architecture that physically separates the layers between the solution components. Each layer should be protected by firewalls and appropriate security devices based on the sensitivity of data it houses and functions it performs.		
RSR 121	The EES should be built upon an infrastructure that protects against the known forms of exploits and attacks, including SQL injection, code injection, cross-site scripting, request forgery, and session fixation.		
RSR 122	The EES should support the saving of user profiles for archival purposes, including the ability to re-enable/reuse the profile.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 123	The EES should pass credentials for authentication and authorization from the solution to authenticate system access to web service transactions (that is, connect to external web systems in the context of a named user, not super-user, account).		
RSR 124	The EES should support, issue, and manage public key certificates for secure transactions, following standard practices such as the use of accepted Certification Authorities (CA), documented Certificate Policies (CP), and Certificate Practice Statements (CPS), including key escrow strategy. Implementation should use fundamental technical standards such as X.509 certificate format and Public Cryptographic Standards (PKCS).		
RSR 125	If a system component or application fails, the EES should not leave sensitive data accessible, and should return user-friendly error messages that do not expose internal system details and does not include information that might help an attacker exploit vulnerabilities in the application.		
RSR 126	The EES should have the ability to support robust session management controls, including the ability to limit the number of concurrent sessions for an individual user.		
RSR 127	The EES should ensure transactions and messages are accurately received as they were sent and information is not altered by non-authorized individuals.		
RSR 128	The EES should support the latest version of the IP Protocol Security extension (IPSec).		
RSR 129	The EES should support S/MIME for email communications.		
RSR 130	The EES should support cryptography levels set forth in FIPS 1402.		
RSR 131	The EES should prevent the creation of duplicate user accounts.		
RSR 132	The EES should use file encryption for data transfer between entities.		
RSR 133	The EES should provide the ability to create, display and maintain an administrative structure as specified by the Department.		
RSR 134	The EES should provide the ability to include a viewable online history of all changes made by User Account Managers as specified by the Department.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 135	The EES should prevent installation or use of remote control or file sharing software unless explicitly approved by the Department.		
RSR 136	The EES should detect and prevent hacking, intrusion, and other unauthorized use of system resources.		
RSR 137	The EES should provide procedures for guarding, monitoring and detecting malicious software.		
RSR 138	The EES should update virus blocking software daily and aggressively monitor for and protect against viruses.		
RSR 139	The EES should suspend all EES users who have not accessed the solution within a specified number of days as specified by the Department. The suspension requirements should be configurable and distinct for each system environment.		
RSR 140	The EES should provide screen/window security, including links that route to interfaces.		
RSR 141	The EES should provide a secure web portal with authentication and encryption to protect interactions and transactions including, at a minimum Secure Socket Layers (SSL).		
RSR 142	The EES should provide a secure web portal with role based access enabling viewing and maintenance of information across all components of the solution meeting all applicable Nebraska and federal standards.		
RSR 143	The EES should accommodate all current HIPAA revisions/updates including those that may occur during the life of the project.		
RSR 144	The EES should maintain all data sets defined by the HIPAA Implementation Guides to support all transactions required under HIPAA Administrative Simplification Rule.		
RSR 145	The EES should protect the confidentiality and integrity of electronic Protected Health Information (PHI).		
RSR 146	The EES should support encryption and decryption of stored PHI or an equivalent alternative protection mechanism, if approved by the Department.		
RSR 147	The EES should track disclosures of PHI; provide authorized users access to, and reports on the disclosures.		
RSR 148	The EES should include procedures for accessing necessary electronic PHI in the event of an emergency and continue protection of PHI in emergency.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RSR 149	The EES should provide data integrity of PHI by preventing and detecting improper alteration or destruction (including but not limited to: message authentication, electronic signature, check sums etc.).		
RSR 150	The EES should perform data mapping to identify the PHI contained in the solution.		
RSR 151	The EES should provide ability to redact records in whole or in part to comply with Nebraska and federal privacy standards based on role and authority.		
RSR 152	The EES should provide audit reports for tracking users, associated security groups, roles, settings, passwords and duplicate IDs. The frequency and content of security audit reports will be determined by the Department.		
RSR 153	The EES should track adds, changes and deletes of individual user data.		
RSR 154	The EES shall audit/track all activity specific to each user and process, including at a minimum date and time of last login, invalid login attempts, system errors, and all transaction activities, including inquiry.		
RSR 155	The EES should provide read-only access to system job and maintenance schedule, submission, and processing statistics, and system performance tools for designated staff.		
RSR 156	The EES should monitor system activity and log and examine system activity in accordance with audit policies and procedures adopted by the Department.		
RSR 157	The EES should provide security administrative rights to the Department security administrator(s) for the purpose of adding, updating, and deleting security access.		

7. Audit & Compliance Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 001	The EES shall maintain a record (e.g. audit trail) of all additions, changes and deletions made to data in the system. This should be readily searchable by user ID or client ID. This must include but is not limited to:		
AUD 002	• The user ID of the person who made the change		
AUD 003	• The date and time of the change		
AUD 004	• The physical, software/hardware and/or network location of the person while making the change		
AUD 005	• The information that was changed		
AUD 006	• The outcome of the event		
AUD 007	• The data before and after it was changed, and which screens were accessed and used		
AUD 008	The EES shall allow an authorized administrator to set the inclusion or exclusion of auditable events based on organizational policy and operating requirements/limits.		
AUD 009	The EES shall support logging to a common audit engine using the schema and transports specified in the Integrating the Healthcare Enterprise (IHE) Audit Trails and Node Authentication (ATNA) profile, Audit Log specification.		
AUD 010	The EES shall be able to detect security-relevant events that it mediates and generate audit records for them. At a minimum the events shall include those listed here:		
AUD 011	• start/stop		
AUD 012	• user login/logout		
AUD 013	• session timeout		
AUD 014	• account lockout		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 015	• client record created/viewed/updated/deleted		
AUD 016	• scheduling		
AUD 017	• query		
AUD 018	• order		
AUD 019	• node-authentication failure		
AUD 020	• signature created/validated		
AUD 021	• Personally Identifiable Information (PII) export		
AUD 022	• PII import		
AUD 023	• security administration events		
AUD 024	• backup and restore		
AUD 025	The EES shall provide authorized administrators with the capability to read all audit information from the audit records.		
AUD 026	The EES shall provide the audit records in a manner suitable for the user to interpret the information.		
AUD 027	The EES shall provide the capability to generate reports based on ranges of EES date and time that audit records were collected.		
AUD 028	The EES shall be able to export logs into text format in such a manner as to allow correlation based on time (e.g. Coordinated Universal Time [UTC] synchronization).		
AUD 029	The EES shall be able to perform time synchronization using NTP/SNTP, and use this synchronized time in all security records of time.		
AUD 030	The EES shall have the ability to format for export recorded time stamps using UTC based on ISO 8601.		
AUD 031	The EES shall prohibit all users read access to the audit records, except those users that have been granted explicit read access.		
AUD 032	The EES shall protect the stored audit records from unauthorized deletion.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
AUD 033	The EES shall prevent modifications to the audit records.		
AUD 034	The proposed EES shall provide logging, reporting and accessing errors and exceptions.		
AUD 035	The EES shall maintain an audit trail of all inquiry, and updates to the EES that are required by State and federal policies and regulations.		
AUD 036	The EES shall ensure plans and procedures are in place for all modules to meet audit and compliance requirements		
AUD 037	The EES should capture and retain the data that was used to determine eligibility, calculate benefits, and generate various outputs, at the point in time that the particular action took place. Subsequent changes to data elements (e.g. an applicant's income) should not over-write the value that used to make a determination at a particular point in the past.		
AUD 038	The EES should have the ability to research transaction exceptions (e.g. a failed "add" transaction due to business rule violation) and make corrections within the system as necessary to correct enrollment discrepancies.		

8. Usability Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 001	The EES will adhere to the accessibility standard as outlined in the web guidelines and based on the W3C level 2 accessibility guidelines: (http://www.w3.org/TR/WCAG10/full-checklist.html).		
USE 002	The EES shall adhere to all federal and Nebraska accessibility requirements, or their successors: (section 508 of the Rehabilitation Act and detailed in section 1194.22 of the Code of Federal Regulations, “Web-based intranet and internet information and applications”.		
USE 003	The EES shall provide a user interface that shall be simple and consistent throughout all areas and functions of the EES.		
USE 004	The EES shall minimize the number of mouse clicks/user interaction to complete any action.		
USE 005	The EES shall use a Graphical User Interface (GUI) to help the user navigate to the next logical step in the workflow, or freely navigate to other parts of the EES functionality, and then allow the user to return to complete the in-process task.		
USE 006	The EES shall preserve context by limiting abrupt transitions and redisplays in order to maximize and enhance the user experience and EES usability.		
USE 007	The EES shall speak the users' language, with words, phrases and concepts familiar to the user, rather than EES-oriented terms.		
USE 008	The EES shall follow real-world conventions, making information appear in a natural and logical order.		
USE 009	The EES shall allow the users to easily navigate to a variety of functions available to them without having to move sequentially through excessive menus and screens.		
USE 010	The EES shall support undo and redo, or provide onscreen confirmation/acceptance to the user to confirm a change that is permanent and cannot be "undone".		
USE 011	The EES shall provide users with a clearly marked "emergency exit" for the instances when a user mistakenly chooses a function and such "emergency exit" must be simple with minimal dialogue.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 012	The EES shall follow standardized conventions and limit the use of words, situations, or actions that have multiple meanings.		
USE 013	The EES shall eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.		
USE 014	The EES shall minimize the user's memory load by making objects, actions, and options visible.		
USE 015	The EES shall provide the option to have rollover/ tool-tip help or context messages and provide the option to turn off this option in the user preferences profile.		
USE 016	The EES shall provide all user instructions in a visible or easily retrievable location, when appropriate.		
USE 017	The EES shall cater to both inexperienced and experienced users and shall provide accelerators (e.g. onscreen short cuts, hot-keys, alternate workflows, etc.) to speed up the interaction for the expert user.		
USE 018	The EES will allow users to create shortcuts (e.g. onscreen short cuts, hot-keys, etc.) for frequent actions.		
USE 019	The EES's error messages shall be expressed in plain language, precisely indicate the problem, and constructively suggest a solution.		
USE 020	The EES shall use colors to enhance user experience and EES usability while complying with all disability requirements notated elsewhere in these requirements.		
USE 021	The EES shall allow the user to navigate to any functional component from a client landing page.		
USE 022	The EES shall alert the user with information relevant to required next steps.		
USE 023	The EES shall provide drop down and list boxes for all key entry, and text entry will display existing values for selection (auto fill).		
USE 024	The EES shall accommodate point and click selection and check box entry for all relevant data entries to ensure that the user does not have to enter textual data that may already be available to the system.		
USE 025	The EES shall facilitate data entry and shall contain pop-up list boxes for all code fields in all processing windows and allow selection of the entry with use of hot keys.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 026	The EES shall provide field level on-screen edits with limited user override capabilities.		
USE 027	The EES shall not show fields that are not accessible to a given user based on access rights, nor shall the EES show fields not in use.		
USE 028	The EES cursor shall automatically advance to the next logical input field when the maximum allowed numbers of characters have been entered for the keyed field.		
USE 029	The EES shall provide the option of having a selection from the drop down boxes automatically take the user to the next field.		
USE 030	The EES shall provide validation checks by methods described within policy, functional, and detailed requirements.		
USE 031	The EES shall identify invalid entries to the user as immediately as possible.		
USE 032	The EES shall provide the ability to suggest or automatically change entries that do not conform to data entry standards.		
USE 033	The EES shall be designed to include only the necessary information and functionality on screens and shall be based on the user's access level and the user's configuration.		
USE 034	The EES shall be designed to include logical transitions between screens and level of detail during navigation.		
USE 035	The EES shall provide templates for data entry with identified mandatory and optional data fields.		
USE 036	The EES shall allow incomplete data sets to be saved for completion of the workflow at a later time.		
USE 037	The EES shall highlight and flag required and incomplete data fields.		
USE 038	The EES shall include a graduated system of alert levels to allow users to determine urgency and relevancy.		
USE 039	The EES shall allow configuration of alerts by a user, for a user by a supervisor, and for a user by an EES administrator		
USE 040	The EES shall allow for the request of or entry of data from external devices (e.g. tablets, kiosks, barcode scanner, RFID scanner, speech).		
USE 041	The EES shall notify the user when a source system is unavailable/inoperable and notify user that any available information about the subject being viewed is as of certain time and date.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
USE 042	The EES's web interface shall be aligned with Web 2.0 design principles and best practices.		
USE 043	The EES shall not require users to reenter data due to validation errors if the systems can auto-correct based on the entered data or the user can navigate to the entry error to correct the entry.		
USE 044	The EES shall enable central workflow alerts and transactional status.		
USE 045	The EES shall centralize pending work items for the user as in a "work queue"		
USE 046	The EES shall have the capability to push messages to the intended workers without requiring them to specifically inquire for the data.		
USE 047	The EES shall provide linked access to help functions which contain the appropriate information and search of all help information from every window, based on user profiles.		
USE 048	The EES shall have the capability to capture a public benefit applicant's application in a disconnected/offline mode to be processed once a connection to the Internet is established		
USE 049	The EES shall utilize standard web browser-based technology with the ability to provide data over a web browser interface (i.e. HTML over HTTP).		
USE 050	The EES shall include the capability to encrypt the data communicated over the network via SSL (HTML over HTTPS).		

