



CORPORATE

OVERVIEW

RESPONSE TO:

RFP 120277 03

REBID

DUE DATE:

December 5, 2025

Time:

2:00 PM CST



CORPORATE OVERVIEW	2
BIDDER IDENTIFICATION AND INFORMATION	2
FINANCIAL STATEMENTS	2
CHANGE OF OWNERSHIP	3
OFFICE LOCATION	4
RELATIONSHIPS WITH THE STATE	4
BIDDER'S EMPLOYEE RELATIONS TO STATE	4
CONTRACT PERFORMANCE	4
SUMMARY OF BIDDER'S CORPORATE EXPERIENCE	5
SUMMARY OF BIDDER'S PROPOSED PERSONNEL/MANAGEMENT APPROACH	8
SUBCONTRACTORS	22



CORPORATE OVERVIEW

BIDDER IDENTIFICATION AND INFORMATION

The bidder should 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 and whether the name and form of organization has changed since first organized.

Response:

Genesis Systems, Inc. confirms that it has read, understands, and meets the minimum essential qualifications, experience, and/or capabilities.

Full Company/Corporate Name	Genesis Systems, Inc.
Address of the Company Headquarters	2400 Park Drive Suite 102 Harrisburg, PA 17110
Entity Organization (corporation, partnership, proprietorship)	Corporation
State Bidder is Incorporated	Pennsylvania
Year bidder first organized to do business	1987
Has the name and form of organization changed since first organized?	No

FINANCIAL STATEMENTS

The bidder should provide financial statements applicable to the firm. If publicly held, the bidder should 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, should be submitted in such a manner that solicitation evaluators may reasonably formulate a determination about the stability and financial strength of the organization. Additionally, a non-publicly held firm should 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.

The State may elect to use a third party to conduct credit checks as part of the corporate overview evaluation.



Response:

Genesis is a privately held corporation which is not required to have audited financial statements.

Genesis was founded in Lewistown, PA in 1987 and has 3 office locations (2 in PA and 1 in TX). Genesis has a long and deep history of designing, developing, and implementing vital record systems throughout the nation. We take pride in supplying approximately 33% of the birth and 25% of the death data to the National Center for Health Statistics. Genesis has systems operating in:

- Colorado
- Rhode Island
- Georgia
- Texas
- Delaware
- South Carolina
- Local jurisdictions in DE and TX

Three of these states utilize Genesis for hosting. Accordingly, Genesis takes its responsibility very seriously as it is aware of the decisions made, and the resulting public, personal and financial impact it has from the data collected through its systems. In its 38-year history, Genesis has developed vital records expertise and is constantly adapting its systems to changing partner needs and technology changes.

Genesis strives to provide the best value to its partners and as well as exceptional customer service. Genesis operates on three basic principles: being “Fair” externally to its partners and internally to its team members; the “Golden Rule”—basically treat others as you like to be treated; and “KISS” keep it short and simple. These are the principles that drive our operations and interactions. We strive to embody these principles in all of our activities.

Please refer to Appendix A for the banking reference letter.

There is no such condition known to exist which might materially affect the viability or stability of the organization.

PLEASE NOTE:

In order to support Vital Record operations Genesis’s sister company, GoCertificates.com, Inc. has a long history of income participation with its partners by returning a portion of the revenue received. For example, for every name change kit sold, GoCerts returns \$5.00 to the participating Vital Records partner. There is no cost to the implementing partner. In addition, Genesis is implementing a revenue sharing process with its Passkey functionality.

As it says above, Genesis believes in the FAIR principle.

CHANGE OF OWNERSHIP

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

Response:



Genesis Systems, Inc., does not anticipate any change in ownership or control of the company during the twelve (12) months following the solicitation response due date.

OFFICE LOCATION

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

Response:

Genesis' headquarters is located in Harrisburg, PA, but also has offices in Lewistown, PA and Cedar Park, TX.

RELATIONSHIPS WITH THE STATE

The bidder should 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 solicitation response has contracted with the State, the bidder should identify the contract number(s) and/or any other information available to identify such contract(s). If no such contracts exist, so declare.

Response:

Genesis has not had any contracts with the State of Nebraska over the previous five (5) years.

BIDDER'S EMPLOYEE RELATIONS TO STATE

If any Party named in the bidder's solicitation 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 solicitation response 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 solicitation. If no such relationship exists, so declare.

Response:

Genesis does not have any staff who were employed by the State of Nebraska within the past twenty-four (24) months, nor are there any Genesis employees who are also employed by the State of Nebraska.

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 solicitation response 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.

Response:

Genesis has not had any contract terminated during the past five (5) years.

SUMMARY OF BIDDER'S CORPORATE EXPERIENCE

The bidder shall provide a summary matrix listing **three (3)** previously implemented **Vital Record Management System** projects which are similar to this Solicitation in **size, scope, and complexity**. Additional projects will not be reviewed or scored.

In the matrix the bidder should address the following:

- i. Provide narrative descriptions to highlight the similarities between the bidder's experience and this Solicitation. These descriptions should include:
 - a) The time period of the project,
 - b) The scheduled and actual completion dates,
 - c) The bidder'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 should identify whether the work was performed as the prime Vendor or as a subcontractor. If a bidder performed as the prime Vendor, the description should provide the originally scheduled completion date and budget, as well as the actual (or currently planned) completion date and actual (or currently planned) budget.
 - f) Whether the system is vendor hosted or web-based.

Response:

Please see the chart below showing the 3 most relevant vital records projects that Genesis has provided.



Project #1	
Client/Company Name	Rhode Island Department of Health
Client/Company Contact(s) Name	Zuheil Amorese
Title	State Registrar
Phone	401-222-4717
Fax	401-222-6548
Email	Zuheil.amorese@health.ri.gov
Prime vendor or subcontractor	Prime vendor
Projected Completion Date	January 1, 2022
Actual Completion Date	January 1, 2022.
Bidder Responsibilities	Genesis provides a vital records system which included the following modules: Birth, Death, Fetal Death, Marriage, ITOPS, Fee & Issuance, Genesis Interoperability Module (GIM), Hosting, and Support & Maintenance.
Vendor hosted or web-based	Vendor hosted

Project #2	
Client/Company Name	South Carolina Department of Public Health
Client/Company Contact(s) Name	Caleb Cox
Title	Bureau Director & Assistant State Registrar
Phone	803-898-1808
Fax	888-820-1204
Email	coxcn@dph.sc.gov
Prime vendor or subcontractor	Prime vendor
Projected Completion Date	November 7, 2021
Actual Completion Date	April 1, 2021
Bidder Responsibilities	Genesis provides an upgrade to the vital records system which included the following modules: Birth, Death, Fetal Death, Fee & Issuance, and Support & Maintenance.
Vendor hosted or web-based	Hosted in-house



Project #3	
Client/Company Name	Texas Department of State Health Services
Client/Company Contact(s) Name	Dr. Tara Das
Title	State Registrar and Director Vital Statistics
Phone	512-776-7646
Fax	512-776-7538
Email	Tara.das@dshs.texas.gov
Prime vendor or subcontractor	Prime vendor
Projected Completion Date	January 1, 2019
Actual Completion Date	January 2019
Bidder Responsibilities	Genesis provides a vital records system which included the following modules: Birth, Death, Fee & Issuance, Fetal Death, ITOPS, Marriage, Divorce, Imaging, and Support & Maintenance.
Vendor hosted or web-based	Hosted in-house

- ii. Bidder and Subcontractor(s) experience should be listed separately. Narrative descriptions submitted for Subcontractors should be specifically identified as subcontractor projects.

Response:

Genesis has not been a subcontractor for a vital records system.

- iii. If the work was performed as a subcontractor, the narrative description should identify the same information as requested for the bidders above. In addition, subcontractors should identify what share of contract costs, project responsibilities, and time period were performed as a subcontractor.

Response:

Genesis has not been a subcontractor for a vital records system.



SUMMARY OF BIDDER’S PROPOSED PERSONNEL/MANAGEMENT

APPROACH

The bidder shall present a detailed description of its proposed approach to the management of the project.

The bidder should identify the specific professionals who will work on the State’s project if their company is awarded the contract resulting from this Solicitation. The names and titles of the team proposed for assignment to the State project should 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 should 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 Solicitation in addition to assessing the experience of specific individuals.

Resumes should not be longer than three (3) pages. Resumes should include, at a minimum, academic background and degrees, professional certifications, understanding of the process, and at least three (3) references (name, 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.

Response:

Detailed description of its proposed approach to the management of the project.
<p>The project management approach that Genesis will take to this project is to follow the agile methodology. The Genesis Project Manager will work closely with the state to create specification documents that will outline the vital record application. The process starts with the design phase.</p>
<p>The design phase is integral to a successful project. Without proper, and thorough, design, a project can be seriously inhibited and undermined. To start the design phase, Genesis will work through the specifications provided through the RFP and contracting process. Genesis will then present the State with a list of requests for the proposed application. This list will include reports that are needed, workflows of current processes, certificate formats, and any other documentation necessary.</p>
<p>Genesis will take the documentation provided as part of this request, combined with the requirements from this RFP, and prepare for the design sessions. Genesis will create a gap analysis document between the functionality as it exists and the final requirements that will be in the new system. With the initial analysis complete, Genesis will schedule the Joint Application Design (JAD) sessions with the State.</p>
<p>JAD sessions will be conducted between Genesis and state personnel. The JADs will require attendance from subject matter experts to supplement the decision-makers for the State. The JAD sessions will walk through the processes available in the base application to identify where</p>



the processes of the State deviate and determine the best method for capturing the State's needs. Another factor of JAD sessions is to evaluate the Data Dictionary to ensure database rules are accurate for the State.

After the conclusion of JAD sessions, Genesis will provide notes to the State as to discussions that were had and decisions made. With sign-off from the State on the notes, Genesis will compile all of the information that has been received into Functional Design and Functional Specification documents. These documents will act as the official design of the application and will be presented to the State for review and sign-off.

Once these documents are agreed to and signed-off on, Genesis will start the configuration of the application to the specifications. The Genesis development team works at the direction of the Technical Lead and Software Development Manager to configure the application to the specifications in sprints of about two weeks at a time. At the end of each sprint, the newly configured processes are presented to the Genesis Project Manager to ensure that it matches the intentions of the State.

Approximately two thirds of the way through development, Genesis will meet with the State to begin demonstrating configured processes and get initial feedback. This feedback will be documented in the Genesis ticketing system and presented to the developers.

Proposed Genesis Team:

Name: Crystal Chen, CPA, MBA
Title: Special Assistant to the CEO

Team Leadership/Interface/Support functions/Reporting relationships:

The proposed Genesis team is led by the Project Manager who has scheduled check-in meetings with the team to see how the project is progressing and to see if any assistance is needed. Additional details are mentioned in the previous section above in the management approach to the project.

Primary Work Assigned:

- Serve as the point of escalation for the project
- Meet with the Genesis Project Manager to get project status
- Work with NE DOH staff to resolve project issues beyond the scope of project managers

Name: Chad Denlinger, Esq.
Title: Project Manager/Attorney

Team Leadership/Interface/Support functions/Reporting relationships:

The proposed Genesis team is led by the Project Manager who has scheduled check-in meetings with the team to see how the project is progressing and to see if any assistance is



needed. Additional details are mentioned in the previous section above in the management approach to the project.

Primary Work Assigned:

- Project Plan and Schedule
- Conduct GAP analysis
- Facilitate onsite GAP analysis
- Providing Technical Assistance to the jurisdiction including Technical Specifications and Order Spreadsheet, Recommendations for Technical Training and Assistance with the State Security Document
- Assistance with User Acceptance Testing
- Assistance with Pilot
- Assistance for Go Live
- Project Management Activities
- Joint oversight of technical defects and updates

Name: David Maxwell
Title: Database Administrator

Team Leadership/Interface/Support functions/Reporting relationships:

The proposed Genesis team is led by the Project Manager who has scheduled check-in meetings with the team to see how the project is progressing and to see if any assistance is needed. Additional details are mentioned in the previous section above in the management approach to the project.

Work tasks:

- Managing and maintaining vital records data.
- Validate legacy data sets as well as participate in mapping/testing of migrated records
- Configuration of the modules
- Configuration of reports and extracts
- Configuration of interfaces
- Data Conversion
- Migration of Images
- Assistance for Go Live

Name: Yathu Suthakaran
Title: Software Development Manager

Team Leadership/Interface/Support functions/Reporting relationships:



The proposed Genesis team is led by the Project Manager who has scheduled check-in meetings with the team to see how the project is progressing and to see if any assistance is needed. Additional details are mentioned in the previous section above in the management approach to the project.

Work tasks:

- Defining and managing technical requirements
- Understand and validate interface
- Configuration of the modules
- Configuration of reports and extracts
- Configuration of interfaces
- Data Conversion
- Migration of Images
- Assistance for Go Live

Please see the following resumes for our key staff being proposed for this contract.



Crystal Chen, CPA, MBA

REFERENCE:

Client & Project: City of San Antonio--Vital Records Management System

Position: Accounting Consultant

Duration: May 2024-2025

Details:

- ✓ Attended meetings with the client
- ✓ Understand the client's accounting needs
- ✓ Developed and refined templates, process documentation, and requirement summaries
- ✓ Worked with the Project Manager and Technical Lead to ensure the client's needs are clearly communicated and properly addressed

Employer: Genesis Systems, Inc.

Position: Special Assistant to the CEO

Duration: 2024 to Present

Details:

- ✓ Provide executive-level support on decision-making, organizational priorities, and business operations
- ✓ Manage and track high-priority initiatives, ensuring deadlines and deliverables were met across multiple departments
- ✓ Participate in the RFP process
 - Reviews the standard contract provided by the client
 - Prepare Cost Sheets in the response
 - Assists in final assembly of response for submission
- ✓ Assists with resume review and job interviews

Employer: Huber & Associates (Sister company to Genesis)

Position: Accounting Manager (Promoted)

Duration: 2018 to 2024

Details:

- ✓ Oversaw the full scope of accounting functions
- ✓ Supervised and mentored Staff Accountants
- ✓ Managed client relationships
- ✓ Represented the firm at networking and business development events
- ✓ Assisted with resume review and job interviews
- ✓ Prepared and filed individual and business tax returns
- ✓ Conducted audits, compliance reviews, compilations, and financial statement preparation

EDUCATION:

Institution: Goldey-Beacom College

City/State: Wilmington, Delaware

Degree/Achievement: MBA



Institution: University of Delaware
City/State: Newark, Delaware
Degree/Achievement: MS in Accounting

Institution: University of Delaware
City/State: Newark, Delaware
Degree/Achievement: BS in Accounting

PROFESSIONAL LICENSE:

Pennsylvania Licensed Certified Public Accountant since April 24, 2019

REFERENCES:

Name: Terri Hernandez-Chapa
Address: 719 S. Santa Rosa, San Antonio, TX 78204
Telephone Number: 210-207-6993

Name: Donna Ellis, CPA
Address: 1120 Cottonwood Creek Trail, Building B-Suite, Cedar Park, TX 78613
Telephone Number: 717-909-8558

Name: Veronica Welker
Address: 212 Quarry Rd, Selingrove. PA 17870
Telephone Number: 267-303-7610

Chad Denlinger, Esq.

EXPERIENCE:

Client & Project: City of San Antonio--Vital Records Management System

Position: Project Manager

Duration: May 16, 2024-Present

Details:

- ✓ Attends meetings with client
- ✓ Oversees the day to day of the project
- ✓ Facilitates change order process
 - Interprets requirements for functionality changes desired by client
 - Works with Technical Lead to determine level of effort for required changes
 - Documents the requirements into standard estimate/change order format

Client & Project: Rhode Island Department of Health--Rhode Island Vital Events Registration System (RIVERS)

Position: Project Manager

Duration: March 2021-Present

Details:

- ✓ Attends meetings with client
- ✓ Oversees the day to day of the project
- ✓ Facilitates change order process
 - Interprets requirements for functionality changes desired by client
 - Works with Technical Lead to determine level of effort for required changes
 - Documents the requirements into standard estimate/change order format

Client & Project: Georgia Department of Public Health--GA Vital Events Registration System (GIVERS)

Position: Project Manager

Duration: May 2021-Present

Details:

- ✓ Attends meetings with client
- ✓ Oversees the day to day of the project
- ✓ Facilitates change order process
 - Interprets requirements for functionality changes desired by client
 - Works with Technical Lead to determine level of effort for required changes
 - Documents the requirements into standard estimate/change order format

Client & Project: New Jersey Department of Health and Senior Services New Jersey Vital Information Platform (NJVIP)

Position: Project Manager

Duration: June 2019-May 2021

Details:

- ✓ Attends meetings with client
- ✓ Oversees the day to day of the project
- ✓ Facilitates change order process



- Interprets requirements for functionality changes desired by client
- Works with Technical Lead to determine level of effort for required changes
- Documents the requirements into standard estimate/change order format

Client & Project: Delaware Department of Health and Human Services--
Del Vital Event Registration System (DeIVRS)

Position: Project Manager

Duration: February 2020-Present

Details:

- ✓ Attends meetings with client
- ✓ Oversees the day to day of the project
- ✓ Facilitates change order process
 - Interprets requirements for functionality changes desired by client
 - Works with Technical Lead to determine level of effort for required changes
 - Documents the requirements into standard estimate/change order format

Client & Project: Colorado Department of Public Health and Environment--CO Electronic Death
Registration System (EDRS)

Position: Project Manager

Duration: February 2020-May 2022

Details:

- ✓ Attends meetings with client
- ✓ Oversees the day to day of the project
- ✓ Facilitates change order process
 - Interprets requirements for functionality changes desired by client
 - Works with Technical Lead to determine level of effort for required changes
 - Documents the requirements into standard estimate/change order format

Employer: Genesis Systems, Inc.

Position: Special Assistant to the CEO

Duration: 2014 to Present

Details:

- ✓ Reviews contracts & provides contract language
- ✓ Participates in legal research
- ✓ Participates in RFP process
 - Reviews standard contract provided by client
 - Identifies any conflicts of interest, confidential information, and assumptions
 - Provides language to response sections
 - Reviews/provides feedback on response sections written by others
 - Assists in final assembly of response for submission
- ✓ Assists with resume review and job interviews

EDUCATION:

Institution: Widener University School of Law

City/State: Harrisburg, Pennsylvania

Degree/Achievement: Juris Doctor



Institution: Susquehanna University
City/State: Selinsgrove, Pennsylvania
Degree/Achievement: BA in Public Relations

REFERENCES:

Name: Zuheil Amorese
Address: 6 Harrington Rd, Cranston, RI 02920
Telephone Number: 401-222-4717

Name: Caleb Cox
Address: 400 Otarre Parkway, Cayce, SC 29033
Telephone Number: 803-898-1808

Name: Cynthia Buskey
Address: 1680 Phoenix Blvd, Suite 100, Atlanta, GA 30349
Telephone Number: 404-630-5577

David Maxwell

EXPERIENCE:

Client: Colorado Department of Health and Environment
Position: Technical Lead/System Engineer
Duration: June 2023-Present
Details:

- ✓ Develop, test and implement system features.
- ✓ Working with customers on technical issues including software system design and maintenance
- ✓ Modify the system to fix errors, improve its performance and upgrade interfaces.
- ✓ Troubleshooting, debugging and maintaining the system.
- ✓ Deploying system updates.

Client: Rhode Island Department of Health
Position: Technical Lead/System Engineer
Duration: November 2021-Present
Details:

- ✓ Develop, test and implement system features.
- ✓ Working with customers on technical issues including software system design and maintenance
- ✓ Modify the system to fix errors, improve performance, and upgrade interfaces.
- ✓ Troubleshooting, debugging and maintaining the system.
- ✓ Deploying system updates

Client & Project: San Antonio City Clerk/San Antonio Vital Registry
Position: Data Migration Team Lead
Duration: July 2024-June 2025
Details:

- ✓ Meet with Clients to identify and gather information on key sources of data to be migrated.
- ✓ Develop, test and implement migration maps from multiple sources of data/images into a proposed solution.
- ✓ Preside over multiple iterations of migration testing to ensure data integrity, integration and accuracy.
- ✓ Preside over migration of data/images into production environment.

Company: The Jay Group
Position: Senior Software Engineer
Duration: May 2020-October 2021
Details:

- ✓ Provided solutions in PHP or Python to solve user problems, with appropriate documentation, support and training for projects
- ✓ Developed standardized development environment and code repository strategies
- ✓ Provided guidance on coding issues to other members of team

Company: REYNA ITS
Position: Software Developer
Duration: May 2020-May 2021
Details:



- ✓ Worked with Federal Government employees and other contractors on Federal Government Contract through the US Navy for a foreign national agency prototype for a ship-based inventory system
- ✓ Worked with team to leverage functional specs and wire framed designs to develop appropriate code/HTML/CSS markup to meet functional needs
- ✓ Aided in efforts to develop appropriate database structure needed to meet projected current phase project needs while allowing for planned future functionality.
- ✓ Collaborated to develop appropriate database structure needed to meet projected current phase project needs while allowing for planned future functionality
- ✓ Helped provide deployment and demo support as needed.

Company: Johnson Controls, Inc.
Position: Senior Software Engineer
Duration: November 2012-March 2020
Details:

- ✓ Performed development, support and maintenance efforts of various applications for the MOM platform, a set thick client-based WinForms and/or WPF/WCF applications to support the creation of large-scale Air Handling Units, primarily under the Solution XT product line
- ✓ Provided support for Contract Engineering group on application issues and configurations which prevented units from being physically capable of being built on shop floor
- ✓ Worked to automate validation of Autodesk Inventor files and configurations passed to the models per the configurations selected by Contract Engineers or from bespoke configuration tools
- ✓ Primary web developer on three internal asp.net web sites/applications used by different customer bases throughout the company. Responsibilities included development, deployment, database administration, user security access administration
- ✓ Integrated two disparate web applications into a single and cohesive application with dynamic security access based on need

Company: e&e IT Consulting, Inc.
Position: Consultant
Duration: September 2012-November 2012
Details:

- ✓ Provided support and maintenance of the PA Food Safety Application
- ✓ Worked with clients and team members to identify issues within the application, develop the appropriate solution, then test and deploy those changes within the established release cycle team

Company: Fry Communication, Inc.
Position: Senior Web Developer
Duration: August 2008-August 2012
Details:

- ✓ Developed customer implementations of the AspDotNetStoreFront e-commerce platform, and managed interface between implementation and corporate Promail Order Fulfillment implementation. Duties ranged from DLL development to XSLT package alterations to database administration to scheduled task scripting
- ✓ Led Fry ATS staff on developing HTML and CSS standards which were more in-line with established industry standards, allowing simpler repurposing of B2B product to clients with minimal front-end scripting changes. Created HTML/CSS implementations which implemented Photoshop designed provided by art staff.
- ✓ Work as part of the team on the development of a customer B2B Ad management product utilizing the Symfony 1.4 PHP framework



Company: Ajilon Consulting
Position: Application Development Specialist
Duration: April 2004-August 2008
Details:

- ✓ Tech Lead for EDMS Application Development Area of the Pennsylvania Department of Transportation (PennDOT) Managed Maintenance contract. Development responsibilities in asp and Visual Basic and database administration.
- ✓ EDMS Subject Matter Expert (SME) for PennDOT licensing system redesign. Identified environmental specifications, capabilities and requirements of existing system. Attended new solution design meetings with leadership of PennDOT and outside consulting firm. Reviewed technical documents created by consulting firm.
- ✓ System Architect for a cross-platform messaging application which allowed the client/server area to provide information to end users and to logically disable functionality via this messaging platform. Developed an XHTML compliant online message editor using AJAX, SOAP and RPC functionality to create messages without requiring the end user to develop HTML coding.
- ✓ Primary support for the Safety and Crash EDMS systems and secondary support roles for the Highway EDMS area. The Safety system is a search and retrieval system for Driver and Motor Vehicle documents, with sources ranging from mainframe generated content to vehicle documents sourced at dealerships scanned through integrators and imported through custom software created and maintained by the EDMS area. The Crash system is a two-tiered architecture which encompasses scanning, electronic data capture (EDC), validation, and image archival.

EDUCATION:

Institution: Bloomsburg University
City/State: Bloomsburg, PA
Degree/Achievement: Bachelor of Science in Computer Information Science

REFERENCES:

Name: Alex Quintana
Address: 4300 Cherry Creek Drive South, Denver, CO 80246
Telephone Number: 303-692-2164

Name: Zuheil Amorese
Address: 6 Harrington Rd, Cranston, RI 02920
Telephone Number: 401-222-4717

Name: Tawhid Chowdhury—Rhode Island
Address: RI Contractor
Telephone Number: 929-431-8059



Yathu Suthakaran

EXPERIENCE:

Company: Genesis Systems, Inc.
Position: Software Development Manager
Duration: March 2024-Present
Details:

- ✓ Attends meetings with client
- ✓ Coordinates companywide projects and technical team members for all contracts

Company: RealSelf
Position: Software Development Manager
Duration: 2020-2024
Details:

- ✓ Attends meetings with client
- ✓ Define and deliver technical strategy for new revenue generating products
- ✓ Collaborate closely with release management, product management, security and external vendors and partners
- ✓ Deliver regular updates to executive leadership, including roadmap strategy, product updates and KPI metrics

Company: Accenture
Position: Development Manager/Technical Architect
Duration: 2013-2020
Details:

- ✓ Attends meetings with client
- ✓ Directed technical strategy while providing hands-on engineering in areas related to system architecture, engineering, security, DevOps and QA in an agile environment
- ✓ Owned roadmap strategy, KPIs, and experimentation program including A/B tests, requirement collection, design, analysis and customization of Long Term Care applications

Company: ADP-Automated Data Processing
Position: Lead Web Technologies Consultant
Duration: 2013
Details:

- ✓ Attends meetings with client
- ✓ Oversaw the implementation and maintenance of batch and web applications for FSA department
- ✓ Supported application architecture design and development for Enterprise service architecture and components
- ✓ Mentored junior developers within the team

Company: AFLAC
Position: Sr. Application Developer
Duration: 2012-2013
Details:



- ✓ Attends meetings with client
- ✓ Translated business and technical requirements into detailed design specs for application code and modules
- ✓ Optimized existing codebase, resulting in reduction of backend processing time
- ✓ Contributed to development efforts of enhanced portal resulting in increased web enrollments

Company: CodeForce
Position: Application Developer
Duration: 2010-2012

Details:

- ✓ Developed, maintained and integrated application software for clients of CodeForce
- ✓ Collaborated closely with internal and external stakeholders, business analysts and team members to support requirement gathering and development efforts

EDUCATION:

Institution: Schiller International University
City/State: Tampa, Florida
Degree/Achievement: MBA in IT Management

Institution: University of South Florida
City/State: Tampa, Florida
Degree/Achievement: BS in Biomedical Sciences

Institution: Scrum.org
City/State: Online
Degree/Achievement: Professional Scrum Master I

REFERENCES:

Name: Dr. Tara Das
Address: 1100 West 49th St., Austin, TX 78756
Telephone Number: 512-776-7646

Name: Terri Hernandez-Chapa
Address: 719 S. Santa Rosa, San Antonio, TX 78204
Telephone Number: 210-207-6993

Name: Alex Quintana
Address: 4300 Cherry Creek Drive South, Denver, CO 80246
Telephone Number: 303-692-2164



SUBCONTRACTORS

If the bidder intends to subcontract any part of its performance hereunder, the bidder should provide:

- a) name, address, and telephone number of the subcontractor(s),
- b) specific tasks for each subcontractor(s),
- c) percentage of performance hours intended for each subcontract; and
- d) total percentage of subcontractor(s) performance hours.

Response:

Genesis does not utilize any subcontractors at any time.



TECHNICAL
RESPONSE TO:
RFP 120277 O3
REBID

DUE DATE:
December 5, 2025

Time:
2:00 PM CST



TECHNICAL RESPONSE	3
VI. PROJECT DESCRIPTION AND SCOPE OF WORK.....	3
A. PROJECT REQUIREMENTS AND INFORMATION	3
1. Scope of Work.....	3
2. Project Environment.....	4
3. Business Requirements Descriptions.....	4
4. Project Requirements.....	5
B. PROPOSED DEVELOPMENT APPROACH.....	40
1. Proposed Resolution.....	40
Global/Security (WebLE):.....	41
Birth Module (WebEBC):.....	43
Death Module (WebEDC):.....	44
Marriage Module (WebMAR):.....	48
Divorce Module (WebDIV):.....	49
Fetal Death Module (WebEFDC):.....	49
Fee & Issuance:.....	51
ITOPS:.....	53
Imaging:.....	53
Standard Reporting and Documents:	53
Drag-IT Adhoc Reporting:.....	54
Access Management with Customizable Security Features:	54
Chameleon™.....	59
LogicBuilder™.....	60
2. Innovation and Creativity.....	61
Passkey Funeral Home Certificate Ordering Interface:	61
VIZ-E-Q™ (Visual Cueing).....	61
Fast-Fire™ – All Registration modules.....	61
Lightning Link™ – All Registration modules.....	61
Mind’s Eye™ – All Registration modules.....	62
All Aboard™ – All Registration modules.....	62
Flying Logic™ (Add On the Fly-Table Updates).....	62
Chameleon™.....	62
Logic Builder™.....	63
Email/Search Configuration.....	63
Secure Inter-Departmental Messaging.....	63
User Configurable Field Tips.....	63
Go-Certificates: www.gocertificates.com	63
Name Change Process:	65
GIMHub.....	65
C. TECHNICAL CONSIDERATIONS.....	66
D. PROJECT WORK PLAN, MANAGEMENT, AND IMPLEMENTATION.....	67
E. DELIVERABLES AND DUE DATES.....	69



TECHNICAL RESPONSE

VI. PROJECT DESCRIPTION AND SCOPE OF WORK

Bidders are to review sections A. through E. and all subsections for purposes of preparing and submitting the Technical Response section of the solicitation response. Submittals for the Technical Response shall correspond with the information outlined herein and any related attachments referenced - see Section (VII) for Solicitation Response Instructions. Review the following information and provide detailed narrative responses as indicated for each section and subsection. Such responses shall be submitted as a part of your Solicitation Response.

A. PROJECT REQUIREMENTS AND INFORMATION

1. *Scope of Work*

The new system will replace and upgrade the existing Vital Records Management System with modern architecture and efficient solution, enhancing data accuracy, timeliness, and accessibility. This improvement will ultimately enhance the user experience for both external stakeholders and internal staff, all while ensuring compliance with any relevant State and Federal legal and regulatory requirements.

The system will enable Vital Records staff to manage vital event data. It will also offer external users, including hospitals, clinics, funeral directors, physicians, county attorneys, county coroners, and local county registrars, the ability to input data related to birth, death, marriage, dissolution of marriage, fetal death, and ITOP events. Furthermore, the system will support order management and permit designated users to generate certified copies of certificates.

Bidder's proposed solution must fully address the business requirements descriptions, functional specifications, and technical specifications necessary to support the Vital Records Unit, encompassing hardware, operational processes, and certificate printing. Additionally, this project encompasses the integration, interfaces, and data sharing with State and Federal information systems. For the purposes of efficiency, usability and standard maintenance and operations, the State will accept solutions consisting of ready-made software products that do not require major modifications but support customization to meet the functional specifications as outlined in Attachment 1 – Functional Specifications.

Other potential services to be performed as a part of the Scope of Work

Vendor to be responsive to requests from the State of Nebraska in making any and all necessary applicable modifications to the system due to any modified or newly enacted Federal or State statutory or regulatory requirements. Such changes before, during, or following implementation shall be offered at no charge to the State of Nebraska for up to 160 Contractor (Vendor) hours annually. Any additional hours, beyond 160, accrued annually for modifications to the system due to any changes in applicable Federal or State



regulatory requirements shall be billed at the appropriate rates as outlined in Part IV – Optional Services Miscellaneous Enhancements in the Cost Sheet.

2. *Project Environment*

- a. The current Vital Records Management System has been in place for roughly fifteen (15) years and is considered a hybrid system, which has both cloud-based and on-premises components and is hosted internally.
- b. The project will include data and file migration from the current system to the vendor's system. There is a possibility that data has not been recorded in the current system in the way that the new vendor system requires. The State's project team will rely on the vendor to explain the data tables and structure within the new system to ensure the level of data accuracy that is needed for this project is attained.
- c. All data (existing and new) must comply with and meet or exceed the State and the National Vital Statistics System (NVSS) data standard requirements <https://www.cdc.gov/nchs/nvss/index.htm>.
- d. A State project team is in place and will be assisting this effort throughout the entire project lifecycle. The team is composed of a project manager, business analyst, project sponsors, executive sponsors, and key members of the Vital Records Unit.
- e. The Vital Records Unit has a breadth of knowledge in their industry and a strong understanding of their current system to be strong partners as appropriate.
- f. During the testing phase of the project, the Vital Records Unit and various external users will be conducting multiple rounds of testing.

3. *Business Requirements Descriptions*

Business requirements descriptions define “what” needs to be done (goal) and “why” it is important. Attachment 1 - Functional Specifications define “how” the system/person/process needs to behave to achieve the goal. Requirements can be divided into multiple categories depending on their source, attributes, or execution process.

The following is a list of business requirement categories:

GENERAL: A comprehensive and user-friendly application that supports vital record management, data validation, real-time processing, compliance with state and federal guidelines, and role-based access to improve customer service, increase efficiency, reduce costs, and enhance security.

USERS: A robust and secure user management system that ensures authorized access to sensitive data, protects against unauthorized access and data breaches, and supports efficient user onboarding, authentication, and profile management.

SYSTEM ADMIN: A secure and centralized administrative interface that provides authorized users with granular control over user roles, data management, and system configurations, ensuring efficient administration and maintaining data integrity.

AUDIT LOGS: A comprehensive auditing and logging system that maintains a detailed record of user activities, data modifications, system changes, and document control to ensure data integrity, traceability, regulatory compliance, and support data analysis.



ALL MODULES: A thorough and intuitive data management solution that empowers users to efficiently manage, validate, and process records and orders, securely handle electronic signatures and communications, ensure data integrity and regulatory compliance, and streamline workflow management for enhanced operational efficiency and decision-making capabilities.

ALL VITAL EVENT REGISTRATION MODULES: A comprehensive and robust vital event registration and management system that adheres to NCHS standards and ensures data integrity, accuracy, and regulatory compliance throughout the entire vital event lifecycle, from recording to registration, processing, and amendments.

ORDER MANAGEMENT MODULE: A robust and user-friendly vital event certificate ordering and management system that facilitates seamless order placement, efficient processing, secure payment handling, and timely delivery of certificates, ensuring data accuracy, transaction security, and streamlined workflow management. **REPORTS:** An all-inclusive and flexible reporting and document management system that empowers users to effortlessly create and generate customized reports, configure workflows, and manage letter templates, enabling data-driven decision-making, streamlining document creation processes, and enhancing operational efficiency.

INTEGRATION: A secure, integrated, and user-friendly data management system that streamlines data exchange with external systems, facilitates efficient data import and export, and provides comprehensive data analysis capabilities, ensuring accurate, timely, and secure data access and utilization for vital event registration, processing, reporting, and decision-making purposes.

ANALYTICS TOOL: An integrated and powerful data analytics tool that empowers users to identify data duplication, discrepancies, anomalies, patterns, and trends within vital event data, enabling data-driven decision-making, enhanced data quality, and improved operational efficiency.

HELP: A comprehensive contextual user assistance system that provides seamless user onboarding, effective troubleshooting, and enhanced overall user experience by offering integrated online help, tutorials, and documentation tailored to specific user roles, tasks, and contexts.

4. *Project Requirements*

The awarded Vendor shall perform all the following requirements as outlined in each respective section and subsection.

Bidder to confirm their ability to meet each of the items as outlined in items a. through j. Include specific information regarding your methodology in accomplishing respective items within each category.

a. **Functional Specifications**

The bidder shall complete “Attachment 1 - Functional Specifications” and place within the solicitation response in accordance with the instructions outlined in Section (VII)(A)(2) for this attachment. Specific instructions on how to complete are outlined within the attachment. Failure to complete and submit the attachment will result in the vendor’s solicitation response as being deemed a Non-Responsive Solicitation Response.



Response:

Please see the completed Attachment 1-Functional Specifications.

b. Technical Specifications

The bidder shall complete “Attachment 2 - Technical Specifications” and place within the solicitation response in accordance with the instructions outlined in Section (VII)(A)(2) for this attachment. Specific instructions on how to complete are outlined within the attachment. Failure to complete and submit the attachment will result in the vendor’s solicitation response as being deemed a Non-Responsive Solicitation Response

Vendors are not required to provide or specify hardware. However, if hardware (e.g., kiosks, printers, or card readers) is included in the proposed solution, vendors must state whether it is State-owned, leased, or vendor-supplied, and include related costs in the Cost Sheet.

Response:

Please see the completed Attachment 2-Technical Specifications.

c. Project Initiation

Vendor shall develop and create plans as outlined herein subsections ii. through vii. directly below. These plans shall be developed after the Kick-off teleconference meeting. Such plans shall be submitted to designated Unit staff for review and acceptance. If Unit staff does not accept the plan(s) in part or in its entirety, the vendor shall make proposed modifications and/or suggested changes accordingly. Such proposed modifications and/or suggested changes shall be at no additional charge to the State.

Bidder to describe your company’s approach to accomplish the development of each of the plans listed in subsections i. through vii. Also describe any templates.

i. Kick-off Event, Documentation, Review and Approval

All key vendor’s staff and Unit staff to be in attendance. Introductions, review the project scope, goals, and pre-agreed upon established timeline, and discuss roles and responsibilities for project resources. Establish communication channels and discuss access or technology that will be needed for the project. Create documentation for review and approval by the Unit.

Fully documented and approved roles and responsibilities, communication channels, and technology tools will be provided to the Unit for review and approval.

a) **Kick-off Event**

Coordinate and facilitate a kick-off teleconference meeting with Vendor’s representatives and all relevant Unit project staff. Discuss and perfect project details.

b) **Documentation**



All items ascertained through the kick-off meeting to be documented in a written format ready for dissemination to all representatives.

c) Review and Approval

Once the documentation is reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

Response:

Genesis coordinates Kick-Off events for all of its projects. Genesis works with the State project manager to put together a full agenda for the meeting, including introductions to key personnel, an overview of the project schedule, responsibilities of the staff members, and any other issues that will need to be addressed at the beginning of the project. Genesis will take notes from the Kick-Off meeting and provide them to the State for sign off.

ii. Develop a Detailed Project Plan

The detailed project plan will outline the project goals, tasks, scope, deadlines, and deliverables, including the discussion of key project elements and finalization of details. A comprehensive, detailed project plan will be developed, maintained, and followed by the vendor throughout the project lifecycle. If a change is made to the plan following the initial signature, the plan must be reviewed and electronically signed by the selected Unit stakeholder.

The key aspects of the plan should include the following:

a) Project Tasks

Breakdown the project into manageable tasks with an owner and estimated time commitment. Highlight when, and what, Unit involvement is necessary to plan for resources. Categorize tasks into phases or stages to create a hierarchical structure.

b) Project Timeline

Outline specific required tasks and deadlines that need to be met throughout the project. Make sure to include any major tasks or deliverables that need to be completed timely within each specific required task. Assign start and end dates to each specific task requirement. Important Note: This timeline shall not modify the project timeline pursuant to the established due dates.

c) Project Resources

Determine the resources required for each task, including personnel, equipment, materials, and financial resources. Assign specific resources to tasks based on their expertise and availability. Materials such as, but not limited to, training resources, user manuals, both vendor-led and DHHS-led training events.

d) Regular Reviews and Assessments

Schedule weekly project reviews to assess progress, identify potential issues, and adjust the plan as needed. Establish a governance for updating the project plan. Gather feedback from stakeholders and incorporate it into the project's direction.

e) Sign-off Process

Define mutually agreed upon sign-off criteria for project deliverables and completion of required tasks.



Response:

Every project that Genesis performs has its own project management plan. Genesis provides this plan to the State at the beginning of the contract and works with the State project management team to finalize and will have the document signed off on by both Genesis staff and State staff. The project plan contains project tasks, timelines, resources, and regular assessments.

Each project task is broken down within the project plan. Tasks are defined and assigned to a particular person or group of people for the execution. Tasks will define any entrance criteria that may be required prior to the start of the task. The tasks will also define acceptance criteria of the task in order to ensure that all parties are aligned. Within the tasks, resources required for the successful completion of the task will be listed.

iii. **Develop a Risk Management Plan**

The risk management plan will identify, evaluate, and plan for possible risks that may arise within the project so that risk-handling activities are prepared in advance mitigating adverse impacts on achieving objectives. The comprehensive risk management plan will be developed, maintained, and followed by the vendor throughout the project lifecycle. If a change is made to the plan or a risk is added following the initial signature, the plan must be reviewed, and the Unit must agree to risk mitigation efforts and the selected Unit stakeholder must electronically sign their agreement.

The key aspects of the plan should include the following:

a) **Risk Management Methodology**

Define the tools and approaches that will be used to perform risk management activities, such as risk assessment, risk analysis, and risk mitigation.

b) **Risk Register**

A chart that documents all the risk identification information for the project.

c) **Risk Breakdown Structure**

A hierarchical tree diagram that helps identify risk categories and the structure of project risks in order of importance.

d) **Risk Matrix**

A matrix is used to analyze the likelihood and the impact to the project of each risk so they can be prioritized.

Response:

Risk Management Plans are part of the Genesis project management process for every project it performs. Genesis is providing a draft Risk Management Plan as part of this proposal as Appendix B.

iv. **Develop a Communication Plan**

The communication plan will outline how important information will be communicated to stakeholders throughout the project. Determine who will be receiving the



communication, how those people will receive it, when they will receive it, and how often they should expect to receive that information. The comprehensive communication plan will be developed, maintained, and followed by the selected Vendor throughout the project lifecycle. If a change is made to the plan following the initial signature, the plan must be reviewed and electronically signed by the selected Unit stakeholder.

The key aspects of the plan should include the following:

- a) Target Audiences**
Determine the specific groups of people who need to be informed about the project, such as team members, clients, sponsors, and external stakeholders.
- b) Communication Objectives**
Specify the objectives to be achieved for each communication.
- c) Communication Channels**
Identify the most appropriate communication channels for each target audience.
- d) Communication Schedule**
Determine the frequency and timing of communication for each target audience.
- e) Communication Responsibilities**
Define who is responsible for communicating with each target audience.
- f) Feedback Mechanisms**
Set up channels for receiving feedback from stakeholders.

Response:

Effective communication is a vital aspect of any project and Genesis takes this very seriously. Genesis provides its Communications Plan to the State, specially tailored for each project. The Communications Plan captures each of the key aspects listed above. Genesis is providing a sample Communications Plan as part of its proposal as Appendix C.

- v. Develop a Staffing Management Plan**
The staffing management plan will outline the human resource needs of the project and how those needs will be met. The comprehensive staffing plan will be developed, maintained, and followed by the selected vendor throughout the project lifecycle. If a change is made to the plan following the initial signature, the plan must be reviewed and electronically signed by the selected Unit stakeholder.
The key aspects of the plan should include the following:
 - a) Staffing Process**
Describe how staffing levels will achieve service regardless of changes that may influence work volume. Include the process of temporarily and permanently replacing vacancies in key personnel.
 - b) Roles and Responsibilities**
Define the roles and responsibilities by resource type, including identifying key and non-key personnel as well as resource allocation for all personnel. Detail differentiated by vendor staff, subcontractor staff, if applicable, and Unit project staff.



c) Resource Calendars

Identify total hours to be expended, per phase, and for the entire project, by vendor staff and Unit project staff.

d) Background Checks

Provide written confirmation that any individual assigned to work on the project has successfully passed a background check. This action needs to occur on any new staff that are assigned throughout the duration of the contract.

e) Performance Issues

The Unit will retain the right to release outright or request the replacement of any vendor representative who is working at an inferior level of performance, as determined by the Unit. The vendor must provide an acceptable replacement within ten (10) working days of the notice of this release.

f) Staffing Plan Changes.

If there are any changes in key personnel, the vendor is expected to notify the Unit in writing at least fourteen (14) days prior to the change, except in the case of immediate risk to the health and safety of project staff, or in the case of unlawful security breaches. The vendor's key personnel positions may not be vacant for more than ten (10) Business Days without a qualified substitute (temporary replacement). A qualified substitute must be in place no more than ten (10) Business Days after the separation date of the vacating resource. The definition of a qualified substitute is someone meeting the requirements of the RFP. The vendor may not fill vacant key personnel positions with other existing key personnel without approval by the Unit. The Unit will also have the authority to approve proposed replacements of key personnel by the vendor. The Unit reserves the right to interview and approve the selected Vendor's personnel and any Sub-contractors. The Unit reserves the right to reject any proposed staff member and require the appointment of a satisfactory staff member, as well as to require verification of a proposed staff member's skills through demonstration and/or testing.

Response:

Genesis will develop a Staffing Management Plan that adheres to the requirements above. The document will be completed in conjunction with the State to ensure that a comprehensive plan is in place that is satisfactory to both parties.

vi. Develop a Change Management Plan

The change management plan will outline the process for change management throughout the project lifecycle, such as how to submit a change request or how those requests are assessed. The comprehensive change management plan will be developed, maintained, and followed by the vendor throughout the project lifecycle. If a change is made to the plan following the initial signature, the plan must be reviewed and electronically signed by the selected Unit stakeholder.

The key aspects of the plan should include the following:

a) Change Management Process

Describe the process of submitting, evaluating, authorizing, managing, and controlling change requests.



b) Roles and Responsibilities

Define the roles and responsibilities for those responsible for change management.

c) Change Request Form Template

Provide a template for submitting changes.

d) Change Log Template

Provide a template for collecting and tracking changes.

Response:

Change Management is monitored closely and communicated with the State throughout the entire life cycle of a system. The process Genesis will follow will be specified within the Change Management Process Plan. Genesis provides this plan to the State as part of its standard project process. Genesis is providing a draft of its Change Management Document as part of this proposal as Appendix D.

The Genesis Change Management Plan addresses the process that will be undertaken for each change. In addition, the plan will define the roles and provide the template for the change log.

vii. Develop an Issue Management Plan

The issue management plan will outline the process of identifying, tracking, and resolving issues that arise throughout the project lifecycle. The comprehensive issue management plan will be developed, maintained, and followed by the vendor throughout the project lifecycle. If a change is made or an issue is added to the plan following the initial signature, the plan must be reviewed and electronically signed by the selected Unit stakeholder.

The key aspects of the plan should include the following:

a) Issue Management Process

Describe the process of prioritizing, tracking, escalating, communicating, and reporting issues. Provide the approach to documenting, reporting, and resolving issues identified by the vendor, the Unit, or other stakeholders.

b) Roles and Responsibilities

Define roles and responsibilities for those responsible for issue management.

c) Impact Matrix

Define the impact matrix that will be used to analyze, evaluate, and prioritize issues.

Response:

Genesis will develop and provide an Issue Management Plan with the specifications mentioned here. The plan will detail the process in which an issue is managed, including the roles and responsibilities of all parties.

d. Design and Configuration

Please describe an approach and methodology incorporating the items below respective to each task listed in i. through x:

- System design;
- System design alignment with requirements;
- System configuration;
- Data warehousing capabilities if any.
- How workflow, if available, is integrated into your solution. Ideally used throughout the solution to help guide users through the proper processes.

Response:

The design phase is integral to a successful project. Without proper, and thorough, design, a project can be seriously inhibited and undermined. To start the design phase, Genesis will work through the specifications provided through the RFP and contracting process. Genesis will then present the State with a list of requests for the proposed application. This list will include reports that are needed, workflows of current processes, certificate formats, and any other documentation necessary.

Genesis will take the documentation provided as part of this request, combined with the requirements from this RFP, and prepare for the design sessions. Genesis will create a gap analysis document between the functionality as it exists and the final requirements that will be in the new system. With the initial analysis complete, Genesis will schedule the Joint Application Design (JAD) sessions with the State.

JAD sessions will be conducted between Genesis and state personnel. The JADs will require attendance from subject matter experts to supplement the decision-makers for the State. The JAD sessions will walk through the processes available in the base application to identify where the processes of the State deviate and determine the best method for capturing the State's needs. Another factor of JAD sessions is to evaluate the Data Dictionary to ensure database rules are accurate for the State.

After the conclusion of JAD sessions, Genesis will provide notes to the State as to discussions that were had and decisions made. With sign-off from the State on the notes, Genesis will compile all of the information that has been received into Functional Design and Functional Specification documents. These documents will act as the official design of the application and will be presented to the State for review and sign-off.

Once these documents are agreed to and signed off on, Genesis will start the configuration of the application to the specifications. The Genesis development team works at the direction of the Technical Lead and Software Development Manager to configure the application to the specifications in sprints of about two weeks at a time. At the end of each sprint, the newly



configured processes are presented to the Genesis Project Manager to ensure that they match the intentions of the State.

Approximately two-thirds of the way through development, Genesis will meet with the State to begin demonstrating configured processes and get initial feedback. This feedback will be documented in the Genesis ticketing system and presented to the developers.

The Genesis application is designed to house all of the applicable data for the organization into one database. This ensures that a user can access this application to pull any data necessary.

i. Establish Review and Acceptance Process

- Establish and utilize a deliverable review and acceptance process agreed upon by the Unit that incorporates the following:
- a) Review cycles, which will be conducted and scaled to size and complexity of the deliverables.
 - b) Deliverables will need to reflect coordination with the overall modular system and will follow agreed upon change control processes.
 - c) The vendor will be responsible for facilitating the change control process, which will allow the appropriate audience to determine priorities using a structured business value assessment process to measure both the effort to implement in hours and the benefits.
 - d) Informal reviews and walkthroughs of draft and final deliverables are encouraged.
 - e) Queueing up excessive deliverables for simultaneous review is unacceptable to the Unit.

Response:

The deliverable review and acceptance process is typically written in the Project Management Plan for both parties to agree upon at the beginning of the project. This is designed to spread out the deliverables for the Unit to receive in an orderly manner designed to not overwhelm the Unit. The deliverable due dates are also built into the overall project schedule.

Genesis modifies this process as required by each individual state. Genesis prefers to have informal walkthroughs of deliverables with the State prior to acceptance. Genesis finds this tends to greatly speed up the review process since the State can provide immediate insight into if there are changes or adjustments that need to be made.

Genesis works to ensure that excessive deliverables are not queued up for the Unit by spacing the due dates and expediting the acceptance process.

ii. Development Requirements Traceability Matrix (RTM)

- Provide accountability to project requirements by mapping out the relationship between requirements and project work. Prove that project requirements are met, provide a record of testing, issues, and completed items. Ensure that test cases are aligned with the needs of the project. The requirements traceability matrix shall be developed, maintained, and followed by the vendor throughout the project lifecycle. If a change is made to the matrix following the initial signature, the matrix must be reviewed and electronically signed by the selected Unit stakeholder.



Response:

Every Project that Genesis takes on has a Requirements Traceability Matrix that is provided at the start of the project. An example of the Genesis RTM is provided here as Appendix E.

- iii. **Coordinate and Facilitate On-Site Requirements Gathering Session(s)**
Discuss, clarify, and better understand the project's objectives, scope, and requirements. This meeting should be with the vendor's representatives and all relevant Unit project staff. Vendor to document requirements and provide to Unit for review and approval. Once the requirements are reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

Objectives of the requirements gathering session:

- a) **Requirements**
Gather detailed information to create project requirements for each system module.
- b) **Feedback**
Collect feedback from the Unit to incorporate into the project requirements.

Response:

As mentioned in the response regarding Design and Configuration, Genesis believes that the JAD sessions where information is gathered are incredibly vital to a successful implementation. Such sessions being on site provide invaluable insight into the processes that are carried out by the state staff and allow Genesis to even better tailor its system to the needs of the State.

The visits will be coordinated with the state point of contact to facilitate a time when the largest number of staff and users will be available to provide insight and feedback. These visits provide state staff with the ability to see demonstrations of baseline functionality and provide feedback as to configurations that would better aid them in the work they perform.

- iv. **Develop and Submit an Application Configuration and Maintenance Plan to the Unit Prior to Beginning Configuration Activities**
The key aspects of the plan should include the following:
 - a) Approach to conduct design sessions or walkthroughs.
 - b) Approach to conduct sprints or iterations.
 - c) Configuration management.
 - d) Release cycle.
 - e) Tasks, timelines, and responsible parties for design and configure/build tasks.
 - f) Approach to system enhancements.
 - g) Programming and coding standards.



Response:

Genesis will develop a configuration and maintenance plan in coordination with the State. This will outline the design sessions and provide enough information to the State to ensure that the correct people are in attendance for each session. Included will also be the coding standards that are to be followed. When the design sessions are completed and the design documents are signed off on, Genesis will take those design documents and break them down into a configuration document where individual processes and functionalities will be divided into two-week sprints.

These sprints will be overseen by the Technical Lead and the Software Development Manager. Each sprint concludes with a review process where the updates are presented to the Genesis Project Manager. Upon approval from the Genesis Project Manager, the updates will be released into the Genesis Test Environment for Integration Testing.

The document will also memorialize the schedule that will be followed for the configuration of the application. This includes the release cycle of the updates.

v. Establish and Utilize a Deliverable Review and Acceptance Process Agreed Upon by the Unit

The key aspects of the process should include the following:

- a) Review cycles, which will be conducted and scaled to size and complexity of the deliverables.
- b) Deliverables will need to reflect coordination with the overall modular system and will follow agreed upon change control processes. The vendor will be responsible for facilitating the change control process, which will allow the appropriate audience to determine priorities using a structured business value assessment process to measure both the effort to implement in hours and the benefits.
- c) Informal reviews and walkthroughs of draft and final deliverables are encouraged.
- d) Queueing up excessive deliverables for simultaneous review is unacceptable to the Unit.

Response:

Genesis includes the Deliverable Review and Acceptance process within the Project Plan. Genesis lists each deliverable and provides the criteria and timelines for acceptance. As with all of the planning documentation provided, this requires agreement between Genesis and the State. The review and acceptance of deliverables is mutually agreed to by both parties before being memorialized in the plan. This includes spacing the deliverables such that an undue burden is not placed on the State.

vi. Configure Environments for Development, Testing, Training, and Production

Establish four (4) environments (development, testing, training, and production), ensuring that the development, testing, and training environments do not have access to live data. Establish each environment based on its specific needs. Establish strategies for managing data across environments.



Response:

All Genesis projects contain six (6) environments as part of its offering. There is a development environment for the development/configuration of the application and unit testing. Second, there is a Genesis testing environment where the Genesis Quality Assurance (QA) team performs the integration testing, followed by the full system testing. Third, Genesis provides a State testing environment for User Acceptance testing. This environment is used by the State to test any updates made by Genesis prior to the change being deployed to the Production environment. Fourth, Genesis will provide a training environment for the State to utilize. Fifth, Genesis has a Production environment where the application will be used to perform all registration and issuance activities. Lastly, Genesis provides a Disaster Recovery environment to be utilized in case a disaster renders the Production environment un-useable.

Genesis follows a standard procedure when managing these environments. Genesis has instituted automated deployments through DevOps to ensure all environments maintain the same code. Once modifications made in the Development environment have passed unit testing, the code is marked for deployment into the Genesis Testing environment. Genesis QA team tests the application, marking it for UAT deployment once everything has passed. Once the code is deployed into UAT, it will remain here until the State has completed its testing and acknowledges that it is ready for Production.

The next step is worked out in conjunction with the desires of the State. Typically, Genesis will deploy the updates at this point to the Production, DR, and Training environments at the same time. This ensures that all environments remain up to date with the same code at all times. Should the State desire, Genesis will deploy to the Training environment first to allow for training to be completed prior to releasing to Production.

vii. Complete Standard System Configuration

Implement the user interface design and enable all the designed functionality necessary to ensure that the system is configured and functioning properly. Conduct all necessary functions to achieve completion of standard configuration and administer testing to certify that all outcomes perform as intended. Once reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

Response:

Genesis works through sprints to configure the application in the manner presented in its Configuration Plan. As the project progresses, each item that is unit tested is then presented to the Genesis Project Manager and the Genesis Software Development Manager. Prior to UAT, Genesis will walk the appropriate personnel from the Unit through the application and demonstrate how the functionality is working within. The correct Unit personnel will then sign off on the functionality before the UAT process begins.



viii. Assist the Unit with Configuration of System

Provide documentation, training, support, and expertise to ensure that the system is configured and functions properly. The completed system configuration must be tested by the vendor and perform as intended. Once reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

Responsibilities will include the following:

- a) Identify all system configuration that must be completed by the Unit staff, providing it to the Unit prior to configuration training.
- b) Provide detailed system configuration instructions for Unit staff to use when configuring the system.
- c) Provide training to Unit staff on how to complete all necessary configuration that is identified to be the responsibility of the Unit staff.
- d) Assist the Unit with their configuration tasks when deemed necessary. This may involve helping them to install the appropriate software, set up network configurations, or troubleshoot problems that arise.
- e) Following configuration, complete a quality review to ensure that the setup is correct and complete. Provide feedback to the Unit if there are any necessary changes to be made.

Response:

The Genesis application requires very little configuration on behalf of the Unit. Genesis will work with the Unit to determine what may need to be installed, which is dependent on the amount of ancillary equipment (i.e., credit card readers, bar code scanners, paper scanner, etc.) that are to be utilized by the State. Genesis provides guides for installation of each of these items to the best of its ability. Some such installations will require instructions from the provider of the equipment.

Genesis will provide technical training on these installations and connections. Genesis will work with the Unit to test and ensure the viability of the equipment, and that installation was completed correctly.

ix. Assist the Unit with User Role Determination

Ensure that users have the appropriate level of access to perform their tasks, while also safeguarding sensitive data and system functionality. Complete the user role determination and configuration. Vendor to review and confirm this functionality performs as intended. The necessary user role documentation must be provided to the Unit. Once reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

Responsibilities will include the following:

- a) Assist the Unit in defining the different user roles within the system. Each role should have a distinct set of permissions and access levels tailored to the specific responsibilities and requirements of that role.



- b) Assist the Unit in assessing the needs and requirements of each user; considering their job duties, responsibilities, and the information they need to access to perform their tasks.
- c) Assist the Unit in the determination of users to the appropriate roles based on their needs and requirements. Ensure that each user has the necessary permissions to perform their job duties without granting them excessive access that could compromise security.
- d) Provide the Unit with a user role and access guide which will provide information on how to configure and manage user roles and permissions in the system.

Response:

Genesis provides two different guides that are designed to aid the State in assigning user roles. First is an Administrative Guide that aids the user in setting up user groups within the Genesis application. These user groups allow for quick assignment of security processes and also ensure that all users within that user group have the same processes assigned. Using these groups also allows the State to easily add or remove processes to the entire group all at once.

The second guide is a dictionary of security processes and what each allows the user to do. With that guide, Genesis will sit with the State subject matter expert to review and assign appropriately. Genesis will act in an advisory role during this meeting.

Genesis also aids the State by not allowing certain processes to be assigned if the user does not have the requisite user level in the application. There are certain processes that can only be assigned to administrators. There are also processes that can be performed at the State location and not at a facility. These processes will not be available when assigning users processes at a facility.

- x. **Obtain Acceptance from the Unit on Design and System Configuration**
Engage the Unit throughout the design and configuration process, address any concerns or questions raised by the Unit, and gain their formal approval to proceed with the project's next phase. This includes providing configuration and role documentation, addressing concerns, demonstrating responsiveness to those concerns, obtaining formal sign-off, and documenting the next steps. Once all design and initial system configuration concerns have been mitigated and resolved and have been properly documented by the vendor, the selected Unit stakeholder will provide final sign-off.

Note: If other tasks and/or functions are necessary to accomplish the requirement and achieve full functionality, bidder must integrate such tasks into their solution to be perform accordingly.

Response:

Genesis ensures communication is consistently occurring between Genesis and the State throughout the entire project. Genesis provides weekly status reports in an agreed upon written format. Above and beyond this, Genesis suggests a weekly meeting between the Genesis Project Manager and the State Project Manager. Meetings with stakeholders should occur at a minimum

every other week. This allows for concerns to be presented and addressed. This can also be used for general questions to be asked.

These meetings should be supplemented with deliverable meetings where deliverables can be presented and reviewed as a group. This will allow for not only a quicker review period, but more accurate deliverables. This will obviously allow for a full review of the system configuration and allow the pertinent individuals to accurately attest to the completion of the configuration.

e. Development and Testing

Please describe an approach and methodology incorporating the items below respective to each task listed in i. through viii:

- Testing;
- Quality management;
- Collaboration and acceptance process;
- Release and known issue documentation; and
- Any tool(s) used for testing and defect tracking.

i. Complete all Necessary Custom Development

Complete custom development on all requirements that require custom development. Once the custom development is complete, has been tested by the vendor, and performs as intended it will be tested by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

Response:

Genesis follows this exact process during its QA review of its customizations. Genesis developers do an initial unit test while coding. Only after completing this testing will the configuration be deployed to the Genesis testing environment for the Genesis QA team to perform integration testing. Once all development and integration testing has been completed, the Genesis QA team will perform a full system test and review that all functionality is working correctly. After this Genesis will deploy the configurations to the UAT environment for the Unit to test and sign-off on.

ii. Complete all Necessary Reports

Ensure all reports that are necessary and not created or adjusted by the Unit using the report builder tool, are completed, and tested by the vendor prior to go-live. The necessary reports will be completed and tested by the vendor and perform as intended. Once the reports are tested by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

Response:

During the JAD sessions, Genesis spends time working with state subject matter experts to determine what reports are needed. Genesis will design these reports in tandem with the State and create a list with the parameters defined. After this, Genesis will create reports within the



application. As with everything else that Genesis configures, the reports will be tested by Genesis QA prior to going into UAT. These reports are then expected to be tested by the unit so any adjustments can be made prior to go-live. Reports will be signed off on by the Unit when they meet expectations.

iii. Complete all Necessary Integrations (Interfaces, Imports, and Exports)

Establish connections, data exchange mechanisms, and protocols to ensure efficient and reliable information flow between the new system and all required external systems and services.

The system must support both current and future integrations, including ongoing batch imports of digitized records and images from the current and ongoing Vital Records Digitization Project. As new records are scanned, they must be automatically indexed and imported into the system for seamless access and archival utilization.

Convert all existing interfaces, imports and exports with changes as needed to integrate with the new system. The necessary interfaces, imports, and exports will be completed and tested by the vendor and perform as intended. Once the interfaces, imports, and exports are tested by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

The system must support the ability to import and export data using common file types such as XML, JSON, CSV, XLSX, TXT, and PDF. These formats are specified in the technical specifications and functional requirements and must be supported for both standard and ad hoc data transfers, which may include complete or partial records. Additionally, the system must support FHIR messaging as required by CDC standards and interoperability guidelines.

Response:

Integrations are connected in the latter half of the configuration process to ensure the integrations work within a more complete application. However, this does not mean that the integrations start late in the process. It has been the experience of Genesis that integrations can move slowly if you are depending on a third party to provide anything. Due to this, Genesis starts with its integrations early, including meeting with the third parties to clearly define the integration that is being sought.

Genesis will create Integration documents that detail the design of the integration and specifications required to make the integration work. Genesis then designs the integrations to match this document. This includes all exports, imports, and interfaces. Each of these are tested to the greatest extent possible prior to the sign-off of UAT.

Integration into the Genesis vital records application can be created using any of the file types mentioned above. For FHIR connections, Genesis utilizes its Genesis Interoperability Module (GIM). GIM can handle any file type but specializes in FHIR interoperability. To date, GIM is live in four (4) jurisdictions and has live FHIR connections to three (3) different Medical Examiner case

management systems (more than 160 offices). GIM also has live FHIR connections with two separate funeral home case management systems. Finally, GIM is connected to NCHS in three jurisdictions (with a fourth waiting to start certification) where we are sending the registered records in real time to NCHS and importing the ICD-10 codes back to the application. Since GIM has gone live, the time between registration of a record and the return/import of the ICD-10 code is an average of 30 minutes.

iv. Develop a Testing Plan

- a) Outline the plan for testing the system's functionality, performance, compatibility, and integrations; including high-level tasks and timelines.
- b) Develop, in collaboration with the Unit, a System Test Plan that describes the vendor's system testing approach and includes at a minimum each of the following:
 - Test coverage;
 - Walkthroughs and inspections;
 - Entrance criteria;
 - Exit criteria;
 - Configuration management;
 - Testing documentation;
 - Process steps;
 - Inputs to system testing;
 - Outputs to system testing;
 - Metrics;
 - Pass/fail criteria;
 - Suspension criteria and resumption requirements;
 - Testing deliverables;
 - Testing activities;
 - Resource role and responsibilities;
 - Testing tools;
 - Acceptance criteria shall include but is not limited to; no high or critical defects in code released to production and production releases will be promoted if more than 5% of requirements have an open defect.
- c) Gather the Unit's feedback on content and functionality and make all necessary changes as requested to meet the needs of the Unit's requirements of the RFP on an agreed upon timeline.
- d) The testing plan will be developed, maintained, and followed by the vendor. If a change is made to the plan following the initial signature, the plan must be reviewed and electronically signed by the selected Unit stakeholder.

Response:

Genesis provides a testing plan as part of all of its projects. The Genesis Testing Plan for this project will include everything listed above.



v. Execute and Evaluate Testing

Complete all necessary vendor led testing efforts. Conduct testing according to the defined plan and record results. Analyze test results to identify issues, defects, and areas that require improvement. Collaborate with developers to fix issues and address performance issues. The Unit reserves the right to conduct independent testing of the system at any time. The vendor must cooperate with the Unit or its designee, and provide data, and technical support for independent testing. Once the necessary vendor led testing is complete, has been evaluated by the vendor, and performs as intended the Unit will review and confirm and the selected Unit stakeholder will provide sign-off.

Testing should include the following:

a) Functionality

Verify that the system is working as expected, taking into account the needs and requirements of the Unit. This will include regression testing for each upgrade that is released throughout the project prior to implementation. It should also include reliability testing to find system weaknesses to reduce the number of failures during deployment.

b) Performance

Verify that the performance of each system module works as expected; testing bandwidth performance expected in the work process. This will include load, stress, failure, and recovery tests.

c) Compatibility

Verify that the browsers, devices, platforms, and operating systems are working as expected. This will include possible kiosks, possible card scanners, printers, mobile devices, operating systems, and browsers. Coordinate with the Unit and specific system component vendors to conduct integration testing. All inbound and outbound interfaces must be tested to ensure accurate and secure data transmission.

d) Security

- Help conduct regular penetration testing.
- Help conduct regular security audits.

e) Accessibility

- Provide Unit resources or their designee access to test cases, test results, and defect tracking via online tool(s). The Unit reserves the right to inspect artifacts and results at any time.
- Ensure the SIT environment is available prior to UAT availability to facilitate interface testing with the Unit as provided in the Project Work Plan.

Response:

Genesis will aid the State with all levels of testing required as part of this project. Most of the testing can be performed against the UAT environment, but some will have to be run in the Production environment.



Functionality Testing: This is conducted within the UAT environment by State staff and assisted by Genesis. State staff will test the application based on the process designed by the Unit. During the testing, Genesis typically meets with the State daily (or every other day) to go through test results and record any issues that were discovered. Genesis will triage any issue presented and work to update while the round of UAT is being completed. Once the round of UAT is completed, Genesis will complete the bug fixes and redeploy them to the UAT environment. This will allow the State to retest and confirm the system is operating correctly. Once satisfied, the Unit will sign off on the completion of UAT testing.

Performance Testing: This will be required to be run against the Production Environment for accurate testing. Genesis will aid the State with the running of Performance Testing to evaluate load, stress, failure, and recovery testing.

Compatibility Testing: Genesis recommends including this as part of the UAT testing. Writing test cases that involve using the different browsers and testing all ancillary devices.

Security: Genesis runs vulnerability scans throughout the development process and continuously after Go Live. Genesis will also go through annual SOC II audits as well as penetration tests. Genesis will provide these results to the State.

Accessibility: Genesis builds its applications to WCAG standards and takes accessibility quite seriously. Genesis runs accessibility scans against its application and provides these results to the State. Genesis will provide a remediation plan to the State as well, if needed.

vi. Document Testing Results

Document testing results: summarize testing activities, testing results, and identify defects. A detailed testing results report will be developed by the vendor. Once reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

Response:

All Genesis testing results are documented within DevOps. These are extracted and placed into a results document to provide to the State. State testing results will be recorded and used to sign-off on the completion of UAT.

vii. Assist the Unit with User Acceptance Testing (UAT)

The system must have a User Acceptance Testing (UAT) environment completed and fully accessible to users no later than twelve (12) consecutive months after the Kick-off meeting.

Assist the Unit with their User Acceptance Testing (UAT) efforts, from planning to execution to post-UAT support. The UAT will be completed, and all defects should be captured by the vendor. Once defects and mitigation plans are reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

Responsibilities will include the following:



- a) Assist the Unit in executing the UAT plan, answer questions, and resolve any technical issues that arise.
- b) Collaborate with the Unit to capture and document identified defects, including clear descriptions, steps to reproduce, and severity levels.
- c) Work with the development team to prioritize and resolve defects identified during UAT, ensuring timely fixes and feedback to the testers.
- d) Provide the Unit with defect resolution status.
- e) Ensure the UAT environment is available before UAT scheduled start date as provided in the Project Work Plan.

Response:

As mentioned previously, Genesis assists the State with the UAT process to ensure that the State testers do not run into issues that would hinder the completion of tests. Genesis works with the State in the development and planning of the UAT process. This includes helping to schedule and write test cases and scripts. The cases and scripts can either be used verbatim or used by the State to create their own cases and scripts.

Genesis will train testers prior to the start of UAT and make sure the functionality of the application is understood. Genesis will also be available to quickly fix technical issues that may keep a tester from continuing testing. Further, Genesis meets either daily or every other day with the testing team to document issues that were discovered. This allows Genesis to ask questions, if needed, to ascertain the exact nature of the discovered issue. Genesis will also define severity of identified issues with State staff to better triage the work. This allows Genesis to get the issues to the development staff quicker and rectify issues in a short time.

viii. Obtain Acceptance from the Unit on Testing Results

Present the testing findings, address any concerns or questions raised by the Unit, and gain their formal approval to proceed with the project's next phase. This includes preparing and presenting a comprehensive testing report, addressing concerns, and demonstrating responsiveness to those concerns, obtaining formal sign-off, and documenting the next steps. All testing concerns must be mitigated and resolved and be properly documented by the vendor, the selected Unit stakeholder will provide final sign-off.

- a) Critical and high defects must be corrected prior to go-live. All other defects will be reviewed and have an agreed upon remediation approach by the vendor and the Unit.
- b) Bidders proposing a solution must ensure the SIT and UAT environments are available at least ninety-nine percent (99%) of the time during the project testing phase.

Note: If other tasks and/or functions are necessary to accomplish the requirement and achieve full functionality, bidder must integrate such tasks into their solution to be performed accordingly.



Response:

Genesis sets UAT acceptance criteria with the State at the beginning of a project and details it in its Project Management Plan. The above listed criteria are substantially similar to normal UAT acceptance criteria and Genesis agrees to them.

f. Data/File Migration

Please describe an approach and methodology for each task listed in i. through v:

i. Develop a Data/File Conversion and Migration Plan

Provide details regarding how the vendor will conduct the data/file conversion and migration, such conversions and migration should include image and document file types as well. The comprehensive data/file conversion and migration plan will be developed, maintained, and followed by the vendor. If a change is made to the plan following the initial signature, the plan must be reviewed and electronically signed by the selected Unit stakeholder. Once the plans are reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

The key aspects of the plan should include the following:

a) Data/File Conversion Process

Describe the data/file conversion process and explain the process of transforming data and files from one format or architecture to another.

b) Data/File Migration Process

Describe the data/file migration process and explain the process of moving data and files from the current system to the new system.

c) Roles and Responsibilities

Define the roles and responsibilities for those responsible for data/file conversion and migration tasks.

d) Tasks and Timeline

Identify specific tasks needed to be completed for the conversion and migration, assign due dates and task owners.

e) Contingency

Describe the approach to any foreseeable obstacles regarding data migration during the transition period. Include information about contingency procedures in the event of an unsuccessful cutover.

Response:

Data migration is one of the biggest factors in the success or failure of an implementation. Due to this, Genesis takes this process quite seriously. As vital as data migration is, there must be a solid plan built that provides a roadmap to success. Genesis has a base Data Migration Plan that it modifies to fit the individual needs of a jurisdiction. A sample of this Plan is provided as part of Genesis's response as **Appendix F**.



Each task listed above is included within the Genesis Data Migration Plan. The first step in the Plan is to gather information on the data formats that exist and put together the actual conversion mapping. Genesis personnel will work to understand what each data field in the data to be migrated is and map it to the correct field in the Genesis application.

The second task will be to define the process in which the migration will take place. The Genesis data team will look into the data that exists and work with the State to determine the best way for the data to transfer from the State to Genesis. At this point, Genesis will write out the method that the migration will actually use.

The plan lists the roles and responsibilities of the different staff members and puts together a general schedule that the migration process will follow. Like any good plan, Genesis will provide a contingency plan as well.

ii. Develop a Conversion Mapping Guide

Develop a guide for the data/file conversion to transform data and files from one format or architecture to another, ensuring compatibility with the target system. Provide data layout documentation to the Unit. The detailed conversion and mapping guide shall be developed and followed by the vendor. Once the Guide has been reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.

The key aspects of the plan should include the following:

a) Data Inventory

List all data sources, file types, and formats involved in the conversion. Describe data structures, field definitions, and relationships. Identify any unique or complex data elements requiring special handling.

b) Data Mapping

Create detailed maps showing how data elements from the old system correspond to fields in the new system. Address differences in data structures, field names, data types, and coding schemes Explain any data transformations or calculations required during conversion.

c) Conversion Logic

Outline the steps involved in the conversion process, including data extraction from source systems, data cleaning and validation, data transformation and mapping, and loading data into the new system. Specify any tools, scripts, or software used for conversion.

d) Testing and Validation

Describe testing procedures to ensure data accuracy and completeness after conversion. Define acceptance criteria for successful conversion. Outline processes for error handling and data reconciliation.

e) Documentation

Provide instructions for conversion team members. Include screenshots, examples, and decision trees for complex mappings. Document any assumptions, limitations, or known issues.

Response:

The data mapping guide is included within the data migration plan. The data mapping itself will be a living document outside of the plan that will be modified in tandem with State subject matter experts. The mapping starts with a data inventory. Genesis will work with the State to fully define the data that currently exists. This definition includes data type, data format, and data location. With this determined, Genesis can work with the State to map the current data to the corresponding data field in the Genesis application.

Genesis will then provide its plan for the moving of the data. This will include the tolls that will be used and the process by which the data will be moved. Genesis will define the amount of data to be moved as part of the test migration with the State. Once the data has been moved, there will be the need to validate the data. The data migration plan will define the test data as well as the validation process. Finally, the documentation will be provided to the State.

iii. **Perform the Data/File Conversion and Migration**

Transform data and files from one format or architecture to another following the mapping guide so that it is compatible with the target system. Move all data and files to the new database(s).

Once the vendor and unit stakeholder have tested and confirmed that the data/file conversion and migration are complete, the selected unit stakeholder will sign-off.

Response:

Genesis follows this precise process with another step added in. Genesis will open records to ensure that the system operates correctly but will use a State subject matter expert to validate some of the records where an issue could be anticipated. Once both sides sign off that the system is functioning properly, the document will be provided to the Unit stakeholder for sign-off.

iv. **Provide a Data/File Conversion and Migration Results Report**

Present key conversion metrics to the Unit and stakeholders using tables, charts, and graphs to visually represent the results. Highlight any potential concerns regarding the conversion process. Once a detailed conversion results report is developed, maintained, and followed by the vendor throughout the completion of the Burn-in period, the report must be reviewed and confirmed, the selected Unit stakeholder will provide sign-off.

The key aspects of the report should include the following:

- a) Number of records successfully converted.
- b) Number of records with errors or inconsistencies.
- c) Details of any data discrepancies encountered and how they were handled.
- d) Performance statistics of the conversion process (e.g., processing time, resource usage).
- e) Additional details or supporting documentation, such as detailed data mapping tables, sample error logs, results, and system configuration logs.



Response:

Genesis maintains documentation of data testing and issues that have been reported. Genesis will update these logs with the number of records that were affected by the reported issue. Genesis will also mark completion of the fix, and the State will mark when the data is revalidated.

With this test data, Genesis will put together a general report for the migration status that includes all of the above criteria.

- v. Obtain Acceptance from the Unit on Data/File Conversion and Migration Results**
Present the final data migration results, address any concerns or questions raised by the Unit, and gain their formal approval to proceed with the project's next phase. This includes addressing concerns, demonstrating responsiveness to those concerns, obtaining formal sign-off, and documenting the next steps.

Once the data/file conversion and migration is complete, all concerns are mitigated and resolved and have been properly documented by the vendor, the selected Unit stakeholder will provide final sign-off.

Note: If other tasks and/or functions are necessary to accomplish the requirement and achieve full functionality, bidder must integrate such tasks into their solution to be performed accordingly.

Response:

Final results will be provided to the State for acceptance. Should any concerns remain, Genesis will provide the State with a remediation plan. The selected Unit stakeholder can then determine whether the remediation plan is enough to warrant sign-off or if the plan must be fulfilled first.

g. Training

Please describe an approach and methodology incorporating the items below respective to each task listed in i. through iii:

- Training;
- Help and training documentation; and
- Any built-in online help system and online training available to system users (internal/external).

i. Coordinate and Facilitate On-Site Training Instruction

NOTE: On-site training to be provided one to two months prior to go-live.

Provide users and administrators with train-the-trainer system training on-site, including general use, reporting, report writing, database administration and modification, descriptions/definitions of all database tables and fields (including possible field values), record management and modification, and other key topics requested by the Unit.



Vendor shall plan to have all key staff on-site throughout the duration of the vendor-led training session. All corresponding training materials and notes will be provided to the Unit for internal, external, and system admin users.

The vendor will inform the Unit of any equipment needed to implement hands-on training. Vendor should utilize a variety of delivery methods including online self-paced training presentations, in-person classroom instruction, written material, and demonstrations.

The key aspects of the training should include the following:

- a) Overview and navigation of the selected system.
- b) Provide end-to-end role-based training, including all system admin tools and any potential third-party functionality.
- c) Process for internal users to engage vendor support channels.
- d) System upgrade training any time new functionality is introduced.

Following the completion of on-site training, Unit members will be completing a survey to provide feedback confirming effectiveness in the sessions. Should the results of the survey yield information that indicates the sessions had shortfalls and supplemental training and/or information is needed, the state reserves the right to request additional on-site or remote training at no additional charge.

Once the results of the survey indicate the standard for sufficient training has been met and/or any additional necessary supplemental training has been reviewed and confirmed by the unit, the selected Unit stakeholder will provide sign-off.

Response:

Genesis will provide On-Site training as part of its offer for this project. The training will consist of hands-on walk-throughs of the application that are guided by Genesis staff. Genesis will thoroughly go through the application to provide as much detailed training as possible for the State trainers. Genesis provides training documents as part of this training as well that have exercises designed to walk the user through a process and teach them each step required. Genesis puts no restrictions on how the State uses the training materials.

The training will be conducted first with a high-level overview of the system and how to operate within it. After this, the training will be role-based and scheduled to ensure the correct trainers are available during the correct sessions. Every user type will be taught to the trainers. Genesis works with the State to put together a training schedule that is beneficial to all parties and allows for the greatest transfer of knowledge. This schedule will be a part of the Training Plan provided by Genesis. Genesis will provide a survey and sign-off at the end of the training and understands that training that is deemed insufficient through the surveys may result in additional training sessions. Genesis will work with the State to define what constitutes insufficient within the Training Plan.



Genesis will provide training materials to the State as system upgrades are completed. For especially large upgrades, Genesis will work with the State to schedule a remote training session to walk the trainers through the new functionality.

- ii. Provide Online Reference Training Materials for Administrator and User Manuals
Vendor to provide users with training documentation including system features, feature definitions, functionality, configuration, options, and step-by-step instructions describing how to implement changes to the current configuration. The Unit should have 24x7 access to all reference materials (e.g., Requirements Matrices, Manuals, System Documentation, System Design Documentation, User Documentation, Business Rules Catalog, and Training Materials) and the vendor will update all project documentation as necessary throughout all phases of the project. Training materials for DHHS-led training must be received by the Unit for review and approval in accordance with the appropriate date as agreed upon in the Project Plan and within a timeframe that corresponds with scheduled training. Changes to previous version must be identified for ease of review of the changes.

A complete set of training materials and documentation will be developed and maintained by the vendor. The materials and documentation must be reviewed by the Unit and electronically signed by the selected Unit stakeholder.

The key aspects of the vendor's materials and/or documentation should include the following:

- a) Operations manuals which shall provide guidelines for the operation and use of the System and/or System component(s) containing the policies, processes, and workflows for the System and/or System component(s).
- b) A data dictionary that contains field definitions and formats as well as database names and descriptions, database table, field type and length, valid values, and their corresponding descriptions.
- c) Step-by-step procedures for completing functions in the system.
- d) System documentation, including but not limited to:
 - o process documentation for upgrading the system.
 - o Bidders proposing a solution shall provide specifications for each system environment .
- e) Manuals that help users understand the purpose and operation of the system/system component(s) for each business process/major program/functional area.
- f) Acronyms used in user instructions must be identified and must be consistent with windows, screens, reports, and the data element dictionary.
- g) System navigation, online help, and policies and procedures.
- h) Documentation must be available online and provide an on-line search capability with context-sensitive help.
- i) Provide the ability to produce a printable training manual upon request.
- j) Use version control to retain historical versions of documentation and revisions must be clearly identified.
- k) User materials and/or documentation must be written and organized so that novice users can learn from reading the documentation how to access the on-line windows/screens, read reports, and perform all other user functions.