9. Integrated Eligibility Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 001	The EES shall have the capability of exchanging information with the legacy N-FOCUS system.		
IER 002	The EES shall have the capability to provide data and access to notifications to the Federal Facilitated Marketplace.		
IER 003	The EES shall have the capability to request and store data from federal Hub for a number of purposes including, but not limited to: updated Citizenship and Income verification.		
IER 004	The EES shall have the capability to request and store results of IRS service information.		
IER 005	The EES shall have the capability to request and store results of Equifax – TALX wage verification.		
IER 006	The EES shall have the capability to request and store results of verification service citizenship/lawful presence provided by CMS		
IER 007	The EES must be able to express eligibility determination business rules outside transactional system in the business rules engine implemented as part of the Nebraska EES.		
IER 008	The EES shall have the capability of exchanging eligibility information with the legacy N-FOCUS system.		
IER 009	The EES shall have the capability of exchanging eligibility information with the legacy MMIS.		
IER 010	The EES shall have the capability to provide results of eligibility determination to other systems.		
IER 011	The EES shall have the capability to provide data and access to notifications to other systems.		
IER 012	The EES shall have the capability to store results/client attestation of a number of factors including, but not limited to Native American Status, Residency, Incarceration Status, and Individual Exemption qualification.		
IER 013	The EES shall have the capability to store results of alternate client verifications for a number of items including, but not limited to income, Citizenship / Lawful presence		
IER 014	The services and consumers employed in the EES shall be loosely-coupled to ensure service logic can evolve while guaranteeing backwards compatibility to existing consumers.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 015	The EES shall be able to interface with multiple state systems as well as external partner systems to allow interoperability as appropriate with outside entities and state agencies. (Real-time, near-time, batch)		
IER 016	The EES shall provide the ability to leverage the federal approach to verification from federal agencies such as the Internal Revenue Service, Department of Health and Human Services, and Department of Homeland Security to eliminate the independent establishment of those interfaces and connections at the Nebraska level.		
IER 017	The EES shall provide standard, secure, and configurable interfaces between all interfacing information sharing entities.		
IER 018	The EES shall provide the ability to support real-time automated data exchanges with internal systems to ensure that data is aligned.		
IER 019	The EES shall provide the ability to communicate the eligibility decision to other relevant systems.		
IER 020	The EES shall provide the ability to export an enrollment file to external entities as specified by the Department.		
IER 021	The EES shall provide the ability to export Medicaid benefits to the Nebraska MMIS.		
IER 022	The EES shall ensure that dates across Nebraska systems remain in synch (e.g., a case's closing or some other action).		
IER 023	The EES shall provide the ability for data and process integration between programs according to state and federal regulations as required.		
IER 024	The EES should expose a web service that allows other systems to submit requests to verify an individual's enrollment.		
IER 025	All web services used in the EES should be reusable as enterprise resources by systems external to the EES.		
IER 026	The data exchange infrastructure should support multiple open standards and industry standard protocols, including Secure FTP (S-FTP), SOAP over HTTPS, and JMS/ MQ messages.		
IER 027	The EES should provide common bi-direction interfaces (preferably, a web service API) that will support the integration with Computer Telephone Integration (CTI) systems for purposes such as retrieving caller information and triggering screen pops.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IER 028	The EES should provide the ability to report on interface transmissions (e.g., total number of records loaded, date of interface transmission, amount of time to execute the interface transmission, errors, and failures).		
IER 029	The EES should provide the ability to import data into the EES in multiple formats (e.g., csv, fixed length ASCII, tab-delimited).		
IER 030	The EES should provide the ability to automatically identify inconsistencies between the case record and information received from interfaces as specified by the Department.		
IER 031	The EES should support integration with Nebraska's current calendar and e-mail environment.		
IER 032	The EES should employ XML-based standards for communication and integration with other environments.		
IER 033	The EES should provide alerts to DHHS staff on status of interface data processing (e.g., when processing is completed or error occurs).		
IER 034	The EES should provide the ability to support Interfaces by exchanging information on schedule as specified by the Department.		
IER 035	The EES should provide the ability to automatically track inbound customer service interactions received through the IVR and/or interfaces based on program rules.		
IER 036	The EES should provide the ability to present a result list for data imports and exports (e.g., success or failure, time started, time completed).		
IER 037	The EES should provide the ability to restart an interface transmission from a specific point (e.g., restart at failed record, restart from beginning).		
IER 038	The EES should associate information received via interface with the line-of-business record which generated the information request.		
IER 039	The EES should support exchange of bulk data information to be printed and mailed.		

10. EES Administration Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ADM 001	The EES shall provide data archiving capabilities based on Department defined criteria.		
ADM 002	The EES shall provide the capability to move all historical, expired and/or unnecessary data to offline storage according to a set of business rules and schedule to be defined by the Department as a part of the ongoing system operational decision making.		
ADM 003	The EES shall maintain an archival process so that accumulated historical records and log files do not consume large amounts of disk space.		
ADM 004	The EES shall provide an auto archive/purge of the log files to prevent uncontrolled growth of the log and historical records storage using administrator-set parameters.		
ADM 005	The EES shall provide version control capabilities to ensure the integrity of all software releases.		
ADM 006	The EES shall monitor and provide reports on any unauthorized access.		
ADM 007	All EES communications shall be protected by at least 128-bit encryption.		
ADM 008	The EES shall be supported by public key/private key encryption Secure Socket Layer (SSL) certificates.		
ADM 009	The EES shall provide admin tools and maintenance routines to change access rights quickly.		
ADM 010	The EES shall use firewalls and Demilitarized Zones (DMZs) for external access and remote access.		
ADM 011	The EES shall allow EES administrators to create and manage user accounts.		
ADM 012	The EES shall allow EES administrators to assign status and permissions to user accounts.		
ADM 013	The EES shall allow EES administrators to create and manage user roles.		
ADM 014	The EES shall allow EES administrators to create user groups to manage workflow.		
ADM 015	The EES shall allow EES administrators to assign users to particular local offices.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ADM 016	The EES shall allow EES administrators to assign users to particular user groups / units.		
ADM 017	The EES shall allow EES administrators to assign users to particular supervisors.		
ADM 018	The Contractor shall establish an automated maintenance routine that shall at a minimum: - backup the user IDs and password data - identify expired IDs and related data		
ADM 019	The Contractor shall use offsite storage. Data backup should be stored offsite in the event of a physical disaster		

11. EES Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MGT 001	The EES shall have the ability to generate administrative alerts and warnings when statistics indicate an impact or potential limits on EES component performance and availability. The specific alerts will be defined by the hosting services provider.		
MGT 002	The EES shall allow for all changes/updates to the distributed components to be administered and completed centrally and available immediately to all source systems and sites.		
MGT 003	The EES shall provide Service Level Requirements (SLR) monitoring and reporting capabilities. Service Level definitions will be drafted into a single document provided as an attachment.		
MGT 004	The EES shall securely support State's existing remote control (i.e. support personnel ability to take over the user device for troubleshooting and support) capabilities deployed for any type of client workstation.		
MGT 005	The EES shall provide event management and monitoring functionality according to Information Technology Infrastructure Library version 3 (ITIL v3) or equivalent best practices.		
MGT 006	The EES shall provide application performance monitoring and management capabilities (i.e. transaction monitoring, synthetic transactions, component root cause analysis)		
MGT 007	The EES shall provide transaction tracking and log consolidation capabilities across all tiers of the application		
MGT 008	The EES shall use automated application and network performance measuring tools for proactive system monitoring, tuning mechanisms, reporting, and trend analysis. Performance monitoring alerts shall be configurable and allow for user notification using multiple communication methods.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MGT 009	The EES shall provide a custom report outlining system anomalies such as high levels of utilization, poor response times, large number of failed logins, and other abnormal activities, identified, repaired and resolved. This report's frequency shall be dictated by the number of anomalous activities. The report shall include specifics regarding the issues encountered, the measures taken to resolve the anomalies and the resources (EES Contractor, Department and third-party, as applicable) participating in the process.		
MGT 010	The EES shall provide a report reflective of system performance statistics. This performance statistics report shall be presented to the Department not less than monthly for the purposes of monitoring the Department's systems and network activity.		
MGT 011	The EES shall provide event and incident notification capabilities which can integrate with industry standard system management frameworks such as those provided by CA, IBM and Microsoft.		
MGT 012	The EES shall have the ability to capture and report on system utilization needed to allocate costs down to the user and transaction level.		
MGT 013	All performance and systems management functions shall be able to operate without degrading business systems response time.		
MGT 014	The EES shall include the infrastructure (e.g. via the ESB and business process layer) needed to support effective Business Activity Monitoring and Reporting of various business performance metrics, and the information reports necessary to allocate costs based on usage.		
MGT 015	The EES shall provide the ability for system capacity monitoring including, but not limited to, server volume/capacity, and network volume/capacity.		
MGT 016	The EES shall have the ability to provide workload statistics (e.g., work-in-process, queues, waiting-for-resources).		
MGT 017	The EES shall have the ability to notify users, via multiple channels, when the measured performance is outside tolerances.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MGT 018	The EES shall have the ability for users, upon notification of performance outside tolerance, to identify the cause of the performance issue.		
MGT 019	The EES shall have the ability to provide dashboard and other report types suitable for business activity monitoring including templates for common display types.		
MGT 020	The EES shall provide for and support the ability to control batch job execution by time of day, date, and processing cycle (weekly, monthly, yearly, quarterly, on request, etc.).		

12. Enterprise Service Bus (ESB) Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 001	The EES shall provide reliable, once-only delivery of messages (guarantee of reliable and non-repetitive delivery).		
ESB 002	The EES shall have the ability to support varying message payloads, ranging from individual transactions to large files (more than 1GB) containing multiple transactions.		
ESB 003	The EES shall have the ability to track a message from its origin to its destination (inside a firewall), inquire on the status of that message and address exceptions (for example, resend the message if a target times out).		
ESB 004	The EES shall have the ability to use standards-based communication protocols, such as TCP/IP, HTTP, HTTP/S and SMTP.		
ESB 005	The EES shall have the ability to convert between the protocol native to the messaging platform and other protocols, such as Remote Method Invocation (RMI), IIOP and .NET remoting.		
ESB 006	The EES shall have features that enable in-flight message manipulation, such as transformation (typically XML-based), intelligent routing, naming and addressing.		
ESB 007	The EES shall have the ability to apply logic to the routing of messages, including support for the following file interaction styles:		
ESB 008	• Store and forward: Ability to persist a message and then send it to destinations.		
ESB 009	• Publish/subscribe: Ability to distribute a message to multiple destinations based on a message attribute usually described as the subject area of the message.		
ESB 010	• Request/reply: Ability to correlate asynchronous messages so that the target's response is associated with the appropriate request made by the source.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 011	• Content-based: The ability to route a message based on a value or values within a message. For example, the ability to route a referral message whose target turnaround time is small to a different set of targets than a referral message whose turnaround time is high.		
ESB 012	The EES shall provide for syntactic conversion and semantic transformation, including ease of use and reuse, number of built-in functions, ease of extending the transformation function with custom-coded logic and XML support (e.g. schema or Extensible Style sheet Language Transformations [XSLT]).		
ESB 013	The EES shall have the capability during operations, to assist service consumers by dynamically finding, binding to and invoking the execution of service providers.		
ESB 014	The EES shall provide the technology that combines design tools and runtime software to implement programs that act as "glue," transforming among protocols, connecting to databases and linking pre-SOA Application Programming Interfaces (APIs) to the SOA backplane. To support B2B projects, adapters also need to support SOA services using B2B protocols such as Applicability Statement 1 (AS1)/Applicability Statement 2 (AS2), RosettaNet and Electronic Data Interchange for Administration, Commerce and Transportation (EDIFACT).		
ESB 015	The EES shall support the industry-standards messaging and interfaces relevant to health and human services organizations including, but not limited to: - Health Level Seven (HL7) Versions 2.x, 3.x, and CCD - Integrating the Healthcare Enterprise (IHE) XD* Profiles		
ESB 016	The EES shall provide the technology that hosts the execution of process logic spanning multiple back-end services or applications - typically for short-term (seconds or minutes) processes that can occasionally also be long term (hours, days, weeks) - with the aim of implementing composite services or automated EES-to-EES processes. Features include:		
ESB 017	• Graphical design surface for specifying process flows		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 018	• Support for standard specification languages including Business Process Modeling Notation (BPMN)		
ESB 019	• Support for standard representations including Business Process Execution Language (BPEL), XML Process Definition Language (XPDL), Business Process Modeling Language (BPML) and Web Services Flow Language (WSFL)		
ESB 020	• Ability to specify compensating transactions and execute those transactions upon failure of the process flow		
ESB 021	• Integration with workflow		
ESB 022	The EES shall provide the technology to perform syntactic and semantic hub-based transformation of messages, including:		
ESB 023	• Support of taxonomy		
ESB 024	• Support of ontology		
ESB 025	• Reusable transformation maps		
ESB 026	• Built-in transformation functions		
ESB 027	• Extending the transformation function with custom-coded logic		
ESB 028	• Support B2B project translation including Electronic Data Interchange (EDI), RosettaNet, HL7, etc.		
ESB 029	The EES shall provide the functionality that provides reliability for applications, services or message flows:		
ESB 030	• Load balancing		
ESB 031	• High availability		
ESB 032	• Fault tolerance		
ESB 033	• Failover		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 034	• In-order delivery		
ESB 035	• Transaction support		
ESB 036	• Execution prioritization		
ESB 037	• Message prioritization		
ESB 038	• Downstream throttling		
ESB 039	The EES shall provide the functionality used to monitor the operation of the overall system (services, applications, processes and application infrastructure), and to collect events and usage information aimed at populating technical KPIs of the deliverables supported by the SOA backplane and of the SOA backplane components by monitoring and collecting metrics for:		
ESB 040	• Messaging traffic		
ESB 041	• Process state and behavior		
ESB 042	• Application and service parameters and behavior for all nodes in a LAN or WAN		
ESB 043	The EES must provide for any combination of Alert Destinations such as Email, JMS, SNMP, reporting services, and server logs. The alerts shall be customizable with respect to the frequency of the alert, the ability to enable/disable an alert, rule expiration dates, starting and ending times for an alert, and customizable conditions for an alert".		
ESB 044	The EES shall provide the tools and technologies required to implement the necessary control access to the services and the connected resources (for example, other services and databases), as well as the SOA backplane functionality. Capabilities include:		
ESB 045	• Authentication		
ESB 046	• Authorization		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 047	• Encryption/decryption		
ESB 048	• Digital signatures		
ESB 049	• Credential mapping		
ESB 050	The EES shall provide the functionality to assist Department's operations personnel in keeping the resultant system (applications, services and infrastructure) running at peak efficiency at all times, including:		
ESB 051	• Establishing rules for automated system monitoring		
ESB 052	• Establishing network-alert-based management		
ESB 053	• Supporting autonomous network behavior so local management and problem resolution can continue during an outage		
ESB 054	• A console that enables domain-specific display for multiple devices		
ESB 055	The EES shall provide the technology that manages the metadata and provides the features needed to support the reliable operation of services. Examples include:		
ESB 056	• Online catalog of services and associated artifacts such as WSDL files, XSDs, BPEL files		
ESB 057	• A single point of controlled access for cataloging, promoting, publishing and searching for information about managed assets		
ESB 058	• Metadata that enables an ESB to find, bind to and invoke the execution of a service implementation		
ESB 059	• Support for extending existing asset types and defining and populating custom asset types		
ESB 060	The EES shall provide support for building frameworks and extensible tools that enable the design, configuration, assembly, deployment, monitoring, and management of software designed around an SOA.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 061	The EES shall provide assistance for deploying applications with SOA and event-driven architecture in a manner that supports the following implementation strategies:		
ESB 062	• Web Services: Web Services Interoperability (WS-I) Organization-compliant implementation of basic Web services standards, including SOAP, WSDL and Universal Description, Discovery and Integration (UDDI), as well as higher-level Web services standards, such as WS-Security.		
ESB 063	• Representational State Transfer (REST): Support for XML-based message processing a well as HTTP, and XHTML.		
ESB 064	The EES shall support Transport Security, Message Security, WS-Security, SAML architecture, and WS-Policy.		
ESB 065	The EES shall implement the ability to externalize security by using a third-party security infrastructure whereby the ESB's proxy action calls a third-party for user/role information.		
ESB 066	The EES shall provide the technology to implement processing logic that directly manipulates data values, and the representation of those values for storage, transport or presentation purposes to establish common access to data sources (structured and unstructured), improve data quality or federate data from multiple sources.		
ESB 067	The EES shall provide the tooling that enables the recording (storage) or retrieving (reading) of information (data) from data stores. An example is distributed query functionality that parses incoming queries into sub queries and the execution of those sub queries, via the connectivity layer, against the respective sources where the desired data resides.		
ESB 068	The EES shall provide the data infrastructure tooling that enables users to represent semantic models, identify model-to-model relationships, and execute the necessary translations to reconcile data with differing semantic models.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 069	The EES shall provide optimization services that continuously read various types of metadata from across the architecture. The optimization verbs shall use the semantic/logical services to reconcile context to data content and deliver against some aspect of the application service-level agreement (requirements for data quality, data freshness, data volumes, throughput parameters, data-mining results, on-demand data aggregation or summarization, data enrichment, and many others).		
ESB 070	The EES shall provide tooling that supports data profiling: the process of examining the data available in an existing data source (for example, a database or a file), and collecting statistics and information about that data.		
ESB 071	The EES shall provide a modeling environment to support the roles of the business analyst, process architect, EES architect and developer.		
ESB 072	The EES shall support individual and group teamwork at design time and runtime.		
ESB 073	The EES must incorporate the ability to undo changes, detect and resolve conflicts, test service connectivity with tracing information, easily enable/disable services, provide logging and view all session activities/change history attributable to each logged in user.		
ESB 074	The EES must incorporate Role/Group-based rights for the management of the ESB across the environments.		
ESB 075	The EES shall have the ability to automatically manage complex workflow patterns that are system-based, human-based, or a mixture of both.		
ESB 076	The EES shall have the ability to design workflows, preferably using Business Process Model and Notation (BPMN).		
ESB 077	The EES shall provide the ability to schedule events (e.g., reminders, notification generation, business process execution, etc.).		
ESB 078	The EES shall provide the ability to associate the scheduled event with a system record (e.g., case record to an event).		
ESB 079	The EES shall provide the ability to attach documentation to the scheduled event.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ESB 080	The EES shall provide the ability to notify a user of a scheduled event based on user-defined criteria (e.g., reminder time, delivery mechanism).		
ESB 081	The EES shall provide the ability to modify existing scheduled events (e.g., begin date, end date, frequency, and business process specific information).		
ESB 082	The EES shall have the ability to monitor and manage executing processes, including the capability to override workflows and business rules by authorized users.		
ESB 083	The EES shall provide the ability to suspend a scheduled event.		
ESB 084	The EES shall provide the ability to cancel a scheduled event.		
ESB 085	The EES shall provide the ability to route imaged correspondence to any work queue.		
ESB 086	The EES shall provide the ability to maintain historical information related to scheduled events.		
ESB 087	The EES shall provide the ability to maintain user-defined calendars and dates specific to business functionality (e.g., time off, work hours, review dates).		
ESB 088	The EES shall provide the ability to associate comments with scheduled events.		
ESB 089	The EES should have the ability to import and export process designs using an industry standard format, such as Business Process Execution Language (BPEL) or XML Process Definition Language (XPDL).		