- l) User manuals must contain a table of contents and an index.
- m) Descriptions of error messages for all fields incurring edits must be presented and the necessary steps to correct such errors must be provided.
- n) Abbreviations must be consistent throughout the documentation.
- o) Each user manual must contain a section describing all reports generated within the subsystem, which includes the following:
 - A narrative description of each report.
 - The purpose of the report.
 - Definition of all fields in the report, including detailed explanations of calculations used to create all data and explanations of all subtotals and totals.
 - Definitions of all user-defined, report-specific code descriptions; and a copy of representative; and pages of each report. Instructions for requesting reports or other outputs must be presented with examples of input documents and/or screens.
 - Instructions for making online updates must clearly depict which data and files are being changed.

Response:

Genesis provides all of the reference and training materials that are listed above. Genesis provides full user documentation that provides step by step instructions on how to perform all functionality within the application. Above and beyond this are quick reference guides for easier use by end users. Genesis also provides training guides that contain explanations and exercises for users to follow in order to learn how to operate the application effectively.

These guides are located online and are printable upon request. The documents contain tables of contents as well as an acronym dictionary. Each document is version controlled. Genesis will also provide a document that lists each error message that could appear within the application and define what each means for a user.

Genesis will also provide data dictionaries to the State for reference to the application. These data dictionaries will contain the field definitions, formats, database names, tables, field type/length, valid values and descriptions. Genesis understands the usefulness of this document and ensures that the State has a valid copy.

iii. **Obtain Acceptance from the Unit on Training Results**

Vendor to present training results, address any concerns or questions raised by the Unit, and gain their formal approval to proceed with the project's next phase. Once all training concerns are mitigated and resolved and properly documented by the vendor, the selected Unit stakeholder will provide final sign-off.

Note: If other tasks and/or functions are necessary to accomplish the requirement and achieve full functionality, bidder must integrate into their solution to be performed accordingly.



Response:

Genesis will present the training results to the Unit and address any concerns raised. The Unit stakeholder will sign off when the acceptance criteria agreed to within the Training Plan has been met.

h. Implementation

The system must have a complete production environment and be fully accessible to users no later than fifteen (15) consecutive months after the Kick-off meeting. The response for this section should include how your company will be able to ensure the Unit will be satisfied with what has been accomplished by the necessary implementation date.

Please describe an approach and methodology incorporating the items below respective to each task listed in i. through v:

- Change management;
- Issue management;
- Defect management;
- Process for monitoring initial operation of the implemented system;
- Implementation.

i. Perform and Complete all Aspects of the Implementation.

This is a comprehensive function encompassing the entire process of bringing the system online and operational.

After the system is implemented and delivers the desired functionalities, all concerns are mitigated and resolved, it is fully operational, and has been properly documented by the vendor, the selected unit stakeholder will provide final sign-off. As such, there shall be a transition to the system being officially and formally available in the production environment for all internal and external users.

Response:

Genesis will perform all aspects of this project within the scope provided above. Genesis provides an Implementation Plan as part of all of its projects. This plan will detail the steps that are required to be completed as the project moves towards implementation. Also included within the plan is a schedule of when each task is to be completed and roles/responsibilities for each task. This plan will be presented to the State and worked through to provide a final plan that is agreed upon by both parties.

ii. Go-live



Response:

In the final preparations for Go-live, Genesis will work through the deployment plan with the State. Genesis will be on-site for Go-live.

- iii. Assist the Unit with On-Site Implementation Assistance for Go-Live Week. Provide the Unit with on-site implementation assistance for go-live week with hands-on support during the critical period when the system transitions into full operation.

Responsibilities will include the following:

- a) Go-live-Week Support – Help in Monitoring system performance and promptly identify any technical issues, assisting users with navigating the system and resolve any issues, document feedback and questions for post-launch analysis and improvement, and escalate any major issues to relevant teams.
- b) Vendor shall plan to have all key staff on-site throughout the duration of go-live week session. In the event there are substantial open unresolved issues (i.e., DHHS business operation needs), the Unit may deem it necessary to extend and/or require additional on-site assistance be provided by the vendor’s key staff at no additional charge to the State.
- c) Once all concerns have been mitigated and resolved and properly documented by the vendor, the selected Unit stakeholder will provide final sign-off.

Response:

As part of Go-live, Genesis plans to be on site with the State to monitor and provide as much support as possible. Genesis typically brings the Genesis Project Manager, Trainer, and the Technical Lead for the Go-live week. Genesis will work with the State during the preparation for Go-live to determine whether others from the Genesis team will be needed. Genesis prefers this method as too many people operating out of a command center can over-complicate things.

Being onsite for Go-live will allow Genesis to categorize issues that arise in real time with State staff and triage the issues back to the Genesis team. Genesis will have their trainer readily available to walk any users through confusions that may arise from moving to a new application.

By the end of the week of Go-live, the Genesis Project Manager will meet with the State Project Manager to determine next steps. Genesis expects this meeting to have the State sign off on the Go-live and move the project into stabilization. Should this not be the case, Genesis will work with the State to determine the best plan for moving forward, which could include longer on-site support.



iv. Obtain Acceptance from the Unit on Implementation Results.

Present implementation results, address any concerns or questions raised by the Unit, and gain their formal approval to proceed with the project's next phase. This includes gathering feedback, demonstrating the achieved benefits, and addressing any remaining concerns.

Once the system has been successfully implemented, all concerns are mitigated and resolved and have been properly documented by the vendor, the selected Unit stakeholder will provide final sign-off.

Response:

Genesis will provide an implementation sign-off document with the implementation steps from the Implementation Plan. Each step will allow for results to be added, along with any concerns or open issues. This document will memorialize feedback, achieved benefits, and remaining concerns. The document will provide for final sign-off by the Unit stakeholder and move the project to its next phase.

V. Additional Information

Work performed by the Vital Records Unit is subject to State and Federal statutes that may not be within the system's capabilities. This may necessitate a change order initiated by DHHS. Vendor would be expected to be responsive to making prescribed modifications timely and in accordance with the change order process to achieve timely compliance and avoid service disruption.

Note: If other tasks and/or functions are necessary to accomplish the requirement and achieve full functionality, bidder must integrate into their solution to be performed accordingly.

Response:

Genesis has been in the vital records business since 1987 and has seen a plethora of changes from both State and Federal statutes. Due to this, Genesis truly understands the urgency that sometimes comes from these statutes. Genesis reacts quickly when presented with these updates and will work quickly through the change order process to ensure that time frames required by the statutes are met.

i. Post-Implementation

Please describe an approach and methodology incorporating the items below respective to each task listed in i. through v:

- Steady state;
- System maintenance;



- The proposed evolution, planned releases, and on-going development philosophy of core products and software tools in your proposed system;
- How system improvements, change requests, and bug fixes are prioritized. Include details on how these will be released to other client requests;
- Response times for all levels of support, escalation process of support, support tracking system, and support severity level determinations;
- What support options are available (e.g., phone, chat, support ticket, etc.); and
- Warranty provisions for any hardware that will be utilized as part of the proposed solution. The description should include, at a minimum, the following information:
 - Length of warranty;
 - Items covered;
 - Provisions for repair or replacement;
 - Service response times.

i. Burn-in Period

- a) This is a technique used to increase the quality of components and systems by operating the item under normal or accelerated environmental conditions. Vendor to provide on-site, post go-live support if deemed necessary by the Unit. Adhere to a Burn-In Period which will begin upon completion of system go-live and will continue for ninety (90) calendar days thereafter completion of the Burn-In Period. Once reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off, unless one of the Critical Incidents listed directly below occurs:

Out of Business:

The Critical Incident causes the system to be completely down, and the State of Nebraska is unable to conduct business with the system at any point following system implementation.

Time Sensitive:

The Critical Incident pertains to time-sensitive functions, such as recording vital events, processing payments, and issuing or amending certified copies of certificates, preventing the use of such functions at any point following system implementation.

Data Movement:

The Critical Incident pertains to any interfaces required by the Vital Records Unit, such as the interface with the Online Verification System (OVS) or Fast Healthcare Interoperability Resources (FHIR) messaging at any point following system implementation.

Important - If any of the Critical Incidents listed directly above occur during the “Burn-in period” of the contract, the vendor may be subject to liquidated damages as outlined in Section (II)(Z).

- b) If Critical Incident occurs, the Burn-in Period will be stopped, and the vendor will complete all necessary work to correct the problem. The Critical Incident will be considered resolved when both parties agree that the vendor has provided a permanent solution to the software issue. When both parties agree that the Critical Incident has been resolved, the State will notify the vendor in writing whether the Burn-in Period will be continued, extended past the initial ninety (90) calendar days, or be reset back to day zero to begin again.



- c) Following a successful burn-in period and sign-off, the project will immediately transition into the Support, Maintenance, and Operations phase.
- d) Issue Notification, Resolution, and Procedural Information:
 - Provide proper notification and details regarding when the system is or will be unavailable to users.
 - Provide timely system fixes and resolution of issues deemed critical by the Unit. Resolutions should be applied or installed after appropriate testing by the vendor and acceptance of the Unit.
 - Provide the process for the Unit to identify and improve the system based on defects, feature enhancements, or needed adjustments.

Response:

Genesis fully subscribes to the concept of a Burn-in period as defined above. This has been referred to earlier in the Genesis response as the stabilization period. All Genesis projects go through this period to ensure that the system operates as designed to provide good data flow and users find it efficient.

Any bugs discovered during the Burn-in period will be communicated to Genesis by the State single point of contact. Genesis will meet with the State to discuss the issue to best determine where the bug is occurring. Genesis will also work with the State to categorize the nature of the bug. Genesis understands that critical bugs will result in the pausing of the Burn-in period until the resolution of the bug.

During the Burn-in period, Genesis will work with the State to define a more aggressive deployment schedule to ensure that any discovered issues are resolved quickly and efficiently. All bug fixes will be deployed to the UAT environment and tested prior to the State approving the Production deployment. Genesis will also provide the State with deployment notes for every deployment that will contain all updates being added within that deployment.

At the conclusion of the Burn-in period, Genesis will meet with the State staff to discuss the state of the project and evaluate the status of the project. Genesis will provide the State with a sign-off document. Should the State determine the Burn-in period has been managed successfully, they would sign off, and the project would move into support and maintenance.

ii. **Coordinate and Facilitate a Post-Implementation Review Teleconference Meeting**

Evaluate whether project objectives were met, determine how effectively the project was run, learn lessons for the future, and ensure that the Unit gets the greatest possible benefit from the project. This should occur within two (2) weeks following the acceptance of the Burn-In Period.

Once a formal project performance assessment is completed by the vendor and is reviewed by the Unit and confirmed, the selected Unit stakeholder will provide sign-off.



Response:

At the end of the project, Genesis will participate in a review meeting. Genesis understands these meetings can provide valuable insight into the process.

iii. **Provide a Plan for Enhancement Requests**

Outline the vendor's approach, expected timelines, cost estimates, and pricing model for Unit change requests that are not federally required, and that qualify as enhancements rather than defects.

Once an enhancement request plan is developed, maintained, and followed by the selected vendor it will be reviewed by the Unit and confirmed, and the selected Unit stakeholder will provide sign-off.

Response:

Genesis will provide this plan earlier in the process than the beginning of support. Genesis believes that it is important for both it and the State to be on the same page as to how the change order process will operate. This will ensure that there are no surprises and allows both parties to work with the greatest efficiency.

Genesis will provide the State with its Change Management Policy near the beginning of the project. This will provide insight into how deployments are documented and presented to the State. This also gives a full outline of the change order process. As with all plans, this document will contain a section for the Unit stakeholder to sign off on.

iv. **Provide a Transition Plan from Implementation to Support, Maintenance, and Operations.**

Outline the steps and activities for transitioning from the implementation of system to maintenance and operation. Define transition goals, transition activities, identify support resources, assign support responsibilities, and identify support communication channels.

Designate an account manager whose role is to ensure business specifications/requirements are being fulfilled and be an escalation point for questions and support.

Once a comprehensive transition plan is developed and followed by the vendor, it will be reviewed by the Unit and confirmed, and the selected Unit stakeholder will provide sign-off.

Response:

Prior to Go-Live, Genesis will provide a plan to the State detailing the transition from Implementation to Support and Maintenance. Genesis will review this plan with the State to



determine best practices and procedures. This plan will be completed and signed-off on prior to Go-live.

v. Obtain Final Sign-Off

Present post-implementation results, address any concerns or questions raised by the Unit, and gain their formal approval to proceed with the project's next phase. The vendor must ensure that all objectives have been met satisfactorily and prepare final sign-off documents, which include, at a minimum, the following: project summary, list of deliverables, acceptance criteria, statement of satisfaction, and signature fields for stakeholders.

Final sign-off documents must be prepared and provided to the Unit for review. All concerns must be mitigated and resolved and be properly documented by the vendor. Once complete, the selected Unit and State of Nebraska stakeholders will provide final sign-off approval of the system.

Note: If other tasks and/or functions are necessary to accomplish the requirement to maintain full functionality, bidder must integrate such tasks and/or functions into their solution to be performed accordingly.

Response:

From the start of all of its projects, Genesis works with each of its clients to determine the final sign-off requirements and parameters. With the parameters of the final sign-off set earlier, both Genesis and the State will be able to quickly and accurately determine the state of the project and allow for final sign-off to occur in a simpler fashion.

j. Support, Maintenance, and Operations

Please describe an approach and methodology incorporating the items below respective to each task listed in i. through vii:

- i. Complete the action only after new versions or software updates have been fully tested, found critical error-free, and agreed upon with the Unit.
- ii. Provide timely system fixes and resolution of issues deemed critical by the Unit.
- iii. Bidders proposing a solution shall conduct a regular maintenance schedule established with the Unit; regular maintenance shall only be performed outside normal business hours, providing a minimum thirty (30) day notice.
- iv. Bidders proposing a solution shall provide proper notification and details regarding when the system is or will be unavailable to users, providing a minimum thirty (30) day notice.
- v. Provide a process for the Unit to identify and improve the system based on defects, feature enhancements, or needed adjustments.
- vi. Designate an account manager for the life of the contract whose role is to ensure business specifications/requirements are being fulfilled and be an escalation point for questions and support; this individual should be ascertained during the development of the Staffing Plan.
- vii. Help Desk Support



- a) Provide staffing and operation of a Help Desk during normal business hours.
- b) Provide level 0 (customer self-service), level 1(basic support), level 2 (moderate support) that includes as appropriate, escalation to the State, and level 3 (technical/integration) support related to the functionality of the scope of work. Level 1 help desk is the first point of contact and is responsible for logging the issue and, if possible, assisting the user and resolving the issue without the need for escalation. The support requested will be necessary throughout the entire first year following system implementation but is not expected to extend past the initial year.
- c) Provide support for all critical system failures or issues 24x7x365.
- d) Provide help desk training to specified Unit staff members prior to vendor supplied help desk staffing and operation roll off.

Note: If other tasks and/or functions are necessary to accomplish the requirement to maintain full functionality, bidder must integrate those tasks and/or functions into their solution to be performed accordingly.

Important - If any of the Critical Incidents listed directly below occur during the performance period of the “Support, Maintenance, and Operations”, the vendor may be subject to liquidated damages as outlined in Section (II)(Z).

Out of Business:

The Critical Incident causes the system to be completely down, and the State of Nebraska is unable to conduct business with the system at any point following system implementation.

Time Sensitive:

The Critical Incident pertains to time-sensitive functions, such as recording vital events, processing payments, and issuing or amending certified copies of certificates, preventing the use of such functions at any point following system implementation.

Data Movement:

The Critical Incident pertains to any interfaces required by the Vital Records Unit, such as the interface with the Online Verification System (OVS) or Fast Healthcare Interoperability Resources (FHIR) messaging at any point following system implementation.

Response:

Genesis maintains its applications for jurisdictions and does not force upgrades on its clients. Genesis does ensure that its code is supported and will work to update the code base should that prove necessary. As part of the support and maintenance agreement, Genesis works to maintain the application as it was designed as described in its support and maintenance agreement. A sample Support and Maintenance agreement is attached here as Appendix G.

All support being offered as part of this proposal is the Bronze Tier II level of support. Genesis offers Gold, Silver, and Bronze levels of support that allot for the hours that the support is



available. Bronze level support is typically offered from 9:00am to 7:00pm Eastern Time on business days. Silver level offers unlimited 24/5-business day telephone support. Calls received after normal business hours are returned within two hours of the start of the next service day. Gold level support offers unlimited 24/7 telephone support. Calls received after normal business hours are returned within two hours of the original call. Genesis also has two tiers of support. Tier 1 is geared towards the end user and allows the end users to contact Genesis directly in regard to support. Tier 2 provides support to a Single Point of Contact (SPOC) from the State. Genesis, as part of this proposal, is offering its Bronze, Tier 2 package. Genesis is willing to negotiate support hours.

Any change or enhancement that may be requested by the jurisdiction will follow the change order process of Genesis. Genesis works with the Jurisdiction to fully define the change/enhancement that is being requested. Then Genesis will work to define the scope of the work required and provide the Jurisdiction an estimate of the cost. Should the Jurisdiction desire to move forward with the change/enhancement, Genesis will put into a Change Order document for contracting.

Genesis maintains weekly meetings with its customers to go over support tickets. These meetings are vital to the life of a project because keeping the lines of communications open, even during support, is critical for Genesis to ensure that the system is continuously meeting the State's needs. These meetings will prioritize tickets and track their progress. The meetings are also a space to talk about changes that may be needed in the future.

B. PROPOSED DEVELOPMENT APPROACH

The bidder to provide a detailed narrative response to each of the following items:

1. *Proposed Resolution*

Explain in detail your proposed resolution to provide the Vital Records Management System. Include your rationale for determining how your company will resolve the necessary system features, performance capabilities, functionality, and all requirements as outlined. Substantiate how your solution embodies the necessary elements to meet and/or exceed the objectives and requirements.

Response:

Genesis has a fully developed suite of modules available within its vital records system. While these modules have been developed and configured to the needs of different jurisdictions, Genesis fully understands that no two places do everything exactly the same. This is why Genesis finds it so important to work with the State to fully understand their processes and workflows. This research and requirements gathering allows Genesis to configure its application to fit the exact needs of the State. Below is a description of the modules and functionality as it currently exists within the Genesis application. Genesis can configure anything below to fit the exact needs of the State.

As mentioned, the most effective way to provide an application that functions how the State requires is by doing proper preparation at the outset of the project. Through requirements



gathering and JAD sessions, Genesis can prepare detailed functional specification and design documents that outline the workings of the application. Genesis reviews these with the State to make sure each process is accurately captured and described. This initial work is where the success for Genesis projects is born. Genesis has personnel that have been involved in the vital records world for years and have experience over multiple jurisdictions leading the sessions. Sessions also will have the Technical Lead, whose job is to understand the flows and determine how the application can be modified (if necessary) to accommodate.

Genesis lists out the configurations that are required to be made in the configurations document and divides them into sprints to properly plan for the development process. Throughout the sprint, the development team meets with the Technical Lead and the Software Development Manager to ensure there is no roadblock in the process. At the end of each sprint, the development team will present the updates from that sprint to the Genesis Project Manager, who will critically review against the documented processes from the State. Once the Genesis Project Manager accepts the updates, the code will be scheduled to move from the development environment to the Genesis testing environment. This process allows the Genesis Project Manager to review each update and ensure that each configuration in the document is completed and completed correctly.

The description of the Genesis application is provided below:

Global/Security (WebLE):

- 1) The WebLE module within the Genesis application is the base module where security and access are configured within the application. This is where users are created and maintained. Users are assigned to locations and then given security processes to perform their work within that location based on their role(s).
- 2) The Genesis application uses role-based access control. The system itself will limit what processes can be performed by the location that is logged into by the user. Genesis also provides the administrator with the tools to further limit what processes a user can do by delineating the functionalities of the system into separate, assignable security processes.
 - a) Location controls exist within the application so processes that are unable to be performed at certain locations will not be assignable.
 - b) Security User Groups are functionality that is provided by Genesis to make the assigning and unassigning of security processes much simpler for the administrator.
 - i) The administrator can set folders with the user processes that belong to each user group. These folders can be changed at any time.
 - ii) The administrator can then assign the folders when setting up users. This will help to ensure that all required processes will be given to that user while also being sure not to give processes that user type shouldn't have.



- iii) When changes to user types need to be made, the administrator will be able to add the process (or remove) directly into the folder. This will automatically add or remove the processes from all users that have that folder. This makes the modification immensely easier and faster.

- iv) User accounts are never deleted from the system. A user can be locked by the system administrator, and a user can be made inactive by the system administrator. However, to ensure that the audit trail of user actions is maintained, when a user is no longer authorized to use the system, the system administrator simply deactivates the account, and the account will no longer be available.

New User Request Process:

- 1) Genesis has built an enrollment form for new users to gain access to the application. The form will require the user to select a location and then enter the required information for an account. Genesis recommends a user be required to enter an email account for registration as it uses email messages to communicate within the application.
 - a) All applications for access are put into a New User Enrollment queue. No user is given access to the system without some level of approval.
 - b) The administrator can open the review queue to review all applications. The administrator can review fully filled out form and download it if required.
 - c) The administrator will accept the application, which will create the user and assign the location that was requested. The administrator will then need to simply add the security group folder to the user that corresponds with their user type.

Configurability of Security:

- 1) Genesis allows for certain security issues to be customizable by the State so restrictions can be configured as needed.
- 2) The State will be able to set password requirements directly within the system. This includes: parameters of what is required in the password (1 Uppercase, 1 Lowercase, at least 1 number, at least one special character (!@#\$, etc.), how long the password must be, how many passwords are required before a password can be repeated, etc.
- 3) The State can also determine how long a user can be inactive in the system before the system logs them out.

Broadcast Alerts:



- 1) Broadcast alerts are used within the application to allow the State to send important messages to the users. The broadcast alerts appear for the users immediately after signing into the application.
- 2) The alerts are configurable for the state user that needs to send it out. The state user can select a date and time for the message to start appearing as well as the date and time for the message to stop.
 - a) The messages are also configurable to limit who is seeing the message. The state user can select a user group type to send the messages to. Messages that only affect funeral home users will only be visible to those users. This helps to limit the messages available to all users so it does not become stale and, eventually, ignored.

Birth Module (WebEBC):

- 1) Genesis will utilize its standard Birth Module as the starting point of development. Genesis uses the JAD sessions with the State to determine the differences between the standard application and the needs of the State. Genesis then works to configure the application to ensure that the workflows accurately represent the needs of the State.
- 2) The Genesis Birth Module is built to capture all data elements required by NCHS for reporting purposes. These data elements are built into a daily IJE extract file to be sent to NCHS.
 - a) The Birth Module typically contains multiple release points for the front-end users.
 - i) The first is a legal release, which will be set based off the criteria of the State for the issuance of a birth certificate.
 - ii) The second is a statistical release, which is when all data has been entered and the record is ready to be reported to NCHS.
 - b) The Birth Module contains multiple record types that may be entered by the State. This list may be adjusted and added to per the needs of the state. The standard record types include:
 - i) Delayed Birth
 - ii) Home Birth
 - iii) Foreign Birth
 - iv) Legacy Birth
 - v) Legacy Delayed Birth
 - vi) Surrogate Birth
 - vii) Foundling/Safe Haven
 - c) Back-office processes are standard in the Birth Module to allow for the capture of General Amendments, Court Order Amendments, and/or Corrections.



Back Data Amendments: Genesis has built capabilities within its application that allows the State to mark amendments that were made on paper legacy records within the new application. This functionality captures the change history of the record and will capture the original date the amendment occurred.

d) Parentage:

- i) Genesis has built a process to collect parentage information within the application directly from the facility. This process has been used to ease the burden of the state from securing such information.
 - ii) The facility can choose a marital status that will allow for the collection of parentage information. This will unlock the Parent 2 (non-birth parent) fields and allow the facility staff to enter the data.
 - iii) Parentage will require the upload of the acknowledgement of parentage document to be submitted. These records will be sent to a parentage review queue at the state. The State users can review and check documentation. If the record is completed correctly, the State user will choose to accept and the record will be registered. If the record was not completed correctly, the State user can reject the record and send it back to the facility to either correct or remove the parentage.
- 3) Reports that currently exist are provided to the state to see if they are useful. Reports can be modified to fit the needs of the state or entirely new reports will be built.

Death Module (WebEDC):

- 1) Genesis will utilize its standard Death Module as the starting point for development. The JAD sessions with the State will be used to determine the differences between the standard application and the needs of the State. Genesis will then work to configure the application to ensure that the workflows accurately represent the needs of the State.

Disposition Permits:

- 1) Genesis developed disposition permit functionality to accommodate different jurisdictional specific processes and regulations. Genesis can make this as simple as the rules allow and will be sure to tailor to the State's needs.
- 2) The simplest version of obtaining Disposition Permits is in a jurisdiction that "issues" the burial transit permit as soon as the death is certified by the doctor. In this jurisdiction, the funeral director has a menu option to print burial transit permit that will allow for the printing once the certification is complete.
- 3) The rules are slightly more stringent when it comes to cremation permits in the mentioned jurisdiction. These permits need to be approved by the medical examiner's office. With this in



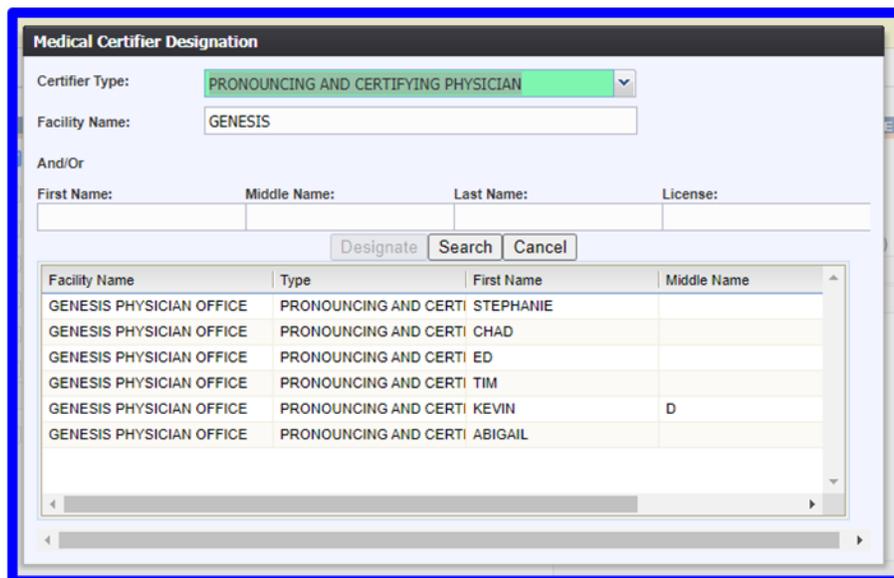
mind, Genesis built a process for the jurisdiction where the funeral director can choose the option to request a cremation permit. This will send the record into a queue at the medical examiner's office for acceptance or rejection of the permit. The ME can open the record and look at the details provided by the physician and answer accordingly. Both acceptance and rejection will initiate an email that will be sent back to the funeral director that requested the permit. If the permit was accepted, the funeral director will be able to print the cremation permit from the record.

- 4) Other jurisdictions have processes for the BTP that are similar to the described cremation permit process. Genesis has the flexibility to build any such process into the application for the State.

Certification and Verification:

- 1) Certifications are incorporated into the workflow for users to seamlessly certify records.
- 2) The application will require jurisdiction specified fields to be either filled with data or resolved and left blank. The application will visibly indicate to the users that the tabs are completed. Completed tabs will show a green checkmark so the user knows there is no more data entry needed.
 - a) When the data entry is completed and the record is ready for certification, the application will essentially "walk" the user through the certification process. First, a pop-up message will appear which alerts the user that the record is ready for certification. The message will ask the user if they would like to certify now. If the user clicks "Yes" the application will go to the next step in the process. If the user selects "No" the message will disappear and the user will be returned to the record.
 - i) The next step in the certification process gives the user the opportunity to verify the data that has been entered is correct. This will pull up a completed death worksheet. The certifier can review for accuracy and then close. After that the user then clicks the button to certify. The user will click the acknowledgment box and then enter their PIN number. This PIN will be the same for the certifier for every location (there will be no need to learn multiple PINs).
 - ii) To greater enhance the user experience, Genesis has provided a separate certification functionality that is mobile friendly for users. When a record is ready for certification, an email notification will be sent to the certifier on the record. The certifier can then log into the vital records system to certify.
 - iii) However, the certifier will also be able to click the link within the email and log into a certification application that will provide the user with limited data (that data will be determined by the State) for review and certification. This will certify the record within the vital records application.

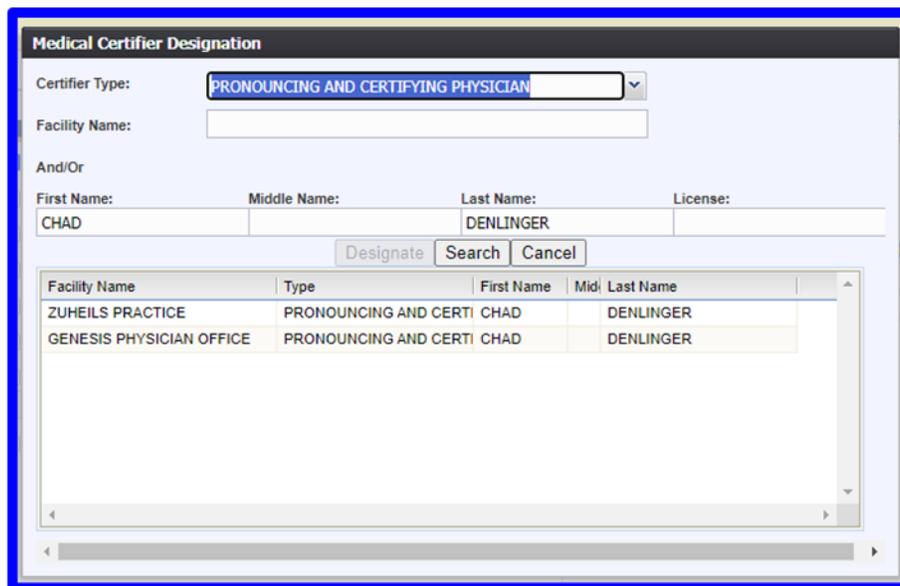
- b) Genesis has designed its Death Module to make it as easy for users to complete records as possible. One area that factors into this process greatly is allowing medical and demographic data to be entered into simultaneously.
 - i) Demographic data will be owned and entered by the funeral home. This data will be viewable by the physician but will remain locked so as to not be edited.
 - ii) Medical data will function in the same manner only it is accessible to the medical staff and only viewable to funeral homes.
 - iii) Records can be easily designated to correct personnel for certification or verification. The user will click to designate the record and then be able to search for the exact name desired and choose from the locations that person has access to or the user can search by facility and then find the correct certifier from the list.



The screenshot shows a web application window titled "Medical Certifier Designation". It contains several input fields and a table. The "Certifier Type" dropdown is set to "PRONOUNCING AND CERTIFYING PHYSICIAN". The "Facility Name" field contains "GENESIS". Below these are fields for "And/Or", "First Name", "Middle Name", "Last Name", and "License". There are "Designate", "Search", and "Cancel" buttons. A table below lists certifiers from "GENESIS PHYSICIAN OFFICE".

Facility Name	Type	First Name	Middle Name
GENESIS PHYSICIAN OFFICE	PRONOUNCING AND CERTI	STEPHANIE	
GENESIS PHYSICIAN OFFICE	PRONOUNCING AND CERTI	CHAD	
GENESIS PHYSICIAN OFFICE	PRONOUNCING AND CERTI	ED	
GENESIS PHYSICIAN OFFICE	PRONOUNCING AND CERTI	TIM	
GENESIS PHYSICIAN OFFICE	PRONOUNCING AND CERTI	KEVIN	D
GENESIS PHYSICIAN OFFICE	PRONOUNCING AND CERTI	ABIGAIL	

Search by office



The screenshot shows a web application window titled "Medical Certifier Designation". It contains several input fields and a search table. The "Certifier Type" dropdown is set to "PRONOUNCING AND CERTIFYING PHYSICIAN". The "Facility Name" field is empty. The "And/Or" section has "First Name" as "CHAD", "Middle Name" as "", "Last Name" as "DENLINGER", and "License" as "". Below these are "Designate", "Search", and "Cancel" buttons. A table below shows search results:

Facility Name	Type	First Name	Mid	Last Name
ZUHEILS PRACTICE	PRONOUNCING AND CERTI	CHAD		DENLINGER
GENESIS PHYSICIAN OFFICE	PRONOUNCING AND CERTI	CHAD		DENLINGER

Search by physician

Medical Examiner Interoperability:

- 1) Genesis currently has FHIR interoperability live in two different states. In those jurisdictions, death information from the ME case management system (CMS) is being sent into the vital records application.
- 2) The CMS sends a FHIR message to the Genesis Interoperability Module (GIM). GIM will take the message and import it into the vital record application while running the required state edits. This ensures that the data being entered into the vital records application is clean.
- 3) The ME user can then sign into the vital records application and certify/release the record.

Amendments/Corrections:

- 1) These processes are built into the module as described in the Amendments section below.

Back Data Amendments:

- 1) Genesis has built capabilities within its application that allows the jurisdiction to mark amendments that were made on paper legacy records within the new application. This functionality captures the change history of the record and will capture the original date the amendment occurred.
- 2) Reports that currently exist are provided to the state to see if they are useful. Reports can be modified to fit the needs of the state or entirely new reports will be built.

Marriage Module (WebMAR):

- 1) Genesis will utilize its standard Marriage Module as the starting point for development. Genesis uses the JAD sessions with the State to determine the differences between the standard application and the needs of the State. Genesis then works to configure the application to ensure that the workflows accurately represent the needs of the State.
- 2) Genesis has variations of its Marriage Module in jurisdictions where it acts as a data repository and can collect the information captured at county/city locations for reporting purposes. Genesis also has a version of the Marriage Module that allows the State to provide the entire marriage registration process to the appropriate licensing authority. This allows the State to have conformity of data and processes and does not require exporting and importing of data. Accordingly, the Genesis Marriage Module can be configured to capture any workflow that the State wishes.
 - a) For the Marriage Module that is provided to the licensing authority, the record is started within the module and all data required for a license will be collected; after which, a license can be issued directly from the application.
 - i) Genesis typically links its Fee and Issuance module to the Marriage module for issuance of the license.
 - ii) Alternatively, Genesis can provide this license issuance directly from the module (This is not recommended unless the fee for the license does not need to be captured).
 - iii) The customer can bring back the completed license after the marriage ceremony for certification of the record. The user will reopen the record and add the final details into the application before certifying the record.

Delayed Marriage Records

- 1) Genesis provides the ability to file delayed marriage certificates within its application as well.
- 2) In the standard version, a license may be returned completed for up to one (1) year after the date of issuance, so long as the ceremony was performed prior to the expiration of the license. When the license in the system has not been completed within that time frame, it is moved to a queue at the State location (this is set up this way due to rules for that jurisdiction but can be easily changed to be available to whatever user type performs delayed registrations) for possible delayed creation.
- 3) The State can complete the registration, which will require the accompanying documentation to be uploaded to the record prior to release. This documentation (as per the rules of the jurisdiction) prints on security paper when the record is issued.

- 4) Reports that currently exist are provided to the state to see if they are useful. Reports can be modified to fit the needs of the state or entirely new reports will be built.

Divorce Module (WebDIV):

- 1) Genesis will use its standard divorce module as the basis for beginning development. Genesis uses the JAD sessions with the State to determine the differences between the standard application and the needs of the State. Genesis then works to configure the application to ensure that the workflows accurately represent the needs of the State.
- 2) The Divorce Module provides import functionality for the State to accept extracts from the court systems and upload into the registration system for reporting.
- 3) Genesis provides the State with a registration data entry screen as well. Data registration is used to capture divorces that may not be available through import.
- 4) Reports that currently exist are provided to the state to see if they are useful. Reports can be modified to fit the needs of the state or entirely new reports will be built.

Fetal Death Module (WebEFDC):

- 1) Genesis will utilize its standard Fetal Death Module as the starting point for development. Genesis uses the JAD sessions with the State to determine the differences between the standard application and the needs of the State. Genesis then works to configure the application to ensure that the workflows accurately represent the needs of the State.
- 2) When creating a new record in the Fetal Death module, the Genesis application takes the user through a series of questions to determine whether what is being reported is a fetal death or whether it is actually a birth and then a death. Should the questions determine that the record is a birth and then a death, there will be a pop-up that takes the user to the birth module to complete the record.
- 3) Genesis provides a more relaxed rule set for fetal deaths that are under 21 weeks of gestation. These records require less information for completion so the records can still be filed.

Funeral Home Involvement:

- 1) Genesis has experienced funeral homes becoming more and more involved in the fetal death process than ever before. Within its Fetal Death Module Genesis has the functionality to assign a funeral home to a record if the need arises. The funeral home will be responsible for the demographic information (as determined by the State) for those records.

Disposition Permits:

- 1) The Fetal Death module utilizes the same disposition permit processes as the Death module.



- 2) Reports that currently exist are provided to the jurisdiction to see if they are useful. Reports can be modified to fit the needs of the jurisdiction or entirely new reports will be built.

Amendments:

- 1) Hospital/funeral home users can begin amendments via the applicable module for the record. Genesis has worked with jurisdictions to allow for amendments to be performed by external users. Genesis has also built in protections to ensure that these users cannot perform amendments. The functionality of this process is fully determined by the business needs of the State and Genesis will configure its application to fit its direct needs.
- 2) Where the hospital/funeral home user is seeking an amendment through, for example the Death module. The user will start the amendment at their location (assuming the user has the proper security permissions to begin the amendment process). The user will complete the amendment and submit the amendment to the appropriate reviewing authority (i.e. the State) for review and approval or rejection.
- 3) Hospital/funeral home users will be prompted in this process to upload any supporting documents.
- 4) State users can initiate amendments directly through the corresponding module or through the Fee and Issuance Module. Genesis has also developed a method for non-users of the application to apply for and pay for amendments through its ordering platform, GoCertificates.com.
- 5) When the amendment is initiated via Fee Module, the amendment will be created in the record module (i.e. death, fetal death) and the user can proceed through the standard amendment process by clicking the link within Fee.
- 6) Typically, State users charged with amendment processing will utilize the legal view functionality in the State's location within the system.



The screenshot shows a web application interface titled "LEGAL VIEW". At the top right, there is a dropdown menu for "Unresolved Work Queue" showing "BATT'S EMILY (M), BATT'S BILLY" and a count of "1". The main content area is divided into two columns: "CHILD INFORMATION" and "PARENT 1 INFORMATION".

CHILD INFORMATION	
Record Type:	BORN AT THIS FACILITY
Child's Date of Birth:	06/14/2022
State file Number:	2022000133
State file Date:	11/18/2022
Child's First Name:	BILLY
Child's Middle Name:	
Child's Last Name:	BATT'S
Child's Suffix:	
Child's Sex:	MALE
Child's Time Of Birth:	08:08
Place of Birth Name:	KENT BIRTHING CENTER

PARENT 1 INFORMATION	
Parent 1 Title Preference:	PARENT
Parent 1 Current Legal First Name:	EMILY
Parent 1 Current Legal Middle Name:	
Parent 1 Current Legal Last Name:	BATT'S
Parent 1 Current Legal Suffix:	
Parent 1 Maiden First Name:	EMILY
Parent 1 Maiden Middle Name:	
Parent 1 Maiden Last Name:	BATT'S
Parent 1 Maiden Suffix:	
Parent 1 Date of Birth:	09/29/1982
Parent 1 Age:	39

Legal View Screen

- 7) Amendments for review, if hospital/funeral home users are submitting amendments, will be seeded in State user queues and the amended fields and supporting documents will be noted for efficient review.
- 8) Amendments created by State users (that also have the security process that allows for them to review amendments) can also be configured to bypass the review queue and become effective immediately.

Fee & Issuance:

Issuance of Certificates:

- 1) Genesis captures the identity information of the requestor. The application can also capture and upload physical documents via scan or upload.
- 2) The Fee user will search for the appropriate record to issue and attach it to the requested transaction.
- 3) Payment information will be attached to the transaction and tracked within the application.
- 4) Shipping information can also be attached to the transaction as necessary for tracking.
- 5) Genesis provides online order processing and will integrate its application to the GoCertificates.com order processing site.



- 6) GoCertificates.com is an affiliated company with Genesis that provides online order processing for jurisdictions. This application has an API connection to multiple jurisdictions at the state and local level and is featured on their websites.
- 7) GoCertificates.com captures online orders. The GoCertificates order processors collect all jurisdiction required documents and only send the orders to the state once completed.
- 8) Genesis can configure the imports to the vital records issuance module so the orders are imported and immediately connected to the correct record for issuance. The internal user will also be able to click within the vital records application to open the uploaded identification documentation, if desired.