13. Data Integration & ETL Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ETL 001	The EES shall have the ability to convert message formats and translate coded data within messages.		
ETL 002	The EES shall provide support for a metadata repository for data and message conversion and transformations.		
ETL 003	The EES shall at a minimum support the following standards:		
ETL 004	• Integrating the Health Enterprise (IHE): Cross-Enterprise Document Sharing (XDS); Cross-Community Access (XCA)		
ETL 005	• Health Level Seven (HL7) Continuity of Care Document (CCD) C32 profile		
ETL 006	• ONC Direct Project		
ETL 007	The EES shall provide the technology to implement processing logic that can manipulate data values, and the representation of those values for transport or conversion purposes.		
ETL 008	The EES shall provide tools for data source connectivity: Adapters for a range of source types beyond RDBMS' and legacy databases (access to data stored in non-relational structures - for example, VSAM files and IMS databases), including packaged applications and Web services, the ability to access semi-structured and unstructured data (such as e-mail, websites, office productivity tools, content repositories and rich media) and the ability to interpret (as a source) XML structures.		
ETL 009	The EES shall provide tools to support the Extract-Transform-Load (ETL) process that involves:		
ETL 010	• Extracting data from data sources		
ETL 011	• Transforming it to fit business needs (which can include quality levels).		
ETL 012	• Loading it into the target data store		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ETL 013	• Caching: The ability to cache federation results and various subsets of the source data to improve performance in situations where source data volumes are large; therefore, retrieving all data required for integration directly from the source is not feasible.		
ETL 014	• Verbose ETL process logging to allow for ease of support and debugging.		
ETL 015	The EES shall have the ability to load data in a variety of approaches including (but not limited to) the following:		
ETL 016	• Bulk data extraction and loading		
ETL 017	• Granular trickle-feed acquisition and delivery		
ETL 018	• Changed-data capture (ability to identify and extract modified data)		
ETL 019	• Event-based acquisition (time-based or data-value-based)		
ETL 020	The EES shall include the following types of transformation:		
ETL 021	• Simple transformations such as data-type conversions, string manipulations and Simple calculations		
ETL 022	• Moderate-complexity transformations, such as lookup and replace operations, aggregations, summarizations, deterministic matching and management of slowly changing dimensions		
ETL 023	• Higher-order transformations, such as sophisticated parsing operations on free-form text and rich media Facilities for developing custom transformations and extending packaged transformations		
ETL 024	• Facilities for developing custom transformations and extending packaged transformations		
ETL 025	The EES shall provide tools that enables the recording (storage) or retrieving (reading) of information (data) from data stores. An example is distributed query functionality that parses incoming queries into sub-queries and the execution of those sub-queries, via the connectivity layer, against the respective sources where the desired data resides.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
ETL 026	The EES shall comply with all relevant HIPAA standards, including national standards for electronic health care transactions and code sets, unique employee and provider identifiers, and security and privacy of individually identifiable health information (called “protected health information” or PHI).		

14. Master Data Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 001	The EES shall have the capability to support the global identification, linking and/or synchronization of client and provider information across heterogeneous data sources through semantic reconciliation of master client and master provider data.		
MDM 002	The EES shall create and manage a central, database-based EES or index of record for master client (i.e. Master Client Index [MCI]) and master provider (i.e. Master Provider Index [MPI]) data.		
MDM 003	The EES shall enable the delivery of a single client and a single provider view for all stakeholders.		
MDM 004	The EES shall support ongoing client and provider data stewardship and governance requirements through monitoring of policy decisions and corrective action.		
MDM 005	The EES shall track and maintain detailed records on all changes via interfaces and authoring to support audit requirements.		
MDM 006	The EES must include a flexible data model that can model the complex relationships between the internal application sources inside Nebraska, its trading partners, clients and providers, as well as intermediaries and other parties, with the ability to handle complex hierarchies.		
MDM 007	The EES's data model must be capable of handling at least the following categories of elements for clients and providers:		
MDM 008	• Identification		
MDM 009	• Demographics		
MDM 010	• Contact information		
MDM 011	• Relationships with other entities / providers		
MDM 012	• Interactions with other entities / providers		
MDM 013	The EES shall include data modeling capabilities that will be configurable, customizable, extensible, and upgradable.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 014	The EES data model must be able to support Nebraska's standards for data content and coding where they exist.		
MDM 015	The EES data model must be expressed using commonly accepted logical data model conventions with associated metadata.		
MDM 016	The EES shall have strong facilities, in batch and real-time mode, for profiling, cleansing, matching, linking, identifying and semantically reconciling master client and master provider data in different data sources to create and maintain golden records.		
MDM 017	The EES's business rules and associated metadata related to data cleansing shall be sufficiently visible to satisfy any audit requirements.		
MDM 018	The EES shall include the ability to review data quality metrics and track corrective actions.		
MDM 019	The EES shall provide dynamically configurable rules for comparing and reconciling semantics across data sources, matching (both probabilistic and tunable) across changing demographic data structures, linking data, and managing the merging and unmerging of client and provider records with full auditability and survivability.		
MDM 020	Where data is matched by a proxy rather than the actual identifier (e.g. client or provider ID) the EES shall load data no less quickly, efficiently or accurately.		
MDM 021	The EES shall include integration middleware to provide a communication backbone for the bidirectional flow of client and provider data between the central repository and the spoke solutions, and/ or remote applications.		
MDM 022	The EES shall provide tools to validate and manage all client and provider addresses to include all address types (mailing, residential, etc.).		
MDM 023	The EES shall be able to leverage a range of middleware products to data sources, including all Nebraska and trading partner data sources, and expose Healthcare industry-standard interfaces.		
MDM 024	The EES shall support integration with different latency characteristics and styles (e.g. real-time, batch).		
MDM 025	The EES shall support integration with downstream Business Intelligence (BI) and analytical requirements.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 026	The EES shall provide flexible and comprehensive workflow capabilities to enable business users and client and provider data managers to collaborate effectively in the authoring and management of client and provider data across the multiple source systems.		
MDM 027	The EES shall include facilities for managing and controlling access to client and provider data in the MDM such as reporting on MDM activities.		
MDM 028	The EES shall have the ability to integrate the data within the MDM with management and security tools.		
MDM 029	The EES shall manage the policies and rules associated with privacy access rights.		
MDM 030	The EES shall configure and manage differing visibility rules, providing different views for different roles.		
MDM 031	The EES shall integrate with the Department's Active Directory to provide authorization, e.g., role-based security.		
MDM 032	The EES shall provide analytics and performance measures related to the range of processes and activities taking place within the MDM; from the running of batch data loads and the execution of workflows against benchmarks to the quality of active client and provider data in the MDM.		
MDM 033	The EES shall include status and management tools for the data stewards to monitor to-do lists to ensure effective action takes place across the management of the master client and master provider data.		
MDM 034	The EES shall include solution-wide meta models to help identify what users, roles, applications and systems are responsible for which client and provider data.		
MDM 035	The EES shall provide workflow services for remediation of quality issues in client and provider data.		
MDM 036	The EES shall include business rules services to interrogate which rules are used by MDM by frequency and preference and to provide suggested enhancements to such business rules.		
MDM 037	The EES shall be based on up-to-date, mainstream technologies, and capable of flexible and effective integration with a wide range of other application and infrastructure platform components (whether from the same Contractor or not) that will be deployed by Nebraska.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
MDM 038	The EES shall protect and complement the data layer with a layer of business services for accessing and manipulating the client and provider data that is built for an SOA environment, by exposing web services interfaces.		
MDM 039	The EES shall be capable of flexible configuration into a range of architectural styles in terms of instantiation, latency and use of client and provider data to enable different deployment scenarios, such as the consolidation, registry, coexistence and centralized scenarios.		

15. Consent Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CMT 001	The EES shall be interoperable/Contractor agnostic.		
CMT 002	The EES shall support break-the-glass/ override access for emergency data access per HIPAA.		
CMT 003	The EES shall provide an alert mechanism for privacy breaches.		
CMT 004	The EES shall be non-disruptive to worker workflow.		
CMT 005	The EES shall be centralized to consistently enforce policies network-wide.		
CMT 006	The EES shall enable all applications to support consumer consent.		
CMT 007	The EES shall accommodate granular directives.		
CMT 008	The EES shall audit all access to protected information in real time.		
CMT 009	The EES shall provide an alert mechanism for privacy breaches or when HIPAA break-the-glass or override functions are enacted.		
CMT 010	The EES shall be highly flexible to meet changing requirements.		
CMT 011	The Department has a strong preference to use a COTS product to provide the consent management required for the EES.		
CMT 012	The EES shall have the consent service tied into role-based access control system for real-time permissions access-granting/removal/denial.		
CMT 013	The EES shall provide extensive search and reporting capabilities on any consent audit event data.		
CMT 014	The EES shall maintain historical record of consent/removal of consent.		

16. Business Intelligence and Reporting Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 001	The EES shall provide the ability to impose graduated access to reports based on user role and agency requirements/permissions to better analyze program data.		
BIR 002	The EES's business intelligence and reporting capabilities must be scalable to accommodate changes in EES scale including changes in user population, transaction volume, throughput and geographical distribution while maintaining the agreed service levels.		
BIR 003	The EES shall have a mechanism to share specific data (e.g. limited data sets, detailed data at the level of the individual but with the data anonymous and completely de-identified, etc.) in a controllable fashion with other State and local agencies.		
BIR 004	The EES shall be extensible and have a scalable data architecture incorporating State and external data.		
BIR 005	The EES shall provide a tool to allow predictive modeling and analysis utilizing production data and coexist and integrate with tools such tools as SPSS and SAS.		
BIR 006	The EES shall provide the ability for user to create and customize reports, queries, and dashboards.		
BIR 007	The EES shall provide scalable architecture and support designs that will provide flexibility to add more data fields and change granularity level efficiently as analytic demand matures and expands.		
BIR 008	The EES shall have the ability for logical and physical view creation and storage.		
BIR 009	The EES shall support designs that facilitate a single view of business data.		
BIR 010	The EES shall support OLAP database structure for use in analytics and business intelligence to include ROLAP or MOLAP processing.		
BIR 011	The EES shall support hierarchical drill up/down; ad-hoc query; multi-dimensional tables and views.		
BIR 012	The EES shall provide the ability to support data mining functions.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 013	The EES shall provide the ability to perform in-database analytics.		
BIR 014	The EES shall offer options to use Database Management EES (DBMS)-integrated data integration tool and/or third party Contractor integration tool.		
BIR 015	The EES shall support fast large volume data loading and shall have the ability to capture real-time data.		
BIR 016	The EES shall have the ability to capture delta of changes to data from diverse systems and populate them to Shared Analytics.		
BIR 017	The EES shall provide the ability to capture and load data via SOA-based services and the ability to schedule data integration and load jobs.		
BIR 018	The EES shall include the ability to facilitate design and construction of data integration processes.		
BIR 019	The EES shall provide the ability to create custom transformations and the ability to group and reuse mapping and transformation operations.		
BIR 020	The EES shall provide comprehensive metadata management from source to target.		
BIR 021	The EES shall provide single repository for metadata, such as mappings of business concepts to underlying data structures, business glossary, data lineage, reference data, and objects (e.g. view, table, join) and reports from source to target.		
BIR 022	The EES shall provide the ability to import metadata from tools and data sources.		
BIR 023	The EES shall provide data quality tools and/or support 3rd party data quality tools for data profiling, cleansing and monitoring.		
BIR 024	The EES shall produce metadata and/or data dictionaries in a format that the Department can consume, e.g., Word, Excel, PDF, OF, etc.		
BIR 025	The EES shall be highly available via various mechanisms, e.g. data marts, data replication, clustering and backup configuration.		
BIR 026	The EES shall support reorganization of databases, indexes and configurations online without the need for the EES to shut down.		
BIR 027	The Contractor shall release upgrades and patches that shall be applied with minimal loss of system availability during production hours.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 028	The EES shall allow data loading to support environments with small or no window where system is down when loading data.		
BIR 029	The EES shall provide standards based connectivity including Open Database Connectivity (ODBC), Java Database Connectivity (JDBC), Web Services (WS) and others.		
BIR 030	The EES shall have no limit on the size of data types (including CHAR, NUM, CLOB, BLOB and XML) that are less than that of the manufacturer-known and published limits of the underlying DBMS.		
BIR 031	The EES shall have no limits on the size of tables, indexes and other database-level objects that are less than that of the manufacturer-known and published limits of the underlying DBMS.		
BIR 032	The EES shall support both horizontal and vertical scaling.		
BIR 033	The EES shall have an option for fast loading of data into the database. Where necessary this will include minimal relaxation of quality and integrity constraints and mechanisms for carrying out data quality checks as the final stage in the process.		
BIR 034	The EES shall provide for expansion of data storage as needed to accommodate increased volume of data based on approved Capacity Plans by the Department.		
BIR 035	The EES shall be American National Standards Institute (ANSI) Structured Query Language (SQL) Compliant. (Contractor needs to specify version of SQL compliance – e.g. 2003, 2006, 2008).		
BIR 036	The EES shall be XQuery 1.0 standard compliant.		
BIR 037	The EES shall support industry standards for electronic data exchange.		
BIR 038	The EES shall provide flexibility in using public/private cloud versions of the DBMS as an option to provide cost-effective scalability as needed.		
BIR 039	The EES shall run on and be portable across multiple Contractors' hardware and operating systems (e.g. IBM, HP, and Dell hardware, AIX, Linux, and Windows Operating Systems and VMware)		
BIR 040	The EES shall make an underlying DBMS available as a data warehouse appliance so it is also available as a standalone query-able DBMS.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
BIR 041	The EES shall support major application development interfaces (e.g. .NET interface, Java 2 Platform, Enterprise Edition [J2EE]).		
BIR 042	The EES shall support various database connectivity protocols (e.g. ODBC, JDBC, etc.)		
BIR 043	The EES shall support all connections required for BI analysis and reporting tools and ETL tools.		
BIR 044	The EES shall support stored procedures and extensions.		
BIR 045	The EES shall not employ triggers or cursors.		
BIR 046	The EES shall support native geo-spatial data types.		
BIR 047	The EES shall provide DBA tools for monitoring and administering DBMS and contain tools to manage the storage devices.		
BIR 048	The EES shall have built-in utilities to the DBMS to automate the normal day-to-day DBA operations (e.g., automated index rebuilding, free space reclamation and block reorganization).		
BIR 049	The EES shall provide the ability to:		
BIR 050	• prioritize workload executions and ensure quality-of-service;		
BIR 051	• partition indexing and aggregate management via parameters and tools;		
BIR 052	• simulate the various workloads and mixes		
BIR 053	The EES shall provide workflow and collaboration support for administrator tasks.		

17. Rules Engine Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 001	The EES shall support data verification and consistency checks.		
RLE 002	The EES shall support compute values based on input data.		
RLE 003	The EES shall support the selection of business process path.		
RLE 004	The EES shall support mechanisms and ease of use for users to edit rules while maintaining compliance with CMS rules.		
RLE 005	The Contractor must follow all standards defined by CMS in Guidance for Exchange and Medicaid Technology Systems and Enhanced Funding Requirements: Seven Conditions and Standards; and other federal guidelines yet to be defined; including use a technology neutral rules repository.		
RLE 006	The EES shall support design for a multi-step decision.		
RLE 007	The EES shall have the ability to tune individual steps in the overall decision process for maximum performance by the execution engine.		
RLE 008	The EES shall support reporting requirements either natively or integrate with other reporting tools to provide reporting.		
RLE 009	The EES shall support repository infrastructure for rule storage and versioning.		
RLE 010	The EES shall support seamless and easy user interaction.		
RLE 011	The EES shall provide context sensitive help and extensive documentation.		
RLE 012	The Rules Engine must be able to submit business rules to a federal repository at such time as the repository exists.		
RLE 013	The EES shall support high performance and scalability, including the following characteristics:		
RLE 014	• High performance for large rule bases (more than 20,000 rules)		
RLE 015	• Ability to share rule sets across multiple engines		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 016	• Dynamic and static execution versions for performance		
RLE 017	• Multiple, cross-platform support		
RLE 018	• Segmented repositories		
RLE 019	• Pre-built rule paths		
RLE 020	• Rule pre-fetch to memory		
RLE 021	• Parallel rule search		
RLE 022	• Ability to compile rule sequences into base languages like C++, Java and C#		
RLE 023	The EES shall support advanced inference features, including:		
RLE 024	• Truth maintenance to support parallel rule execution		
RLE 025	• Inductive and deductive problem sets supported		
RLE 026	• Recursive rules supported		
RLE 027	• Rule aggregation supported		
RLE 028	• Links to simulation capabilities		
RLE 029	• Agent or daemon links		
RLE 030	• Object inheritance supported		
RLE 031	• Multiple-engine support		
RLE 032	The EES shall include rule management features for the execution engine, including:		
RLE 033	• Rule extensibility		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 034	• Rule mapping to owners and stewards		
RLE 035	• Rule change impact analysis purposes		
RLE 036	• Integration/coordination of distributed rule engines with a corporate "master"		
RLE 037	• Ability to rerun the engine for a point which has passed (for example, after 1 January, still able to rerun year-end jobs with 31 December rules)		
RLE 038	• Ability to enter new rules or changes to become effective on a future date (for example, ability to put in the rule changes for 1 January in December)		
RLE 039	• Rule consistency/collision checks		
RLE 040	• Rule versioning		
RLE 041	• Release versioning and rollback		
RLE 042	• Rule security		
RLE 043	The EES shall include a rule repository for global rule management, including:		
RLE 044	• nomadic support		
RLE 045	• an extensible meta model		
RLE 046	• rule merge support		
RLE 047	• versioning/lockout		
RLE 048	• rule promotion		
RLE 049	• change management		
RLE 050	• electronic rule distribution (publish or subscribe)		
RLE 051	• security		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 052	The EES shall support ease of use in operation/development and administration, including:		
RLE 053	• Rule-firing audit report capabilities		
RLE 054	• Rule views by project or role		
RLE 055	• Ability to be used as a wizard/plug-in for multiple development environments		
RLE 056	• Dynamic rule change supported		
RLE 057	• Rules separated from the engine		
RLE 058	• Constraints naturally supported		
RLE 059	The EES will include the capability to save and retrieve partial user sessions.		
RLE 060	The EES shall provide the capability to associate effective dates with each program and rule in the rules engine.		
RLE 061	The EES shall provide the capability to associate a rule with multiple program profiles.		
RLE 062	The EES shall provide the capability to identify and apply a rule change appropriately to existing cases.		
RLE 063	The EES shall provide the capability to copy an existing rule to create a new rule.		
RLE 064	The EES shall provide the ability to identify all other rules that are dependent on a specific rule by allowing rules association.		
RLE 065	The EES shall provide the capability to generate and display a flow chart of each program profile.		
RLE 066	The EES shall provide the ability to maintain and display the history of each rule change in the rules engine to show previous versions of the rule, a timestamp of when the change was made and the ID of the user making the change.		
RLE 067	The EES shall provide the capability to add additional table-driven variables to support new regulations using a rules engine.		
RLE 068	The EES shall include an automated rule build capability for rule repository propagation through the environments Development, Integration/Test, User Acceptance Testing and Production.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 069	The EES shall have the ability to expose sets of interrelated rules in the rules repository as either a web service and/or in an interactive, web-based interview format.		
RLE 070	The EES shall have the ability to create customizable web-based, interview sessions based on defined rule sets.		
RLE 071	The EES must facilitate the creation and maintenance of rules referencing complex data relationships this will include, but not be limited to, rules referencing complex many-to-many relationships between entity types		
RLE 072	The EES must have the ability for text documentation and meta-data to be included as part of the rules repository.		
RLE 073	The EES will have documentation to assist rule authors and administrators with best practices for rule repository creation and maintenance, repository check-in/checkout, repository promotion across environments.		
RLE 074	The Contractor shall partner with the Department management and Rule Author(s) to design suitable policy models for Eligibility Determination and other rules to be automated using the proposed Rules Management System.		
RLE 075	The Contractor shall transform all of the state's Medicaid eligibility program rules into a format that can be consumed by the proposed Rules Management System.		
RLE 076	The Contractor shall create the program rules in the proposed Rules Management System and test them in an established environment.		
RLE 077	The Contractor shall create a valid set of rules to transition from the current mainframe system to the proposed Rules Management system in preparation for the new SOA system.		
RLE 078	The Contractor rules management team will work with and mentor the Department staff Rule Author(s) in the best practices of: - Converting rules from federal or legislative documents into properly structured rules that can be consumed by the proposed Rules Management System and writing future rules in such a way that eases the transition - Capturing meta-data about each of the rules sets and how they function		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 079	The Contractor shall provide guidance on: - How best to store and look up the meta-data - Defining the Lifecycle of rule sets - How to integrate or flow rules - How to provide help or commentary on rules - General use of the proposed Rules Management System		
RLE 080	The Contractor shall provide selected Department staff with holistic education on the proposed Rules Management system that includes (but is not limited to): - Knowledge about how the proposed Rules Management system works - Knowledge about how to structure the Rule Author(s) to meet the Agency goals - Knowledge about how to create, maintain and update rules in the proposed Rules Management system		
RLE 081	The EES shall have the ability to test rules independently from the application with which they are being integrated.		
RLE 082	The EES shall have the ability to debug rules using an integrated tool.		
RLE 083	The EES shall have the ability to assign effective dates to rules to control when rules are applied and to allow the storage and application of rules in historical, current, and future contexts.		
RLE 084	The EES shall have the ability to invoke rules as a service from the service integration capability as well as directly from other system modules.		
RLE 085	The EES shall have the ability to record and output the exact reasons and/or basis for decisions determined by the Rules Engine.		
RLE 086	The EES business rules shall be expressed using a consistent, technology-neutral standard format that is human-readable.		
RLE 087	The EES shall provide a Business Rules Engine to generate transaction logs in accordance with the Harmonized Security and Privacy Framework and other federal requirements.		
RLE 088	The EES shall provide a Business Rules Engine, which generates transaction logs in accordance with the Health Insurance Portability and Accountability Act (HIPAA)		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
RLE 089	The EES should be able to recreate results on a unique set of data regardless of when the rules are executed; modeled and/or What-if situations are required.		
RLE 090	The EES should provide a Business Rules Engine which contains a process for built-in rule review and approval process that should identify any conflicts in business rules as they are being developed.		
RLE 091	The EES should include a Business Rules Engine which provides a debugging process that automatically analyzes and identifies logical errors (i.e. conflict, redundancy, and incompleteness) across business rules.		
RLE 092	The EES should provide a Business Rules Engine which allows for the tracking and reporting of rules usage.		
RLE 093	The EES should include a Business Rules Engine which provides the flexibility to define business rules by inclusion or exclusion.		
RLE 094	The EES should include a Business Rules Engine which provides the capability for the user to view and model rules for system exceptions online and to trace exception rule dependencies.		
RLE 095	The EES should provide a Business Rules Engine to manage the synchronization of business policies and rules across physical system environments. (e.g. development, test, training and production).		
RLE 096	The EES should have the ability to automatically promote rules from one environment to another (e.g. development to system test to user acceptance to production) as well as rollback changes to a previous version.		
RLE 097	The EES should have the ability to produce and consume rules in both machine and human readable formats (which may be the same format).		
RLE 098	The EES should have the ability to define rules via a customizable business vocabulary using rule metaphors, including decision tables, decision trees, and text-based rules.		