Accounting:

- 1) Genesis can provide Fee splitting in accordance with State rules.
- 2) Genesis provides functionality for the closing of cash drawers and all other end-of-day processes. The application allows the user to close drawers and prepare daily deposits.

Bar Code Scanning:

- 1) The standard Genesis offering assumes that the jurisdiction will be using bar code scanning for security paper.
- 2) The major functionality of bar code scanning allows users to attach DCNs to the specific record by scanning the barcode generated by Genesis and then scanning the bar code on the security paper.
- 3) Paper inventory is an integral part of the Fee and Issuance module and is described more below.
- 4) Reports that currently exist are provided to the state to see if they are useful. Reports will be modified during joint application design sessions.

Inventory:

- 1) Genesis provides paper inventory within its Fee and Issuance module. This is designed to ensure that the State can properly track and account for all the security paper within its possession.
- 2) The current set up for paper inventory revolves around the State procuring the security paper and then dispersing to the county/local levels. The State will enter the paper into the inventory to be stored at the State location. When the security paper is going to be sent to another location, the State user will transfer the paper within the application and that paper will now be allocated within the system to the new location for issuance. The system is easily modified

to be able to accommodate local offices managing their own supply of paper while ensuring that the State DCN system integrity is not compromised.

- 3) Document Control Numbers (DCNs) are stored within the system as described above and owned by locations so they may only be assigned to a record at those locations.
- 4) All documents that print onto security paper will require the DCN to be entered and attached to the certificate.

ITOPS:

- 1) Genesis will utilize its standard ITOPS Module as the starting point for development. Genesis uses the JAD sessions with the State to determine the differences between the standard application and the needs of the State. Genesis then works to configure the application to ensure that the workflows accurately represent the needs of the State.
- 2) The registration process will be set to require only the data that is required by the State.
- 3) Statistical Extract will be provided that conforms to the needs of NCHS.

Imaging:

- 1) Genesis will utilize its standard Imaging Module as the starting point for development. Genesis uses the JAD sessions with the State to determine the differences between the standard application and the needs of the State. Genesis then works to configure the application to ensure that the workflows accurately represent the needs of the State.
- 2) The Imaging Module will maintain images of records and link each record to the corresponding data within the main module.
- 3) Importing images can be done singularly or in bulk. Upon importing, the Imaging Module will pull the information it can from the image and provide possible record matches to the user. Once imported, the images will sit in a queue to be matched to the appropriate records, with the potential matches (if available) identified.
- 4) Images can be edited by personnel that is given proper permission.
- 5) All access to images is kept in an audit log.

Standard Reporting and Documents:



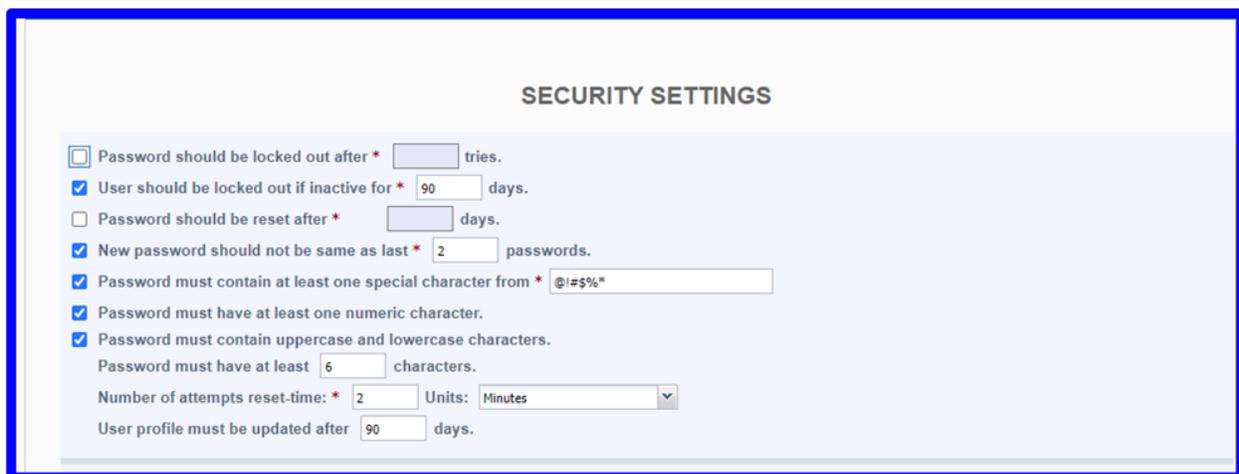
- 1) Out-of-the-box Reports are created in all Genesis applications. These reports will be made available to the State during Joint Application Design sessions for the state to review the catalogue of reports and determine which reports may be useful.
- 2) Above and beyond the reports that currently exist, Genesis works with the State to determine the reports that are needed and will build these into the application. Reports are incorporated as individual security process that are assignable to users. This allows the State to control which users, or user groups, can access different reports.
- 3) Genesis will build new reports from scratch or can modify its existing reports to ensure the State has the exact reporting that it requires to effectively utilize the application.

Drag-IT Adhoc Reporting:

❖ 2 Annual Drag-IT Licenses included with the offering

- 1) Genesis provides flexible reporting through the front end of its application. In addition to the canned reports, our Drag-IT™ ad hoc reporting tool is available to provide users the ability to create customized reports and extracts.
 - 2) The Genesis Drag-IT™ module provides an intuitive interface to design and save custom reports for repeated (or even one-time) use.
 - 3) Output can be displayed or extracted to Excel.
 - 4) Data elements are selected for the output and filters are defined using values or ranges to identify the records to include on the report.
 - 5) Frequency counts of values of individual fields or combinations of values of multiple fields can also be generated.
 - 6) The interface groups data elements into folders so they are logically grouped and easy to locate.
 - 7) The user designing the report selects data elements that are desired for display on the report or for extracting to a file or to be tabulated as a frequency count.
 - 8) Fields are also selected to serve as criteria for the records to be included.
 - 9) Fields dragged to the 'Display Fields' grid will be those that appear on the report output or are extracted to a file if the user chooses.
 - 10) All fields that have data entered are accessible as part of the Drag-IT™ functionality.
- Access Management with Customizable Security Features:

- 1) Genesis knows that access to the vital records system needs to be limited and protected. Genesis provides role-based access control within its applications. Each functionality and process is controlled by a user security process. These processes can be assigned to users one by one to ensure no user has more access than is required to perform their duties.
- 2) The Genesis application also provides the system administrator with the ability to create security user groups. These groups are customizable and are used to provide the same security processes to an entire user type. This is valuable to the system administrator because it will allow a process to be given to an entire group at once, as well as to remove a process from everyone – when the user group is updated, the individual users have their processes dynamically updated to reflect the change.
- 3) Genesis can provide multi-factor authentication and has done so within jurisdictions that require it. Genesis can provide this through several different methods, including using Google Authenticator.
- 4) Password security features are customizable by the State. The State can make the decision as to what is required to be contained in the password, how often the password needs to be changed, how many past iterations of the password cannot be used, etc.



The screenshot shows a 'SECURITY SETTINGS' form with the following options and values:

- Password should be locked out after * [] tries.
- User should be locked out if inactive for * 90 days.
- Password should be reset after * [] days.
- New password should not be same as last * 2 passwords.
- Password must contain at least one special character from * @!#\$%*
- Password must have at least one numeric character.
- Password must contain uppercase and lowercase characters.
- Password must have at least 6 characters.
- Number of attempts reset-time: * 2 Units: Minutes
- User profile must be updated after 90 days.

Ability to Import and Export Data to Analytic and Reporting Systems:

Out of the Box Extracts

- 1) During the Joint Application Design sessions at the beginning of the project, Genesis will work with the State to go through all extracts set forth in the scope of work. This includes going through formats, dates/timing of when they are to run, data, and naming conventions.
- 2) Genesis will work with the State to develop master extracts in exactly this same manner. This will ensure that the State gets exactly the information that it needs through the extract.



GenExtract

- 1) Genesis provides a tool within its applications named GenExtract. GenExtract is designed to provide the states with the ability to create and/or modify extracts at their own discretion without the need to come to the vendor. This gives the jurisdiction more autonomy and control over its application.
- 2) GenExtract allows the person using this functionality to create extracts down to even the most minute level. This tool will allow the user to first select the format that the extract will be pulled in. All formats are provided (i.e., comma delimited, pipe delimited, Excel, etc.).
- 3) The user also can select which data fields will be needed and the order in which these fields will appear in the extract.

Deduplication of Records

- 1) Duplicate checking works throughout all modules. When a record is started and saved for the first time, the duplicate check fires. Should no duplicates be found, the user will be told this via a pop-up and allowed to save the record.
- 2) Should a duplicate or duplicates be found, the system will stop the save and a screen will pop-up to let the user know that duplicate record(s) were found. If only one potential duplicate was found, the system will direct the user to disregard the record that user was starting and to continue in the one that has already been created. The user will be given the option to disregard the message and continue in the record they were trying to create should the potential duplicate not be a true duplicate.
- 3) In the case where multiple records exist that are potential duplicates, the pop-up window will display all potential matches in a grid and allow the user to view pertinent information from each one to see if there truly is a duplicate.
- 4) When records are marked as duplicates, a duplicate record flag is set within the application on both records. The user can run a report to find the records that have been flagged as duplicates and resolve erroneous records.
- 5) Most jurisdictions will look at the alleged duplicate records to determine which record is correct. It is advised that the user then abandons/voids the incorrect version of the record. This does not remove the duplicate flag on the correct record, however. The user can go into that record and remove the flag on their own.

Scanning Documents or Images Directly into the System

- 1) Genesis uses its GenPrint functionality to configure to scanners, which allows users to scan documentation into the application and attach the document to the record.

- 2) One such area where this is particularly effective is Paternity Acknowledgements. These can be entered into the application and then scanned and attached to the record. This will ensure that the original documentation is always available.
- 3) Scanning can be added within any module required by the State.

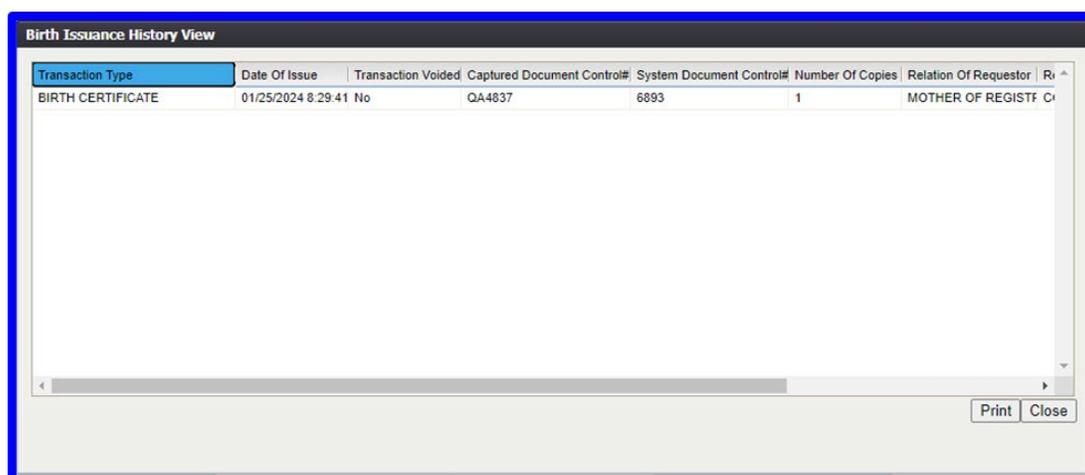
Tracking of Events

- 1) Within its modules, Genesis captures all users that make updates to records throughout the registration process and displays it as Stakeholders.



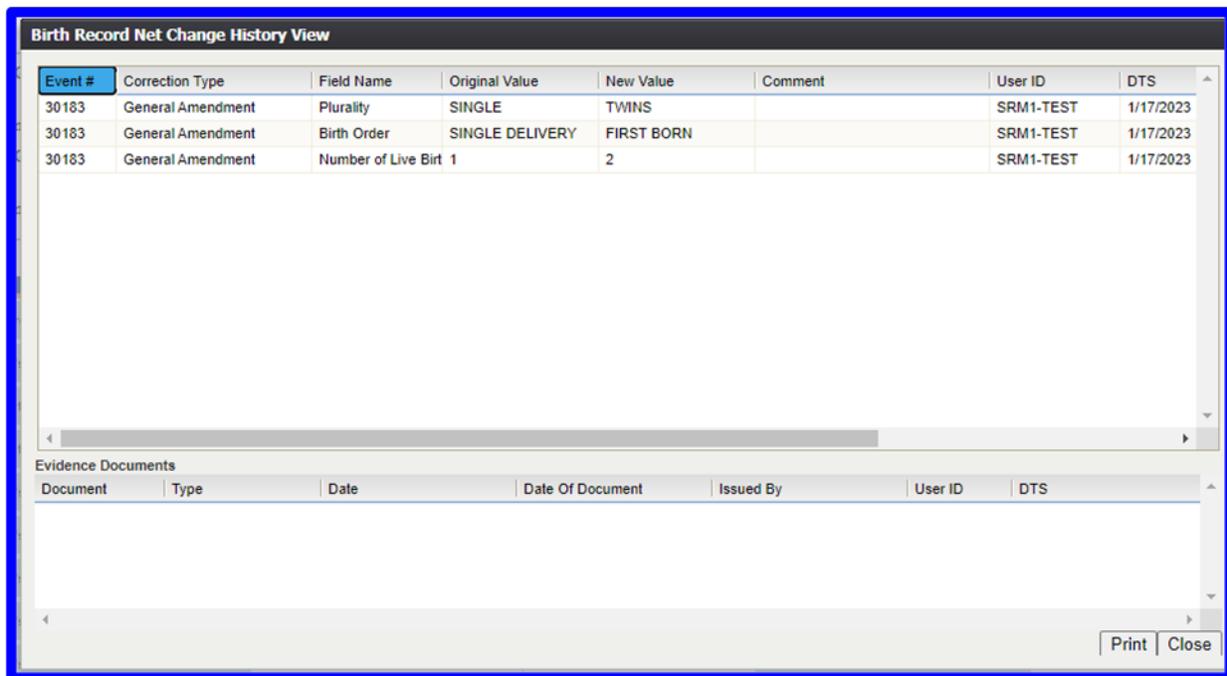
User ID	Action	Date	Location	Phone	Email
CDENLINGER	Record created.	6/14/2022 3:56:39 PM	KENT BIRTHING CENTER		CDENLINGER@GI
CDENLINGER	Acknowledgment of paternity print	11/18/2022 8:36:00 AM	KENT BIRTHING CENTER		CDENLINGER@GI
CDENLINGER	Record updated.	11/18/2022 8:37:09 AM	KENT BIRTHING CENTER		CDENLINGER@GI
CDENLINGER	Record certified. (Certified by CH/	11/18/2022 8:37:24 AM	KENT BIRTHING CENTER		CDENLINGER@GI
CDENLINGER	Record released.	11/18/2022 8:37:39 AM	KENT BIRTHING CENTER		CDENLINGER@GI
CDENLINGER	Record statistically released.	11/18/2022 8:37:44 AM	KENT BIRTHING CENTER		CDENLINGER@GI

- 2) The Record Stakeholders will capture creation of record, update of record, certification and decertification, printing of required documents (acknowledgment of paternity, burial permits, cremation permits, etc.), and release of the records.



Transaction Type	Date Of Issue	Transaction Voided	Captured Document Control#	System Document Control#	Number Of Copies	Relation Of Requestor	Ri
BIRTH CERTIFICATE	01/25/2024 8:29:41	No	QA4837	6893	1	MOTHER OF REGISTR	Ci

- 3) After a record has been registered, all changes to the record are recorded and available to be viewed and/or printed in Net Change History. Changes are date/time stamped and attached to the user that completed the change.
- 4) Net Change History displays documents attached during amendments and changes and shows the change that the document accompanies. This will also allow the user to open and view the documents.



The screenshot shows a web application window titled "Birth Record Net Change History View". It contains two tables. The first table lists correction events with columns for Event #, Correction Type, Field Name, Original Value, New Value, Comment, User ID, and DTS. The second table, titled "Evidence Documents", has columns for Document, Type, Date, Date Of Document, Issued By, User ID, and DTS. At the bottom right of the window are "Print" and "Close" buttons.

Event #	Correction Type	Field Name	Original Value	New Value	Comment	User ID	DTS
30183	General Amendment	Plurality	SINGLE	TWINS		SRM1-TEST	1/17/2023
30183	General Amendment	Birth Order	SINGLE DELIVERY	FIRST BORN		SRM1-TEST	1/17/2023
30183	General Amendment	Number of Live Birt	1	2		SRM1-TEST	1/17/2023

Document	Type	Date	Date Of Document	Issued By	User ID	DTS
----------	------	------	------------------	-----------	---------	-----

- 5) The user is able to select print and print the full net change history if the document trail is ever needed outside of the system.
- 6) Genesis also makes the Issuance History easily accessible to the state users for reference. The issuance history will allow the user to see when the certificates have been issued, who ordered the certificate, which user printed the certificate, and even the security paper number that certificate was printed on.

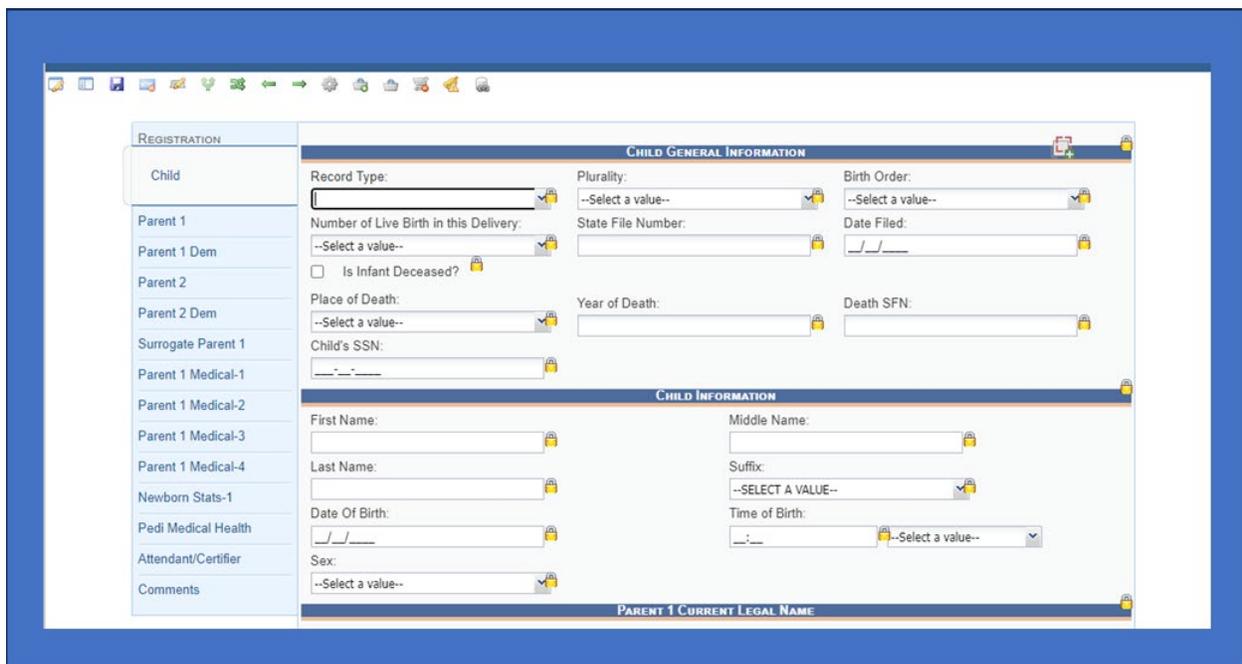
Flexibility to Configure Certificate Formats and Printing Options

- 1) Printing options are configurable through GenPrint for the purpose of designating trays for specific print jobs. The user can configure their print options to send certificate jobs to trays and send letters to specific trays.
- 2) Within these modules, Genesis has built flexibility with its Chameleon and Logic Builder functionality.

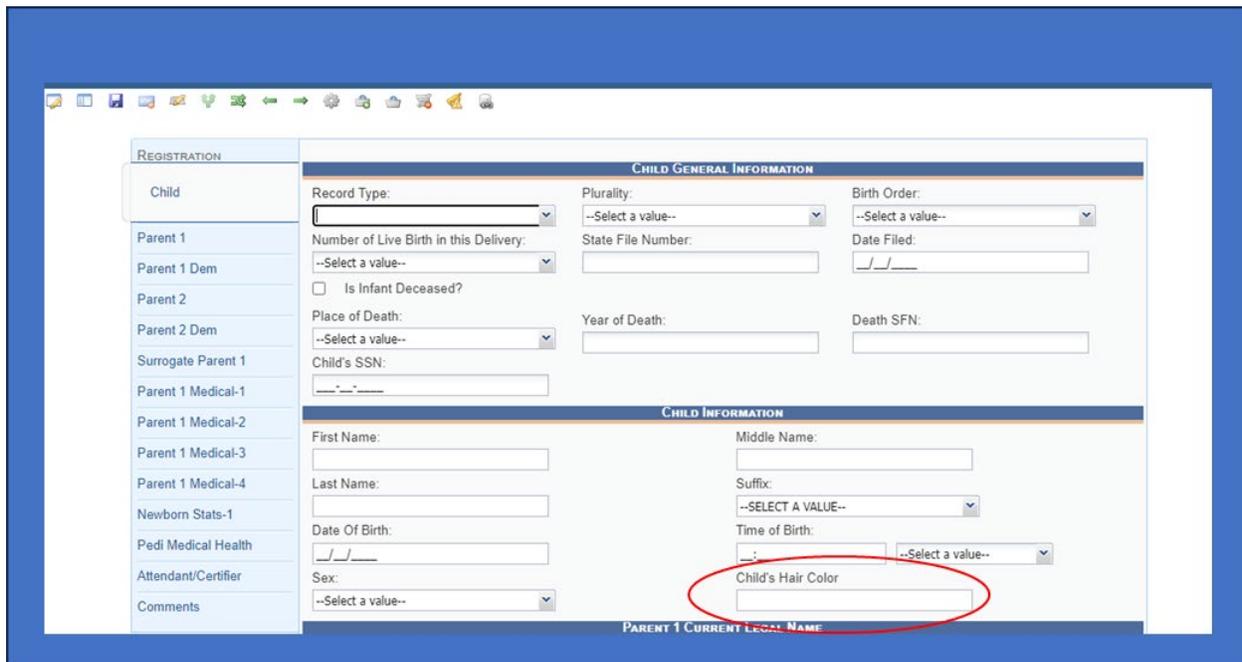
Chameleon™

Configurability of Application

- 1) Genesis has worked to enable jurisdictions to be able to make changes to the application without requiring the jurisdiction to go through the change order process through its Chameleon functionality.
- 2) Utilizing Chameleon, users (with the appropriate security process) are allowed to add, modify, and suspend fields as they appear to end users.
- 3) Fields can be repositioned on each Tab, or moved to a different Tab.
- 4) Significant characteristics of each field are also configurable within Chameleon such as field length, allowable characters, rule set to be used, and help text.
- 5) Using Chameleon, the application can be configured by State users without the need to come back to Genesis to add, change, or delete fields or the functionality.
- 6) “Snapshots” are also included to facilitate “rolling back” to earlier configurations, if necessary.



The screenshot displays a web-based registration form for a child. The interface is organized into a sidebar on the left and a main content area on the right. The sidebar, titled "REGISTRATION", lists various tabs: "Child", "Parent 1", "Parent 1 Dem", "Parent 2", "Parent 2 Dem", "Surrogate Parent 1", "Parent 1 Medical-1", "Parent 1 Medical-2", "Parent 1 Medical-3", "Parent 1 Medical-4", "Newborn Stats-1", "Pedi Medical Health", "Attendant/Certifier", and "Comments". The "Child" tab is currently selected. The main content area is divided into three sections, each with a title bar and a lock icon: "CHILD GENERAL INFORMATION", "CHILD INFORMATION", and "PARENT 1 CURRENT LEGAL NAME". The "CHILD GENERAL INFORMATION" section includes fields for "Record Type", "Plurality", "Birth Order", "Number of Live Birth in this Delivery", "State File Number", "Date Filed", "Is Infant Deceased?", "Place of Death", "Year of Death", and "Death SFN". The "CHILD INFORMATION" section includes fields for "First Name", "Middle Name", "Last Name", "Suffix", "Date Of Birth", "Time of Birth", and "Sex". The "PARENT 1 CURRENT LEGAL NAME" section is partially visible at the bottom. Many fields have a padlock icon next to them, indicating they are locked or read-only.



LogicBuilder™

- 1) Genesis's LogicBuilder is unique to Genesis and its applications. By using LogicBuilder, users (with appropriate security processes) can add, change, and modify both field edits and crosschecks within the application.
- 2) This is powerful functionality in the hands of the appropriate user and, combined with Chameleon (mentioned above in Section 3), allows special studies and changes (including those mandated by NCHS or the SSA) without the need to come back to Genesis for reprogramming.



2. Innovation and Creativity

Provide a detailed narrative explaining any additional robust features about your resolution that would enhance system performance. All these features need to be reflected in the “Total Overall Cost” within the Cost Sheet attachment.

Response:

Many of the features that enhance the system performance have been mentioned above as functionality that exists within the specific modules. Additionally, Genesis has features that are common functionality that is already factored into the system cost. Those features are:

Passkey Funeral Home Certificate Ordering Interface:

- 1) Passkey is an additional feature of the Genesis WebDeath module for a funeral home certificate ordering interface.
- 2) Passkey allows the funeral director to place orders for death certificates while in the death registration process in the WebDeath module
- 3) Passkey interfaces directly with the WebFee & Issuance module to efficiently move the records through the county
- 4) A separate fee is charged to the Funeral Director/Home thus eliminating any accounts receivables the State or Counties may be carrying

VIZ-E-Q™ (Visual Cueing)

- 1) The visual cueing provides different coloring for validated and non-validated fields. With a brief glance, the operator can determine the status of the record by observing the visual cueing displayed.
- 2) This functionality is standard within the Genesis modules.

Fast-Fire™ – All Registration modules

- 1) Enforcement of instantaneous data checks (Fast-Fire™) ensures data integrity and accuracy, along with the ability to maintain the edit rules.
- 2) This functionality is standard within the Genesis modules.

Lightning Link™ – All Registration modules

- 1) Lightning Link™ provides the user with an easily accessible status checklist of items which have an unresolved status. Each of the items within the checklist are hyperlinked so that the user does not have to search for the field(s) which need to be addressed.



2) This functionality is standard within the Genesis modules.

Mind's Eye™ – All Registration modules

1) Genesis' feature called MindsEye™ allows the operator to not slow down or become discouraged when typing. In traditional Web systems, when an operator types a "C", California would be displayed. Should the operator continue with an "A", for example, Arkansas would appear. Utilizing MindsEye™, when the operator types the same combination, "California" would appear. As a result, the operator can either accept the entry or continue typing the data. This helps to assure correct spelling, accelerates data entry, and reduces user anxiety.

2) This functionality is standard within the Genesis modules.

All Aboard™ – All Registration modules

1) AllBoard™ is a unique feature that allows for all data entry elements to be completed through use of the keyboard. This is accomplished by either direct key entry or hot-key combinations. This unique functional enhancement to our system expedites data entry, thereby improving reporting timelines.

2) This functionality is standard within the Genesis modules.

Flying Logic™ (Add On the Fly-Table Updates)

1) Flying Logic™ is a feature developed by Genesis enabling users to quickly and easily update library tables without delaying the processing of record(s). As an example, when a user is typing an attendant name that is not in the table, the name is displayed in bright red. This alerts the user that the item is not in the table and then allows the user to automatically update or add the attendant. Flying Logic™ allows the user to update table insertions while they are on that particular data field, which is particularly helpful for the user and decreases potential frustration while allowing validation to be done at a later time.

2) This functionality is standard within the Genesis modules.

Chameleon™

1) Genesis' Chameleon™ is functionality unique to Genesis and its applications. Utilizing Chameleon™, users (with the appropriate security processes) are allowed to add, modify and suspend fields on the registration screen as they appear to end users. Fields can be repositioned on each Tab or moved to a different tab. Tabs can even be rearranged. Significant characteristics of each field are also configurable within Chameleon™, such as field length, allowable characters, rule sets (yes, 2 rule sets included) to be used, and help text. Using Chameleon™, the application can be configured by State users without the need to come back to Genesis to add, change or suspend fields or the functionality. "Snapshots" are also



included to facilitate “falling back” to earlier configurations, if necessary. Data that is captured via Chameleon™ can be reported on via Drag-It™.

- 2) This functionality is standard within the Genesis modules.

Logic Builder™

- 1) Genesis' Logic Builder™ is functionality unique to Genesis and its applications. By using Logic Builder™, users (with the appropriate security processes) can add, remove, and modify both field edits and crosschecks resident within the application. This is powerful functionality in the hands of the appropriate user and combined with Chameleon™ allows special studies and changes mandated by NCHS or SSA, without the need to come back to Genesis for reprogramming!
- 2) This functionality is standard within the Genesis modules.

Email/Search Configuration

- 1) Configurability options for both automatic email notifications and application search functions.
- 2) This functionality is standard within the Genesis modules.

Secure Inter-Departmental Messaging

- 1) Genesis' vital records application includes in-system messaging functionality between system users. This messaging is independent of the record-specific comment functionality and allows users to communicate without permanently storing their comments on a record. Such messaging is done based on user ID and allows users to send a message for response to another user for the next time they log in.
- 2) In addition to in-system messaging, Genesis has also developed an email directory “GenMail” function where users can find and send emails to other system users in the event a question or issue arises between stakeholders. Genesis also has the ability to allow the users to send secure emails if this is desired by the State.
- 3) This functionality is standard within the Genesis modules.

User Configurable Field Tips

- 1) All Genesis modules include a series of usability tools that include Field Tip text that displays as users navigate from field to field and access to Field Level Help information upon clicking a field label.
- 2) This functionality is standard within the Genesis modules.

Go-Certificates: www.qocertificates.com



- 1) Genesis, via GoCertificates.com, Inc. (GoCerts) offers State Departments of Health/Vital Records the option to allow Genesis/GoCerts to receive and route orders for certified copies of birth and death certificate(s) and other items directly into the State's Vital Records WebFee & Issuance System. The State is currently working with GoCerts to process certificate issuance, but with an updated system, GoCerts can provide easier processes to help cut down the time it takes to issue to the customers.
- 2) GoCerts has a public-facing certificate ordering/processing website, but also accepts orders via fax and phone.
- 3) In order to facilitate this, the State cooperates to integrate such modifications to its website and Vital Records systems as well that are necessary to enable Genesis/GoCerts to receive and route such orders
- 4) GoCerts is provided at NO COST to the State, with all costs being born by the customer.
- 5) Unlike its competitors, GoCerts has a flat rate processing fee born by the customer for all State installs
- 6) GoCerts can also include marriage certificate ordering, if the State desires.
- 7) GoCerts has been processing orders for over sixteen years and is resident on the websites of the States of California, Georgia, Colorado (also some county offices), South Carolina, Delaware, and a city in Texas.
- 8) The State gives the public the opportunity to pay for the certified copy orders with a credit card
- 9) The applicant can electronically sign the application (by mouse or tablet) so no need to print the application
- 10) GoCertificates staff verifies eligibility as well as identity prior to submitting orders to the State
- 11) When the Genesis WebFee & Issuance module is in place, State users only need to review, print, and mail the certificates
- 12) The State will process the orders once the authentication of the applicant is proven correct for each order
- 13) The State is provided with an electronic copy of the application and the ID, eliminating the cost of paper storage
- 14) The applicants will be contacted regarding any problems with an order so the corrected order can be processed



15) The State can benefit via reduced ongoing support costs

Name Change Process:

- 1) Since there is no requirement for a standard change of name after marriage, Genesis vends a product separately through a sister company GoCertificates.com (GoCerts).
- 2) This website (GoNCP.com) allows newlyweds to enter his/her information both pre- and post-marriage.
- 3) The customer can either purchase the paperwork to be emailed to them to print out or they can have the paperwork shipped to them. The kit includes all of the necessary forms (Social Security, department of motor vehicles, US passport, etc.) which are now prefilled with all of the customer's information.
- 4) In addition to the pre-filled forms, the customer also receives detailed instructions that are county specific for each form providing names, addresses, phone numbers, and office hours.
- 5) This helps save the newlywed time by not having to do all of the research on where they need to change their name, but also they only have to enter their information once instead of hand writing it again and again on each form they need.
- 6) GoCerts has utilized this in Texas and other states by asking individual counties or vital records offices the opportunity to distribute promo cards and when their promo number is used, **GoCerts sends the county/vital records office \$5.00 per order.**
- 7) GoCerts also provides counties personalized links to be placed on their websites that automatically attribute any kits purchased after clicking the link to that county.

There are also some features that will be priced as separate costs. Those features are as follows:

GIMHub

- 1) GIMHub was created to provide organizations the ability to connect to a vital records application even when the organization is not ready for FHIR transmissions.
- 2) GIMHub sits between the case management system/EHR and the GIM module.
- 3) GIMHub can accept any extract format that an organization can provide.
- 4) The case management system/EHR extracts the data/message from their system and GIMHub accepts it.
- 5) GIMHub then converts that message to a FHIR message and passes it to GIM, where the message will be accepted and integrated into the vital records application.



- 6) By using GIMHub, the vital records application will be ready to accept a FHIR message from the organization (simply remove the GIMHub step) when that organization is ready.
- 7) GIMHub is priced separately and is shown in the cost document.

Baby's Background: www.bbginfo.com

- 1) Baby's Background (BBG) is a public facing website which is available to provide expectant moms and dads the ability to provide "Mother's Worksheet" information prior to delivery. Baby's Background can be adapted to other applications integrating individual results with hospital electronic data as well.
- 2) Better data quality by parent(s) not having to provide the data after delivery rush
- 3) BBG is fully integrated with the GIM
- 4) The EMR data and the parents' information are combined and edited prior to inserting into the vital record system
- 5) BBG allows for State specific information to be captured that otherwise may not be available in EMR's.
- 6) Additional State data captured in BBG is also editable using the configurable edits in GIM.
- 7) BBG is mobile friendly, allowing parents to enter the information on their phones, tablets, etc.
- 8) BBG also allows parents to pre-order certified copies of birth certificate into the State Vital Records system
- 9) BBG utilizes web-based signature capture functionality so users can sign on their tablet, phone, for such things as SSA requires to request a Social Security number for the newborn.
- 10) The State has the opportunity to put links to BBG (and GoCertificates) on its website, (as Delaware has).
- 11) This is a separate service which is priced separately, is shown in the cost document.

C. TECHNICAL CONSIDERATIONS

If bidder identifies any potential challenges and/or technical considerations that the State should be aware of please provide a detailed explanation or indicate as such for consideration.

Response:



Genesis does not envision any technological concerns with this project. The largest potential challenge for the project is the short timeline for implementation of a full system. This will require state resources to be dedicated to this project and for timelines to be met by all parties involved.

D. PROJECT WORK PLAN, MANAGEMENT, AND IMPLEMENTATION

Bidder to examine project requirements and provide a detailed narrative response for each of the following items:

1. Work Plan

Provide a general work plan for approaching the project requirements outlined herein Section (VI) and provide assurances in your ability to meet all requirements as outlined and avert delays.

Response:

As mentioned earlier, Genesis will ensure that its project plan matches all requirements from the State. A sample Genesis project plan is provided as part of this response as Appendix H.

2. Project Timeline

Provide a detailed project timeline that clearly demonstrates all the project implementation steps, from inception through completion, to provide assurances on your ability to meet the Go-live date no later than fifteen (15) months after the Kick-off meeting. At a minimum, the timeline must include the date(s) when all modules will be delivered for the User Acceptance Testing (UAT) environment, proposed dates for on-site training, Go-live date, and Burn-in period. Such dates shall conform with the required timeframes outlined in Section (VI)(E)(2).

Response:

The Genesis Project Schedule is provided as Appendix I.

3. Project Management

Please explain your company's approach to each of the following as it relates to:

- Project management;
- Risk management;
- Communication management;
- Staffing plan;
- Background checks on any personnel accessing sensitive and confidential information;
- Any tool(s) used for project management, document management, status reporting, and project collaboration.

Describe your company's methodology to accomplishing each respective task listed in a through e.



- a. Designate a project manager to coordinate and schedule implementation, configuration, and associated deliverables.
- b. Employ a project management approach that will satisfy the scope of work and incorporate all activities described in the RFP.
- c. Designated project management to participate in weekly project update teleconference meetings with Unit resources. If deemed necessary by the Vendors' project manager or Unit resources, the Vendor will include other Vendor project resources to join the weekly call(s).
- d. Submit a monthly status report to the Unit based on agreed upon metrics.
- e. Facilitate executive level review meetings to update executive stakeholders on project status and to formalize any agreed upon changes to the project plan.

Response:

The Genesis Project Managers are Attorneys as well as Project Managers. Genesis believes this is helpful in the management of a project as its project managers are routinely able to get to the heart of processes and issues to aid its clients in maximizing their vital records applications.

- a) Genesis designates its project managers to a project to coordinate and schedule implementation. Genesis project managers do far more than this as they manage the project and product the entire way through the development process.
- b) Genesis's project management approach is to design and build an application that captures the needs of the State while not deviating too much from the core product offered by Genesis. This will allow Genesis to provide an application quickly for early JADS and walkthroughs between Genesis and the State. This provides greater insight to the adjustments that need to be made as both Genesis and the State can pinpoint exactly what to add or subtract from the core product to accomplish the needs of the State.

This approach helps to mitigate one of the biggest risk of the project which is a tight timeline. Genesis project managers also believe that proper and constant communication is a major factor in a successful project. Communication can identify risks much faster and allow for comprehensive mitigation strategies to be developed and employed.

- c) Weekly status calls are already part of the Genesis project management process. Genesis provides written status updates prior to the calls so that they may be reviewed and discussed on the calls. Such calls also ensure the constant communication that was previously mentioned to ensure all risks are mitigated. These calls also help to keep all parties on track and the project moving forward.
- d) On top of the weekly updates that Genesis will provide for the weekly calls, a monthly report will be compiled for the Unit. This report will include all items that Genesis and the State agree to at the inception of the project.



- e) Any changes to project or project plan will understandably be reviewed by State stakeholders. Genesis agrees to aid the State in any way it can to facilitate these reviews.

4. Perform Implementation

- a. The system go-live date shall be no later than fifteen (15) consecutive months after the kick-off meeting. The State highly desires completion to occur within twelve (12) consecutive months after the Kick-off meeting but will only accept a project timeline that is no longer than fifteen (15) consecutive months.

Response:

Genesis has put together a project schedule that will allow for all of the modules that were requested to go live in just under 15 months. While Genesis understands the desire to get the entire project done in 12 months, it is concerned that too many corners will need to be cut in order to accomplish this. Even with the 15-month time span, the State may become unduly burdened. Genesis has a history of providing applications in short periods of time. Genesis recently took a jurisdiction from a death certification process done completely by paper to a live electronic registration system where there is absolutely no paper issuance in less than a year. This was done while providing a Fetal Death, Fee, and ITOP module, which is the Phase 1 we are suggesting as part of this project.

The schedule that Genesis has proposed is designed to allow for comprehensive testing of each module without putting an excessive amount of pressure on the State office.

E. DELIVERABLES AND DUE DATES

The bidder shall provide a response outlining their ability to meet each of the following deliverables:

1. Deliverables

The vendor shall complete each of the following items as indicated and in accordance with the requirements as outlined herein the RFP, Attachment 1 – Functional Specifications, Attachment 2 – Technical Specifications, and any related documents. Each project section is to be reviewed and approved by the Unit stakeholder. The vendor must create a document to be utilized for the formal approval of each project section, which is to be electronically signed by the selected Unit stakeholder.

a. Functional Specifications

Successfully execute or comply with each Functional Specification as indicated in Attachment 1 – Functional Specifications.

Response:

Genesis has completed Attachment 1 and provided it here as a separate attachment.

b. Technical Specifications

Successfully execute and comply with the Capabilities and/or Requirements as indicated in Attachment 2 – Technical Specifications.

Response:

Genesis has completed Attachment 2 and provided it here as a separate attachment.

c. Project Initiation

- i. Kick-off Event, Documentation, Review, and Approval;
- ii. Develop a Detailed Project Plan;
- iii. Develop a Risk Management Plan;
- iv. Develop a Communication Plan;
- v. Develop a Staffing Management Plan;
- vi. Develop a Change Management Plan; and
- vii. Develop an Issue Management Plan.