18. Portal Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 001	The EES shall provide a portal UI framework that separates content from logic and is robust, scalable and interoperable with W3C Web-based standards.		
PRT 002	The EES shall provide session management capabilities to support user sessions and coordinated back-end application functionality.		
PRT 003	The EES shall provide support for multiple languages and character set encoding standards.		
PRT 004	The EES shall provide portal personalization and customization capabilities for the constituent user experience.		
PRT 005	The EES shall support access from multiple channels and devices.		
PRT 006	The EES shall provide support for Web content management EES that is robust and scalable.		
PRT 007	The EES shall provide time-based content expiration and version management capabilities.		
PRT 008	The EES shall provide Web content related workflow management capabilities.		
PRT 009	The EES shall provide syndicated content capabilities including creation and subscription to RSS feeds		
PRT 010	The EES shall provide content metadata attributes for portal extensibility.		
PRT 011	The EES shall provide multimedia Web content management capabilities.		
PRT 012	The EES shall provide wiki- and blog-based capabilities		
PRT 013	The EES shall provide XHTML e-form capabilities.		
PRT 014	The EES shall provide survey engine capabilities.		
PRT 015	The EES shall provide chat and instant messaging (IM) support.		
PRT 016	The EES shall provide the capability to consume externally available mapping Web services.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 017	The EES shall provide portlet capabilities.		
PRT 018	The EES shall provide inter-portlet communications that are robust, scalable and reliable using Shared Render Parameter and Events methods.		
PRT 019	The EES shall provide search engine capabilities.		
PRT 020	The EES shall provide taxonomy-based cataloging of portal resources.		
PRT 021	The EES shall provide index-based search capabilities.		
PRT 022	The EES must allow for user analytics to be captured and reported		
PRT 023	The EES shall support commonly used Internet browsers without any degradation in functionality, including the following:		
PRT 024	• Internet Explorer Version 8.0 or greater		
PRT 025	• Mozilla Firefox Version 6 or greater		
PRT 026	• Google Chrome Version 20 or greater		
PRT 027	• Apple Safari version 5.1 or greater		
PRT 028	• Opera Browsers 10 or greater		
PRT 029	The EES shall meet all American with Disabilities Act (ADA) and Limited English (LEP) requirements as required by the ACA and Federal regulations.		
PRT 030	The EES shall allow consumers to submit applications with an electronic signature that complies with State, federal, and agency requirements and standards.		
PRT 031	The EES shall use cascading style sheets and other modern browser technologies to ensure that the look and feel of the site can be changed without requiring reprogramming the portal if using a browser based interface.		
PRT 032	The EES shall provide the ability to capture, display and maintain confidentiality statements and privacy protections as specified by the Department.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
PRT 033	The EES shall provide the ability to capture, display and maintain signature acknowledgement(s) of completed forms / case activity(s) as specified by the Department.		
PRT 034	The EES shall provide the ability for external users (e.g. Clients, Community Partners) to upload documents as specified by the Department.		
PRT 035	The EES should support small form-factor devices, including the following mobile phone and tablet platforms:		
PRT 036	• iOS phones and tablets		
PRT 037	• Android phones and tablets		
PRT 038	• Blackberry phones and tablets		
PRT 039	• Windows mobile phones and tablets		
PRT 040	The EES should be 100% accessible via the Internet and require no desktop software (including specialized plug-ins and applets) except for the commercially-available web browsers listed above.		
PRT 041	The EES should provide web analytics.		
PRT 042	The EES should provide citizen and business-centric portals.		
PRT 043	The EES should have a common look and feel across the portal, regardless of the source of information		

19. Application Server Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
APP 001	The Application Server shall be a scalable, enterprise-ready application and shall support the deployment of many types of distributed applications and provides an ideal foundation for building applications based on SOA.		
APP 002	The Application Server shall enable deployment of mission-critical applications or components in a robust, secure, highly available, and scalable environment.		
APP 003	The Application Server clusters shall provide scalability and reliability for applications by distributing the work load among multiple instances of the server.		
APP 004	The Application Server clusters shall have overload protection to allow the server the ability to detect, avoid, and recover from overload conditions.		
APP 005	The Application Server clusters shall prioritize work based on pre-defined rules and by monitoring actual run time performance statistics.		
APP 006	The Application Server clusters shall store-and-forward services to enable the server to deliver messages reliably between applications that are distributed across many Server instances.		
APP 007	Allows for System Administration that include tasks such as creating Application Server domains; deploying applications or components; migrating domains from development environments to production environments; monitoring and configuring the performance of the application Server domain; and diagnosing and troubleshooting problems.		
APP 008	The Application Server security architecture shall provide a comprehensive, flexible security infrastructure designed to address the security challenges of making applications or components available on the Web.		
APP 009	Shall provide for a monitoring and diagnostic service that creates, collects, analyzes archives, and accesses diagnostic data generated by a running server and its deployed applications.		
APP 010	The EES must allow for user analytics to be captured and reported.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
APP 011	The EES shall support session replication to support transparent fail over.		
APP 012	The EES shall provide guidelines and tools (MVC frameworks, persistent frameworks) to create web applications (portal or stand-alone) with basic CRUD functionality.		

20. Database Management System Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 001	The EES shall lock database records based on various parameters (e.g., at row level, field level, or at the application level).		
DMA 002	The EES shall accommodate separate instances of databases.		
DMS 003	The EES shall support online modifications to database structures with minimal user downtime.		
DMS 004	The EES shall allow for data and transaction replication including, but not limited to, copying an instance of any database to specified locations (e.g. SAN, Multi-site implementations)		
DMS 005	The EES shall provide standard data extraction APIs to allow import and export of data.		
DMS 006	The EES shall provide documented best practices including, but not limited to optimum database configuration, client maintenance and change control.		
DMS 007	The EES shall handle load balancing, failover and/or clustering ability for extended scalability and performance		
DMS 008	The System shall avail the capacity planning model for database configuration.		
DMS 009	The EES supports advanced configurations for data caching (e.g., support of client/application caching, support of server caching, etc.)		
DMS 010	The EES shall have the ability to optimize performance in transaction processing versus report processing		
DMS 011	The EES shall use history tracking within the database and logging options (e.g., transaction auditing)		
DMS 012	The EES shall be fully ACID (Atomicity, Consistency, Isolation, Durability)- compliant so as to ensure it handles transaction rollbacks, validity and referential integrity checks, etc.		
DMS 013	The EES shall handle record locking (e.g., row, field, other) and record updating/committing.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 014	The EES shall support indexing technology (multiple types of Indexing shall be available to tune performance of SQL statements).		
DMS 015	The EES must have the ability to support a variety of data model constructs including complex entity relationships and complex many-to-many relationships		
DMS 016	The EES shall provide the ability to optimize individual queries and support parallelizing a query to run on multiple CPUs at the same time to increase performance.		
DMS 017	The EES shall manage multiple query queue entries in parallel.		
DMS 018	The EES shall offer tools to manage and control disparate mixed workloads in a DBMS environment.		
DMS 019	The EES must have the ability to maintain security based upon defined roles.		
DMS 020	The EES must have data replication capabilities to external file formats or other RDBM Systems.		
DMS 021	The EES shall have full, incremental and transaction log backup and recovery capabilities on both a regular schedule and an ad hoc basis, including redundant off-site backups.		
DMS 022	The EES shall provide the capability to remain fully-functional during database backup windows.		
DMS 023	The EES must support geo-coded address data for the storage and retrieval of latitude and longitude coordinates.		
DMS 024	The EES shall assist the Department in developing procedures to ensure that specified data is archived and protected from loss, unauthorized access, or destruction.		
DMS 025	The EES shall have the ability to extend the data model in a manner that is compatible with framework upgrades.		
DMS 026	The EES shall have the ability within the base data model to store effective and expiration dates for items being tracked.		
DMS 027	The EES shall have the ability to prevent the alteration of information that has been deemed as historical.		
DMS 028	The EES shall have the ability to maintain the data model and associated dictionaries and generate appropriate DDL for local modifications and new releases of the product.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 029	The EES shall have the ability to gather and analyze database performance information and provide recommendations for improvement.		
DMS 030	The EES shall employ one defined set of data standards (e.g., consistent data schema, data element, data class, field lengths, data tables, view naming conventions).		
DMS 031	The EES shall provide consistency and validity checks on data elements at the database level.		
DMS 032	The EES shall provide a data history in accordance with state and federal law (7 years is the general requirement except where otherwise indicated).		
DMS 033	The EES shall provide the ability to archive records (i.e., remove from active system) based on administrator defined criteria.		
DMS 034	The EES shall properly normalize or de-normalize all tables for efficient operation.		
DMS 035	The EES shall store all data (data, configuration, user, etc.) in a central repository.		
DMS 036	The EES shall provide sharing of data among all parts of an integrated system.		
DMS 037	The EES shall store all data in industry-standard relational databases that use referential integrity rules.		
DMS 038	The EES shall have the capability and capacity to maintain data as required by Nebraska and federal requirements as well as the DHHS electronic retention policy		
DMS 039	The EES should have the ability to support conceptual, logical and physical modeling.		
DMS 040	The EES should have the ability to reverse engineer, document, and inventory existing databases.		
DMS 041	The EES should include metadata on all data fields stored in the database, web services, or indexed documents in the document library.		
DMS 042	The EES should provide the ability to return archived records to the active system based on user request and/or administrator defined criteria.		
DMS 043	The EES should provide the ability to configure a retention schedule for records and documents.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DMS 044	The EES should provide automatic program checks for controlling data files, verifying correct processing, and ensuring data integrity.		
DMS 045	The EES should have the ability to retrieve data based on worker requests and retrieve the data and return it to the system within 24 hours.		

21. SOA Governance Infrastructure Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
GOV 001	The Enterprise Metadata Repository shall provide design-time governance in support of the service life phase, delivering key capabilities for the storage and management of an extensible set of metadata for number of composites, services, business processes, and other IT-related assets.		
GOV 002	A Service Registry shall serve as an integration point for runtime tooling.		
GOV 003	The SOA governance infrastructure should support the Service Bus in subscribing to new or modified assets.		
GOV 004	The SOA governance infrastructure should facilitate composite applications in discovering updated endpoints and WSDL locations.		
GOV 005	As part of the SOA governance model, Runtime monitoring tooling should publish metrics to the Service Registry.		
GOV 006	The security policy manager for Web services shall allow for centrally defined security policies that govern Web services operations (such as access policy, logging policy, and load balancing).		
GOV 007	The ESB solution shall provide dynamic discovery and service level monitoring of all artifacts deployed in the Application Server.		
GOV 008	The Contractor shall define governance processes for the following domains:		
GOV 009	• Service Portfolio Management		
GOV 010	• Services Technical Architecture		
GOV 011	• Service Design & Development		
GOV 012	• Configuration & Release Management		
GOV 013	• Contract Management		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
GOV 014	• Service Monitoring & Control		
GOV 015	• Incident Management		
GOV 016	• Change Management		

22. Business Process and Case Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CSE 001	The EES shall include business process management capabilities (e.g., roles, responsibilities, policies, procedures, approvals, deadlines, integrations, etc.).		
CSE 002	The EES shall provide process execution and state management.		
CSE 003	The EES shall interact/integrate with the case management components with Enterprise Data Management and Content Management Systems.		
CSE 004	The EES shall enable collaboration.		
CSE 005	The EES shall enable BAM (Business Activity Monitoring) and event-based notifications.		
CSE 006	The EES shall provide simulation and optimization.		
CSE 007	The EES shall provide a registry for process components.		
CSE 008	The EES shall provide robust Administration functions.		
CSE 009	The EES shall provide and/or integrate with a robust and easily configurable workflow engine.		
CSE 010	The EES shall include the capability to assign tasks to staff based on defined business rules.		
CSE 011	The EES shall include the capability to route work to the next person in a workflow based on process outcomes.		
CSE 012	The EES shall provide an automated method to balance workload based on user and work unit queues or skills and availability.		
CSE 013	The EES will provide a method to manually reassign workload based on user input.		
CSE 014	The EES shall support e-mail (push) or on-line queries (pull) by a user for work that is in their queue.		
CSE 015	The EES shall provide data validation rules to ensure data validity		
CSE 016	The EES shall enforce workflow rules (with task checklists) to ensure that processes are completed correctly.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
CSE 017	The EES shall improve management and staff accountability through the production of reports and/or electronic notifications which will alert users of pending and overdue work.		
CSE 018	The EES shall provide for comprehensive case tracking as defined in requirements detailed during system configuration - minimally these requirements will include logging of task status, case and contact history, issues, etc.		
CSE 019	The EES shall track milestones and due dates and support notification of the appropriate parties about upcoming and overdue milestones.		
CSE 020	The EES shall support multiple forms of electronics notification channels for external users (e.g. text, page, etc.).		
CSE 021	The EES shall support a visual/modeling tool to define business process flows.		
CSE 022	The EES shall be integrated and exposed via portal for citizens (100%) and key functionality for other users, enabling high usage of system within portal.		
CSE 023	The EES shall support standard business process definition languages.		
CSE 024	The EES shall provide the capability to tie business rules to workflows.		
CSE 025	The EES shall provide the capability to link a workflow to one or more workflows.		
CSE 026	The EES shall provide the capability to suspend and resume a workflow that is incomplete.		
CSE 027	The EES shall provide production of reports and/or electronic notifications to identify suspended workflows.		

23. Application/Transaction Monitoring and Logging Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
TNS 001	The EES shall log all system transactions and keep them easily retrievable and sortable.		
TNS 002	The EES shall detect major errors related to one or more components including loss of network connectivity, a database server going off line, or the application suffers an out-of-memory situation.		
TNS 003	The EES shall detect less than desirable application performance, such as degraded servlet, database or other back end resource response times.		
TNS 004	The EES shall have safeguards designed to ensure that configuration variables affecting the application and the back end resources remain at Department predetermined configuration settings.		
TNS 005	The EES shall detect intrusion attempts by unauthorized system users.		
TNS 006	The EES shall monitor critical performance parameters such as response time, resource availability, CPU Utilization, etc.		
TNS 007	The EES shall provide a holistic view of a wide range of application services and network services providing the ability to drill down to a level where the observations provide useful information and both real-time and snapshot views.		
TNS 008	The EES shall send alarms based on the monitored attributes; these can be escalated through E-Mail / SMS etc.		
TNS 009	The EES shall provide information on the bottleneck in the system.		
TNS 010	The EES shall allow Department staff to perform admin activities through an intuitive user interface.		
TNS 011	The EES shall have the ability to create custom dashboards to empower the users.		
TNS 012	The EES shall allow for different roles for Users including Operators, Administrators, Managers etc.		
TNS 013	The EES shall allow for report generation and analysis for application troubleshooting and capacity planning.		

24. Enterprise Content Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
	Document Management		
DOC 001	The EES shall provide the ability to capture EES-generated documents and store them at appropriate level (e.g. individual, case, program, application, various workflow/process).		
DOC 002	The EES shall provide the ability to store electronic forms (EES generated or 3rd-party generated forms).		
DOC 003	The EES shall enable indexing and searching of documents by a variety of user-defined metadata attributes.		
DOC 004	The EES shall provide support for full text search.		
DOC 005	The EES shall provide built-in viewers/converters for a wide variety of file types.		
DOC 006	The EES shall provide digital rights management capabilities.		
DOC 007	The EES shall provide check-in/check-out functionality for electronic documents.		
DOC 008	The EES shall provide notification features for files that are checked out (overdue, availability, etc.).		
DOC 009	The EES shall ensure version control of documents as they are changed or modified.		
DOC 010	The EES shall allow rollback to a previous version of a document.		
DOC 011	The EES shall enable collaborative document creation and/or markup.		
DOC 012	The EES shall enable attachment of documents to e-mails and e-mail distribution lists.		
DOC 013	The EES shall utilize the EES' authorization and access control for file level security.		
DOC 014	The EES shall have the ability to, based on rules or context, automate the creation of indexing, meta data and overall taxonomy.		
DOC 015	The EES shall have robust bulk load and conversion features.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
DOC 016	The EES shall provide the capability to communicate natively with the document management API.		
DOC 017	The EES shall provide the capability to access the output of the document management system over the Internet and/or Intranet web sites.		
DOC 018	The EES shall develop a user guide that can be accessed online and printed on demand.		
DOC 019	The EES shall provide the capability for online access to policy and procedure and training materials.		
DOC 020	The EES shall be integrated with document processing center workflow.		
	Imaging and Image Capture		
IMG 001	The EES shall accommodate multiple imaging locations.		
IMG 002	The EES shall integrate the Imaging and Document Management System with Nebraska's Hyland On-Base solution.		
IMG 003	The EES shall provide the capability to access Nebraska's Hyland On-Base solution to extract data to pre-populate index fields, and/or values on forms.		
IMG 004	The EES shall provide the capability to send and receive faxed and e-form documents, process the data and image directly into and out of the system including the ability to automatically send confirmation of transmission to the sender.		
IMG 005	The EES shall provide the capability for performing conditional routing that will send documents to a specific queue or inbox, either manually or electronically, based on preset conditions as defined by the User.		
IMG 006	The EES shall provide the capability to store and view a multiple page document as a single document.		
IMG 007	The EES shall provide the capability to attach notes, annotations, e-mails and other documents to an original scanned document at any time without rescanning.		
IMG 008	The EES shall provide the capability to notify the user when a duplicate document has been received so the user can decide whether to use the previously received document, replace the existing document or store the new document separately.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IMG 009	The EES shall provide the capability to link imaged documentation together and link it to an individual and/or cases within Nebraska EES.		
IMG 010	The EES shall provide the capability to record user and workstation identification for each document processed, accessed or updated.		
IMG 011	The EES shall provide the capability for documents to be grouped together during scanning based on user defined criteria.		
IMG 012	The EES shall provide the capability to allow the User to manually remove, rescan and replace a previously scanned image or document(s).		
IMG 013	The EES shall provide the capability to employ user-defined form/template, indexes and/or field values for recognition and retrieval of documents.		
IMG 014	The EES shall provide the capability to validate data captured from specific fields on forms electronically read by OCR/OMR/ICR.		
IMG 015	The EES will provide the capability to archive documents manually and/or automatically by user-defined criteria.		
IMG 016	The EES shall provide the capability for archived documents to be retrieved and re-indexed.		
IMG 017	The EES shall provide the capability to permanently delete documents based on user defined criteria.		
IMG 018	The EES shall provide the capability to interface with other imaging systems using industry standard interfaces and file formats.		
IMG 019	The EES shall provide the capability to version multiple copies of scanned documents.		
IMG 020	Scanners provided as part of the EES shall have the capability to scan at least 80 pages per minute.		
IMG 021	The EES shall provide image retrieval response times within a maximum of two seconds for all documents stored in the system given a minimum level of bandwidth agreed during detailed requirements and EES configuration.		
IMG 022	Scanners provided as part of the EES shall provide the capability for simplex and duplex scanning.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IMG 023	The EES shall provide audit trail functions with the ability to log every step in the process to a database for query and reporting purposes.		
	Records Management		
REC 001	The EES shall automatically calculate transfer and destruction dates (and assign records ready for deletion to the appropriate review process for approval of final deletion) for all records in the retention schedules.		
REC 002	The EES shall provide email notification of disposition results		
REC 003	The EES shall include a workflow tool to support the records management process.		
REC 004	The EES shall allow users to manually or automatically classify records or classified automatically based on a policy/rules engine.		
REC 005	The EES shall allow administrators and authorized users to create, apply, view or remove legal holds for individual or multiple records.		
REC 006	The EES shall have the capability to produce colored and bar-coded labels created for physical records.		
REC 007	The EES shall have the capability to check records in and out using barcodes, with adherence to security permissions and support the use of barcode scanners for the purpose.		
REC 008	The EES shall have the capability to track all types and sizes of storage containers within storage locations.		
REC 009	The EES shall have the ability for an administrator to create and maintain retention schedules.		
REC 010	The EES shall have the ability to create disposition, legal hold and audit reports for the records.		
	Web Content Management		
WEB 001	The EES shall provide content authoring capabilities including:•		
WEB 002	• Provide a structured container for the content (e.g. document)		
WEB 003	• Support reuse via Copy and Paste or "Save As"		
WEB 004	• Tracking of changes to content within a container		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 005	• Drag-and-drop page layout		
WEB 006	• Ability for collaboration by allowing the “single control” to transfer between authors, reviewers and authorizers		
WEB 007	• Real-time active collaboration allowing multiple authors to review and update the content in a container during the course of a shared session		
WEB 008	• Standard templates to make authoring documents within certain parameters		
WEB 009	• Facilitate the use of Microsoft Office creation tools to submit content directly into the WCM repository		
WEB 010	• The bulk import and export of XML content for integration and migration		
WEB 011	• Reuse of content and templates to enforce a common “look and feel” and brand identity		
WEB 012	• A flexible and extensible workflow to manage authoring review and approval of content across its life cycle		
WEB 013	• The ability to expire and retire content.		
WEB 014	The EES shall support the combination of text and other page elements, such as graphics, logos and buttons and multimedia, such as audio/video and Flash.		
WEB 015	The EES shall include the ability to support content in multiple languages.		
WEB 016	The EES shall support multiple versions of the same site using the same WCM instance and repository.		
WEB 017	The EES shall display content targeted toward specific user profiles.		
WEB 018	The EES shall target content based on visitor-supplied preferences		
WEB 019	The EES shall personalize a site based on customer transaction data, apply personalization rules to elements smaller than pages and use perceived behavior employing mechanisms to assess the behavior of an individual user (known or unknown) in real time and enable choice of delivered content based on that analysis).		
WEB 020	The EES shall provide reporting of:•		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
WEB 021	• The status and history of a piece of content		
WEB 022	• Content source and descriptive information		
WEB 023	• Timetable of release dates or content submission dates		
WEB 024	• User-definable audit reporting on an ad hoc basis for content		
WEB 025	• Active content page inventory		
WEB 026	The EES shall provide out-of-the-box log file analysis.		
WEB 027	The EES shall have the ability to find broken links and repair them.		
WEB 028	The EES shall have the capability to track and report on-site use and demographics.		
WEB 029	The EES shall provide content publication capabilities including:		
WEB 030	• Support in-context (what you see is what you get [WYSIWYG])		
WEB 031	• editing and the ability to preview rendered content in a staging area.		
WEB 032	• verify content for hygiene (for example, accessibility, spelling, format validation, privacy, security, speed of deployment)		
WEB 033	• Publish to multiple locations and channels based on predefined attributes		
WEB 034	• Roll back content publication if unsuccessful		
WEB 035	• Automatically publishing on a scheduled date		
WEB 036	• Support dynamic and event-driven presentation of content		

25. Identity Management Requirements

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IDT 001	The EES shall provide APIs/Connectors to integrate with a variety of 3rd party/custom applications to provide single sign-on.		
IDT 002	The EES shall enforce a limit of (configurable) consecutive invalid access attempts by a user.		
IDT 003	The EES shall protect against further, possibly malicious, user authentication attempts using an appropriate mechanism (e.g. locks the account/node until released by an administrator, locks the account/node for a configurable time period, or delays the next login prompt according to a configurable delay algorithm).		
IDT 004	The EES shall provide an administrative function to reset passwords.		
IDT 005	The EES shall not display passwords while being entered.		
IDT 006	The EES shall provide only limited feedback information to the user during the authentication.		
IDT 007	The EES shall support case-sensitive usernames that contain typeable alpha-numeric characters in support of ISO-646/ECMA-6 (aka US ASCII).		
IDT 008	The EES shall allow an authenticated user to change their password, automatically when possible, consistent with password strength rules.		
IDT 009	The EES shall support password strength rules that allow for minimum number of characters, and inclusion of alpha-numeric complexity.		
IDT 010	The EES shall support case-sensitive passwords that contain typeable alpha-numeric characters in support of ISO-646/ECMA-6 (aka US ASCII).		
IDT 011	The EES shall use either standards-based encryption, e.g., 3DES, AES, or standards-based hashing, e.g., SHA1 to store or transport passwords.		
IDT 012	The EES shall prevent the reuse of passwords previously used within a specific (configurable) timeframe, or shall prevent the reuse of a specific (configurable) number of the most recently used passwords.		

Req #	Requirement Description	Bidder Ability Code	Proposed EES/Comments
IDT 013	The EES shall meet:		
IDT 014	• CMS E-Authentication Assurance Levels		
IDT 015	• NIST 800-63 guidance **Level 1:** Single factor authentication, Identity proofing relies on subscriber's own assertions **Level 2:** Single factor authentication, requires verifying the individual's financial account information, and other information **Level 3:** Multifactor authentication, requires verifying the individual's financial account information, and other information **Level 4:** Multifactor authentication, In-person proofing is required Tokens (typically a cryptographic key or password) for proving identity,		
IDT 016	• Identity proofing, registration and the delivery of credentials which bind an identity to a token,		
IDT 017	• Remote authentication mechanisms, that is the combination of credentials, tokens and authentication protocols used to establish that a claimant is in fact the subscriber he or she claims to be		
IDT 018	• Assertion mechanisms used to communicate the results of a remote authentication to other parties.		
IDT 019	The EES should re-authenticate the user before any access to Protected Health Information (PHI) or other sensitive or confidential information is allowed, including when not connected to a network (e.g. on unconnected mobile devices).		
IDT 020	The EES shall encrypt storage of all passwords using a one-way hash or other equivalent functionality to minimize damage from a security breach.		

Revised Appendix D Gap Analysis
November 26, 2013

Any requirements that the Bidder cannot attest to full compliance; i.e., provides a value of "N" in the Ability Code field of the Appendix B Functional Requirements Traceability Matrix or Appendix C Non-Functional Requirements Traceability Matrix, must document the requirement gap as outlined in this Appendix.

The Bidder must ensure that the Gap Analysis Matrix contains an entry for each requirement where one or more of these conditions are true:
1. The Bidder has indicated "N" to Compliant in either RTM
2. The Bidder has indicated an M or C and indicated that 1,000 or more hours will be needed to meet the requirement as documented in the EES description in the RTM.

For each requirement gap, the Bidder must follow the instructions in this Appendix. The Bidder must copy exactly the Identifier, Requirement Description, and Ability Code from the RTM to ensure linkage between the RTM and the Requirement Gap Analysis Matrix.

The Bidder must provide an assessment of the requirement gap, including an estimate of its impact or severity if not compliant, and the steps necessary to close the gap and achieve full compliance. For system and/or product features that will support the requirement and close the gap, the Bidder must also provide an estimated date when the capability will be available as part of the Bidder's baseline capability.

Bidders are required to use the following Gap Analysis instructions:

Column Description	Bidder Responsibility
Identifier	The unique identifier of the requirement which does not have a compliant solution according to the criteria established in either Appendix B Functional Requirements Traceability Matrix or Appendix C Non-Functional Requirements Traceability Matrix. Copy the requirement identifier from the applicable RTM.
Requirement Description	Copy the requirement description from the applicable RTM for the requirement identified above.
Ability Code	Copy from the RTM for the requirement identified above.
Impact/Severity (Product development or integration effort to fulfill the requirement)	**High** (H)= >2500 hours **Medium** (M)=>1000 hours to <2500 hours **Low** (L)=<1000 hours
Gap Description	Provide a description and analysis of the gap.
Recommendation for Closure	Recommended steps provided by the Bidder to close the gap and achieve full compliance with the requirement.
Date Available	Date to be published/for release to baseline capability (e.g., available to installed EES base) per recommendation for closure above.

REVISED Appendix D Gap Analysis Matrix NOVEMBER 26, 2013						
Identifier	**Requirement Description**	**Ability Code**	**Impact Severity**	**Gap Description**	**Recommendation for Closure**	**Date Available**

RFP Revision 12/20/2013 Section IV. N - Provide Post Implementation Support

Request for Proposal Number 4544Z1

RFP Section IV.N Provide Post Implementation Support has been replaced and superseded in its entirety. RFP Sections IV.N.12 Warranty and RFP Section IV.N.13 Software Maintenance and Operations (M&O) have been revised.