Response:

Genesis agrees to provide all of the above-listed deliverables as part of the project.

d. Design and Configuration

- i. Establish Review and Acceptance Process;
- ii. Develop a Requirements Traceability Matrix (RTM);
- iii. Coordinate and Facilitate On-Site Requirements Gathering Session(s);
- iv. Develop and Submit an Application Configuration and Maintenance Plan;
- v. Establish and Utilize a Deliverable Review and Acceptance Process;
- vi. Configure Environments for Development, Testing, Training and Production;
- vii. Complete Standard System Configuration;
- viii. Assist the Unit with Configuration of System;
- ix. Assist the Unit with User Role Determination; and
- x. Obtain Acceptance from the Unit on Design and System Configuration.

Response:

Genesis agrees to perform the actions above and provide all of the deliverables as part of the project.

e. Development and Testing

- i. Complete all Necessary Custom Development;
- ii. Complete all Necessary Reports;
- iii. Complete all Necessary Integrations (Interfaces, Imports, and Exports);
- iv. Develop a Testing Plan;
- v. Execute and Evaluate Testing;
- vi. Document Testing Results;



- vii. Assist the Unit with User Acceptance Testing (UAT); and
- viii. Obtain Acceptance from the Unit on Testing Results.

Response:

Genesis agrees to provide all of the deliverables as part of the project.

- f. Data/File Migration
 - i. Develop a Data/File Conversion and Migration Plan;
 - ii. Develop a Conversion Mapping Guide;
 - iii. Perform the Data/File Conversion and Migration;
 - iv. Provide a Data/File Conversion and Migration Results Report; and
 - v. Obtain Acceptance from the Unit on Data/File Conversion and Migration Results.

Response:

Genesis agrees to provide all of the deliverables as part of the project.

- g. Training
 - i. Coordinate and Facilitate On-Site Training Instruction;
 - ii. Provide Online Reference Training Materials for Administrator and User Manuals; and
 - iii. Obtain Acceptance from the Unit on Training Results.

Response:

Genesis agrees to provide all of the deliverables as part of the project.

- h. Implementation
 - i. Perform and Complete all Aspects of the Implementation;
 - ii. Go-live;
 - iii. Assist the Unit with On-site Implementation Assistance for Go-live Week; and
 - iv. Obtain Acceptance from the Unit on Implementation Results.

Response:

Genesis agrees to provide all of the deliverables as part of the project.

- i. Post-Implementation
 - i. Burn-in Period;



- ii. Coordinate and Facilitate Post-Implementation Review Teleconference Meeting;
- iii. Provide a Plan for Enhancement Requests;
- iv. Provide a Transition Plan from Implementation to Support, Maintenance, and Operations; and
- v. Obtain Final Sign-off.

Response:

Genesis agrees to provide all of the deliverables as part of the project.

- j. Support, Maintenance, and Operations
 - i. Provide new versions;
 - ii. Provide timely system fixes and resolution;
 - iii. Establish and perform regular maintenance schedule in collaboration with the Unit;
 - iv. Help with providing proper notification and details regarding when the system is or will be unavailable to users;
 - v. Provide the process for the Unit to identify and improve the system based on defects, feature enhancements, or needed adjustments;
 - vi. Designate an account manager for the life of the contract whose role is to ensure business requirements are being fulfilled and be an escalation point for questions and support; and
 - vii. Help Desk Support.

Response:

Genesis agrees to provide all of the deliverables as part of the project.

2. Due Dates and/or Completion

The vendor shall meet each of the following timeframes as indicated, unless otherwise approved by the Unit:

- a. “Kick-off” via teleconference meeting to occur no later than two (2) weeks after contract execution;
- b. User Acceptance Testing (UAT) Environment shall be completed and fully accessible to users no later than twelve (12) consecutive months after the kick-off meeting;
- c. Go-live: Vendor shall perform and complete all tasks as Section (VI) outlined and the related attachments to deliver a system that has a production environment completed and fully accessible to users no later than fifteen (15) consecutive months after the Kick-off meeting. The State highly desires completion to occur within twelve (12) consecutive months after the Kick-off meeting but will consider a project timeline that is no longer than fifteen (15) consecutive months;
- d. Go-live week on-site support;
- e. Burn-in period: 90 Consecutive days without a critical incident as defined in section (II)(Z) following the Go-live;
- f. Post-implementation review teleconference meeting to occur within two (2) weeks following the acceptance of the Burn-in Period; and



- g. Post-Implementation plans as outlined in Section (VI)(4)(i) to be provided within four (4) weeks following the teleconference meeting.

Support, Maintenance, and Operations shall begin upon sign-off of the burn-in period and shall continue throughout the duration of the contract and any subsequent optional renewals and any extension.

Response:

Genesis agrees to meet these timeframes.

DHHS Vital Records Department
Modernization Requirements

Attachment 2 - Functional Specifications

RFP#: 120277 O3

Vital Records Management System
State of Nebraska, Department of Health and Human Services

Important Scoring Dynamic

Attachment 2 - Functional Specifications shall be subject to a "Pass" or "Fail" assessment. Bidder to review Section (I)(P)(2) of the Request for Proposal (RFP) document for understanding the methodology that will be applied. The Items highlighted in with an asterisk **GOLD*** document represent the capability and/or requirement that will be subject to the "Pass" or "Fail" assessment, as these are "must" requirements.

No Additional Costs - All related Costs are to be captured in the Cost Sheet (In the prescribed format)

Please note: All associated costs must be captured in the Cost Sheet in the prescribed format and NOT within Attachment 2. Failure to adhere to these instructions shall result in the bidder's proposal as being deemed a "Non-Responsive Solicitation Response".

General Instructions

To accurately complete this document, the bidder is to respond to each functional specification listed on the "Functional Specifications" tab. All functional specifications are listed within the "Functional Specifications" tab; each functional specification has a corresponding business set in Section (VI)(A)(3) of the RFP document.

The bidder must complete this document, "Attachment 2 - Functional Specifications," and submit as a part of the bidder's Solicitation Response in an Excel format only - See Section (VII)(A)(2) of the RFP for submittal instructions.

DO NOT ALTER THE FORMAT OF THIS DOCUMENT OR ANY OF THE EXISTING CONTENT WITHIN THE TABS (ROWS, COLUMNS, SPECIFICATIONS, ETC.). Bidder may expand the row heights within the "Functional Specifications" tab to enter entire Vendor Response.

The only content that the bidder may enter in this Excel spreadsheet is within the "Functional Specifications" tab. Do not add information to the "Instructions" tab or add any additional tabs.

Specific instructions to complete Functional Specifications tab:

Bidders must complete both Column D and Column E for every item listed under System Modules and Functional Specifications using the instructions below.

Column D - Vendor Selection. The bidder to use the dropdown box in "Vendor Selection" to confirm how their solution proposes to meet each specification.

Drop-down options:

- YES = Met and supported
- CONFIG = Met with configuration (activate, arrange, or adjust functionality without changing the system's core code in order to meet the Specifications)
- CUS = Met with customization (change the system's core code in order to meet the Specifications)
- TPS = Met via third-party software
- NA = Not available

Column E - Vendor Response. For each respective System Module and Functional Specification and depending on which dropdown option is chosen from Column D - Vendor Selection, the bidder will provide the corresponding response to include the information listed as shown below.

If YES is selected, the bidder should describe how their system will address the specification.

If CONFIG is selected, the bidder should describe how they will address the specification, the level of effort, the target time frame of delivery, and how much input from the Unit will be needed in order to satisfy the specification prior to go-live.

If CUS is selected, the bidder should describe how they will address the specification, the level of effort, the target time frame of delivery, and how much input from the Unit will be needed in order to satisfy the specification prior to go-live.

If TPS is selected, the bidder should:

- Provide the vendor's name and name of the third-party software;
- Describe how they will address the specification;
- Describe how the third-party would handle licensing, maintenance, and first-time installation;
- Describe how the third-party software would get stored (e.g.: At the state level or would individual users need to download?).

If NA is selected, no further information is needed.

DHHS Vital Records Department
Modernization Requirements

Attachment 1 - Functional Specifications

RFP: 120277 O3 REBID

Functional Specifications

Vital Records Management System

State of Nebraska, Department of Health and Human Services

Bidders are to follow Instructions given on the first tab, "Instructions" for directions regarding how to respond.

The items highlighted in gold and notated with an asterisk (*) within this document represent the capability and/or requirement that will be subject to the "Pass" or "Fail" assessment, as these are "must"

Bidder Name: Genesis Systems, Inc.

Ref	System Modules and Specifications	Vendor Selection	Vendor Response
1	GENERAL		
1.1	COMPONENT		
1.1.1	The system must include the following modules:		
1.1.1.1*	Birth;	YES	This is a standard module included in the system.
1.1.1.2*	Death;	YES	This is a standard module included in the system.
1.1.1.3*	Marriage;	YES	This is a standard module included in the system.
1.1.1.4*	Dissolution of Marriage;	YES	This is a standard module included in the system.
1.1.1.5*	Fetal Death;	YES	This is a standard module included in the system.
1.1.1.6*	Induced Termination of Pregnancy (ITOP);	YES	This is a standard module included in the system.
1.1.1.7*	Order Management.	YES	This is a standard module included in the system.
1.1.2*	The system must contain a report builder tool or associated utility.	YES	The ad-hoc reporting tool, Drag-IT is included with the system.
1.2	SYSTEM		
1.2.1*	The system must not require the purchase of any additional proprietary applications.		The system does not require the purchase of any additional applications to run. For best operation of the application, <u>Microsoft 365 is recommended.</u>
1.2.2*	The system must support multiple environments, specifically, System Integration Testing (SIT), User Acceptance Testing (UAT), Training, Development, and Production.	YES	The system is designed to support multiple environments for the purpose of development, testing, training and production. Genesis builds the environments required by the state in accordance with the scope of work.
1.2.3	The system should be configurable to present module fields in the order listed on its corresponding form.	YES	Genesis works with the state to align fields to correspond to written/pre-defined forms for ease of user input.
1.2.4*	The system must have images be seamlessly accessible within the application.	YES	Genesis has a proprietary imaging module that interfaces seamlessly with all other modules. The system is also designed to integrate with a third-party imaging module, if <u>necessary.</u>
1.2.5	The system should provide functionality to disallow any other screen shot tool, such as the "Snipping Tool" or the like.	NA	The proposed system is a web-based offering which does not permit the user to be locked out of screenshot tools. Genesis also ensures no certificate information is displayed without a <u>watermark.</u>
1.2.6	The system should provide a managed print function.	YES	The system has a print management function for not only the assignment of printers to specific users but utilizes silent printing to ensure that images cannot be screen captured. The system also keeps a record of all issuances.
1.2.7	The system should capture an audit log when the print function is used.	YES	All print operations are <u>logged in the system.</u>
1.2.8*	The system's implementation and functionality must adhere to the technical specifications outlined in the accompanying Technical Specifications- Attachment 3.	YES	The system will adhere to the answers provided in the <u>Technical Specifications document.</u>
1.2.9*	The system must support a minimum of 5,000 internal and external users.	YES	Genesis systems support in excess of 5,000 internal and external users. One of the Genesis applications supports in <u>excess of 20,000 concurrent daily users.</u>

**DHHS Vital Records Department
Modernization Requirements**

1.2.10*	The system must support a minimum of 1,000 concurrent users regardless of user role and/or location.	YES	Genesis systems support in excess of 1,000 concurrent users. Genesis intends to stress test the system and provide results of the same as part of its system testing to confirm support of the user base during development.
1.2.11	The system should provide online help connected to the relevant routine, field, or report being used.	YES	The system will be provided with online help functionality as well as field-specific help for users. The application also provides links to User Guides.
1.2.12*	The system must have the ability to connect to local or network printers.	YES	The system will automatically detect local and network printers - all printers which are available to the user at their local computer. The specific users can choose which printer (and printer tray) that each certificate type should print to.
1.2.13*	The system must have the ability to connect to local or network scanners.	YES	The system will automatically detect local and network scanners.
1.3	DATA		
1.3.1*	The system must have the ability to complete a data conversion of all existing data, including images and files.	YES	During data migration, the Genesis data team will work with the state to develop a migration and conversion plan. The conversion is expected to bring over all data which includes any such images and files.
1.3.2*	The system must have configurable data retention rules.	YES	Genesis assumes that all data will be kept indefinitely, however, retention rules are configurable should there be business needs such as offloading data for storage space.
1.3.3*	The system must provide immediate validation and error messaging needed for data interfaces.	YES	The system is designed to interface with data validation checks such as VIEWS for real time data integrity review. IN addition, Genesis applications incorporates its FastFire functionality to run real-time crosschecks and data validation.
1.3.4*	The system must have the ability to use field-level data integrity checks and data validation (e.g., numeric fields, verify a number is entered, date fields, verify a date is entered, etc.).	YES	The system comes with pre-defined edit checks for data validation along with error messages to direct users to properly enter data. Edit checks will be modified according to state business rules/requirements. Genesis applications also incorporates its LogicBuilder functionality, where a state admin user can modify existing checks and/or build their own.
1.3.5*	The system must provide an integrated full-featured word processing function (including superscript, subscript, and scientific notations, cut and paste, and word wrap) to allow a user to enter data into large text fields.	CUS	The system can be customized to allow for a full-featured word processing function to be utilized in large text fields such as Comments. This does not require input from the Unit and will be ready for UAT testing.
1.3.6*	The system must validate against an integrated medical dictionary for medical related fields.	CUS	This requirement could be met with customization. As built, the system interfaces with VIEWS to validate medical related fields which are in a free-text form provided by users to ensure data quality. The spellcheck feature that will be added contains a medical dictionary as well. This requires no additional input from the Unit and can be implemented in approximately 4 weeks.
1.3.7*	The system must have real-time processing of data.	YES	The system is designed to have real time processing, edit checks, validation and, upon implementation, real time transmission of data via FHIR for reporting.
1.3.8*	The system must align with State of Nebraska and Federal guidelines to collect vital statistic data and other data points needed for federal reporting and evaluation purposes.	YES	Standard federal guidelines for data collection are incorporated into the system. During joint application design sessions, Genesis will review the data collection with the state subject matter experts to ensure that any state specific fields are also captured.

**DHHS Vital Records Department
Modernization Requirements**

1.3.9*	The system must have graphical control elements to assist with data entry (e.g., checkbox, drop-down box, etc.).	YES	The system is designed to assist users with data entry via check boxes, drop down menus, type-ahead data entry and visual queueing to make sure users are visually attuned to the cursor location.
1.4	FUNCTIONALITY		
1.4.1*	The system must have the ability to scan directly into the system.	YES	The system permits users to utilize local and networks scanners to scan directly into the system via a TWAIN compliant device.
1.4.2*	The system must have the ability to attach a file with a minimum of the following file types (.pdf, .doc, .jpeg, .png, .tiff).	YES	The system can permit users to upload and attach files of the requested file types.
1.5	CONFIGURATION		
1.5.1*	The system must have configurable field level warning notifications.	YES	The system permits field level warnings and allows customization of warnings and edit checks through the Genesis LogicBuilder functionality.
1.5.2	The system should auto advance a user from process start through process completion.	YES	Auto advancing through the use of tab allows the user to navigate through the entire data entry process. This meets WCAG 2.1 AA compliance requirements.
1.5.3	The system should have task list or work queue functionality.	YES	The system has built in work queues with filters for users to navigate pending records.
1.5.4*	The system must have the ability to configure workflows.	YES	Genesis has functionality that allow the user the ability to modify the application fields and flows.
2	USERS		
2.1	GENERAL		
2.1.1*	The system must allow a user with necessary access to create a record, image, or attachment.	YES	
2.1.2*	The system must allow a user with necessary access to view a record, image, or attachment.	YES	
2.1.3*	The system must allow a user with necessary access to search a record, image, or attachment.	YES	
2.1.4*	The system must allow a user with necessary access to update a record, image, or attachment.	YES	
2.1.5*	The system must allow a user with necessary access to save a record, image, or attachment.	YES	
2.1.6*	The system must allow a user with necessary access to delete or purge a record, image, or attachment.	YES	
2.1.7*	The system must allow a user with necessary access to deactivate a record, image, or attachment.	YES	
2.1.8*	The system must have the ability to register a user for system access based on role and location.	YES	The basic system security is designed for users to have security processes (granting functionality) assigned to users based on their role and location to ensure that minimum access necessary is granted.
2.2	ACCESS		
2.2.1*	The system must allow access to both internal (State of Nebraska employees) and external users (e.g., funeral directors, hospital staff, and county clerks).	YES	The system allows access to users as permitted by the system administrator approving requests for system access.
2.2.2*	The system must have role-based security for application and administrative functions including views for all user roles across all modules.	YES	The system has role based access. The system administrator should configure user security process groups for specific roles in the system to assign security processes quickly and efficiently.
2.2.3*	The system must provide a location selection prompt for users who have access to multiple locations.	YES	Once a user logs into the system, the user is prompted for a location. If the user has multiple locations, the user can switch between locations without logging out.
2.2.5	The system should have the ability for a new user to complete a registration form.	YES	The system does have a means for new users to register for access to the system. New users will utilize the new user registration portal, complete the application (application form to be provided by the state) and the application will be submitted automatically to the system admin for review and approval.
2.2.6*	The system must have the ability for a user to complete self-service password changes and/or resets.	YES	Password changes and resets are automated through the user maintenance functionality in the system.
2.2.7*	The system must have the ability for a user to update their own user profile demographics once logged in (non-system security).	YES	The system has a profile update feature which is independent of the system security feature.
2.2.8*	The system must provide a warning message after user login based on a configurable time period when a password is expiring.	YES	Password warnings exist within the application and are defaulted to 90 days. This timing can be configured and added to give advanced notice to users prior to password expiration.

**DHHS Vital Records Department
Modernization Requirements**

2.2.9*	The system must perform an automatic logoff for session inactivity based on a configurable length of time.	YES	This is a standard feature available to system administrators.
2.2.10*	The system must provide a warning message prior to automatic logoff for session inactivity based on a configurable length of time.	YES	The system warns a user about inactivity and provides notice that they will be logged out. The length of time for this inactivity logout is configurable by the system administrator.
2.3	SEARCH		
2.3.1*	The system must allow a user with necessary access the ability to use a real-time search and filter function whereas all vital event records, requests, orders, payments, and invoices can be viewed, searched, and filtered by one or more data fields or variables in each record, and wildcards or partial entry of a field can be used.	YES	The system provides a broad 'event search' functionality which allows wildcard and soundex searching across the entire system.
2.3.2*	The system must allow a user with necessary access to export search results.	YES	All reports are exportable including search results.
2.3.3*	The system must allow a user with necessary access to print search results.	YES	All reports are exportable including search results.
2.3.4*	The system must have the ability to limit the number search result count by user.	YES	All reports are exportable including search results.
2.4	FUNCTIONALITY		
2.4.1*	The system must have the ability for a user with the necessary access to create a new user and associate that user to specific user role(s).	YES	This is standard functionality in Genesis applications.
2.4.2*	The system must have the ability for a user with the necessary access to delete a user.	YES	Users can be deactivated and locked in the system which serves to sever access to the system. Genesis does not delete users and maintains an audit trail of all actions taken with respect to a user account.
2.4.3*	The system must have the ability to search the system for a user, including a filter to search for an expired user.	YES	The system permits the searching for all active and deactivated users - there is filter for active, locked, unlocked and deactivated.
2.4.4*	The system must have the ability for a user with the necessary access to deactivate a user.	YES	Users can be deactivated and locked in the system which serves to sever access to the system. Genesis does not delete users and maintains an audit trail of all actions taken with respect to a user account.
2.4.5*	The system must allow a user with necessary access to bypass security and update any entry when needed.	YES	The system permits users with certain access levels the ability to override different stopping points and alerts. The user will enter a PIN and the override will be kept in an audit log. Genesis works with the jurisdiction to define all such instances where this override can occur.
2.4.6	The system should allow a user with necessary access the ability to view more detailed information on any field when appropriate.	YES	Different users have different access rules based on the user setup. Certain users will be able to view more detailed information. Genesis works with the State to define this during JADs.
2.4.7*	The system must allow a user with necessary access to attach, link, and view any supporting document of any file format to a record or order.	YES	This is standard functionality in all Genesis applications.
2.5	CONFIGURATION		
2.5.1*	The system must have the ability to edit validation data through a front-end utility.	YES	Genesis provides a functionality called LogicBuilder that allows users with this process assigned to them the ability to modify validation data edits.
3	SYSTEM ADMIN		
3.1	ACCESS		
3.1.1*	The system must have a user role with elevated security access to the system (e.g., System Administrator).	YES	The system has standard user roles which are system admin, local admin and user. The system admin serves as the super user with access to all functions and processes without restriction.
3.1.2	The system should have system-level access to exports (create, configure).	YES	Access to the creation of exports is determined by security process and assignment of the process.
3.1.3	The system should have system-level access to imports (create, configure).	CUS	This is not something that is currently offered within the Genesis application as fully described. Genesis has a process that can be modified to accommodate this request. Genesis can work with the State to design and develop such functionality if desired. This would require very little input from the Unit and take approximately 3 weeks of work to design and build, with an additional 2 weeks of testing.

**DHHS Vital Records Department
Modernization Requirements**

3.1.4	The system should have system-level access to reports (create, configure).	YES	Reports are typically grouped or individually designated as security processes. In doing so, the report creation and configuration can be assigned at a system wide level to users by the system admin. Creating and configuring reports is done through the Genesis DragIt functionality. Genesis provides two (2) licenses for Dragit in its pricing.
3.1.5	The system should have system-level access to documents (create, configure).	CUS	This is not something that is currently offered within the Genesis application. Genesis can work with the State to design and develop such functionality if desired. Genesis will require input from the Unit to clarify this request during JADs. Once clarified, a realistic timeframe and LOE can be provided.
3.2	DATA		
3.2.1*	The system must use a centralized data dictionary that fully describes table structure and appropriate levels of metadata.	YES	The system utilizes a data dictionary that describes fields and data elements. Genesis works with the jurisdiction to refine the data dictionary during joint application design sessions to ensure that state specific data is properly captured.
3.2.2*	The system must allow a user with necessary access to have read-only access to the system's database(s).	YES	Genesis does provide limited database access as part of its proposals. This is outlined within the Database License Agreement attached here as Appendix L.
3.2.3	The system should allow a user with necessary access to have full access to the system's database(s).	YES	Genesis does provide database access as part of its proposals. This is outlined within the Database License Agreement attached here as Appendix L.
3.3	FUNCTIONALITY		
3.3.1	The system should have the ability to edit (e.g., checkbox, drop-down box, etc.).	YES	The system has the ability to perform such edits.
3.3.2	The system should have the ability for the system administrators to create user roles.	YES	This is standard functionality in all Genesis applications.
3.3.3	The system should have the ability for the system administrators to modify user roles.	YES	This is standard functionality in all Genesis applications.
3.3.4	The system should have the ability for the system administrators to delete user roles.	YES	This is standard functionality in all Genesis applications.
3.3.5	The system should have the ability for system administrators to terminate a user connection and/or session remotely.	CUS	The system will be configured to allow for this. The Unit will have the option to accomplish this by either coordinating with the Genesis Network System Administrator and notifying them to end a user's session, or by having an "immediate session termination" function available only for application system admins. The level of effort and timeframe to complete will depend on the option that the Unit prefers, with the former requiring far less than the latter.
3.3.6	The system should have the ability to maintain a directory of all personnel currently active in the system.	YES	The system maintains this and the directory is exportable as well
3.3.7*	The system must have the ability to produce a system access log (in/out history) by user with time stamp in seconds.	YES	This is standard functionality in all Genesis applications.
3.3.8	The system should allow the system administrator to make batch updates to data on admin-specified criteria (i.e., system-wide find/change functionality).	YES	The system is designed to allow batch updates by system admins. Genesis will define the specific criteria with the State during JADs.
3.3.9	The system should allow the system administrator to schedule batch updates to data on admin-specified criteria (i.e., system-wide find/change functionality).	CONFIG	Genesis will configure to allow this process to be scheduled. Genesis will require input from the Unit to fully define the breadth of this requirement. Once fully informed, Genesis expects approximately 3 weeks for development and 2 weeks for testing.
4	AUDIT LOGS		
4.1	GENERAL		
4.1.1	The system must have action history logs to view modifications, deletions, data loading actions, reports, printing, and user log-ins/outs. At a minimum the log must contain the following:		

**DHHS Vital Records Department
Modernization Requirements**

4.1.1.1*	User;		The system has audit logs for any changes to records and printing as a default and can be configured to add audit logs for specific data loading functionality or report generation. The audit logs contain all relevant information related to the event being logged, including user, date, time, prior value and current value.
4.1.1.2*	Date;	YES	See response to 4.1.1.1.
4.1.1.3*	Time;	YES	See response to 4.1.1.1.
4.1.1.4*	Data Prior to Edit;	YES	See response to 4.1.1.1.
4.1.1.5*	Data After Edit.	YES	See response to 4.1.1.1.
4.1.2	<i>The system must have audit history logs to view user activities, such as logging in and out of the system. At a minimum the log must contain the following:</i>		
4.1.2.1*	User;	YES	The system logs all user attempts to access, logins and logouts and includes user, date and time in the log.
4.1.2.2*	Date;	YES	The system logs all user attempts to access, logins and logouts and includes user, date and time in the log.
4.1.2.3*	Time.	YES	The system logs all user attempts to access, logins and logouts and includes user, date and time in the log.
4.1.3*	The system must track changes made to all data, keeping the integrity of the original document, data, and image with associated changes.	YES	All changes to data are logged for auditing purposes along with relevant fields including user, time, prior and current values.
4.1.4*	The system must provide the ability to create, save, and export an audit log of the tracked changes made throughout the system.	YES	The system allows the user to export audit logs related to changes throughout the system. The logs are not deleted, so all audit logs are saved by default.
4.1.5*	The system must maintain a history of all data.	YES	All data history is maintained and is never deleted. Genesis ensures that a complete audit log will always be available for review.
4.2	ORDER MANAGEMENT		
4.2.1*	The system must track the data associated with serialized forms used within each order.	YES	The system tracks all security paper (serialized forms) and maintains a thorough log of same for auditing.
4.2.2*	The system must be able to store a user-defined, customizable volume of sales transactions, categorized by transaction date, for a minimum of five years.	YES	Transactions through the fee module (order management system) are stored for an indefinite period of time. Genesis does not destroy or delete records unless the business requirements of the state specifically require destruction after a specified period.
4.2.3*	The system must contain reporting capabilities to assist with audit of document control number/certificate paper to the associated receipt and order, including by registrar and date.	YES	The proposed system provides auditing of security paper for supervisory users to review issuance, identify missing DCNs, review receipts and orders and identify the issuing user. Reports related to security paper auditing will be fine-tuned during joint application design sessions.
4.3	CERTIFIED PAPER		
4.3.1*	The system must track the number of certificates printed by vital event record and certificate type.	YES	This is a standard function in the system. All certificate issuance is tracked in the database for reporting.
4.3.2*	The system must track the serial number of issuance in chronological order within a print log.	YES	Issuance of a DCN is tracked to the request transaction. For auditing purposes, it is expected that the logging will be chronological for review of issuing to ensure that there are no gaps in the issuance sequence.
4.4	FUNCTIONALITY		
4.4.1*	The system must capture an audit of all imports.	YES	All imports are logged for auditing and error review.
4.4.2*	The system must capture an audit of all exports.	YES	All exports are logged for auditing and error review.
4.4.3*	The system must allow a user with necessary access to search the audit log.	YES	Imports and exports are assigned security processes. Users must be assigned the security process for the functionality to be available. If assigned, those users can search the audit log.
4.4.4*	The system must track the creating, viewing, printing, and deleting of attachments.	YES	Attachments can be uploaded, viewed and printed with a record. The attachments are linked with the record and a log of attachments is maintained.

**DHHS Vital Records Department
Modernization Requirements**

4.5	CONFIGURATION		
4.5.1*	The system must track and maintain an audit log of when configuration changes are made (e.g., changes to fees for certification types).	YES	Configuration changes are all logged in the system. Different configuration changes will be logged separately (e.g. the fee change will not be logged in the same log as a user interface change).
5	ALL MODULES		
5.1	GENERAL		
5.1.1*	The system must contain all existing and future records or orders with any associated images and/or attachments synchronously.	YES	The system maintains all records with associated images and tracks current versus non-current versions to assure issuance of the appropriate version of the record.
5.1.2*	The system must incorporate all previously available records or orders with any associated data or attachments from the current system.	YES	Genesis anticipates migrating all previous electronic data including records, orders and images into the current system.
5.1.3*	The system must allow a user with necessary access the ability to print an attachment.	YES	Attachments may be printed from the system. If the user has access to the attachment - the attachment may be printed.
5.1.4*	The system must allow input of a partial record or order without forcing a user to complete a process.	YES	Partially entered records may be entered and saved without complete registration. The user however must input a base level of required fields to make the record distinguishable (e.g. first name, last name, date of event).
5.1.5*	The system must validate and issue vital event records.	YES	The system registers vital records through the registration modules and issues through the fee module. The system will permit the validation/registration of all pertinent vital record types and issuance of all records and record-related transactions.
5.1.6*	The system must allow a user with necessary access to view, change, and submit a record or order.	YES	In the fee module, a user can view any orders to which that user has access (i.e. a local user can see what orders exist at the local office) and make changes to those orders before submission. The order is able to be changed until issuance takes place. In registration modules (Birth, Death, etc.) a record can be started and saved by any user with proper access. The user can also work on records that were started by others to ensure timely completion.
5.1.7*	The system must allow a user with necessary access to view, print, store, attach and scan documents or images into a record or order.	YES	User can scan documents and images related to a record and order. With respect to orders, images related to the order appear on the transaction screen to be accessed and are stored with a linkage to the order. If the image is to be linked to the record, the image should be scanned into the imaging module to be associated with the specific vital record.
5.1.8*	The system must allow a user to save a record or order regardless of completed data except for fields that are flagged as required by the State of Nebraska.	YES	An order or record that is partially complete can be saved as long as basic required fields are completed. Genesis will expect those required fields to be dictated by the state.
5.1.9*	The system must have administrative tools to be customizable to meet specific user needs.	YES	Genesis allows the user to control functions such as security settings (for all users) and color/view settings (individually). The application is also WCAG compliant for users that may need additional help using the application.
5.1.10	The system should save user data entry progress automatically upon moving to the next field on the form.	NA	The system does not autosave after movement from field to field. This type of autosaving functionality would significantly hamper system resources.

**DHHS Vital Records Department
Modernization Requirements**

5.1.11	The system should allow the saving and pausing activity on one record or order and moving to a different record or order for processing.	YES	A record may be saved and users with the appropriate security permissions can transition to a different record or order. The user must save the progress in the record and the user will be prompted to save if they fail to do so and navigate away from the record.
5.2	SEARCH		
5.2.1*	The system must allow a user the ability to group, sort and count search result data.	CONFIG	The system will be configured to ensure this conforms to the needs of the state. While the search functionality comes close to offering what is being asked, Genesis will require input from the Unit. Configurations will be completed in less than 2 weeks.
5.2.2*	The system must allow a user with necessary access to search for a record or order using various metadata fields.	YES	The system has robust search capabilities which allow a user to search via a range of metadata fields.
5.2.3*	The system must provide a real-time search and filter function whereas all vital event records, requests, orders, payments, and invoices can be electronically viewed, searched, and filtered by one or more data fields or variables in each record, and wildcards or partial entry of a field can be used.	YES	The system allows for searches to be filtered as described. Search functionality can be done with Wildcard or Soundex searches.
5.2.4*	The system must allow a user with necessary access to manipulate search parameters.	YES	Users can modify search parameters such as choosing Wildcard or Soundex search functions. Users are also provided multiple data fields to search with. The only required fields are date of event, and these may also be manipulated to search for blocks of time by adding zeros (00/00/2025 will search for the entire year of 2025).
5.2.5*	The system must allow a user with necessary access to save search parameters individually or to a group.	CONFIG	Genesis will configure this capability within the application. This is very similar to functionality that exists with the DragIt reporting that will be configured to work for searches. No input is required from the Unit and approximately 2 weeks will be needed for configuration.
5.2.6*	The system must allow a user with necessary access to export (to Excel) search results.	YES	The system allows for reports and such to be exported to Excel.
5.2.7*	The system must allow a user with necessary access to print search results.	YES	This functionality exists as described in a Genesis application.
5.2.8*	The search feature must have the ability to manipulate the number of records captured in a search by the user.	CONFIG	The system will be configured to allow for this. Genesis will configure this to the needs of the state. Genesis will need input from the Unit and can configure the product in about a week.
5.2.9*	The system must allow a user to render searches of over 1,000 vital events at a time.	YES	The system can perform searches through the entire database as necessary.
5.3	CORRESPONDENCE		
5.3.1*	The system must have the ability to generate letters for customer correspondence.	YES	The system generates letters for correspondence which are associated with transactions in the fee module.
5.3.2*	The system must have the ability to view previously generated and/or sent customer correspondence.	YES	Previously generated and sent customer correspondence is available in the fee module and remains linked to the transaction even after the request is complete. Bar codes are printed on the letters and users can easily reopen the corresponding transaction by scanning.
5.3.3*	The system must have the ability to edit and send customer correspondence.	CONFIG	Customer correspondence is typically generated from a pre-defined, state specific form. Said correspondence is configured to be editable based on state business needs. This would be configured prior to UAT at no additional cost.
5.3.4*	The system must have the ability to resend previously sent customer correspondence.	YES	Correspondence that has previously sent can be generated again and resent to the customer.
5.4	DOCUMENTATION		

**DHHS Vital Records Department
Modernization Requirements**

5.4.1*	The system must have standard forms, permits, and worksheets that are accessible for a user with necessary access.	YES	The system will have standard forms/permits/worksheets as provided by the state which will be available for users to work from. Further, the registration screens will mimic the forms in that the workflow will follow the outline of the forms.
5.4.2*	The system must have the ability to propagate data onto documents, forms, permits, and worksheets.	YES	The system will be able to generate documents/forms/permits/worksheets from user submitted information. User information will be submitted, forms rendered and generated for printing.
5.4.3*	The system must have document management storage to house all certificates and associated supporting documents to be tied to the original records (e.g., adoptions).	YES	The system is designed to store all certificates and supporting documents indefinitely including both data and images.
5.5	FIELDS		
5.5.1	The system should provide real-time validation for an entered address and prompt if not valid.	YES	The system is designed to utilize geo-coding services validated address verification. If an address is not valid, a message will appear to attempt to correct the invalid address and direct the user to input a valid address.
5.5.2	The system should be able to populate validated country, state, county, city, and zip code based on selected address.	CONFIG	The system will pre-populate certain address fields based on information entered. If the address is validated and selected, the fields will populate with the given info. This requires no additional input from the Unit and can be implemented in approximately 4 weeks.
5.5.3	The system should prompt if a suite number is appropriate.	CUS	The system will check for suggested address results and prompt where a potential match exists for a suite number. This requires no additional input from the Unit and can be implemented in approximately 4 weeks.
5.5.4	The system should prompt with any suggested address alternative.	CUS	The system would be built to return results from the geocoding API and prompt the user to review these results and select a suggested response if appropriate. This functionality would be added prior to the system going in to UAT for testing. This requires no additional input from the Unit and can be implemented in approximately 4 weeks.
5.5.5*	The system must have a consistent data input and display format for time across all modules.	YES	Data input for time is consistent across modules and requires users to enter HH, MM and AM/PM separately to ensure data quality.
5.5.6*	The system must have a consistent data input and display format for phone numbers across all modules.	YES	Data input for phone numbers is consistent throughout the system.
5.5.7*	The system must have a consistent data input and display format for zip codes across all modules.	YES	Zipcode input is consistent throughout the system.
5.5.8*	The system must have a consistent data input and display format for dates across all modules.	YES	Dates are entered consistently throughout the system.
5.5.9*	The system must have a consistent data input and display format for whole numbers, decimals, and amounts across all modules.	YES	Numerical entry is consistent across the system for each type of number.
5.5.10*	The system must have the proper data input and display format for social security numbers "000-00-0000" across all modules.	YES	Social security numbers are input in a consistent manner throughout the system in the XXX-XX-XXXX format.
5.5.11*	The system must provide spell check functionality for freeform text entry fields as designated by the State of Nebraska.	CUS	The system will utilize a spellcheck for free form fields. This will be implemented and ready for UAT. This requires no additional input from the Unit and can be implemented in approximately 4 weeks.
5.5.12*	The system must have the ability for a user to accept or ignore spell check suggestions.	CUS	The spellcheck feature will allow the user to ignore suggestions. This requires no additional input from the Unit and can be implemented in approximately 4 weeks.

**DHHS Vital Records Department
Modernization Requirements**

5.5.13*	The system must have the ability to customize (e.g., add to dictionary) the spell check functionality by user with necessary access.	CUS	The system spellcheck will be configurable by the system administrator or user with the assigned security process. This requires no additional input from the Unit and can be implemented in approximately 4 weeks.
5.5.14*	The system must have the ability to configure any data field (user-defined and standard) to be "required" during data entry.	YES	Genesis works with the state to identify data fields which are mandatory. Those fields will be required prior to registration of the record. Genesis also provides its Chameleon functionality where system admins can amend rules on fields to make questions mandatory or non-mandatory.
5.5.15*	The system must populate data entered into a field throughout the record or order if data is associated.	YES	If data is entered and appears elsewhere in a record or creates a scenario where data can be populated elsewhere in the record, this data will populate automatically.
5.5.16*	The system must ensure that a record is not complete until all required fields pass validity checks.	YES	Records must have all mandatory fields completed. The data validation is done on a field by field basis during data entry to give real time responses to users while doing data entry as opposed to all at once during verification/certification.
5.6	ALERTS		
5.6.1*	The system must have prompts tied to various data fields to alert the user of questionable or incorrect data.	YES	The system alerts users with soft and hard edit checks to incorrect or suspect data that fails the validation check. If the edit check is a soft edit check, the user can bypass the check by confirming the entry of the data. If the edit check is a hard edit check, the data fails validation and must be corrected.
5.6.2*	The system must, at a minimum, follow the requirements for collecting and editing data as specified by National Vital Statistics System (NVSS), provided here: https://www.cdc.gov/nchs/nvss/revisions-of-the-us-standard-certificates-and-reports.htm	YES	Genesis works diligently with its jurisdictions to make sure data collection and reporting meets NVSS standards.
5.6.3*	The system must have configurable alerts which notifies the user of the status of the record they are accessing (e.g., OVS return status, child is deceased).	YES	The system will alert the users to relevant statuses for the record. Flags will alert users at predefined points in the record to indicate whether a registrant has a relevant status <u>to the action being taken.</u>
5.7	QUEUE		
5.7.1*	The system must provide a user with a view that highlights important information, notifications, and warnings (e.g., incomplete vital event records sorted by queue).	YES	The system has a dashboard feature to direct users to specific, jurisdictionally defined important information which <u>is relevant to the user's role.</u>
5.7.2*	The system must queue an incomplete record or order.	YES	The system has queues for incomplete and/or pending orders. The queues are defined based on the record status.
5.8	WORKFLOW		
5.8.1*	The system must have configurable workflows.	YES	The system allows a system admin to make configurations to the modules and modify many workflows.
5.8.2*	The system must have automated workflow process for the electronic signature or completion of a record or order.	YES	The system will alert a user when a record is ready for the electronic signature. The system will walk the user through <u>the signing process.</u>
5.8.3*	The system must have the ability to automatically route a record or order to different users involved in the completion, registration and certification process of the record or order.	YES	The system provides users the full ability to route records to <u>individuals as necessary.</u>
5.8.4*	The system must have the ability to automatically transfer a record or order to different users involved in the completion, registration and certification process of the record or order.	YES	The system will automatically transfer a record to person <u>chosen.</u>
5.9	FUNCTIONALITY		
5.9.1*	The system must allow a user with necessary access the ability to query, override, or bypass defined fields.	YES	The system provides the ability for overrides.
5.9.2	The system should have the ability to send secure messages to any user within the respective module.	YES	The system contains an internal messaging service to allow users to send messages and receive internal system mail.