N. PROVIDE POST IMPLEMENTATION SUPPORT

The EES Contractor must provide EES hosting, Disaster Recovery services and a dedicated Service Desk and Application Support Help Desk. The Service Desk will provide the single point of contact for systems related issues. The Application Support Help Desk, to be staffed during business hours (to be determined by the State of Nebraska), will provide support for issues related to the systems business functionality which need to be escalated for investigation and resolution. Both the Service Desk and Application Support Help Desk must be integrated into the internal support structures within the State of Nebraska. The Service Desk, the Application Support Help Desk, and associated staff must be physically located in the continental United States.

1. SYSTEM HOSTING

The EES Contractor will be responsible for hosting all systems during the DDI Period and must provide approach and costs for Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) for all environments. The EES must be hosted in a Tier IV data center with the provision of disaster recovery during the DDI Period. The Contractor shall provide, or utilize as applicable, the following hosted services by environment type. The Bidder is to propose, specify, implement and support as many environments or instances within each environment type as necessary to fully support the design, construction, delivery, operation and ongoing maintenance of the system as per this RFP. These environments are deliverables and are therefore required to be approved by the Department.

Sandbox: The sandbox environment is intended primarily for learning and experimentation of system features rather than for testing alterations to existing functionality. It isolates configuration changes and outright experimentation from the other environments within the systems landscape. Sandboxing protects "live" servers and their data, tested source code distributions, and other collections of code, data and/or content from changes that could be damaging. The Sandbox should replicate the minimal functionality needed to accurately test the functionality or configuration being exercised. This will be hosted by the Contractor in its facilities in the continental United States.

Configuration/Development: This environment will consist of the servers necessary to implement all the servers including Database, Application, Portal and other technical layers of the system stack. The environment will be used to support the daily software build cycle and to execute unit test to verify the continuous integration of the code base throughout the development cycle. This will be hosted by the Contractor in its facilities in the continental United States.

Testing: At scheduled intervals, specific builds of the code base will be placed into a "testing environment." This environment will be overseen by the testing team who will use it to verify functionality that has been implemented. This will be hosted by the Contractor in its facilities in the continental United States.

Quality Assurance: This environment will be used to assess compliance to requirements, risk of release, and performance capacity. This environment may be a scaled replication of the production environment to minimize errors caused by incompatibility. This will be hosted by the Contractor in its facilities in the continental United States.

Production: This environment should scale to accommodate the proposed and future capacity of the system and will be built for flexibility, scalability and redundancy. This will be hosted with the Contractor, or potentially collocated with other mission critical HHS applications with another provider. This will be hosted by the Contractor in its facilities in the continental United States.

Training: This separate and stable environment, must mirror production or as specified by the State of Nebraska, for use to train staff and other system users. The environment must have a minimum daily refresh capability to allow Trainers to delete practice and assessment data. This will be hosted by the Contractor in its facilities in the continental United States.
Disaster Recovery: All required environments to support the ongoing operation of the production system in the event of a disaster or outage condition at the selected computing center(s).

Each environment should be on a logically and/or physically separate sub-network to safeguard access to configuration, data, and code. The EES Contractor will maintain tight control over the configuration of all code through the use of a source control tool. This tool will provide the Development Team with the ability to check out code for editing in developer workstation sandboxes and to maintain a common code repository. At the end of the implementation of the EES, the State of Nebraska will have access to all environments.

The EES Contractor will provide a System Maintenance, Support and System Transition Plan for transitioning the production environment to the State of Nebraska's Data Center if desired by the State.

2. EQUIPMENT SUMMARY

The proposed infrastructure and systems will be housed in a purpose-built and dedicated physical environment. It is imperative that the proposed infrastructure and systems provide the highest level of control and responsiveness in meeting the State of Nebraska's business needs. The Primary Data Center (PDC) shall be configured at the Tier IV – Fault Tolerant Site Infrastructure Level (as defined by the Uptime Institute).

The PDC will provide processing power, control data traffic, and will house and manage all participant and program data. The PDC will at a minimum house:

a. Web Server(s);

b. Application Server(s);
c. Integration Server(s);
d. Portal Server(s);
e. Database Server(s);
f. Analytics Server(s);
g. Report Server(s); and
h. Storage Area Network (SAN).

The proposed infrastructure and solution set shall explore the use of server virtualization technologies in the data center in order to optimize the investments in server infrastructure and accelerate the ability to provision and deploy new servers and applications. Virtualization shall help reduce the TCO during the life of the EES.

In addition to these servers, managed enterprise class switches and routers shall help direct data traffic. Other hardware equipment at the PDC include generators, Uninterruptible Power Supplies (UPS) to provide continuous power in the event of a power failure, backup devices (Tape, RAID, SAN, etc.), Power Distribution Units (PDUs), fire suppression system, HVAC, telecommunications lines and equipment (DS3 lines) as well as an enterprise hardware firewall. Where applicable, the UPS should have the ability for unattended graceful shutdowns and restarts in the case of a total power failure.

A secondary data center will need to be established to handle failovers in case of problems with the PDC. This failover site equipment will mirror the PDC equipment configuration and data needed to restore full data center operations within the agreed to Recovery Time Objectives.

3. NETWORK

The Contractor is expected to provide highly redundant connectivity to the State of Nebraska Data Center facilities located in Lincoln, NE for all communications between the systems at Contractor's facility and those at the State of Nebraska. All users will be using the existing network infrastructure and functionality of the State of Nebraska's WAN. The Contractor is expected to leverage the State of Nebraska's WAN and the Internet to provide connectivity to all State of Nebraska workers.

4. IT SERVICE DESK

The EES Contractor will be responsible for providing a professional IT Service Desk to be physically located in the continental United States. The IT Service Desk will enable the central management of service delivery and provides the functions and oversight of Contractor's support services including:

a. Incident Management;
b. Problem Management;
c. Change Management; and
d. Service Requests.

Service support management represents a core support center that handles and manages the resolution of Incidents, Problems and Changes. This set of services manages events as they occur, and assures escalation, ownership and closure

of these events. The Service Desk should follow best practices based on ITIL v3 standards.

IT Service Desk approach should structure the engagement into four distinct stages:

a. **Stage 1:** Service Initiation - This stage covers all initiation activities.

b. **Stage 2:** Service Transition - This stage describes a process of transitioning the Service Desk into a full production environment.

c. **Stage 3:** Service Operations - This stage is the full systems support of the Maintenance & Operations Phase, where the Contractor has assumed full operational responsibilities.

d. **Stage 4:** Service Re-Transition - Upon written notification, if the State of Nebraska elects to assume operational responsibility for the Service Desk, this represents the stage where the Contractor will transfer knowledge and collateral to the State or a designated Service Provider.

During the above four staged approach, the following activities shall be addressed during Service Operations:

a. **PRODUCTION SUPPORT**
Supporting production, addressing system interruptions focusing on identifying and fixing system faults quickly or crafting workarounds enabling later root cause analysis and problem remediation.

b. **MAINTENANCE SUPPORT**
Making changes to existing functionality and features that are necessary to continue proper system operation. This includes routine maintenance, root cause analysis, applying change requirements, software upgrades, business need changes, rule changes, infrastructure policy impacts, and corrective, adaptive or perfective maintenance, as appropriate.

c. **ENHANCEMENT SUPPORT ANALYSIS**
Analyzing the functional and non-functional requirements for adding new functionality/features to the EES on prioritized requests from the user community. This includes interpreting any rules changes and other critical business needs from a technical and logistical standpoint.

d. **USER SUPPORT**
Providing application-specific support coordinated through the IT Service staff as well as conducting system research and inquiries.

e. **HELPDESK PLATFORM**
The IT Service Desk shall utilize a dedicated implementation of industry standard service desk software suite to be hosted and used by the State of Nebraska.

f. **DATABASE SUPPORT**

This includes both DB support as well as refactoring the EES to enhance database efficiency in storage and query response time and coordinating with system administrators to enable ideal hardware.

5. SOFTWARE CONFIGURATION MANAGEMENT

Software Configuration Management includes the identification and maintenance of System software components and the relationships and dependencies among them. These activities include:

a. Automatic capture and storage of IT Service to Application, Application-to-Component and Component-to-Component relationships; and

b. Maintenance of the history of those relationships and any transformation required to appropriately manage and document (e.g., source control, version control, profiles, security plans) configuration changes affecting the application and its processing environment.

Code Migration includes promoting new and modified code, configuration, and scripts, in support of new and existing applications through development, test, and production. These activities include:

c. Migrate code from development to test on an agreed upon basis;

d. Track migration status and notification;

e. Identify and resolve issues with the services delivery team and development teams;

f. Develop and document recommended operations and administration procedures related to code migration; and

g. Develop and document test-to-production turnover requirements and instructions for each project or release.

6. CHANGE AND RELEASE MANAGEMENT

Change and Release Management activities include services required to appropriately manage and document (e.g., impact analysis, version control, library management, turnover management, build management, parallel development) changes to the application and any of the constituent components being developed. Change and Release Management also includes services required to appropriately manage and document changes to the underlying application development environment components. These include the following:

a. Library Management the classification, control, and storage of the physical components of the application;

b. Version Control the maintenance, tracking, and auditing of modifications to an application's components over time, facilitating the restoration of an application to prior development stages; and

c. Turnover Management the automated promotion of software changes across different phases of the life cycle (e.g., development, unit test, systems test, and production), including management of the approval process, production turnover, and software migration control.

The EES shall utilize a centralized solution to automate and control the software change and release management process.

a. This software change and release management process will control migration patterns (i.e., how a given set of code moves from one environment to another); and

b. This software configuration management process will control versioning, access controls, data quality, etc., for each environment.

7. DATA RETENTION AND ARCHIVING

The EES should be designed to support multiple layers of data backup protection using a combination of both disk based and tape based technologies to meet the EES Backup and Recovery (BU/R) requirements.

The EES should leverage SAN replication and mirroring technologies to provide online, disk based system data protection. The EES should utilize SAN-based; block level data replication to protect both critical Database and Application components. Mission critical system components will also be mirrored synchronously to provide fast access to critical functions in the event of failure. In the event of catastrophic system failure at the primary site, clients can be redirected to the secondary site via DNS to utilize redundant systems present at the secondary site. Clients will then be able to retrieve application from replicated sources that will be up to date based on the last completed replication cycle.
Additionally, database replication should also be utilized to synchronize data between both primary and secondary databases. Finally, another layer of protection should be designed to provide traditional, versioned system data backup to tape storage. The implementation team shall create new backup job policies specific to the EES.

All EES database and application backup policies will utilize recommended schedules, and all policies will include at least one weekly full backup plus daily incremental backups to ensure data integrity and prevent data loss. Data on all tapes will also be encrypted to ensure security in the event tapes are taken to an offsite storage facility. The backup solution shall utilize on-line backup methodologies where possible that would enable quick backup and restore. Tape and off-site backups should be used to comply with long-term retention and meet the Nebraska Secretary of State Records Retention standards.

Documentation of all B/UR related processes and procedures will be generated during the course of the project, will be validated during system test, and will be presented t at project close. Additionally, processes and procedures that mandate routine testing and restoration of system backup data will also be developed. In this manner, the effectiveness and health of the proposed System B/UR solution will be continually validated.

8. SYSTEM PERFORMANCE MONITORING AND REPORTING

a. PERFORMANCE MONITORING

Operational performance monitoring begins with the tracking of each and every service request via a ticket tracking tool capable of capturing and providing detailed information regarding the Contractor's efforts associated with resolving each specific request. The Contractor must ensure that all data collected is accessible by appropriate stakeholders to ensure an "open book" approach to problem management and performance monitoring.

b. PERFORMANCE REPORTING

The Contractor's Service Delivery Manager is responsible for presenting the Monthly Performance Status deliverable against the SLR expectations. The monthly report will include monthly progress for each support area as well as a rolling trend chart. Any deviations from expected performance will be reviewed and discussed with agreements toward corrective action plans defined jointly with the appropriate State of Nebraska management. Continued failure to meet or exceed committed targets should result in escalation of issues.

c. MONITORING TOOLS

The Contractor should propose one or more monitoring tool(s) to proactively monitor the performance of key infrastructure components of the EES. These tools should provide a flexible, well-rounded solution for monitoring server and network health. These should also monitor basic services and database connectivity, and perform advanced monitoring of Web-based applications through customizable monitoring scripts. These tools should have extensively customizable dashboards to provide availability and response time on devices, URLs, WAN links and services; besides providing health and performance statics of the servers, network devices, services and applications. These tools should utilize a combination of ICMP, SNMP, and WMI protocols that enables them to monitor almost any networked device. Automatic alerting and reporting in multiple formats including email, SMS text messages, and application pop-up windows should also be available.

9. COMPLIANCE WITH FEDERAL HIPAA, HI-TECH AND STATE OF NEBRASKA CONFIDENTIALITY LAW

The EES Contractor acknowledges its duty to become familiar with and comply, to the extent applicable, with all requirements of the Federal Health Insurance Portability and Accountability Act (HIPAA), 42 U.S.C. § 1320d et seq. and implementing regulations including 45 CFR Parts 160 and 164. The Contractor also agrees to comply with all State of Nebraska Privacy Policies.

The Contractor shall maintain the privacy and security of all individually identifiable health information acquired by or provided to it as a part of the performance of this contract. The Contractor shall follow federal and State of Nebraska law relating to privacy and security of individually identifiable health information as applicable, including the Health Insurance Portability and Accountability Act (HIPAA) and its federal regulations.

Protected Health Information as defined in the HIPAA regulations at 45 CFR 160.103 and 164.501 means information transmitted that is individually identifiable; that is created or received by a healthcare provider, health plan, public health authority, employer, life insurer, school or university, or healthcare clearinghouse; and that is related to the past, present, or future physical or mental health or condition of an individual, to the provision of healthcare to an individual, or to the past, present, or future payment for the provision of healthcare to an individual. The definition excludes certain education records as well as employment records held by a covered entity in its role as employer.

Based on the determination that the functions to be performed in accordance with this RFP constitute Business Associate functions as defined in HIPAA, the EES Contractor shall execute a Business Associate Agreement as required by HIPAA regulations at 45 CFR §164.501.

10. DATA SYSTEMS ACCESS

The Contractor agrees that all information accessed in the State of Nebraska computer systems is the sole property of the State of Nebraska; Contractor employees are granted access to this under the terms and conditions of this Contract. All information collected and compiled by the Contractor under the terms and conditions defined in this Contract is the sole property of the State of Nebraska and subject to all privacy and security safeguards defined by the State of Nebraska.

The Contractor agrees that under the terms and conditions of the contract resulting from this RFP, that the State of Nebraska computer system access will only be granted to employees or subcontractors approved by the Department.

The Contractor agrees that under the terms of this contract they are responsible for ensuring all State of Nebraska approved subcontractors understand and agree to abide by the same terms and conditions defined in this contract.

The Contractor agrees that unique access logon accounts into the State of Nebraska's data systems will be assigned to an individual and that logon account may only be used by the individual to which it is originally assigned.

The Contractor agrees to access the State of Nebraska data systems only through State supplied CITRIX access and encryption technology.

The Contractor agrees to meet compliance requirements for all applicable State of Nebraska and federal physical, administrative, and electronic safeguard standards (as per safeguard publications listed below) and abide by State of Nebraska Information Technology Policies that govern the appropriate use of disclosure of privacy of and security of information provided by the State under the terms and conditions defined in this Contract.

11. SAFEGUARD PUBLICATIONS

a. Health Information Portability Accountability Act of 1996 (HIPPA—privacy rule 45 CFR Part 160 and subparts A and B of Part 164)
b. HIPPA – Security Rules 45 CFR Part 160 and subpart A and C Part 164
c. Internal Revenue Service (IRS) Publication 1075
d. Social Security Administration (SSA) – Computer Match Agreement
e. DHHS Information Technology Policies

The Contractor agrees that the State of Nebraska or federal agencies with jurisdiction (i.e., OCR, IRS, SSA, DHHS, or State of Nebraska Auditor's Office) may conduct unannounced compliance inspections related to the physical administrative and electronic safeguards defined in the publications listed above.

The Contractor understands that it will be held responsible for all criminal and civil penalties for actions of the subcontractor as defined in the publications listed above.

The Contractor agrees to immediately notify the State of Nebraska's HIPPA privacy/security office of any suspected loss of, threat of, inappropriate disclosure of, unauthorized access of, or destruction of and/or corruption of Departmental information obtained from Departmental computer systems and agree to comply with incident reporting criteria as defined in their BAA and the publication listed above.

The Contractor agrees to immediately notify the State of Nebraska of any lost or stolen computer hardware that may have been used to access, process, or store State of Nebraska information or State computer systems.

Contractor agrees to comply with State of Nebraska Breach Notification Law Revised Statute 87-802 any time there is a suspected loss of personal information as defined in the revised statute.

The Contractor agrees that no State of Nebraska information will be stored on a personal device and all State of Nebraska information stored, processed, or otherwise transmitted will be performed on State of Nebraska resources accessed through CITRIX or through the State of Nebraska secure e-mail system.

12. WARRANTY

The Contractor shall be responsible for fixing defects with the EES solution that occur during the DDI phase of the contract and for six (6) months into the operation of the entire solution at no additional cost. The six month Warranty period starts after the deployment of the full scope of the project into production.

The Contractor shall provide the equipment needed to support its staff for the duration of the warranty. The Contractor shall be responsible for the root cause analysis activities to demonstrate whether a defect is related to the scope of functionality delivered by the Contractor.

The six-month Warranty period includes maintenance, modifications and services needed to correct any faults, failures, errors or other defects in system functionality , and underlying systems, delivered as part of the EES DDI effort. The six-month Warranty period also includes any maintenance, modifications and support needed to stabilize the system so that system performance falls within agreed upon Service Level Requirements. All such fixes are required to occur in a reasonable timeframe (depending on severity as defined in the table below) and shall be produced at no additional cost to the State of Nebraska.

Production Defect Severity	Response Time
Severity 1 - The EES no longer functions at all, or a System component is unavailable to more than 20% of active production users.	4 Hours
Severity 2 - Any defect that affects less than 20% of the EES functionality or less than 20% of active	8 Hours

production users.	
Severity 3 - The EES is able to function with a temporary workaround.	72 Hours

a. PROPOSAL REQUIREMENTS

The Bidder must provide a narrative overview of how the proposed solution will meet the EES requirements. The following response requirements pertaining to the Non-functional Requirements for the EES and must be responded by the Bidder.

Provide specific details of the proposed approach to meeting the State of Nebraska's requirements in each area. Also, include one or more diagrams where necessary that detail the proposed design and the relationships between key technical components.

Responses in this section must be highly-focused on the specific requirements and must not simply provide generic or marketing descriptions of technology or product capabilities.

i. Describe the proposed approach to system warranty, including the type of warranty being offered. In addition, provide a summary of the Bidder's proposed strategy for supporting that warranty. Please address the following areas (at a minimum):

a) Four-Year Software Warranty;
b) Staff Resources and Supporting Equipment; and
c) Meeting Service Level Requirements (SLRs)

13. SOFTWARE MAINTENANCE AND OPERATIONS (M&O)

A contract resulting from this Request for Proposal will be issued from the date of the award for six (6) years, with the option to renew for two (2) additional two-year renewal periods as mutually agreed upon by all parties. The initial period of the contract will be the Design, Development and Implementation (DDI) of the EES, with the expectation that it will be completed and approved by the State of Nebraska by December 31, 2015. The DDI period will be followed by a six-month Warranty period described in section XXXXX. The subsequent Base Maintenance and Operations Support (M&O) period shall be forty-two (42) months from the end of the Warranty period.

The Base M&O period, which begins at the end of the Warranty period, includes maintenance, modifications and services performed to correct faults, failures, errors or any other defects in system functionality, and underlying systems. In addition, Base M&O includes regular maintenance releases, systems modifications and/or services needed to keep the EES usable in a changed or changing environment.

Costs for this item must be clearly defined in the Cost Proposal. The Bidder shall communicate and document all software faults that are not a part of the scope of the original development effort during the M&S period.

At the expiration of the Base M&O period, the State of Nebraska may elect to enter optional renewal M&O Period(s). The scope of services covered under the optional renewal M&O Period(s) will be the same as the Base M&O period.

The Bidder agrees to propose two (2) two-year renewal M&O periods. The State of Nebraska shall be able to exercise its option to sign-up for the same services to those offered in the Base M&O period.

a. PROPOSAL REQUIREMENTS

This section defines Bidder requirements regarding the M&O Support approach (availability of staff, lead time for on-boarding of staff, staff due diligence process, knowledge transfer and documentation processes, etc.). The Bidder's proposal must provide information that can be used by the State of Nebraska to evaluate the Bidder's knowledge of, and intended approach to, the M&O Support requirements. This information must include at least the following:

i. Describe the approach for providing ongoing maintenance and support services, including a flexible and scalable approach to providing the various types of personnel, including:

a) Architect;
b) Business Analyst/Functional Lead;
c) Communication/Network Specialist;
d) Database Administrator;
e) Help Desk Specialist;
f) Hardware Specialist;
g) Operations Lead/Manager;
h) Project Manager;
i) Programmer;
j) Security Systems Engineer; and
k) Systems Administrator.

ii. Describe the approach to system operations support, including the levels of support offered and the process for requesting support. In addition, provide a summary of the strategy for maintaining and repairing the system. Please address the following areas (at a minimum):

a) Base Software Maintenance Period;
b) Incident and maintenance request reporting; and.
c) Optional Extension Software Maintenance Period.

iii. Describe the proposed approach to Defect Resolution and Solution Acceptance that shall incorporate methodologies and practices which will assist the State of Nebraska to successfully manage the enterprise's M&O lifecycle phase and shall address at least the following areas:

a) Support Model;
b) Triage Procedures;

c) Tools;
d) Roles and Responsibilities of support personnel;
e) Release Management;
f) Upgrades;
g) Maintenance;
h) On-going Operations;
i) Customer Support;
j) Specific support procedures for production;
k) Deliverables;
l) Capacity Management;
m)Technology Refresh;
n) Solution Security;
o) Backup and Recovery;
p) Disaster Recovery; and
q) Defect/Issue Management.

iv. Describe the approach to Solution Administration that shall incorporate methodologies and practices which will assist the State of Nebraska to successfully administrate the EES and shall address at least the following areas:

a) Archive/Purge of Log files;
b) Version control capabilities;
c) Logging and reporting for accessing errors and exceptions and unauthorized access;
d) Public key/private key encryption Secure Socket Layer (SSL) certificates;
e) Single sign-on capability and integration with Nebraska's Active Directory authentication and authorization;
f) Admin tools and maintenance routines;
g) Firewalls and DMZ for external access and remote access; and
h) Administration of User Accounts, User Roles, User Groups etc.

v. Describe the approach to Solution Management that shall incorporate methodologies and practices which will assist the State of Nebraska to successfully manage the EES and shall address at least the following areas:

a) Generate Administrative Alerts;
b) Updates to Distributed components;
c) SLR Monitoring;
d) Remote support;
e) Event Management and Monitoring using ITIL v3 or equivalent best practices; and
f) Application Performance Monitoring.

14. HOSTING AND DISASTER RECOVERY SERVICES

The State of Nebraska has requirements for the Contractor to host the environments associated with the development phases of the EES project (DDI period), provide support services to long term development environments,

provide application support services for production environment(s), as well as provide disaster recovery site and technical services.

15. DEVELOPMENT ENVIRONMENTS

The Bidder must propose, provide and operate all required environments to support its proposal for the specification, design, development and implementation of the system including, but not limited to the following environments:

a. Sandbox;
b. Configuration/Development;
c. Test;
d. Quality Assurance;
e. Production
f. Training; and
g. Disaster Recovery

These environments should be sized in accordance with planned use and be inclusive of all hardware, storage, networking, backup/restore, database, file system, monitors and other items as required to comprehensively support the development effort.

16. PRODUCTION ENVIRONMENT

The State of Nebraska may choose to use the services of the Contractor for the EES and EES Platform Production hosting. In advance of use, and in consideration of the State of Nebraska procurement, installation and commissioning cycles, the Bidder will specify all required environments to support their proposal for the ongoing specification, design, development of the project associated with subsequent cycles including, but not limited to the following environments:

a. Full Production Operation;
b. Production Replica for Fault Resiliency/Onsite Disaster Recovery Purposes and debugging/issue resolution purposes;
c. Offsite Disaster Recovery Replication; and
d. Other environments deemed necessary by the Contractor to support production operations.

These environments should be sized in accordance with planned use and be inclusive of all hardware, storage, networking, backup/restore, database, file system, monitors and other items as required to comprehensively support the ongoing development operation of the EES as well as to support the debugging or resolution of issues within the production environment.

17. DISASTER RECOVERY ENVIRONMENTS

The State of Nebraska may choose to use the services of the Contractor for the EES and the EES Platform Disaster Recovery site hosting. The Bidder must specify all required environments to support their proposal for the ongoing operation of the production system in the event of a disaster or outage condition at the selected computing center(s) associated with the following environments:

a. Full Production Operation;

b. Systems Development inclusive of then current code bases and associated data associated with the development effort; and

c. Other environments deemed necessary by the Bidder to support production operations in the event of an outage or disaster.

These environments should be sized in accordance with planned use and be inclusive of all hardware, storage, networking, backup/restore, database, file system, monitors and other items as required to support limited development effort during the disaster or outage condition as well as to not adversely impact or jeopardize phases that are being developed.

Bidders must detail the proposed approach to system hosting and disaster recovery support services, including the type and levels of services offered and the process for requesting changes to the services. In addition, provide a summary of the Bidder's strategy for ensuring stable and uninterrupted operations. Specifically, describe any industry best practices employed (e.g. ITIL) or certifications achieved (e.g. ISO 20000) that would provide assurances that the Bidder shall be able to provide a consistent and high quality level of services.

The term for providing these environments shall commence upon execution of an agreement between the State of Nebraska and Contractor, and shall conclude upon the end of the term for this contract or upon notification from the State of Nebraska of the desire to host the system(s) elsewhere. During the term of this contract the off-site hardware used by the Contractor to provide the hosting service is and will remain the property of the contractor. The State of Nebraska will pay the Contractor an agreed upon fee for the use of the hosted environments.

Upon notification by the State of Nebraska of the availability or receipt of the hardware to support these environments in the State of Nebraska data center or an alternate data center, the Contractor shall install, configure and commission for ongoing use these environments within the State of Nebraska data center or alternate data center, if required.

Upon completion of this migration and direction from the State of Nebraska, the old non-production environment should be decommissioned by the Contractor, any Contractor hardware usage charges arising from the use of this equipment shall no longer be the responsibility of, nor billed to the State of Nebraska, and all State data or other artifacts resident on this hardware shall be destroyed or otherwise deleted.

RFP Revision 12/20/2013 Section IV. R – Value Added Options

Request for Proposal Number 4544Z1

RFP Section IV.R Value Added Options has been replaced and superseded in its entirety.

R. VALUE ADDED OPTIONS – REVISED 12/20/2013

The State of Nebraska has attempted to identify and incorporate the requirements necessary to successfully procure and install the Nebraska EES. We recognize that Bidders may have completed an installation in another state or for a commercial client. The Bidder is requested to convey any other considerations, products or services which they believe the State of Nebraska may have overlooked or not requested.

The Bidder may submit Value Added Options that have not been requested in this RFP, but are based on a Bidder's market knowledge and experience. The Value Added Options will not be evaluated to determine the EES Contractor; however the State of Nebraska may determine to contract for an option after the Contractor selection has been made. Bidders must include a cost for each Value Added Option in their Cost proposal.

1. PROPOSAL REQUIREMENT

a. Describe each Value Added Option. The description should include:

i. How the Value Added Option could enhance the EES;
ii. How the State of Nebraska could benefit from the Value Added Option;
iii. How the Medicaid eligibility effort could benefit from the Value Added Option; and
iv. Where and when the recommended Value Added Option(s) has been implemented.

b. Describe the EES' current mobility (e.g. smartphone, tablet, etc.) capabilities and/or plans for mobility in upcoming version(s).