**DHHS Vital Records Department
Modernization Requirements**

5.9.3	The system should have the ability to create and track timelines based on actual calendar or business days.		The system will be configured to track by business days. Genesis will require input from the Unit to determine what needs to be tracked by business days. This will be implemented in approximately one week.
5.9.4*	The system must ensure that when a record or order is completed by an end user the record or order can no longer be manipulated by end user.	CONFIG	The system default prevents completed records and transactions from being manipulated by the user.
5.9.5*	The system must have the ability to place or remove a record from an administrative hold or alert, which is only put in place by a user with necessary access. This hold would disallow the printing of legal certified copies of a certificate.	YES	The solution has a flagging system for marking records with a status such as do not issue to indicate that a record cannot be issued and to prevent issuance if a user attempts to issue the record until that flag is removed.
5.9.6*	The system must allow a user with necessary access to view, print, crop, rotate and resize a vital event certificate image.	YES	This is a standard function of the imaging module.
5.9.7*	The system must allow a user with the necessary access the ability to print attachments.	YES	The system permits attachments associated with a record to be viewable and printable.
5.9.8*	The system must provide the ability to print a blank form.	YES	The system will have blank forms provided by the state which can be printed.
6	ALL VITAL EVENT REGISTRATION MODULES		
6.1	GENERAL		
6.1.1*	The system must be able to accommodate rejected vital event records, including queues for viewing the rejected records.	CONFIG	The system handles rejected records and a queue for rejected or otherwise abandoned records will be configured to be present prior to UAT. This requires no additional input from the Unit and can be implemented in approximately 1 week.
6.1.2*	The system must have the ability to manipulate and retain the original vital event record in the case of processing an amendment.	YES	The system maintains a record of all changes to a record. Record versioning is critical - the original version is maintained and amended versions receive a distinct record version number.
6.2	REGISTER		
6.2.1	<i>The system must encompass the end-to-end process of registering the following vital events:</i>		
6.2.1.1*	Birth;	YES	This is a standard module in the Genesis system.
6.2.1.2*	Death;	YES	This is a standard module in the Genesis system.
6.2.1.3*	Marriage;	YES	This is a standard module in the Genesis system.
6.2.1.4*	Dissolution of Marriage;	YES	This is a standard module in the Genesis system.
6.2.1.5*	Fetal Death;	YES	This is a standard module in the Genesis system.
6.2.1.6*	Induced Termination of Pregnancy (ITOP).	YES	This is a standard module in the Genesis system.
6.3	FUNCTIONALITY		
6.3.1*	The system must allow the collection of all vital record data with both data rules and field validations, based on the NCHS (National Center for Health Statistics) Standard Record layout or the Inter-Jurisdictional Exchange (IJE) file layout.	YES	Genesis works to ensure that all of its systems collect data for registration and reporting in compliance with NCHS standards.
6.3.2*	The system must have a process to void a vital event record.	YES	This is a standard feature for voiding and unvoiding records.
6.3.3*	The system must automatically route a vital event record through the predefined workflow, advancing it from one user to the next in the appropriate sequence until the record is completed and finalized.	YES	The system advances the record through the workflow in lockstep with any worksheets that are used to aid in data collection.
6.3.4*	The system must generate and assign a unique and sequential State File Number for each vital event record.	YES	A unique state file is generated for each vital event and the number is generated at the time designated by the state.
6.3.5*	The system must allow a user with necessary access the ability to change a State File Number.	YES	The system will permit users with supervisory permissions and processes to change a state file number.
6.3.6*	The system must automatically search for duplicate vital event records and, if found, alert user.	YES	Prior to the first save of a record, the system conducts a duplicate check. The duplicate check alerts the user to a duplicate, allows the user to take ownership of the record if possible and will alert the user to the fields that cause the duplicate to be triggered for review.
6.3.7*	The system must be designed so that no duplicate vital event record can be entered. The system must use fields designated by the State of Nebraska for duplicate checks.	YES	The system will prevent duplicates and the duplicate check will utilize Nebraska designated fields for the duplicate check.

**DHHS Vital Records Department
Modernization Requirements**

6.3.8*	The system must allow a vital event record to be corrected with the assignment of correction indicators (e.g., affidavit/correction number, "amendment" notation, and amended date).	YES	The system will allow a vital record to be amended or corrected, noting the amendment or correction on the record and the change will be maintained in the net change history along with the new record version.
7	COMBINED MODULES		
7.1	BIRTH & DEATH		
7.1.1*	The system must have the ability to identify records where birth and death record data does not match (e.g., when a death record does not have a corresponding birth record).	YES	The system has a birth-death crossmatch feature that will automatically match identical records. If no identical match is found, the record gets added to a queue with potential matches linked to it for review and acceptance.
7.1.2*	The system must have the ability to match and link birth and death records together.	YES	The system has a birth-death crossmatch feature that will automatically match identical records. If no identical match is found, the record gets added to a queue with potential matches linked to it for review and acceptance.
7.2	DEATH & FETAL DEATH		
7.2.1*	The system must provide spell check functionality for the cause of death or medically related fields.	CONFIG	The system will utilize a spellcheck for cause of death and/or medically related fields. All Genesis applications are integrated with VIEWS II as well for real-time spellcheck and verification of cause of death fields. This will be implemented and ready for UAT.
7.2.2*	The system must allow for querying a medical certifier after a vital event record has been filed with a State File Number.	YES	Medical Examiners are typically given full permissions to query a record. This can be limited by the state if desired. Medical Certifiers can also query records but are limited to records that are owned by the location that they are signed in at.
7.3	BIRTH, DEATH, & FETAL DEATH		
7.3.1*	The system must validate based on the Inter-Jurisdictional Exchange (IJE) standard.	YES	The system is configured to IJE standard.
7.3.2*	The system must allow for local registration by counties as specified by the State of Nebraska before registration at the state-level.	YES	Genesis has systems in place with this process.
7.4	BIRTH, DEATH, FETAL DEATH, MARRIAGE, & DISSOLUTION OF MARRIAGE		
7.4.1*	The system must have the ability to print non-certified copies of certificates from the Birth, Death, Fetal Death, Marriage, and Dissolution of Marriage Modules.	YES	This is standard functionality in all Genesis applications.
7.4.2*	The system must store the State and Local Registrar's information that is to be added based on the file date on validated state vital event records.	YES	This is standard functionality in all Genesis applications.
7.5	MARRIAGE & DISSOLUTION OF MARRIAGE		
7.5.1*	The system must have document forms, licenses, and worksheets that are accessible to a user with necessary access.	YES	This is standard functionality in all Genesis applications.
8	BIRTH MODULE		
8.1	BIRTH MODULE		
8.1.1*	The system must have the ability to enter a delayed birth record, new adoption record, and a foreign-born birth record.	YES	This is standard functionality in all Genesis applications.
8.1.2*	The system must have the ability to flag and unflag a birth record as deceased.	YES	This is standard functionality in all Genesis applications.
8.1.3*	The system must pre-load data flagged by the State of Nebraska for multiples birth records (e.g., twins, triplets).	YES	This is standard functionality in all Genesis applications.
8.1.4	The system should auto-fill stored birth attendant information maintained by the facility.	YES	This is standard functionality in all Genesis applications.
9	DEATH MODULE		
9.1	DEATH MODULE		
9.1.1*	The system must allow a user with necessary access the ability to save a death record without the cause of death indicated, as a pending investigation record.	YES	This is standard functionality in all Genesis applications.
9.1.2*	The system must provide a connection to Validations and Interactive Edits Web Service (VIEWS) to review medically related fields.	YES	This is standard functionality in all Genesis applications.
9.1.3*	The system must allow a user with necessary access to sign permits.	YES	This is standard functionality in all Genesis applications.
10	MARRIAGE MODULE		
10.1	MARRIAGE MODULE		

**DHHS Vital Records Department
Modernization Requirements**

10.1.1*	The system must automatically file a marriage record that has fulfilled State of Nebraska specific criteria.		The system currently requires an action for the official filing of the record. There are prompts that automatically occur to walk the user through the process. This can be configured for automatic release if desired. This requires no additional input from the Unit and can be implemented in approximately 1 week
10.1.2*	The system must auto-fill county clerk and fee information.	CONFIG	The system will auto-fill this information based upon the location that is logged into when creating the record.
11	DISSOLUTION OF MARRIAGE MODULE		
11.1	DISSOLUTION OF MARRIAGE MODULE		
11.1.1*	The system must automatically file a dissolution of marriage record that has fulfilled State of Nebraska specific criteria.		The system currently requires an action for the official filing of the record. There are prompts that automatically occur to walk the user through the process. This can be configured for automatic release if desired. This requires no additional input from the Unit and can be implemented in approximately 1 week
12	FETAL DEATH MODULE		
12.1	FETAL DEATH MODULE		
12.1.1*	The system must automatically search for associated birth events upon record entry, in the event a fetal death occurs, an error message must display for the affected user.		This is standard functionality in all Genesis applications. For Fetal Deaths, the application will ask the 5 questions to determine a fetal death or live birth/death prior to allowing a record to be created.
13	ORDER MANAGEMENT MODULE		
13.1	GENERAL		
13.1.1*	The system must allow a user with necessary access to issue certified copies of an individual certificate.	YES	This is standard functionality in all Genesis applications.
13.1.2*	The system must support the ordering and purchase of a commemorative certificate for a nonviable birth event.	YES	This is standard functionality in all Genesis applications.
13.1.3*	The system must provide a user with necessary access the ability to manage all transactions.	YES	This is standard functionality in all Genesis applications.
13.1.4*	The system must link the order to vital event record.	YES	This is standard functionality in all Genesis applications.
13.1.5*	The system must link the order to an invoice and payment.	YES	This is standard functionality in all Genesis applications.
13.1.6	The system should connect all issued controlled documents (serialized certificate paper) to a receipt and to an order.	YES	This is standard functionality in all Genesis applications.
13.1.7	<i>The system must support the ordering, purchase, and printing of legal certified copies of certificates on security paper for the following vital events:</i>		
13.1.7.1*	Birth;	YES	The Genesis Fee module is a complete Point of Sales system that includes order entry, inventory management and issuance module. The module operates for all modules provided by Genesis, including Birth, Death, Marriage, Dissolution of Marriage, Fetal Death, and Birth Resulting in Stillbirth
13.1.7.2*	Death;	YES	The Genesis Fee module is a complete Point of Sales system that includes order entry, inventory management and issuance module. The module operates for all modules provided by Genesis, including Birth, Death, Marriage, Dissolution of Marriage, Fetal Death, and Birth Resulting in Stillbirth
13.1.7.3*	Marriage;	YES	The Genesis Fee module is a complete Point of Sales system that includes order entry, inventory management and issuance module. The module operates for all modules provided by Genesis, including Birth, Death, Marriage, Dissolution of Marriage, Fetal Death, and Birth Resulting in Stillbirth

**DHHS Vital Records Department
Modernization Requirements**

13.1.7.4*	Dissolution of Marriage;	YES	The Genesis Fee module is a complete Point of Sales system that includes order entry, inventory management and issuance module. The module operates for all modules provided by Genesis, including Birth, Death, Marriage, Dissolution of Marriage, Fetal Death, and Birth Resulting in Stillbirth.
13.1.7.5*	Fetal Death;	YES	The Genesis Fee module is a complete Point of Sales system that includes order entry, inventory management and issuance module. The module operates for all modules provided by Genesis, including Birth, Death, Marriage, Dissolution of Marriage, Fetal Death, and Birth Resulting in Stillbirth.
13.1.7.6*	Birth Resulting in Stillbirth.	YES	The Genesis Fee module is a complete Point of Sales system that includes order entry, inventory management and issuance module. The module operates for all modules provided by Genesis, including Birth, Death, Marriage, Dissolution of Marriage, Fetal Death, and Birth Resulting in Stillbirth.
13.2	SYSTEM		
13.2.1*	The system must generate and assign a unique and sequential transaction number for each sales transaction.	YES	This is standard functionality in all Genesis applications.
13.2.2*	The system must generate and assign a unique and sequential invoice number for each invoice.	YES	This is standard functionality in all Genesis applications.
13.2.3*	The system must allow a user with necessary access to flag returned certificates on the order.	YES	This is standard functionality in all Genesis applications.
13.2.4*	The system must generate and assign a unique and sequential number for each print transaction of a legal certified copy a of a certificate.	YES	This is standard functionality in all Genesis applications.
13.2.5*	The system must allow a user with necessary access to print a legal certified copy of a certificate from an altered (cropped, rotated, resized) vital event certificate image.	YES	Genesis can provide an Imaging module that provides the State the capability to do any such editing. Regardless, Genesis has integrated with Imaging Modules that allow for this to occur.
13.2.6*	The system must have a process to link, safeguard, and store serialized security paper identifiers.	YES	This is standard functionality in all Genesis applications.
13.3	ORDERS		
13.3.1*	The system must have the ability to process regular mail orders.	YES	This is standard functionality in all Genesis applications.
13.3.2*	The system must have the ability to add internal notes to an order without restricting the length.	YES	This is standard functionality in all Genesis applications.
13.3.3*	The system must enter and save shipping information, including shipping method and address.	YES	This is standard functionality in all Genesis applications.
13.3.4*	The system must have the ability to post by line item and fee.	YES	This is standard functionality in all Genesis applications.
13.3.5*	The system must have the ability to calculate accurate charges based on quantity of documents requested.	YES	This is standard functionality in all Genesis applications.
13.3.6*	The system must have the ability to set up a fee schedule by vital record document type, including effective and termination dates to the fees.	YES	This is standard functionality in all Genesis applications.
13.3.7*	The system must have the ability to set multiple fees for each vital record document type.	YES	This is standard functionality in all Genesis applications.
13.4	DATA		
13.4.1*	The system must be able to track the certificate type.	YES	This is standard functionality in all Genesis applications.
13.4.2*	The system must be able to track the method of certificate delivery.	YES	This is standard functionality in all Genesis applications.
13.5	DOCUMENTS		
13.5.1*	The system must maintain a record of all printed certificates that are destroyed, including method and reason for destruction.	YES	This is standard functionality in all Genesis applications.
13.5.2*	The system must have the ability to attach files with a minimum of the following file types (PDF, .doc, .jpeg, .png, .tiff) to an order.	YES	This is standard functionality in all Genesis applications.

**DHHS Vital Records Department
Modernization Requirements**

13.5.3*	The system must have the ability to mark a document control number as "destroyed" with a reason for discarding (e.g., poor print quality, printing error, etc.).	YES	This is standard functionality in all Genesis applications.
13.6 QUEUE			
13.6.1*	The system must have the ability to queue orders based on status.	YES	This is standard functionality in all Genesis applications.
13.7 PAYMENTS			
13.7.1	<i>The system must have the ability to support the following payment types:</i>		
13.7.1.1*	Debit Card;	YES	
13.7.1.2*	Credit Card;	YES	
13.7.1.3*	Money order;	YES	
13.7.1.4*	Check;	YES	
13.7.1.5*	Cash.	YES	
13.7.2*	The system must enforce mandatory field validation to prevent payment processing before all required fields are populated, as mandated by the State of Nebraska.	YES	This is standard functionality in all Genesis applications.
13.7.3*	The system must have the ability to track payment status (i.e., refund, payment, discounted/free, or no payment).	YES	This is standard functionality in all Genesis applications.
13.7.4*	The system must have cash handling capabilities for each cashier station.	YES	This is standard functionality in all Genesis applications.
13.8 PRINT			
13.8.1*	The system must provide a print queue including Document Control Number for review and approval statuses.	CONFIG	The system does not have a standard print queue for review. The fee system displays print status in the transaction window. A queue and additional functionality could be configured at no additional cost to queue print jobs for review and DCN prior to or directly after printing. This requires no additional input from the Unit and can be implemented in approximately 2 weeks.
13.8.2*	The system must allow a user with necessary access the ability to print a replacement of a legal certified copy of a certificate.	YES	The fee module contains a reprint function for users who need to reprint and then add a DCN to the replacement certificate. Should the previous print be linked to a DCN, the system will automatically void that DCN and cancel that issuance.
13.8.3*	The system must provide the ability to print a certificate with amendments.	YES	The ability to print amendments is standard in the system. Amendments are a transaction type in the fee module and print from image of the version marked as current.
13.8.4	The system should print labels of various sizes, as needed for mailings, etc.	YES	The system can print labels as defined by the state during <u>joint application design</u> .
13.8.5*	The system must have the ability to print a batch of documents.	YES	The system has a batch print functionality. Genesis can work with the state's printer vendor if necessary to develop the <u>batch printing integration</u> .
13.8.6*	The system must have the ability to reprint a batch of documents.	YES	All documents that are printed can be reprinted. If a batch is selected to be printed, the batch can be regenerated and <u>reprinted</u> .
13.8.7	The system should have the ability to print common correspondence letters.	YES	The system allows the printing of correspondence letters through the fee module which are associated with a request.
13.8.8*	The system must not allow a record with a specific status to be printed.	YES	The system prevents records with predefined statuses from being printed. Flags are attached to the record which correspond to the status. If the flag includes a do not issue <u>flag, the record cannot be printed</u> .
13.8.9*	The system must have the ability to print and reprint an invoice.	YES	The reprint invoice function is standard in the fee module.
13.8.10*	The system must have the ability to print and reprint a receipt.	YES	The system has this functionality.
13.9 SHIP			
13.9.1	The system should have the ability to ship orders via UPS or USPS.	YES	The system permits the ordering of UPS and USPS shipping. Shipping fees can be captured and a shipping integration can be configured for both UPS and USPS.

**DHHS Vital Records Department
Modernization Requirements**

13.9.2	The system should have the ability to generate shipping labels to be printed, or blank labels that need to be handwritten.	YES	The system can generate shipping labels for printing on <u>shipping stationary at set positions.</u>
13.9.3	The system should have the ability to void a shipping label.	CUS	Shipping labels can be canceled prior to printing. This requires no additional input from the Unit and can be implemented in <u>approximately 2 weeks.</u>
13.9.4	The system should have the ability to view and access shipping functions.	CUS	The system can be configured and customized to permit users to see shipping functions for records in the fee module. Additional functionality for shipping integrations would be made viewable. This requires no additional input from the Unit and can be implemented in approximately 1 week.
13.9.5	The system should have the ability to generate a detailed report with an existing or previous shipping vendor manifest (e.g., when a manifest is created, an email is sent, notifying the customer their order has been shipped).	CONFIG	The system can be configured to initiate an email when the shipping manifest is generated. This requires no additional input from the Unit and can be implemented in approximately 1 week.
13.10 FUNCTIONALITY			
13.10.1	The system should provide a kiosk provided and maintained by the Vendor for the processing of vital record order requests and process payments for customers.	CUS	Genesis has done similar functionality before and would commit to doing so here as well. This requires no additional input from the Unit and can be implemented in approximately 2 weeks.
13.10.2	The system should provide credit card machines provided and maintained by the Vendor for the processing of payments for customers.	CUS	Genesis has connected to multiple vendors of credit cards for payment processing. Genesis can provide machines and payment through Elavon, if required. This requires no additional input from the Unit and can be implemented in <u>approximately 4 weeks.</u>
13.10.3*	The system must track requests and accept payment for all transactions.	YES	This is standard functionality in all Genesis applications.
13.10.4*	The system must have the ability to calculate order fees automatically.	YES	This is standard functionality in all Genesis applications.
13.10.5*	The system must allow manual processing of checks, money orders, or cash payments for orders including the requestor, request reason, amount, and request type.	YES	This is standard functionality in all Genesis applications.
13.10.6*	The system must have the ability to close orders.	YES	This is standard functionality in all Genesis applications.
13.10.7*	The system must allow a user with necessary access to void an order that has been paid in full.	YES	This is standard functionality in all Genesis applications.
13.10.8*	The system must allow a user with necessary access to void an order before it is closed.	YES	This is standard functionality in all Genesis applications.
13.10.9*	The system must allow a user with necessary access to make updates to a completed order.	YES	This is standard functionality in all Genesis applications. The audit trail is maintained throughout this process.
13.10.10*	The system must allow a user with necessary access to cancel an unpaid order.	YES	This is standard functionality in all Genesis applications.
13.10.11*	The system must allow a user with necessary access to process individual orders.	YES	This is standard functionality in all Genesis applications.
13.10.12*	The system must have a specific status for certificates that are waiting on verification.	CONFIG	The system will put these into their own status with their own work queue. This requires no additional input from the Unit and can be implemented in approximately 1 week.
13.10.13*	The system must have an automated workflow to assign a specific status to certificates waiting on verification, this status would disallow the issuance of the certificate.	YES	The system marks such records as unable to issue as it is currently built.
13.10.14*	The system must have the ability to process refunds.	YES	The system is built to generate refunds in circumstances where the state allows. Genesis can open or restrict the <u>circumstances as required.</u>
13.10.15*	The system must have the ability to generate order slips.	YES	This is standard functionality in all Genesis applications.
13.10.16*	The system must be able to track how staff validated identity and eligibility of the person requesting the certificate.	YES	The application currently captures the ID and ID information used for validation.

**DHHS Vital Records Department
Modernization Requirements**

13.10.17*	The system must produce a receipt for each order transaction based on fields that are stipulated by the State of Nebraska.		The system produces receipts as built. The receipt will be configured to fit the exact needs of the state. This will require input from the Unit as to what fields are required. This will take no more than 1 week to update.
13.10.18*	The State maintains its own credit card processor. The vendor must ensure compatibility with this system. The vendor is not responsible for payment processing.	CONFIG YES	Genesis has connected to multiple vendors of credit cards for payment processing.
13.11 CONFIGURATION			
13.11.1*	The system must have the ability to add, update, or configure custom fees with a date parameter.		The system is built to allow an admin to configure the prices within a date parameter. The admin can even create fee splits that show the amount that should be sent to different accounts. This is also helpful in producing the CAFR.
13.11.2*	The system must allow a user with necessary access to configure the invoice template.	YES	The system is built to allow for customization of letter templates. Customized invoice templates can be built to allow for this functionality. No input is required from the Unit. This will take approximately 8 weeks to implement.
13.11.3*	The system must allow a user with necessary access to configure the order slip template.	CUS CUS	The system is built to allow for customization of letter templates. Customized order slip templates can be built to allow for this functionality. No input is required from the Unit. This will take approximately 8 weeks to implement.
14 REPORTS			
14.1 GENERAL			
14.1.1*	The system must have the ability to create or modify reports.	YES	The system has As Built reports along with the ability to create and save custom ad hoc reports through the Genesis DragIt functionality.
14.2 FUNCTIONALITY			
14.2.1*	The system must allow a user with necessary access to generate a report of detailed and/or summary financial reports by user, terminal, or submission source and current status.	YES	The system allows generation of such reports but may need to be configured for all versions requested here.
14.2.2*	The system must allow a user with necessary access to view custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	YES	The DragIt functionality allows users with the necessary access the ability to view these reports.
14.2.3*	The system must allow a user with necessary access to create custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	YES	The DragIt functionality allows users with the necessary access the ability to create these reports.
14.2.4*	The system must allow a user with necessary access to copy custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	YES	The DragIt functionality allows users with the necessary access the ability to copy these reports.
14.2.5*	The system must allow a user with necessary access to update custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	YES	The DragIt functionality allows users with the necessary access the ability to update these reports.
14.2.6*	The system must allow a user with necessary access to delete custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	YES	The DragIt functionality allows users with the necessary access the ability to delete these reports.
14.2.7*	The system must allow a user with necessary access to schedule and deliver custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	YES	The DragIt functionality allows users with the necessary access the ability to schedule these reports.
14.2.8	The system should allow a user with necessary access to export or download custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	YES	Reports within the application are exportable in either pdf or Excel format.
14.2.9*	The system must allow a user with necessary access to print or reprint custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	YES	All reports within the application are printable.
14.3 CONFIGURATION			
14.3.1	The system should allow a user with necessary access to configure letter templates.	YES	The system is built to allow for customization of letter templates.
14.3.2	The system should have the ability to customize template letterhead.	YES	The system is built to allow for customization of letterhead templates.
15 INTEGRATION			
15.1 INTERFACE			
15.1.1*	The system must integrate with the State and Territorial Electronic Vital Event (STEVE), Social Security Administration (SSA), Electronic Verification of Vital Events (EVVE), and internal state agencies for data collection and reporting purposes.	YES	All Genesis applications are integrated with these systems.

**DHHS Vital Records Department
Modernization Requirements**

15.1.2*	The system must securely integrate with various state agency systems for sharing HIPAA related data.		Genesis has made such integrations many times in the past. These will need to be defined during JADs and will be configured to the application. Input from the Unit is required to determine who to connect to and what information is to be shared. Further communication will be needed with the receiving agency as to how the data should be delivered. There is not enough information as to the amount of connections to provide an accurate timeline.
15.1.3*	The system must integrate with the State of Nebraska's Vital Records unit's online order management application.	CONFIG	Genesis has integrated with online portals in other jurisdictions and will do so here. Input from the Unit is required to determine connection methods. This should take approximately 3-4 weeks to implement depending on cooperation of the Unit's order management application team.
15.1.4	The system should integrate with the State of Nebraska's financial system for all collected revenue.	CONFIG	Genesis has integrated with financial systems in other jurisdictions and will do so here. This will require input as to the format that is required to be sent. This will take about 4 weeks to implement.
15.2	IMPORT		
15.2.1*	The system must provide the ability to import files including but not limited to the Inter-Jurisdictional Exchange (IJE) standard.		The system permits the import of IJE files. The system has numerous external integrations as an out of the box offering and Genesis will build imports and integrations as necessary to support state business requirements.
15.2.2*	The system must generate error files identifying import failures.	YES	The system generates error logs for all imports and exports.
15.2.3*	The system must generate error prompt boxes identifying any manual import failures.	YES	This is standard functionality in all Genesis applications.
15.2.4*	The system must have the ability to electronically schedule imports.	CONFIG	The system can be easily configured to schedule imports. This will take coordination with the Unit to determine times of imports. This will take about 1 week to implement.
15.2.5*	The system must have the ability to cancel or reverse a data import which would automatically remove the imported record and/or associated data.	CONFIG	The system will be configured with a back-out function for undoing the previous upload. This requires no additional input from the Unit. This will be implemented within 3 weeks.
15.2.6*	The system must have an import process; as the data file is imported, values on the file should be able to be validated or decoded.	YES	This is standard functionality in all Genesis applications.
15.2.7*	The system must have the ability to decode or populate import data based on missing or incomplete values (e.g., table validation, stored procedure, or default values).	YES	Genesis utilizes library maintenance tables to ensure that data is consistent in all records. These tables will allow for certain data sets to be populated with missing or incomplete data.
15.2.8*	The system must import dissolution of marriage events from the State of Nebraska's Justice System data daily (format fixed width).	CONFIG	The import will be configured to the specifications of the state. The format will need to be provided by the Unit. This will take approximately 2 weeks to implement.
15.2.9*	The system must provide the ability to import or lookup coded files from the National Center for Health Statistics (NCHS) in accordance with their reporting requirements, and once uploaded have the ability to insert these imported files (codes) and place them in to the appropriate fields attached to the applicable records. This includes International Classification of Diseases (ICD)-10 codes and bridge-race codes. See www.cdc.gov/nchs/nvss/revisions-of-the-us-standard-certificates-and-reports.htm	YES	This is standard functionality in all Genesis applications.
15.3	EXPORT		
15.3.1*	The system must provide the functionality to transmit from all death records the decedent's data to the Social Security Administration (SSA). This functionality meets the terms and conditions under which SSA will verify SSN's (social security numbers) for the State of Nebraska.	YES	The system has this transmission as a baseline integration.
15.3.2*	The system must generate error files identifying export failures.	YES	Export failure logs are contained within the system for users with the appropriate security processes to access and review.

**DHHS Vital Records Department
Modernization Requirements**

15.3.3*	The system must generate error prompt boxes identifying any manual export failures.	YES	This is standard functionality in all Genesis applications.
15.3.4*	The system must have the ability to electronically schedule exports.	YES	The system will schedule exports for automated generation and transmission. Typically, Genesis tries to schedule these exports for off-hours to ensure large exports do not hamper system performance.
15.3.5*	The system must have an export process; as the data file is produced, values on the file should be able to be validated or decoded.	YES	This is standard functionality in all Genesis applications.
15.3.6*	The system must have the ability to produce standard or ad hoc data exports with a file type (.xlsx, .csv, .txt, .pdf) of complete or partial information and/or records.	YES	This is standard functionality in all Genesis applications.
15.3.7*	The system must have a way for the State of Nebraska to automate control of when a record needs to be sent or resent.	YES	In addition to the automated functionality, user can set a flag to resend a record for transmission
16	ANALYTICS TOOL		
16.1	ANALYTICS TOOL		
16.1.1	The system should have an analytics tool within the system to identify data duplication, discrepancies, and outliers.	YES	The system provides reports and users with data to identify duplication and avoid duplication as well as the ability to discern outliers and search for discrepancies.
16.1.2	The system should have the ability to apply data visualizations such as charts, graphs, and dashboards, which can be drilled into for more granular information.	TPS	Genesis would have to work with the State to define the scope of data to be charted. This will take approximately 6 weeks to implement.
17	HELP		
17.1	HELP		
17.1.1*	The system must provide online help connected to the relevant workflow, field, or report being used.	YES	The system has field level help as well as system help for users in addition to relevant user guides. The user guides are provided online and linked to the application for easy retrieval.
17.1.2	The system should provide an overall up-to-date online tutorial to assist users learning the software as well as online help tool with glossary, index, and search capabilities.	CUS	Genesis will create an online tutorial for users who are learning. Genesis does upload it's user guides and will provide glossary and index as well. This will take approximately 8 weeks to generate.
17.1.3	The system should provide online documentation for all modules.	YES	Genesis will provide system documentation for all modules. The documentation may be placed online as requested by the state.

ATTACHMENT 2
Technical Specifications
Vital Records Management System
Request for Proposal Number 120277 O3 REBID

Bidder Name: _____ Genesis Systems, Inc. _____

Important Scoring Dynamic: Attachment 2 – Technical Specifications shall be subject to a “Pass” or “Fail” assessment. Bidder to review Section (I)(P)(2) of the Request for Proposal (RFP) document for understanding the methodology that will be applied. The items highlighted in gold and notated with an asterisk (*) within this document represent the capability and/or requirement that will be subject to the “Pass” or “Fail” assessment, as these are “must” requirements.

Instructions: Bidders shall review the tables below to understand the structure of this document and how to effectively complete this attachment for inclusion with the RFP submission. Use the format provided to complete this attachment in its entirety. DO NOT ALTER THE COLOR CODING, CONTENT, OR FORMAT OF THIS ATTACHMENT.

Failure to include this completed attachment shall result in the bidder’s Solicitation Response being deemed “Non-Responsive.” Bidder may increase the size of the response box to provide the necessary information. If the response includes other attachments, bidder must indicate that information in the response box. Such attachments must be included with the completed “Attachment 2 – Technical Specifications”.

This document is comprised of four (4) separate categories that are expressed in the table directly below. Each category is identified by the following initial characters:

Category	Description
ARCH	Architecture Capabilities and/or Requirements
SPC	Security and Compliance Capabilities and/or Requirements
DM	Database/Data Management Capabilities and/or Requirements
OM	Operations Management Capabilities and/or Requirements

Each category above contains multiple sub-categories. The table directly below describes the functionality of each column:

Column Description	Bidder Responsibility
Req #	The unique identifier for the item as assigned by the State of Nebraska.
Capability and/or Requirement	The description of the item to which the Bidder shall respond.

CAPABILITIES AND/OR REQUIREMENTS

How to complete the Capabilities and/or Requirements: Bidders shall provide information in each respective “Response” box provided. Each individual response shall include the information as indicated. Such responses shall include specific details, characteristics and key aspects to demonstrate the bidder’s proposed solution and how it meets the conformance specification outlined in relation to the project

Architecture Capabilities and/or Requirements

Req #	Capabilities and/or Requirements
ARCH-1	<p>Describe the bidder solution to addressing the following architectural details:</p> <p>Technology Architecture: Describe the software components, including third-party software products, open-source libraries, and utilities that complete the platform for running a service or supporting an application. This section should document any technical requirements for accessing the software, including but not limited to client desktop installs, etc. Further, the section should clearly outline any State required infrastructure, such as setting up VPN, SFTP, etc., to implement or operate the system.</p> <p>Network Architecture: Describe the means of communication, the method of sending and receiving information, between the assets in the Technology Architecture.</p> <p>Application Architecture: Describe how the solution components are assembled and interact to meet the business needs. Describe the solution’s ability to manage and store documents and attachments.</p> <p>Data Flow Architecture: Describe the data flows into and out of the system boundary, include transmission and storage, along with ports, protocols, and services of all inbound and outbound traffic.</p>
	<p>Response:</p> <p>Technology Architecture: There is no state-required infrastructure associated with the application; the application is a SaaS offering; as such, access from the web browser is sufficient.</p> <p>Network Architecture: Due to the diverse threats within cloud infrastructure, Genesis has opted to follow an on-premises hosting model. Although many key benefits come from this, an on-premises model allows Genesis to be in complete control of the data, software, and hardware that it manages. Following an on-premises model allows genesis to be more compliant, secure and in control. Genesis builds its on-premises environments as a private cloud, where the redundancies provide all of the uptime and flexibility of the cloud while ensuring that the physical servers are solely dedicated to the vital records application.</p> <p>Genesis requires a 3-tier environment to place paramount importance on security measures (see attached System Architecture Diagram). The three tiers are the presentation layer, application layer and database layer. To defend against external threats access controls, intrusion detection systems and firewalls are implemented. Each layer is firewall protected using individual zones. Thoroughly designed and maintained, the architectural model functions as a streamlined and secure machine that facilitates business operations. Preventive</p>

measures should be taken, including the implementation of routine vulnerability assessments.

The Presentation web servers constitute the graphical user interface of the environment. By delivering content to users via web browsers, these servers accommodate the user interface components of the applications. Commonly employing caching mechanisms such as object and browser caching to enhance performance, they are optimized for rapid content delivery.

The Application Web servers are located behind the presentation servers as a 2nd layer security zone. By processing user requests and generating dynamic content, these servers manage the business logic of the applications. This is where OVS, SMDES, EVVE, and other integrated website services are located.

Database servers are utilized in the 3rd layer security zone. The Azure applications utilize these servers to store and administer their user input data. Utilizing performance-enhancing elements like indexing and query optimization, they are optimized for quick read and write operations.

The domain controller server manages internal user authentication and authorization within the Windows domain environment. It stores user account information, enforces security policies, and facilitates communication between users and the network resources through Active Directory Domain Services (AD DS). This is the central repository for user accounts, group memberships, and other directory information. It also integrates with other servers in the environment to provide centralized authentication services. This includes authentication for accessing web applications hosted on application servers and database servers. Lastly, the imaging services will be located and accessed from the domain controller.

Redundancy and fault tolerance are qualities incorporated into the network architecture in both production and disaster recovery environments. To ensure continuous connectivity, two Internet Service Providers (ISPs) are employed. Clustering technologies such as database mirroring and file replication offer failover capabilities in the event a server fails, whereas load balancers distribute traffic across all servers. Data is logged-shipped in predetermined intervals from the Production environment to the DR environment. The predetermined intervals are worked out between Genesis and the state to ensure the exact recovery point objective (“RPO”) that is required. This creates safe backups for the jurisdictions in the event of any large-scale outage or disaster at the Production site.

Application Architecture:

Genesis develops the application using the .NET Framework v4.8.1. The architecture comprises of ASP.NET webforms. The application is separately developed by functionality in the means of modules.

The Global module handles user permissions on a location basis throughout the system. The processes prescribed through the Global Module allow users to have limited access based on job requirements. The Global module dictates global variables for city, county, state and country. This flows down through all modules within the application.

The following modules will have similar functionality from user input and processing. Modules will have capability for multiple data entry

points. Legal View screens will be developed, for providing at a glance view of forms and data. Cross matching capabilities between modules to complete the record life cycle will be developed. Library maintenance tables allow for users to customize and add important pre-defined lists, such as Funeral Home, Coroner and Facility data.

- Birth
- Death
- Fetal Death
- Marriage
- Divorce
- Fee
- ITOP
- Imaging

Imports and Extracts- The application is built to extract data for presentation to other agencies or organizations at the State's needs. The application can also import data as designed during the JAD sessions.

Reports are configured in consultation with the State to ensure that the solution will provide the initial data reporting to fit the State's needs.

DragIt is the Genesis ad-hoc reporting tool that allows users to query the data from the database using an intuitive user interface by simply dragging and dropping data fields to generate reports.

Data Flow Architecture:

A user accesses the system through secure HTTPS protocol. After the request goes through the system firewall (SonicWall HA), it hits Zone 1 or the Presentation Server where the UI (user interface) request calls to the system's Application Programming Interface (API) or Web Service (WS) depending on the request. Following this step the API or WS will call to the Electronic Verification of Vital Events (EVVE) or Office of Vital Statistics (OVS) for verification in Zone 2 or the Application Server. Once this step is completed the data request will then go to Zone 3, to either the Imaging Server or the Database Server, depending on the type of request. If it is an Imaging request, the images will be retrieved, altered, and saved before being returned. If it is a Database request, the data will be requested, refined and saved before being returned.

When the image from the Imaging Server or data from the Database Server is returned, it flows from Zone 3 to Zone 2, where it is delivered to the API or Web Service. Based on the process invoked, the API or Web Service can either send the data via SMTP (email) to verified recipients or return the information to the Presentation Server in Zone 1, which then outputs the data to the user.

Genesis also maintains a data flow diagram to show all account data flows across systems and networks that is updated as necessary when there are changes to the environment (See Appendix K).

ARCH-2*	The bidder solution must be a cloud-based hosted environment with all components and data residing in the United States and consisting of ready-made software products that do not require major modifications but support customization to meet the functional specifications as outlined in Attachment 2 – Functional Specifications. Bidder must describe how their approach will meet these requirements.
<p>Response:</p> <p>The proposed solution from Genesis operates as a private cloud environment. This allows for maximum uptime while ensuring that the vital records application and database do not reside in an environment where any other application may be operating. As described within the system architecture, Genesis provides a three-tier system. This is made fully redundant by creating two full environment packages with mirroring and load balancing. The application will operate fully within both environments, meaning that failure within one environment allows the user to utilize the other with no downtime.</p> <p>The environment is standard for Genesis applications and is designed for the proposed application to be easily integrated and configured for the State. Genesis also maintains a disaster recovery (“DR”) environment in a geographically distant location. All data centers are located within the continental United States. The DR site is kept updated with log-shipping and provides a recovery point objective of no more than one (1) hour.</p> <p>The proposed solution will meet the specifications outlined in Attachment 2 – Functional Specifications as described within the attachment. The solution can be provided without major modification. Genesis customizes its applications to fit the needs of all its customers.</p>	
ARCH-3	<p>Describe the bidder solution to address the following:</p> <ul style="list-style-type: none"> • Type of Software – SaaS, PaaS or, IaaS • Licensing Model- Perpetual or Subscription based licenses • Single or Multi-Tenant architecture
<p>Response:</p> <p>The proposed system is a SaaS model. Genesis licenses both the software and the database. The cost of license is included with the cost of development and support – there is no separate/additional licensing fee for the use of the system. Licensing is perpetual and a sample licensing agreement is attached for reference as Appendices J & L.</p> <p>Genesis employs single tenant architecture for its jurisdictions to ensure that jurisdictions are segregated, have devoted resources, and</p>	

are maintained independently.

Req #	Capabilities and/or Requirements
ARCH-4*	The bidder solution must provide multiple environments concurrently to support functions including production, testing, and training. Bidder must describe how their approach will meet these requirements.
	<p>Response:</p> <p>Genesis will have a development, internal testing, user acceptance testing (UAT), production, and training environment. The three-tier architecture will be employed across each required environment. The development of the modules will take place in the development module, which resides within the Genesis environment. Once code is checked in and tested by the developers, it is deployed to the internal testing environment passes to the Genesis internal testing team. Once it passes Genesis internal testing, the code is deployed to the UAT environment for state users to test/verify. Upon completion of UAT, code is deployed to production. A training environment will also be provisioned. Genesis will work with the state to confirm the requirements for the testing environment – Genesis assumes that the testing environment will have a specific set of data for user training which is reset to a default after a set period of time.</p>
ARCH-5*	<p>Review the accessibility requirements described in the following:</p> <ul style="list-style-type: none">• Section 508 compliance standards (https://www.section508.gov/manage/laws-and-policies/)• 45 CFR Part 85 (https://www.ecfr.gov/current/title-45/subtitle-A/subchapter-A/part-85)• State of Nebraska Accessibility requirements (https://nitc.nebraska.gov/standards/index.html#2). <p>Bidder must confirm that your company has read, understands, and can meet all the capabilities and/or requirements as outlined for each of the items <u>and</u> indicate how your solution will meet such requirements as they relate to the accessibility requirements.</p>
	<p>Response:</p> <p>Genesis understands the requirements for the system to be compatible with the noted regulations. Genesis works to ensure that its systems maintain compliance. These regulations are typically comprehensively covered by the WCAG 2.1 AA requirements and Genesis annually completes a WCAG 2.1 AA scan of its systems and remediates any deficiencies to ensure accessibility and remove liability for use of the system.</p> <p>Prior to Go-Live and after UAT has been completed, Genesis will utilize scanning tools to complete an accessibility scan/review of the system. The results will be provided to the state, a remediation plan to resolve deficiencies will be issued and the remediation will take</p>

place prior to the system going into production.

The system, as a baseline, is designed to be navigable via keyboard without the need for a mouse to ensure accessibility. The tab ring includes all elements within the pages. Genesis relies on accessibility scanning to ensure that screen readers can function and interpret all elements within a page as well.

When designing the system, Genesis attempts to use jurisdiction determined color schemes for color contrasting. Before implementing the system, Genesis will utilize accessibility scan results to confirm whether color contrast meets accessibility standards and, if a finding exists, works with the jurisdiction to find a color scheme that works with jurisdiction branding while being compliant with WCAG standards.

Security and Compliance Capabilities and Requirements

Req #	Capabilities and/or Requirements
SPC-1*	<p>Review the standards and policies described in the following:</p> <ul style="list-style-type: none"> • DHHS Information Technology (IT) Security Policies and Standards (http://dhhs.ne.gov/ITSecurity). • Nebraska Information Technology Commission (NITC) Standards and Guidelines (https://nitc.nebraska.gov/standards/index.html). • Health Insurance Portability and Accountability Act (HIPAA) of 1996. <p>Bidder must confirm that your company has read, understands, and can meet all the capabilities and/or requirements as outlined for each of the items <u>and</u> indicate how your solution will meet such requirements as they relate to the standards and policies described above.</p>
	<p>Response:</p> <p>Genesis has read and understands the requirements set forth in the stated policies.</p> <p>To ensure compliance with the Nebraska IT policies including the DHHS IT policies and the NITC policies, the Genesis Project Manager, Tech Lead and System Administrator work collaboratively with state IT to develop a comprehensive system security plan. The system security plan sets forth the policies, procedures and controls governing the system. Genesis will provide its system security plan during development for review and, if required, will work with state IT to develop a joint system security plan according to a state template.</p>
SPC-2*	<p>The bidder must agree to conduct an independent, third-party penetration test for the solution in which they are offering within one year prior to the anticipated go-live date, that includes, at a minimum, the Open Web Application Security Project (OWASP) Top 10. Identified risks must be classified by severity and additional information must be provided for any risks identified as medium and above. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this test at the appropriate time and describe how their approach will meet these requirements.</p>
	<p>Response:</p> <p>Genesis understands and accepts this requirement. During development and after the system has been tested in the UAT environment, Genesis systems have a penetration test which includes the OWASP Top 10. It is standard for Genesis to then review the results of the penetration test with the state, discuss any remediation required, prepare a remediation plan for state review, and remediate any findings noted in the test.</p>
SPC-3*	<p>The bidder must agree to conduct an annual independent third-party penetration test of the solution that includes the Open Web Application Security Project (OWASP) Top 10. The report must provide details of the critical, high, and medium findings and associated risks. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this test at the appropriate time and describe how their approach will meet these requirements.</p>

Response:

Genesis understands and accepts this requirement. Typically, Genesis systems have a penetration test annually which includes the OWASP Top 10. It is standard for Genesis to then review the results of the penetration test with the state, discuss any remediation required, prepare a remediation plan for state review and remediate any findings noted in the test.

SPC-4*	The bidder must agree to conduct an independent, third-party security and privacy controls assessment that aligns with the National Institute for Standards and Technology (NIST) SP 800-53 moderate standard, within one year prior to the go-live date. Identified security gaps must be classified by severity and additional information must be provided for any gap identified as medium and above. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this assessment at the appropriate time and describe how their approach will meet these requirements.
--------	--

Response:

Genesis understands and agrees to conduct this assessment. The SOC 2 Type 2 audit which is required pursuant to this agreement requires review of security controls and their conformance with the NIST SP 800-53 standard. Coupling the SOC 2 audit with the annual penetration testing will provide results to Genesis for review. Any findings identified as medium or above will be expedited for remediation. A remediation plan will be provided with the results of any such testing to the state.

Req #	Capabilities and/or Requirements
SPC-5*	The bidder must agree to conduct an annual independent third-party security controls assessment that meets the National Institute for Standards and Technology (NIST) SP 800-53 moderate standard. The report must provide details of the critical, high, and medium findings and associated risks. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this assessment at the appropriate time and describe how their approach will meet these requirements.

Response:

Genesis understands and agrees to conduct this assessment. The SOC 2 Type 2 audit which is required pursuant to this agreement requires review of security controls and their conformance with the NIST SP 800-53 standard. The report generated from the audit will be disclosed to the state and any findings will be addressed in a remediation plan for prompt resolution.

SPC-6	Describe the bidder solution for the following: <ul style="list-style-type: none">• Support for self-service password activities.• Automatic log-off procedures after determined time of session inactivity.• Automatic account disablement after 120 days of inactivity.• Administrators' ability to lockout user(s).• Support and approach for single sign-on• Support and approach for Multi-Factor Authentication• Automatic locking of account after determined number of failed logon attempts.
-------	---

Response:

Users can reset their password with a standard forgot password button. This is automated so that the user does not have to contact the system administrator. Prior to expiration of a password, a user can change their password while they are logged into the application. There is a change password function available to all users. System administrators can manually reset the password as a last resort.

The State will be able to set password requirements directly within the system. This includes: parameters of what is required in the password (1 Uppercase, 1 Lowercase, at least 1 number, at least one special character (!@#\$, etc.), how long the password must be, how many passwords are required before a password can be repeated, etc. Users are also able to reset their password within the system. Users are required to reset their passwords after a pre-set length of time (typically 120 days). Users will be notified when they are within four (4) days of password expiration.

The system permits configuration by the system administrator for the rules related to system inactivity and log off. If a user is inactive, the system will automatically log the user off after the configured time has elapsed. The user will be given a warning prior to being logged off which indicates that they have been inactive.

The system will lock and/or disable a user account for inactivity after a lengthy period of inactivity (i.e. 120 days). This time period can be modified by the system administrator. User accounts are never deleted from the system. A user can be locked by the system administrator and a user can be made inactive by the system administrator. However, to ensure that the audit trail of user actions is maintained, when a user is no longer authorized to use the system, the system administrator simply deactivates the account and the account will no longer be available. Users who are employed by the state or have specific credentials can be given access credentials in the form of access through single sign-on (SSO). SAML is the standard methodology that will be used for SSO. Other users can be given access credentials in the form of access through Multi-Factor Authentication (MFA). Available MFA methods include authenticator apps (such as Google Authenticator), e-mail, and SMS text messaging (additional costs may apply).

The system will be designed to lock a user's account after four (4) failed log-on attempts. This can be modified to any number of failed log-on attempts as the state desires.

SPC-7*

The bidder solution must use role-based security. Bidder must describe how their approach will meet this requirement.

Response:

The WebLE module within the Genesis application is the base module where security and access are configured within the application. This is where users are created and maintained. Users are assigned to locations and then given security processes to perform their work within that location based on their role(s).

The Genesis application uses role-based access control. The system itself will limit what processes can be performed by the location that is logged into by the user. Genesis also provides the administrator with the tools to further limit what processes a user can do by delineating the functionalities of the system into separate, assignable security processes. Location controls exist within the application so processes that are unable to be performed at certain locations will not be assignable.

Security User Groups are functionality that is provided by Genesis to make the assigning and unassigning of security processes much simpler for the administrator. The administrator can set folders with the user processes that belong to each user group. These folders can be changed at any time. The administrator can then assign the folders when setting up users. This will help to ensure that all required processes will be given to that user while also being sure not to give processes that user type shouldn't have. When changes to user types need to be made, the administrator will be able to add the process (or remove) directly into the folder. This will automatically add or remove the processes from all users that have that folder. This makes the modification immensely easier and faster. User accounts are never deleted from the system. A user can be locked by the system administrator, and a user can be made inactive by the system administrator. However, to ensure that the audit trail of user actions is maintained, when a user is no longer authorized to use the system, the system administrator simply deactivates the account and the account will no longer be available.

SPC-8	Describe the bidder solution for the following: <ul style="list-style-type: none">• How user accounts are assigned and managed.• How the system provides usage reports, such as a listing of all users and their last usage date.• How the system supports authorization at an attribute/field level (e.g., edit, view).
-------	--

Response:

User accounts may be imported during data migration or setup from the system front end. During data migration, Genesis will work with the state to review what user accounts exist and mapping active accounts to the new system for user migration (assuming that the state wants to migrate accounts). After data migration, user accounts are assigned by the system administrator. Only a system administrator can create new accounts and the system administrator manages the accounts. Accounts have three basic levels (System Administrator / Local Admin / User). Security processes, which govern functionality, are assignable at appropriate user account levels; said differently, Local Admins are able to be assigned more processes than regular Users.

User reports for usage are provided through pre-defined reports which will be developed during joint application design sessions. The reports are assigned to a user as a security process, only permitting higher level users who have been specifically assigned the reports to see the reports.

To support authorization at an attribute/field level, user accounts are created and managed by an administrator role within the User Maintenance component in the Global Module. As part of the role-based security, users are only provided with security processes that allow for the conducting of the activities required for their job. The system also provides methods to review how users are acting within the application. Activity reports can be accessed under the Global module. The module has a section for reports, which includes Activity/Inactivity reports. This report generates users based on location and provides the user's status within the system, last login date/time.

Further auditing is available on the individual records. Genesis develops all its data entry modules to include a Net Change History View. The Net change component tracks all changes made to data fields, and provides a view of all modifications made, including the specific user committing the changes on the record at a glance.

Req #	Capabilities and/or Requirements
SPC-9*	<p>Review the State DHHS Information Technology (IT) Audit Standards located at: (https://www.dhhs.ne.gov/ITSecurity).</p> <p>Bidder must confirm that your company has read, understands, and can meet all the capabilities and/or requirements as outlined and indicate how your solution will meet such requirements. As a part of the bidder's response, at minimum, the State desires specific information regarding the following elements:</p> <ul style="list-style-type: none"> • Detail the data elements that are audited. • Outline the level of audit tracking being maintained. • Provide a sample of their audit reports. • Capabilities for automated audit log evaluation to identify security issues. • How the bidder monitors, identifies, and reports on events impacting the system, such as attacks and other unauthorized use of the system.
<p>Response:</p> <p>Data elements being audited:</p> <p>Genesis leverages Taegis XDR to audit data elements that are essential to collect and store. Taegis XDR examines the following elements:</p> <ul style="list-style-type: none"> • Timestamps: Provide a time when the incident occurred. • Type of action: Examples include authorized, create, read, update, delete, and accept network connection; including whether it was a successful or failed action. • Identifiers: These include as many as possible, for the object the action was performed on. Examples are usernames, IP addresses, computer names, and MAC addresses. • Action: Whether allowed or denied. • Description: May include reasons for the action, error codes, or more information on the event and action taken place. • File/Process: Describes the location of the suspected file or process in question. <p>Level of audit tracking:</p> <p>Genesis uses the level of auditing described above to track and manage events on servers, workstations, and firewalls. We can gain a comprehensive oversight of logins, network changes, file changes, and activity. This tracking is real time. Taegis logs are retained for 1 year and follow the requirements set forth by SOC 2. Taegis acts as a SIEM to correlate and categorize log data.</p> <p>Sample audit report:</p> <p>A sample audit report is attached for reference hereto as Appendix M.</p> <p>Capabilities for automated audit log evaluation to identify security issues:</p> <p>Taegis automatically triages new alerts and categorizes them from critical to informational severity. This helps our IT staff identify</p>	

potential threats and mitigate them according to their threat score. Logs are automatically pulled to a centralized location, or SIEM. Anomalies are automatically detected to find any “out of the norm” activities. Detections labeled Critical or High are automatically sent to the IT security team for further investigation.

How the bidder monitors, identifies, and reports on events impacting the system, such as attacks and other unauthorized use of the system:

Genesis implements real time monitoring on its network to monitor, identify and report on events impacting the system. On the firewall side, we benefit from the use of IDS/IPS to detect and protect the network against online threats. A centralized log location, Taegis XDR, is used to correlate, analyze and collect logs and events. Any detection deemed Critical or High is sent to the IT team for review.

Database/Data Management Capabilities and/or Requirements

Req #	Capabilities and/or Requirements
DM-1*	The bidder solution must use industry standard cryptographic modules such as those certified to meet FIPS 140-2/-3 for encrypting data at rest and in transit. Bidder must describe how their approach will meet this requirement.
	<p>Response:</p> <p>Genesis uses cryptographic modules that align with the requirements in FIPS 140-2/3. Databases are secured with AES-256 encryption while the data is at rest. Data in transit is encrypted with the most secure cipher available using AES-256 encryption to ensure confidentiality and integrity.</p>
DM-2*	The bidder solution must securely dispose of State data from its systems upon request and in accordance with the National Institute for Standards and Technology (NIST) Special Publication 800-88 revision 1 (https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-88r1.pdf) and must provide to the State of Nebraska a certificate of data destruction. Bidder must describe how their approach will meet this requirement.
	<p>Response:</p> <p>Genesis does not destroy data unless requested by the State. If the State requests that data be destroyed, Genesis will develop a Data Destruction Plan to handle data destruction which complies with NIST requirements.</p>
DM-3	Describe the bidder’s technical approach for supporting data conversion and data migration.
	<p>Response:</p> <p>Genesis understands that data migration is a pivotal piece of the implementation of a new system and Genesis has a lot of experience when it comes to migrating data. Since Genesis specializes in vital records applications, the migration of this data type is well within its capabilities. Genesis has been in existence since 1987 and has migrated countless vital records systems.</p> <p>Most recently, Genesis has migrated two full states’ worth of data into its system. These migrations brought over data from multiple data sources and were in multiple formats. Further, the data spanned a long period of time. The last state migration included all records from 2021 back through 1950. Genesis’s data migration team worked with data experts at these states to thoroughly map the data in order for the data to migrate into the correct database fields.</p>

Genesis recognizes the difficulty that can be present in data migration and utilizes a team dedicated to data migration. Genesis holds weekly meetings to go through all the mapping and pre-testing discussions that are needed. After the first test migration, these meetings continue and any discovered issues are discussed and rectified. Genesis believes strongly in iterative testing throughout the migration process to ensure that data moves correctly.

Genesis follows best practices for cleansing and converting data and images during the data migration. On a high-level Genesis will undergo the following steps in order to ensure the migration is successful:

- 1) **Assessment:** Before diving into the migration process, it's essential to conduct a comprehensive assessment of the source data in the current capacity. This involves understanding the data's structure format, quality, and any dependencies it may have on other systems or datasets. By thoroughly assessing the source data, the Genesis data migration team can identify potential challenges and develop the plan accordingly to mitigate risks during the migration.
- 2) **Planning and Documentation:** In the planning stage, the Genesis migration team will work closely with the Jurisdiction subject matter expert to go through the data fields in the current database and map those fields to the corresponding fields in the Genesis database. Clear and detailed documentation is crucial throughout the migration process. Documenting data definitions, transformation rules, and mappings between source and Genesis systems help ensure that all stakeholders have a shared understanding of the migration requirements and processes. This documentation will be used as a reference point for decision-making and troubleshooting throughout the migration.
- 3) **Data Profiling:** Analyze the source image to identify inconsistencies, anomalies, and missing values.
- 4) **Data Cleansing:** Genesis will work with the Jurisdiction subject matter expert to identify data that needs to be cleansed prior to migration. The fields will be identified but the extent and process of cleansing will be discussed thoroughly between Genesis and the Jurisdiction before deciding the appropriate method. Discussion to determine the appropriate method will include both the format that is going to be required as well as how the data will be modified to fit by removing or correcting inaccuracies, duplicates, and inconsistencies in the source data to ensure data integrity. Before cleansing begins, a backup of the original data will be taken to ensure no data is lost during this process.
While the data is being cleansed by the Jurisdiction, the Genesis migration team will begin to write the scripts required to move the data. These scripts will be written and then reviewed prior to any test run.
- 5) **Standardization:** Standardize data formats, units, and values across different sources to maintain consistency.
- 6) **Transformation:** Apply necessary transformations to adapt the data to Genesis system's structure and requirements. With the scripts written, Genesis will test the migration into a secure environment. Genesis will run the scripts on a few different date ranges. This is to ensure that changes in the way the data have been collected over the years are captured as fully as possible within the test migration. Typically, Genesis prefers to run the test migration into the Production environment. This is due to the security that

is already in place within the environment and because there are no users testing within the application which can cause changes to the data. This in turn allows the data to remain in the migrated state so that it can be validated against the current database.

- 7) Validation: The Jurisdiction subject matter expert will conduct the data validation and check the Production environment to ensure that the data migrated properly and is displaying as it is supposed to. The Genesis migration lead will work with the Jurisdiction subject matter expert to remedy and issues that are discovered. These issues will be incorporated into the migration scripts moving forward. Overall, the cleansed and transformed data will be validated by the Jurisdiction subject matter expert to ensure it meets the quality and integrity standards.
- 8) Testing: Genesis ensures thorough testing of the migrated data. Testing of data is essential for verifying its accuracy, completeness, and reliability in the target environment. This may involve conducting data validation tests, and integration tests to ensure that the migrated data behaves as expected and meets business requirements. Testing will be performed in a controlled test environment using representative data sets and use cases.
- 9) Backup: Maintaining backups of the original source data is critical to mitigate the risk of data loss or corruption during the migration process. Backups provide a safety net in case of unexpected issues or errors, allowing Genesis to revert to a previous state and restart the migration if necessary.
- 10) Monitoring: Continuous monitoring of the migration process is essential for identifying and addressing any issues or discrepancies. This involves tracking metrics such as error rates to ensure that the migration is progressing smoothly and meeting the objectives. By proactively monitoring the migration, Genesis can quickly detect and resolve any issues that arise, minimizing downtime and disruption to operations.

By following these best practices Genesis ensures a successful data and image migration with minimal disruptions and risks. Genesis holds weekly meetings to go through all the migration and pre-testing discussions that are needed. Alongside the data migration, these meetings continue and any discovered issues are discussed and rectified. Genesis believes strongly in iterative testing and validation throughout the migration process to ensure that data and images migrate correctly.

DM-4*

The bidder's solution must support data integration. The bidder must confirm and describe how their solution will meet this requirement. In addition to confirmation on the ability to meet the requirement, the response must include the following, at a minimum the following details:

- Ability to import and export data using these file types (XML, JSON, CSV).
- Support for integration using industry standards approaches and principles for REST APIs and Webservices.
- Support for industry integration data standards for Health Level 7 (HL7), Fast Healthcare Interoperability Resources (FHIR), X-12, HIPAA.

Response:

Genesis builds its systems to accept XML, JSON and CSV imports. The imports are standard and configured during joint application design sessions with the jurisdiction after a gap analysis to ensure that the appropriate formats are covered.

Genesis has been at the forefront of the vital records interoperability initiative for over 10 years. In that time Genesis saw the standard go from HL7 2.5 to CDA and now to FHIR. During this time Genesis created its Genesis Interoperability Module (GIM), which is versatile enough to handle nearly every format that is used to transfer data from one application to another.

- GIM is the interface which allows the transmission of Vital Record information directly from ANY medical examiner office case management system, hospital Electronic Medical Record, and/or funeral Home case management system into ANY Vital Record modules (currently Birth, Death, and Fetal Death) without the need to re-key the information.
- GIM exists externally to the VR system and, as such, is system agnostic in that it can serve as the interoperability link between non-Genesis systems/applications.
- GIM is currently operational in 2 jurisdictions - transferring data from medical examiner case management systems into the vital records system via FHIR. Genesis has connected to Verti-Q and MDILog in those jurisdictions.
- GIM is currently connected to two funeral home case management systems (Halcyon and Passare) via FHIR within a jurisdiction where it transfers the data from the case management system into the vital records application.
- GIM has been implemented in multiple jurisdictions to provide the FHIR transmission to NCHS of death records. Genesis has passed Precertification in one jurisdiction and is part of cohort 2 to go live. Genesis is currently working with three other jurisdictions towards NCHS certification for the Death reporting.
- Genesis is also in the process of connecting vital records applications in two jurisdictions to hospital EMRs for the faster reporting of vital events.

DM-5

Describe bidder solution for the following:

- Documentation to support testing and collaboration with integrating systems.
- Documentation of the system's data dictionary which includes user-defined fields and tables.

Response:

Genesis will develop documentation to support testing and system collaboration. Where system integration is concerned with external systems, Genesis will provide API documentation to outline the requirements for system integration and development. After the completion of contracting and in preparation for joint application design sessions, Genesis will provide its standard data dictionary for the State to review.

Req #	Capabilities and/or Requirements
DM-6*	<p>Review the data retention requirements described in the following:</p> <ul style="list-style-type: none"> • 45 CFR Part 164.316 (https://www.ecfr.gov/current/title-45/subtitle-A/subchapter-C/part-164/subpart-C/section-164.316) • DHHS Vital Records retention schedule is to retain information permanently. <p>Bidder must confirm that your company has read, understands, and can meet all the capabilities and/or requirements as outlined for each of the items <u>and</u> indicate how your solution will meet such requirements as they relate to the data retention requirements.</p>
<p>Response:</p> <p>Genesis understands and accepts these requirements. It is understood that all data will be retained indefinitely. Any destruction of data will be done only at the request of the State and pursuant to a data destruction plan developed in conjunction with the State.</p>	

Operations Management Capabilities and/or Requirements

Req #	Capabilities and/or Requirement
OM-1	<p>Describe the Business Continuity and Disaster Recovery (BCDR) plan for the solution they are offering. Bidder’s response must describe, at a minimum, their plan to include the following information:</p> <ul style="list-style-type: none"> • Procedures for data backup, restoration, communication to the State of Nebraska, and emergency mode operations in the event of: <ol style="list-style-type: none"> a. Hardware or Software Failures. b. Human Error. c. Natural Disaster; and/or d. Other unforeseeable emergencies.
<p>Response:</p> <p>Genesis has a Business Continuity (“BC”) Plan and a Disaster Recovery (“DR”) Plan. Copies of these plans are attached hereto as Appendices N and O respectively.</p>	

OM-2*	The bidder must agree to conduct a full disaster recovery test for the solution in which they are offering prior to the anticipated go-live date. The most recent test must be within one year prior to the go-live date. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this test at the appropriate time and describe how their approach will meet these requirements.
<p>Response:</p> <p>Genesis understands and accepts this requirement. A disaster recovery test will be conducted when the environments are stable, prior to go-live. The Disaster Recovery (“DR”) Plan details the approach to completing the disaster recovery test and is attached hereto as Appendix O.</p>	
OM-3*	The bidder must agree to conduct an annual disaster recovery test for the solution and submit the annual results to the designated individual for the State of Nebraska. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this test at the appropriate time and describe how their approach will meet these requirements.
<p>Response:</p> <p>Genesis understands and accepts this requirement. The annual disaster recovery test will be completed at a pre-determined time, with notice given to the State and results will be provided upon completion. The Disaster Recovery (“DR”) Plan details the approach to completing the disaster recovery test and is attached hereto as Appendix O.</p>	
Req #	Capabilities and/or Requirement
OM-4	<p>Describe the bidder solution for ability to meet the following:</p> <ul style="list-style-type: none"> • Compliance with the Recovery Time Objective (RTO) of within twelve (12) hours when the system outage is declared as a disaster. • Compliance with the Recovery Point Objective (RPO) of fifteen (15) minutes of data lost before the disaster event.
<p>Response:</p> <p>The DR site can be brought online within twelve (12) hours. Data is log shipped from the production site to this environment. Logs are created every 15 minutes in production. They are copied over to the DR every hour, and this can be adjusted to run every 15 minutes. Data should be current with prod up to as good as 15 minutes and no worse than 1 hour to ensure a Recovery Point Objective (RPO) of 15 minutes.</p> <p>As such, the Recovery Time Objective (RTO) for bringing the DR site online is 12 hours. Total RTO time depends on time spent attempting</p>	

to resolve a disruption at the production site, but in no case will these efforts be longer than 12 hours before DR site activation begins.

OM-5

Describe the bidder solution for the following:

- Overall testing strategy and support for the following testing types: unit testing, system testing, integration testing, regression testing, user acceptance testing (UAT), parallel testing, performance and load testing, manual and automated and/or scripted testing, and end-to-end integration testing.
- Approach to planning and preparing the test/staging environment.
- Approach to conducting each test level.
- Approach for testing nonfunctional requirements (security, performance, etc.)
- Approach to test documentation (e.g., test cases, test scripts, test case matrices added as the design configuration progresses).
- Approach to quality control/quality assurance.
- Approach to test results reporting, traceability, and metrics.

Response:

Genesis works with the State to develop a comprehensive testing plan. The plan reviews the approach for planning, testing, quality control, reporting and documentation. A sample test plan is attached hereto as Appendix P.

Genesis takes a multifaceted approach to its testing strategy during the development and implementation phases:

1. Unit Testing

During the development phase, emphasis will be placed on individual components. The development team will write and execute tests to ensure each unit performs as expected. The local development environment will be utilized to run the unit tests. Test cases and scripts are documented and maintained in version control. Code reviews and code analysis tools are used to ensure quality control for the units being tested. Automated test results are integrated into CI/CD pipelines.

2. System Testing

The testing team will conduct system testing and validate the complete and integrated application code against the procured requirements. The Staging/Test environment will be leveraged for system testing. The environment mirrors UAT/Production. System Test Cases will be documented within DevOps and will include detailed test steps, expected and actual results covering all system functionalities. Test execution reports and defect logs will be tracked and generated for reporting and quality assurance purposes.

3. Integration Testing

- Approach: Test interactions between integrated units/modules.
- Environment: Integration environment with all necessary interfaces.
- Documentation: Integration test plans and scenarios.
- Quality Control: Continuous integration tools and automated tests.
- Reporting: Integration test reports and logs.

4. Regression/UAT Testing

- Approach: Ensure new changes do not adversely affect existing functionality.
- Environment: Staging environment with historical test data.
- Documentation: Regression test suite updated with each release.
- Quality Control: Automated regression tests.
- Reporting: Regression test results and impact analysis.

5. User Acceptance Testing (UAT)

- Approach: Validate the system with end-users to ensure it meets business requirements.
- Environment: UAT environment similar to production.
- Documentation: UAT test cases and acceptance criteria.
- Quality Control: User feedback and sign-off.
- Reporting: UAT results and user feedback documentation.

6. Parallel Testing

- Approach: Compare new system outputs with the old system to ensure consistency.
- Environment: Parallel environments for old and new systems.
- Documentation: Parallel test plans and comparison criteria.
- Quality Control: Data consistency checks.
- Reporting: Parallel test comparison reports.

7. Performance and Load Testing

- Approach: Assess system performance under expected and peak load conditions.
- Environment: Performance testing environment with load simulation tools.
- Documentation: Performance test plans and load scenarios.
- Quality Control: Performance benchmarks and monitoring.
- Reporting: Performance test results and analysis.

8. Manual and Automated/Scripts Testing

- Approach: Combine manual exploratory testing with automated regression and functional tests.
- Environment: Test environment with necessary tools and frameworks.
- Documentation: Test scripts and manual test cases.
- Quality Control: Regular updates to test scripts and manual test plans.
- Reporting: Test execution reports and defect logs.

9. End-to-End Integration Testing

- Approach: Validate the entire workflow from start to finish.

- Environment: End-to-end test environment replicating production.
- Documentation: End-to-end test scenarios and workflows.

OM-6	Describe the bidder solution for software maintenance processes that address the following: <ul style="list-style-type: none"> • Approach to managing software versions to ensure bidder support. • Approach to Change Management, including defects and enhancements. • Approach to testing and release management. • Approach to maintaining integrations with external and internal trading partners.
------	--

Response:

Genesis does not require upgrades or enhancements to the system which would compromise support for the system. Software versioning and updates are managed through DevOps. Support is a contracted-for service which is not in any way severed by software versioning.

The change management process is comprehensively noted in the Change Management Plan which is attached to as Appendix Q. In brief summary, a change goes through the Genesis Change Order process when the change requires a significant change in code. The steps in the process are as follows:

1. The Agency staff will submit a written Change Request to the Genesis Systems, Inc. Project Manager.
2. Genesis Project Manager will review the change request and accept the change request as it was submitted or return the change request for further information or analysis.
3. If approved, perform analysis with Genesis Technical Lead and develop a recommendation to incorporate the change into the current design of the Vital Records Management System.
4. Submit the request and recommendation to the Genesis Management Team for review and acceptance.
5. Marketing will review the request and submit a quote to the Agency for the requested change.
6. The Agency will submit the change request and quote to Contract Management for a contract modification.
7. If the contract modification is accepted, the project plan and design documents will be modified appropriately.

Defects are resolved according to the service agreement between Genesis and the State. The State will notify Genesis of the defect, the defect will be logged accordingly for tracking, auditing and review and Genesis will acknowledge receipt of the notification of the defect. Defects that require additional discussion are reviewed during the Genesis-State standup – a call which is expected to take place weekly.

For external and internal partners, integrations are maintained as part of the support contract. Genesis assumes that integrations will run the lifetime of the system. To the extent that integrations require an upgrade, the change management process governs any such changes.

OM-7	Describe the incident management process that will be used to report business and security incidents (such as any unauthorized access to, or incidents where, data may have been compromised).
------	--

Response:

The Genesis incident management process is described in the Genesis Incident Response Plan which is attached hereto as Appendix R.

The procedure noted in the plan is as follows:

When an information security incident is identified or detected, users must notify their immediate manager within 12 hours. The manager must immediately notify the ISM on call for proper response. The following information must be included as part of the notification:

1. Description of the incident
2. Date, time, and location of the incident
3. Person who discovered the incident
4. How the incident was discovered
5. Known evidence of the incident
6. Affected system(s)

Within 48 hours of the incident being reported, the ISM shall conduct a preliminary investigation and risk assessment to review and confirm the details of the incident. If the incident is confirmed, the ISM must assess the impact to Genesis and/or the state and assign a severity level, which will determine the level of remediation effort required:

- High: the incident is potentially catastrophic to the hosted system and/or disrupts hosted customer's day-to-day operations; a violation of legal, regulatory or contractual requirements is likely.
- Medium: the incident will cause harm to one or more business units within Genesis and/or the state and/or will cause delays to a business unit's activities.
- Low: the incident is a clear violation of organizational security policy, but will not substantively impact the business.

The ISM, in consultation with management sponsors, shall determine appropriate incident response activities in order to contain and resolve incidents.

The ISM must take all necessary steps to preserve forensic evidence (e.g. log information, files, images) for further investigation to determine if any malicious activity has taken place. The collection of evidence will be managed by appropriate members with proper understanding and training in forensic evidence collection. In the absence of such members, certified third-party professionals will be used. All such information must be preserved and provided to law enforcement if the incident is determined to be malicious.

If the incident is deemed as High or Medium, the ISM must work with the Project Manager of the affected environment, Legal Counsel, and HR Manager to create and execute a communications plan that communicates the incident to users, the public, and others affected.

The ISM must take all necessary steps to resolve the incident and recover information systems, data, and connectivity. All technical steps taken during an incident must be documented in Genesis's incident log, and must contain the following:

1. Description of the incident
2. Incident severity level
3. Root cause (e.g. source address, website malware, vulnerability)
4. Evidence
5. Mitigations applied (e.g. patch, re-image)
6. Status (open, closed, archived)

7. Disclosures (parties to which the details of this incident were disclosed to, such as customers, vendors, law enforcement, etc.)

After an incident has been resolved, the ISM must conduct a post-mortem that includes root cause analysis and documentation of any lessons learned.

1. In the event that the incident involves the breach of sensitive privacy data (e.g., PII), (1) an assessment will also be conducted to determine the extent of harm, embarrassment, inconvenience, or unfairness to affected parties; (2) all affected parties and appropriate organizations (e.g., Law Enforcement) will be notified; and (3) every effort will be made to mitigate the harm to affected parties.

Depending on the severity of the incident, the Chief Executive Officer (CEO) may elect to contact external authorities, including but not limited to law enforcement, private investigation firms, and government organizations as part of the response to the incident.

The ISM must notify all users of the incident, conduct additional training if necessary, and present any lessons learned to prevent future occurrences. Where necessary, the HR Manager must take disciplinary action if a user's activity is deemed malicious.

OM-8*	The bidder's solution must be responsive to mobile technology devices such as smartphones or tablets. Bidder must describe how their approach will meet this requirement.
-------	---

Response:

Genesis codes in HTML 5 so that all browsers across devices can utilize the system.

Req #	Capabilities and/or Requirement
OM-9*	<p>The bidder’s solution must provide Scalability and High Availability Architecture. The bidder must confirm and describe how their solution will meet this requirement. In addition to confirmation on the ability to meet the requirement, the response must include the following, at a minimum the following details:</p> <ul style="list-style-type: none"> • The system architecture must support scaling with increased load. • The system must provide high availability to support minimum disruptions to the business operations. • The system must handle notifications when a component or interface endpoint is unavailable. • The system must handle performance functionality and monitoring tools. • The system must handle recovery of failed transactions because of a component failure. • The system must be available online 24 hours a day and 7 days a week, 99.9% of the time each month excluding scheduled downtime.
<p>Response:</p> <p>Genesis’s system maintains a high-availability infrastructure designed to minimize downtime and ensure continuous service delivery with 99.9% up-time. At the physical layer, we implement redundant hardware components to provide fault tolerance in the event of critical failures. We support redundancy on all layers of the OSI model. Our architecture leverages Network Load Balancing (NLB) to enable rapid scalability and efficiently distribute network traffic under varying load conditions. To further enhance reliability and operational visibility, Genesis system utilizes advanced third-party monitoring solutions that deliver real-time analytics and proactive notifications for network events and potential outages.</p>	

CONTRACTUAL AGREEMENT FORM

BIDDER MUST COMPLETE THE FOLLOWING

By signing this Contractual Agreement Form, the bidder guarantees compliance with the provisions stated in this solicitation and agrees to the terms and conditions unless otherwise indicated in writing and certifies that bidder is not owned by the Chinese Communist Party.

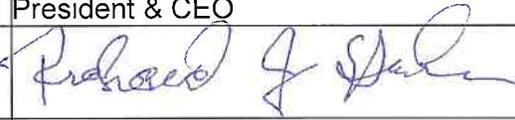
Per Nebraska’s Transparency in Government Procurement Act, Neb. Rev Stat § 73-603, DAS is required to collect statistical information regarding the number of contracts awarded to Nebraska Vendors. This information is for statistical purposes only and will not be considered for contract award purposes.

_____ NEBRASKA VENDOR AFFIDAVIT: Bidder hereby attests that bidder is a Nebraska Vendor. “Nebraska Vendor” shall mean any bidder who has maintained a bona fide place of business and at least one employee within this state for at least the six (6) months immediately preceding the posting date of this Solicitation. All vendors who are not a Nebraska Vendor are considered Foreign Vendors under Neb. Rev Stat § 73-603 (c).

_____ 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.

_____ I hereby certify that I am a blind person licensed by the Commission for the Blind & Visually Impaired in accordance with Neb. Rev. Stat. § 71-8611 and wish to have preference considered in the award of this contract.

THIS FORM MUST BE SIGNED MANUALLY IN INK OR BY DOCUSIGN

COMPANY:	Genesis Systems, Inc.
ADDRESS:	2400 Park Drive, Suite 200 Harrisburg, PA 17110
PHONE:	717-909-8501
EMAIL:	RHUBER@GENESISINFO.COM
BIDDER NAME & TITLE:	Richard J. Huber, CPA President & CEO
SIGNATURE:	
DATE:	December 5, 2025

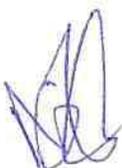
VENDOR COMMUNICATION WITH THE STATE CONTACT INFORMATION (IF DIFFERENT FROM ABOVE)	
NAME:	
TITLE:	
PHONE:	
EMAIL:	

II. TERMS AND CONDITIONS

Bidder should read the Terms and Conditions within this section and must initial either "Accept All Terms and Conditions Within Section as Written" or "Exceptions Taken to Terms and Conditions Within Section as Written" in the table below. The state will only consider exceptions that are expressly noted. Any exceptions not taken to a provision shall be deemed accepted as stated. If the bidder takes any exceptions, they must provide the following within the "Exceptions" field of the table below (Bidder may provide responses in separate attachment if multiple exceptions are taken):

1. The specific clause, including section reference, to which an exception has been taken;
2. An explanation of why the bidder took exception to the clause; and
3. Provide alternative language to the specific clause within the solicitation response.

By signing the solicitation, bidder agrees to be legally bound by all the accepted terms and conditions, and any proposed alternative terms and conditions submitted with the solicitation response. The State reserves the right to negotiate rejected or proposed alternative language. If the State and bidder fail to agree on the final Terms and Conditions, the State reserves the right to reject the solicitation response. The State reserves the right to reject solicitation responses that attempt to substitute the bidder's commercial contracts and/or documents for this solicitation.

Accept All Terms and Conditions Within Section as Written (Initial)	Exceptions Taken to Terms and Conditions Within Section as Written (Initial)	Exceptions: (Bidder must note the specific clause, including section reference, to which an exception has been taken, an explanation of why the bidder took exception to the clause, and provide alternative language to the specific clause within the solicitation response.)
		<p>Terms and Conditions: Section Z Liquidated Damages (p.16) Table 1 Prior to Go Live</p> <p>Issue: It is not a reasonable request to levy liquidated damages on the vendor if the vendor is not the cause of the delay. Genesis would like to prevent a potential scenario where the vendor is penalized for delays caused by the State or other parties.</p> <p><u>Current Language</u> Table 1, Row 1, Column 1 "The system must have a user acceptance testing (UAT) environment completed and fully accessible to users no later than twelve (12) consecutive months after the "Kick-off" meeting. Delays caused by the State or external third parties (e.g., SSA, NCHS, NAPHSIS) will be reviewed and may be exempted from liquidated damages."</p> <p><u>Suggested Language</u> "The system must have a user acceptance testing (UAT) environment completed and fully accessible to users no later than twelve (12) consecutive months after the "Kick-off" meeting. Only delays caused solely by the Vendor will be subject to Liquidated Damages."</p>

		<p>Terms and Conditions: Section Z Liquidated Damages (p.16) Table 1 Prior to Go Live</p> <p>Issue: It is not a reasonable request to levy liquidated damages on the vendor if the vendor is not the cause of the delay. Genesis would like to prevent a potential scenario where the vendor is penalized for delays caused by the State or other parties.</p> <p><u>Current Language</u> Table 1, Row 1, Column 2 “Five hundred dollars (\$500.00) per business day for any failure to provide a UAT environment within the prescribed timeframe, with these liquidated damages continuing each business day until the UAT environment is completed and fully accessible to users.”</p> <p><u>Suggested Language</u> “Five hundred dollars (\$500.00) per business day for any failure solely caused by the Vendor to provide a UAT environment within the prescribed timeframe, with these liquidated damages continuing each business day until the UAT environment is completed and fully accessible to users.”</p>
		<p>Terms and Conditions: Section Z Liquidated Damages (p.16) Table Prior to Go Live</p> <p>Issue: It is not a reasonable request to levy liquidated damages on the vendor if the vendor is not the cause of the delay. Genesis would like to prevent a potential scenario where the vendor is penalized for delays caused by the State or other parties.</p> <p><u>Current Language</u> Table 1, Row 2, Column 1 “The system must have the production environment completed and fully accessible to users no later than fifteen (15) consecutive months after the “Kick-off” meeting. Delays caused by the State or external third parties (e.g., SSA, NCHS, NAPHSIS) will be reviewed and may be exempted from liquidated damages.”</p> <p><u>Suggested Language</u> “The system must have the production environment completed and fully accessible to users no later than fifteen (15) consecutive months after the “Kick-off” meeting. Only delays caused solely by the Vendor will be subject to Liquidated Damages.”</p>

		<p>Terms and Conditions: Section Z Liquidated Damages (p.16) Table 1 Prior to Go Live</p> <p>Issue: It is not a reasonable request to levy liquidated damages on the vendor if the vendor is not the cause of the delay. Genesis would like to prevent a potential scenario where the vendor is penalized for delays caused by the State or other parties.</p> <p><u>Current Language</u> Table 1, Row 2, Column 2 “Five hundred dollars (\$500.00) per business day for any failure to provide the production environment within the prescribed timeframe, with these liquidated damages continuing each business day until a production environment has been achieved that is fully functional and accessible to users.”</p> <p><u>Suggested Language</u> “Five hundred dollars (\$500.00) per business day for any failure caused solely by the vendor to provide the production environment within the prescribed timeframe, with these liquidated damages continuing each business day until a production environment has been achieved that is fully functional and accessible to users.”</p>
		<p>Terms and Conditions: Section Z Liquidated Damages (p.17) Table 2 Critical Incidents</p> <p>Issue: Conflicting Language</p> <p><u>Current Language</u> Table 2, Row 1, Column 2 “The vendor will provide a viable workaround or a permanent solution to the problem within two (2) business days of the Critical Incident. If a viable workaround is not provided within two (2) consecutive calendar days, damages of one thousand dollars (\$1,000.00) will be assessed on the third (3rd) consecutive calendar day and on each consecutive calendar day thereafter that the system is still down.”</p> <p><u>Suggested Language</u> “The vendor will provide a viable workaround or a permanent solution to the problem within two (2) business days of the Critical Incident. If a viable workaround is not provided within two (2) consecutive business days, damages of one thousand dollars (\$1,000.00) will be assessed on the third (3rd) business day and on each consecutive calendar day thereafter that the system is still down.”</p>

III. VENDOR DUTIES

Bidder should read the Terms and Conditions within this section and must initial either "Accept All Terms and Conditions Within Section as Written" or "Exceptions Taken to Terms and Conditions Within Section as Written" in the table below. The state will only consider exceptions that are expressly noted. Any exceptions not taken to a provision shall be deemed accepted as stated. If the bidder takes any exceptions, they must provide the following within the "Exceptions" field of the table below (Bidder may provide responses in separate attachment if multiple exceptions are taken):

1. The specific clause, including section reference, to which an exception has been taken;
2. An explanation of why the bidder took exception to the clause; and
3. Provide alternative language to the specific clause within the solicitation response.

By signing the solicitation, bidder agrees to be legally bound by all the accepted terms and conditions, and any proposed alternative terms and conditions submitted with the solicitation response. The State reserves the right to negotiate rejected or proposed alternative language. If the State and bidder fail to agree on the final Terms and Conditions, the State reserves the right to reject the solicitation response. The State reserves the right to reject solicitation responses that attempt to substitute the bidder's commercial contracts and/or documents for this solicitation.

Accept All Vendor Duties Within Section as Written (Initial)	Exceptions Taken to Vendor Duties Within Section as Written (Initial)	Exceptions: (Bidder must note the specific clause, including section reference, to which an exception has been taken, an explanation of why the bidder took exception to the clause, and provide alternative language to the specific clause within the solicitation response.)
		<p>Vendor Duties: Section I</p> <p>Issue: Software ownership concerns</p> <p><u>Current Language</u> "The State shall own and hold exclusive title to any deliverable developed as a result of this contract. Vendor shall have no ownership interest or title, and shall not patent, license, or copyright, duplicate, transfer, sell, or exchange, the design, specifications, concept, or deliverable."</p> <p><u>Suggested Language</u> "The State shall own and hold exclusive title to any deliverable developed as a result of this contract. Vendor shall have no ownership interest or title, and shall not patent, license, or copyright, duplicate, transfer, sell, or exchange, the design, specifications, concept, or deliverable. The exception to this will be the software previously developed and software developed pursuant to this contract (Object and Source Code), the database schema, and all technology developed by Vendor to use in API connections."</p>

IV. PAYMENT

Bidder should read the Terms and Conditions within this section and must initial either "Accept All Terms and Conditions Within Section as Written" or "Exceptions Taken to Terms and Conditions Within Section as Written" in the table below. The state will only consider exceptions that are expressly noted. Any exceptions not taken to a provision shall be deemed accepted as stated. If the bidder takes any exceptions, they must provide the following within the "Exceptions" field of the table below (Bidder may provide responses in separate attachment if multiple exceptions are taken):

1. The specific clause, including section reference, to which an exception has been taken;
2. An explanation of why the bidder took exception to the clause; and
3. Provide alternative language to the specific clause within the solicitation response.

By signing the solicitation, bidder agrees to be legally bound by all the accepted terms and conditions, and any proposed alternative terms and conditions submitted with the solicitation response. The State reserves the right to negotiate rejected or proposed alternative language. If the State and bidder fail to agree on the final Terms and Conditions, the State reserves the right to reject the solicitation response. The State reserves the right to reject solicitation responses that attempt to substitute the bidder's commercial contracts and/or documents for this solicitation.

Accept All Payment Clauses Within Section as Written (Initial)	Exceptions Taken to Payment Clauses Within Section as Written (Initial)	Exceptions: (Bidder must note the specific clause, including section reference, to which an exception has been taken, an explanation of why the bidder took exception to the clause, and provide alternative language to the specific clause within the solicitation response.)
		

ADDITIONAL EXCEPTION

		<p>Project Description and Scope of Work: Section A(4)(e)(iii)</p> <p>Issue: Due to uncertainty regarding level of effort and other costs that may arise, we cannot agree to support a future integration at no additional cost.</p> <p><u>Current Language</u> "The system must support both current and future integrations, including ongoing batch imports of digitized records and images from the current and ongoing Vital Records Digitization Project."</p> <p><u>Suggested Language</u> "The system must support integrations existing at the time of contract signing, including ongoing batch imports of digitized records and images from the current and ongoing Vital Records Digitization Project."</p>
--	---	---

Genesis Systems, Inc.
Appendix A
Bank Reference Letter



November 18, 2025

Genesis Systems, Inc.
2400 Park Drive, Suite 102
Harrisburg, PA 17110

To Whom It May Concern,

Kish Bank and Genesis Systems, Inc. have had a long-standing relationship since April 2014.

Genesis currently has a relationship with Kish Bank, which includes a deposit account and two loan facilities. All accounts are in good standing.

Should you have any questions, please feel free to contact me.

Thank you,

A handwritten signature in blue ink, appearing to read "Caleb J. Shertzer".

Caleb J. Shertzer
VP, Commercial Banking Market Leader
717-363-3385
Caleb.shertzer@kishbank.com

	Genesis Systems, Inc.	Document ID: 112507 Issue Date:	Version: 1.01
Title: Risk Management Plan		Approved By:	Page No: 1 of 9

Department of Health Office of Vital Records
SYSTEM
Risk Management PLAN

Version 1.01

DD/MM/YYYY

	Genesis Systems, Inc.	Document ID: 112507 Issue Date:	Version: 1.01
Title: Risk Management Plan		Approved By:	Page No: 2 of 9

Table of Contents

1	Change Log	3
2	Introduction	4
2.1	Scope.....	4
2.2	Purpose.....	4
2.3	Management/Technical Issues	4
3	Risk Management Plan	4
3.1	Risk Identification and Quantification	4
3.1.1	Risk Analysis and Assessment	5
3.1.2	Risk Response Strategy	6
3.1.3	Risk Monitoring	6
3.1.4	Risk Response Tracking	7
3.1.5	Risk Management.....	8
3.1.6	Risk Resolution.....	8
	Sign-Off Sheet.....	9

DRAFT

	Genesis Systems, Inc.	Document ID: 112507 Issue Date:	Version: 1.01
Title: Risk Management Plan		Approved By:	Page No: 3 of 9

1 Change Log

Version	Date	Author(s)	Revision Notes
1.01	DD/MM/YYYY	Chad Denlinger, Julia Martinez	Initial Draft

DRAFT

	Genesis Systems, Inc.	Document ID: 112507 Issue Date:	Version: 1.01
Title: Risk Management Plan		Approved By:	Page No: 4 of 9

2 Introduction

2.1 Scope

This Risk Management Plan is designed to address the management, monitoring, and resolution strategies of risks related to the PROJECT, through the structures of the CLIENT and Genesis Systems, Inc. (“Genesis”).

2.2 Purpose

This Risk Management Plan includes methods for managing risks that emanate from the product, processes, resources, and constraints. This Risk Management Plan defines work products and processes for assessing and controlling risks. These processes include risk assessment, which comprises identifying, classifying, analyzing, and prioritizing risk; and risk monitoring and control, which comprises planning, tracking and reporting, reducing, and resolving risk.

2.3 Management/Technical Issues

Any management issues and/or problems that may affect the implementation of the Risk Management Plan should be reported immediately to the following Genesis team members for the development of counter measures, solutions and/or alternatives:

Project Manager: XXXXXXXX

Technical Lead: XXXXXXXX

3 Risk Management Plan

3.1 Risk Identification and Quantification

A risk is defined as an uncertain trigger-event or condition that has the possibility of affecting any or all iterations and phases of the project. A key focus of risk management is to anticipate, identify, and address events or occurrences that could negatively impact the success of a project if not mitigated.

Possible risks have been initially identified with specific emphasis for preemptive monitoring and control.

Possible risks will be identified by the following criteria:

- An unforeseen circumstance arises during the project lifecycle that has the possibility of affecting the established project schedule.
 - A change in scope to the project arises that initiates the change order process or affects the established contract cost.
-

	Genesis Systems, Inc.	Document ID: 112507 Issue Date:	Version: 1.01
Title: Risk Management Plan		Approved By:	Page No: 5 of 9

Genesis will complement Risk Management Plan with a Risk Register. Genesis designated Project Manager in conjunction with Client's Project Manager will track and analyze identified risks and continuously update the Register with new Risks as identified along with updates to existing risks for its responses, status, and elimination. Identification of new risks requires the notification about the risk to the pre-determined parties.

When a possible risk is identified by a CLIENT team member, the Genesis Project Manager will be notified immediately for the following actions to occur:

- The risk trigger will be documented and included in the Risk Register.
- A Risk Statement will be provided by the team member who identified the risk.
- This Risk Statement will include a clear explanation of the context of the risk, a description of the risk and the possible consequences of the identified risk.
- A Risk Assessment and Response Strategy will be created to identify risk action items and solution options.
- The Risk Register will be updated with all relevant information pertaining to the identified risk.

3.1.1 Risk Analysis and Assessment

Scores for severity and likelihood of occurrence for risks are based on the probability that a risk event will occur, the potential effect/impact on the project if the risk occurs and the level of risk control possible by CLIENT teammates. The values listed below should be used to evaluate the identified risks:

Default risk analysis will sort risk into initial risk types:

Default risk assessment rating/scoring system is as follows:

- Impact (Catastrophic=5, Critical=4, Moderate=3, Minor=2, Insignificant=1)
- Probability (Almost Certain=5, Likely=4, Possible=3, Unlikely=2, Very Low=1)
- Level of Control (Not Controllable=3, Manageable=2, Controllable=1)
- Total(s)

After review of the risk, the Genesis Project Manager will work with the Genesis Project Management team and the Client Project Management team to escalate the issue where necessary. A Risk Response strategy outlining possible risk mitigation and solution options will be created and assigned to facilitate necessary action items.

	Genesis Systems, Inc.	Document ID: 112507 Issue Date:	Version: 1.01
Title: Risk Management Plan		Approved By:	Page No: 6 of 9

3.1.2 Risk Response Strategy

The Risk Response Strategy will utilize the **Accept-Avoid-Mitigate-Transfer** technique to mitigate and control the possibility of and response to risks that occur throughout the lifecycle of the project.

Avoid - The primary identification of possible risks and triggers can avoid the pitfalls of high probability risk, including financial or time impacts on the project.

Accept - At the time of a risk or trigger, both parties agree to accept the event and follow the Risk Management Plan outlined as such. Acceptance of the risk will include initializing the Risk Assessment, Analysis, Tracking and eventual resolution.

Mitigate - The preemptive approach Genesis has outlined towards possible risks will feature a proactive approach to risk monitoring in order to reduce any and all foreseen and uncertain risks and better prepare both parties in the event of an unforeseen risk or trigger. The Risk Register acts a mitigation strategy to document, communicate and control risks, both pre-identified and at the time of identification.

Transfer - At the time of risk identification, the CLIENT and Genesis Project Management teams will communicate on the risk details. If the risk is determined to be the responsibility or under control of an external entity, the risk will be communicated, transferred and logged in the Register accordingly.

3.1.3 Risk Monitoring

The Genesis and Client Project Managers will monitor the risk status of the project and relay any risk related information in the weekly status meetings. Risk information will also be included and submitted in the updated Risk Register and status reports.

If it is determined that additional formal meetings are required to address emerging risks, the Genesis and Client Project Managers will schedule meetings where necessary. Risk Monitoring will include, but is not limited to, the following:

- Assessment of currently defined risks as defined in the Risk Register
 - Evaluation of the effectiveness of actions taken
 - Identification of the status of actions to be taken
 - Validation of previous risk assessment (likelihood and impact)
 - Identification of new risks
-

	Genesis Systems, Inc.	Document ID: 112507 Issue Date:	Version: 1.01
Title: Risk Management Plan		Approved By:	Page No: 7 of 9

- Tracking open risk responses
- Establishing communications between project team members related to risks

The Risk Register will document the following risk responsibilities and actions and will be provided monthly for review:

- Risk Event Description
- Impact Description
- Risk Trigger and Causes
- Risk Assessment
- Anticipated Project Phase
- Kanban State
- Risk Response Strategy
- Actions Required to Implement the Risk Response Strategy
- Status of Actions
- Project Area
- Risk Owner
- Date Risk Identified
- Target Elimination Date

3.1.4 Risk Response Tracking

It is the responsibility of the Project Manager on both sides to track all actions taken, to respond to and mitigate a project risk. The risk response tracking will include the identification and documentation of possible risks through the following measures:

- Documentation of the actions taken when the risk event occurred
 - Documentation of the dates and the actions taken to mitigate the risk
 - Documentation of any subsequent actions taken
 - Incorporation of the aforementioned information into the Risk Register
-

	Genesis Systems, Inc.	Document ID: 112507 Issue Date:	Version: 1.01
Title: Risk Management Plan	Approved By:	Page No: 8 of 9	

3.1.5 Risk Management

The members of the Client and Genesis Project Management teams will conduct regular reviews of the current risk control strategy and Risk Register. These reviews will occur during the project status meetings and at the monthly submission of the Risk Register. Changes to the Risk Control process will be made where necessary. The Risk Control review will include, but is not limited to, the following:

- Validation of mitigation strategies and alternatives
- Pursuit of corrective action when actual events occur
- Assessment of the impact on the project of actions taken (cost, time, and/or resources)
- Identification of new risks resulting from risk mitigation actions
- Ensuring the Project Schedule is maintained
- Ensuring the change control addresses risks associated with the proposed change
- Establishing communication
- Revising and updating the Risk Register

3.1.6 Risk Resolution

The final step in risk management and response is the resolution of the risk. Risk resolution will result in the closing of the risk case and will be accomplished by the conclusion of the following conditions of a closed risk case:

- Revisal of the Project Schedule to be in line with any risk impact
 - Communications established between parties
 - Risk response action items have been completed, reported on, and documented
 - Agreement between both parties that the risk is no longer a threat to the project and can be successfully closed
 - Risk will continue to be monitored for the possibility of reemergence or unforeseen consequences
-

	Genesis Systems, Inc.	Document ID: 112507 Issue Date:	Version: 1.01
Title: Risk Management Plan		Approved By:	Page No: 9 of 9

Sign-Off Sheet

The undersigned acknowledge they have reviewed the SYSTEM Project Plan and accept the contents herein written. Changes to this Risk Management plan will be coordinated with and approved by the undersigned or their designated representatives.

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

State of Delaware

Electronic Vital Records System (DE EVRS)



Communication Plan

Revision History

Date	Description	Version of System	Author
10/16/2018	Initial Document	1.0	Valerie Hooven

SAMPLE

CONTENTS

1.	INTRODUCTION.....	4
1.1	SCOPE.....	4
1.2	MANAGEMENT/TECHNICAL ISSUES.....	4
2.	COMMUNICATION PLAN.....	5
2.1	COMMUNICATION TYPES.....	5
2.1.1.	<i>E-mail.....</i>	<i>5</i>
2.1.2	<i>Telephone.....</i>	<i>5</i>
2.1.3	<i>Conference Call.....</i>	<i>5</i>
2.1.4	<i>On-site Meetings.....</i>	<i>6</i>
2.2	COMMUNICATION RESPONSIBILITY MATRIX.....	6
2.3	WEEKLY STATUS MEETINGS.....	6
3.	ISSUE MANAGEMENT.....	8
3.1	MANAGEMENT/TECHNICAL ISSUES.....	8
3.2	SOFTWARE ISSUES.....	8
3.3	ESCALATION CHART.....	8
3.4	ISSUE RESOLUTION PROCESS.....	9

1. INTRODUCTION

1.1 Scope

This Communication Plan is designed to address the communication of information, related to the DE EVRS project through the management structures of the Delaware Department of Health and Social Services (DHSS) and Genesis Systems, Inc.

1.2 Management/Technical Issues

Any management issues and/or problems that may affect the implementation of the DE EVRS project should be reported immediately to the following Project Management Team members for the development of counter measures, solutions and/or alternatives:

DHSS Project Manager: Jean Hreczan

Vendor Project Manager: Valerie Hooven, Genesis Systems, Inc.

Vendor Technical Lead: Tai Tran, Genesis Systems, Inc.

2. COMMUNICATION PLAN

Communication is imperative for the successful completion of a project. The timely and accurate passing of information between team members is vital during the design, development, testing and implementation of a project such as DE EVRS. Because project team members are in various locations, multiple methods of communication may be utilized, such as: email, telephone and conference call. Guidelines for these methods are detailed below.

2.1 Communication Types

2.1.1. E-mail

E-mail is a quick method of information transmission that is available to all members of the DE EVRS project team. It is recommended that the Project Management team be included in the distribution of all emails that are generated in relation to the DE EVRS project. Inclusion of the Project Management Team will allow potential changes or issues to be identified and resolved quickly, reducing the opportunity for wasted time and effort on an activity that is not necessary or is already being resolved through other processes. Subject lines in emails should include a brief but descriptive title identifying what the contents of the email include.

2.1.2 Telephone

When a quick response is all that is required, a telephone call will often provide the answers that are needed to allow the team member to continue with the task they are currently working on. However, it is strongly suggested that all telephone calls are followed up with an email that recaps the information covered during the phone call. The reason for this is two-fold. It allows the sender of the email to verify the information that was obtained during the call, and it also allows the recipient to verify the sender's interpretation of the information. Email follow-up should always happen in regards to telephone calls requiring change requests, identified issues, or escalated issues.

2.1.3 Conference Call

Conference calls are generally utilized when multiple project team members are off site. These calls should be handled as formal meetings, with the recording and distribution of meeting minutes to all parties involved. These minutes will be reviewed and approved or modified during the next bi-weekly status meeting.

2.1.4 On-site Meetings

On-site meetings will be utilized on a scheduled and ad-hoc basis as much as feasibly possible. These meetings are also formal meetings, with the recording and distribution of meeting minutes to all parties involved. Conference line information may need to be provided to allow for off-site participants to attend the meetings.

2.2 Communication Responsibility Matrix

The matrix below lists communication that is necessary for the successful reporting of activities that occur on the DE EVRS project.

	Responsible Person(s)	To Whom	What	How	Purpose
Monthly					
DSHS Status Reports	DHSS Project Manager	DHSS Project Sponsor	Reports on overall status and progress of the DE EVRS project	Written	To keep the Project Sponsor abreast of status on the project.
Risk Register Report	Vendor Project Manager	DHSS Project Management Team	Reports on the status of current risks identified in the DE EVRS project	Written	To keep the DHSS Project Management team informed of the status of risks identified during the lifecycle of the DE EVRS project
Weekly					
Status Reports	Vendor Project Team	Vendor Project Manager	Electronic Status Reports	E-mail	To keep the Vendor Project Manager abreast of status of tasks for inclusion in weekly status meetings and the monthly Vendor Status Report

2.3 Weekly Status Meetings

One of the most critical communication methods utilized throughout the lifecycle of the DE EVRS project is the weekly status meetings. These meetings will focus on the content of the weekly status report provided by Genesis, which will include the following:

1. Genesis tasks completed;
2. Genesis tasks in progress;
3. Genesis work to be initiated during the next week;

-
4. Issues requiring attention, which will include, but not be limited to the following:
 - a. Any problems that may delay completion of scheduled deliverables
 - b. Any failure or inadequacy of Genesis to perform a contract service;
 - c. Any failure or delay of Genesis or DHSS to perform a project task;
 - d. Any failure, delay, or inadequacy of Genesis or DHSS in the performance of their respective obligations that may delay completion of scheduled deliverables; and
 - Proposed corrective action(s) for each issue reported;
 5. In order for an issue to justify failure to timely completion of a Deliverable or other obligation, Genesis must have raised the issue in the Weekly Written Status Report
 6. Other information requested by DHSS.

SAMPLE

3. Issue Management

This section is designed to address the process of reporting and tracking of project issues that are identified during the life span of the DE EVRS project. These issues are defined as immediate problems requiring resolution. These issues may not be directly related to the actual software itself, but may also be related to the project and related processes.

3.1 Management/Technical Issues

Any management issues and/or problems that may affect the implementation of DE EVRS should be reported immediately in writing to the following Project Management Team members for the development of counter measures, solutions and/or alternatives:

DHSS Project Manager: Jean Hreczan
Genesis Project Manager: Valerie Hooven
Genesis Technical Lead: Tai Tran

3.2 Software Issues

Certain issues that are submitted will be directly related to the software components within the DE EVRS project. These issues will be processed according to the steps listed above, but will also be logged into the Genesis Project Log (Trimsoft) tool.

Genesis and DHSS Team members will enter data into the Genesis Project Log to track feedback from internal testing staff as well as external stakeholders. Genesis utilizes a web based Project Log to internally record project defects throughout the life of the project.

3.3 Escalation Chart

When a potential problem is identified, it should be conveyed by the DHSS Project Manager in writing to the Genesis Project Manager and Technical Lead for review and further definition. The Genesis Project Management Team will review the problem and identify if it falls under the umbrella of Issue, Change, or Risk Management and apply the defined tactics accordingly.

In most cases, identified issues can be resolved through interaction between the Genesis Project Management Team and the DHSS Project Management Team. This resolution will be achieved through Project Status meetings and side bar meetings when necessary.

- **Level One Escalation:** There may be cases when additional information or guidance is required for an issue. If this is the case, the Project Management Team members are able to escalate the issue to the individuals that are directly above them in their respective reporting structure. If resolution is obtained from consulting these individuals, the issue will be successfully resolved, with the information being

passed down to the Project Management Team and distributed to the appropriate project team members. Genesis aims to resolve Level One issues within one business day.

- **Level Two Escalation:** Occasionally, there will be times where the Level One Escalation team will not be able to successfully resolve an issue. These cases will be directed to the Level Two Escalation team. Issues that are escalated to this level are project critical issues that require immediate attention. Generally involved in the resolution of these types of issues are the Project Director and high level Genesis Management. The probability of problem escalation to this level is low. Problems identified as Level Two issues will be addressed as soon as they are identified and will be resolved as soon as possible.



3.4 Issue Resolution Process

For each issue identified, the following process will be used:

- **Identification**– Any member of the project team may identify a potential issue. Any identified issue must be communicated to the Project Manager at the earliest opportunity, preferably in written form.
- **Prioritization**– The Project Team will apply prioritization and categorization rules to the issue.
- **Tracking**– The Project Manager will record and track the issue, assign the issue a unique ID number, and capture all necessary information.
- **Assignment for Resolution** – Consulting with the appropriate resources and stakeholders, the Project Manager will assign a specific Owner responsible for resolving the issue. The Project Team and Owner will assign an appropriate Target Completion Date for resolution.

-
- **Issue Monitoring** – The Owner will provide periodic updates of the progress of resolving the issue to the Project Manager. The Project Manager will track and record the status, progress, and resolution of issues. The Project Manager will continue to monitor the issue until it is closed.
 - **Communication** – Issue statuses will be reviewed in weekly project team meetings and updates will be documented in the Issues Log. An issue summary, including any issues resolved in the period since the last report, will be communicated to the project team in the weekly project status report, as appropriate.
 - **Closing** – The Project Manager will verify that the solution was approved, record the action taken which resolved the issue and update the issue status to “Closed” in the log.

SAMPLE

GSI

DEPLOYMENT PLAN

Deployment Plan

Purpose: The purpose of the Deployment Plan document is to notify the State as to what changes are being updated into the State Production environment.

Scope and Objectives:

This release updates the Windows.ini file to set the [VR SYSTEM NAME] external and internal URL to resolve to the same server's IP address to stop the web servers from sending requests to the web ALB.

PROJECT IDENTIFICATION

Project Name	Environment	Date Created	Last Modified
[VR SYSTEM NAME]	Production		
Portfolio Manager	Project Manger		
N/A			
Tech Lead	Document Author		
Time to Complete Deployment	Communication Plan		
30 Minutes	Genesis will email pertinent staff at the end of the time period for deployment regardless of completion. Should completion be successful, Genesis will alert that it is completed and tested. Any issues will be communicated at this time and a decision will be made on how long to troubleshoot and/or whether to roll back the change.		

SERVER(S)

Web Server(s)	
App Server(s)	
Database Server	

RELEASE NOTES

Release Reference No.	Date	Module Affected	Summary of proposed resolution to be deployed
Release 1.1.25	11/25/2025	[VR SYSTEM NAME] – Example	Updates the Windows.ini file to set the external and internal URL to resolve to the same server's IP address to stop the web servers from sending requests to the web ALB.

Detailed Description of Changes:	
Impacted Module:	Global
Functionality:	Updates the Windows.ini file to set the GAVERS external and internal URL to resolve to the same server's IP address to stop the web servers from sending requests to the web ALB.
Type of change:	Enhancement
Known Issues / Limitations:	N/A

Impact Assessment:	Low impact.
---------------------------	-------------

Risk Level:	Please choose only one option for each question.
What percentage of users will be affected by this Change?	<ul style="list-style-type: none"> Between 25% and 75%
Could a business service disruption occur if the Change implementation does not go as planned?	<ul style="list-style-type: none"> Low impact or visibility for affected customers. Not likely to affect downstream services.

Testing and Validation:	This will be monitoring after the change to see if the amount of 502 errors decrease.
--------------------------------	---

Deployment Plan:	Outline the steps involved in deploying the release / change management.
➤ Pre-deployment activities:	N/A
➤ Deployment activities:	N/A
➤ Post-deployment activities:	N/A

Support and Training:		N/A		
ROLLBACK SCHEDULE AND RESOURCES				
Task Id	Deployment Team Member	Server	Deployment Task Prereqs	Resource Requirements / Rollback procedure
1	GSI			Same as deployment resources
2	GSI	Web Servers:		To rollback release 1.1.24 the same steps would be applied as listed for deployment, but restoring the backup deployment packages created.
3	GSI	App Servers:		To rollback release 1.1.24 the same steps would be applied as listed for deployment, but restoring the backup deployment packages created.
4	GSI, DBA	DB - vdbp64cgaver11t		To rollback the data updates, restoration of the database backup would be the primary method. If restoration is not possible, rollback of the database updates directly may be attempted. If that does not work, restoration of the original data from previous backups would be completed, with associated data loss.

- R RESPONSIBLE
- A ACCOUNTABLE
- C CONSULTED
- I INFORMED

STATUS	PROJECT DELIVERABLE / ACTIVITY	Genesis Team					Client					Stakeholders					Other				
		Project Manager	Tech Lead	Infrastructure Lead	Data Migration Lead	Training Lead	Project Manager	Contract Manager	Data Team	Business Team	Client IT Team	Role 1	Role 2	Role 3	Role 4	Role 5	Role 1	Role 2	Role 3	Role 4	Role 5
	Contracting and Planning																				
	Project Contracting	R	C	I	I		C	R													
	Project Planning	R	C	C	C		C	C	C	C											
	Joint Application Design Sessions	R	A	A	A		A	C	A	A											
	Risk Management Review	R	I	I			R	I	I	I											
	Design																				
	Production Standup	I	I	R			I														
	UAT Standup	I	I	R			I														
	Disaster Recovery Standup	I	I	R			I														
	Environment Hardening	I	I	R			I														
	Module Development	C	R		C		C		C	C											
	Data Migration																				
	Data Migration Planning	A			R		C		C												
	Access Review	A			A		A		A		A		A								
	Develop Test Migration Scripts				R																
	Data Validation	I	I		A		C		R	C											
	Testing and Training																				
	Develop Testing Plan	C				R	C			C											

Scheduling of Testing Sessions	C				C	C			R										
Train the Trainer Sessions																			
UAT Access Provided	R	I			I	I		I	I	I									
Deploy Modules to UAT	I	R	I	I				I	I	I									
UAT Testing	A	A						A	I	A	A	A							
Update Deployment	I	R	I	I				I	I	I	I	I							
Go-Live																			
Final Data Migration	C	C	C	R				C	I	C	I	I							
Support for Go-Live	A	A	A	A	A														
Notifications regarding Go-Live	C	C	C	C	I			R	C	I	I	I	I						
System Stabilization	A	R	R	A				C	C	C	C	C							
Support Phase																			
Maintenance Contracting	R							I	R										

RACI DROPDOWN KEYS

– DO NOT DELETE –

RACI KEY	
R	Responsible
A	Accountable
C	Consulted
I	Informed

PRIORITY
Low
Medium
High

STATUS
Not Started
In Progress
Complete
Needs Review
Approved
Overdue
On Hold

San Antonio Vital Registry

Data Migration Plan

Version .02

APPROVAL SIGNATURES

<i>CONTRACTOR</i>		<i>DATE</i>
<i>Debbie Racca-Sittre</i> <i>City Clerk</i>		
<i>VENDOR</i>		<i>DATE</i>
<i>Chad Denlinger</i> <i>Genesis Systems, Project Manager</i>		

<i>CITY PROJECT MANAGER</i>			
<i>Date:</i>		<i>To:</i>	
<input type="checkbox"/>	<i>I approve this deliverable and have no further questions or comments.</i>		
<input type="checkbox"/>	<i>I approve this deliverable conditionally, contingent on the review and approval of the following corrections (see comments).</i>		
<input type="checkbox"/>	<i>I reject this deliverable for the following reasons identified (see comments).</i>		
<i>SIGNATURE</i>			
			<i>DATE</i>
<i>Comments</i>			

DOCUMENT HISTORY

DOCUMENT APPROVAL HISTORY	
Prepared By	Genesis Systems, Inc.
Reviewed By	
Approved By	

DOCUMENT REVISION HISTORY			
DATE	DOCUMENT VERSION	REVISION DESCRIPTION	AUTHOR
5/24/2024	.01	Initial Draft	David Maxwell Christopher Hoffmann
8/6/2024	.02	Revisions	Chad Denlinger

TABLE OF CONTENTS

1. INTRODUCTION	1
1.1. MIGRATION/CONVERSION OVERVIEW	1
2. PROJECT DEFINITION.....	5
2.1. PURPOSE OF DATA MIGRATION PLAN.....	5
2.2. GOALS AND OBJECTIVES.....	5
2.3. SCOPE OF DATA CONVERSION.....	5
2.3.1. INCLUSIONS.....	6
2.3.2. EXCLUSIONS.....	8
2.4. CRITICAL SUCCESS FACTORS.....	9
2.5. CONVERSION ACCEPTANCE CRITERIA.....	9
2.5.1. DEFINE DATA ERROR SEVERITY LEVELS.....	10
2.5.2. DEFINE ACCEPTANCE CRITERIA.....	10
2.6. ASSUMPTIONS, CONSTRAINTS, AND RISKS.....	11
2.6.1. ASSUMPTIONS.....	11
2.6.2. CONSTRAINTS.....	12
2.6.3. RISKS.....	12
2.6.4. RISK MITIGATION STRATEGY.....	13
2.7. COMMUNICATION STRATEGY.....	14
3. CONVERSION REQUIREMENTS.....	14
3.1. BUSINESS REQUIREMENTS AND EXPECTATIONS.....	14
3.2. TECHNOLOGY AND INFRASTRUCTURE CONSIDERATIONS.....	15
3.3. DATA SECURITY AND PRIVACY REQUIREMENTS.....	15
4. DATA CLEANSING.....	16
5. CONVERSION APPROACH.....	18
5.1. METHODS OF CONVERSION.....	18
5.2. DATA MAPPING.....	18
5.3. DATA EXTRACTION AND STAGING PROCESS.....	19
5.4. DATA TRANSFORMATION AND LOADING PROCESS.....	20
5.5. SYNCHRONIZATION PROCESS.....	20
5.6. CONVERSION REVERSAL STRATEGY.....	21
5.7. DATA CONVERSION SCHEDULE.....	21
5.8. DATA CONVERSION MILESTONES.....	21
6. CONVERSION PROJECT TEAM.....	22
6.1.1. STAFFING PLAN.....	22
6.1.2. TEAM ORGANIZATIONAL CHART.....	23
7. DATA QUALITY STRATEGY.....	23

7.1. CONVERSION UNIT TESTING	24
7.2. DATA USABILITY TESTING.....	24
7.3. MOCK CONVERSIONS	24
7.4. DATA VALIDATION AND RECONCILIATION (DVR).....	25
7.5. DATA ERROR RESOLUTION PROCESS	26
8. CONVERSION IMPLEMENTATION	26
8.1. APPROACH TO IMPLEMENTATION.....	27
8.2. CONVERSION CUTOVER PROCESS.....	28
8.3. IMPLEMENTATION PLANNING & CONSIDERATIONS.....	29
8.4. DATA CERTIFICATION.....	30
9. POST-CONVERSION SUPPORT.....	30
9.1. IDENTIFY POST-CONVERSION DATA ISSUES.....	30
9.2. RESOLVE POST-CONVERSION DATA ISSUES.....	30

1. INTRODUCTION

The City of San Antonio, Office of the City Clerk (“COSA”) has contracted with Genesis Systems, Incorporated (“Genesis” or “GSI”) to develop a vital records storage and issuance system, the San Antonio Vital Registry (“SAVR”). SAVR is a web-based application for the storage, reporting, and issuance of vital events in the city of San Antonio. SAVR will enable the secure collection, storage, management, issuance, and reporting of vital event data on a wide variety of operating systems and platforms to serve the people of San Antonio. SAVR is an integrated modern solution that will replace existing legacy systems used by clerk office users, all while providing automation to many currently manual processes.

Data conversion is the process whereby data from its current sources (e.g., existing legacy systems) is extracted, transformed, and loaded to a new system. For most state departments, data conversion often involves multiple databases, file structures, utilities, toolsets, different computer languages, and computer operating systems. Because it is a complex and time-consuming process, data conversion is one of the most critical elements associated with a successful system implementation. Furthermore, data is a critical business asset; it is the foundation of valuable intellectual property and the lifeblood of every organization. Thus, unless valid, complete, accurate, and compatible data components are available in the new system, the new system simply cannot be useful regardless of how friendly the user interface is that was designed, how streamlined the processes implemented, or the amount of effort exhausted during the development of the new system.

1.1. MIGRATION/CONVERSION OVERVIEW

This section provides an overview of the key aspects of a data conversion effort. The document will discuss each of these aspects in more detail in the subsequent sections.

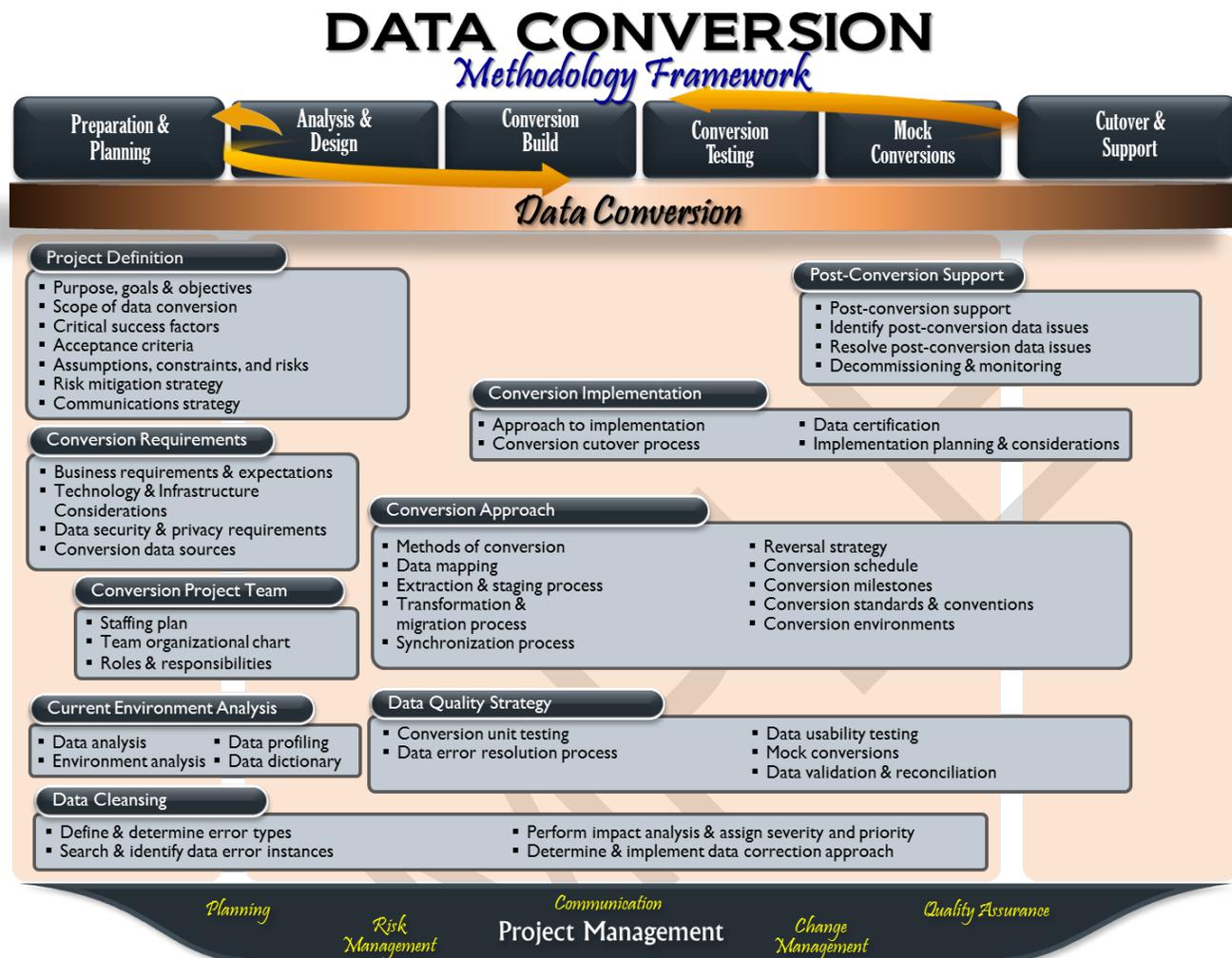


FIGURE 1-1: DATA CONVERSION METHODOLOGY FRAMEWORK

The data conversion process follows a typical software development lifecycle with the addition of steps for current environment analysis and mock conversion runs. As shown in Figure 1-1, a typical data conversion project consists of preparation and planning, analysis and design, conversion build, conversion testing, mock conversions, conversion cutover, and support.

Figure 1-1 also provides a methodology framework for data conversion. It lays out the logical building blocks that are essential to a data conversion effort. Each building block consists of activities or processes spanning across multiple phases of the data conversion lifecycle. Many of these activities happen concurrently or in an iterative manner but they are all pivotal to the successful implementation of data conversion. The following provides a high-level description for each of these building blocks:

Current Environment Analysis

The purpose of current environment analysis is to assess whether the data migration is viable, how much time it will require, what technology it will need, and what potential issues the project team will have to face. In addition, it is to understand where and how the data is stored, backed up, and archived, along with identifying data quality issues and how they will impact the data conversion effort. Also analyzed at this point are the interfaces, network connections between data points, bandwidth and controls, and data security. Furthermore, this is where a detailed data dictionary, business rules, high-level source-to-target mapping specifications, and conceptual and logical data models are developed.

Conversion Requirements

Conversion requirements are identified to understand:

- What data will be migrated?
- How much downtime is acceptable for the current production systems?
- Are new or modified service-level agreements required?
- What are the expectations for the target data storage infrastructure?
- What are the organization's standards or policies concerning data?
- What historical data is to be migrated?
- Are there any technological aspects of the current environments, conversion environments, and/or target environments that need to be considered?

Data Conversion Effort Definition

Information produced by current environment analysis and conversion requirements is essential to solidifying the planning and scoping of conversion activities; it enables the project to further refine and solidify data conversion scope, goals, assumptions, risks, and expectations, timelines, and acceptance criteria. Furthermore, it gives visibility into the work involved, which enables the project to effectively plan and properly allocate necessary staffing resources to support the data conversion strategies outlined in this plan.

In addition, information produced by the previous activities also provides clarity on the current system's data quality issues which enables the project to analyze what impact these will have on the data conversion effort and, ultimately, on the business if not addressed before the target system is implemented.

To the data cleansing effort, this information provides the data cleansing team understanding of various types of data issues present in the current legacy systems and the data population associated with each data error type. This enables the team to determine proper correction approaches to effectively address data errors.

Conversion Approach

This is where strategies and processes for data extract, transformation, and load are analyzed and determined using the information provided by the current environment analysis and conversion requirements. Conversion methods are carefully studied; detailed source-to-target data mapping specifications and conversion design specifications are developed, conversion environments including staging area are modeled, and data quality strategy is examined and planned.

Data Quality Strategy

As design specifications are completed and approved, conversion processes and conversion programs are developed accordingly. Data is then extracted, transformed, and loaded to conversion data storage, and unit testing occurs. Results produced by these conversion processes and programs are then tested at several levels to identify problems as well as to ensure accuracy and completeness of the conversion process. This is an iterative process, which continues until all necessary conversion processes and conversion programs are developed and successfully tested.

Once all conversion processes and conversion programs are successfully tested, mock conversions or trial runs of the actual conversion process are conducted in a pre-production environment. The purpose of mock conversions is to identify and resolve any conversion program issues and configuration problems ahead of time.

In addition, mock conversions provide the project opportunities for independent data validation of the actual data volumes. Furthermore, mock conversions enable the project to assess data conversion readiness for cutover and verify and ensure that the conversion process can be finished within the timeframe allocated for data conversion cutover.

Conversion Implementation

Conversion implementation involves evaluating different implementation approaches, defining, and planning the conversion cutover process, and establishing the data certification process that will be used to facilitate conversion implementation.

Post Conversion Support

Once conversion readiness is achieved, the final data conversion is executed. Results are then validated and loaded into the new target production system. Data certification is conducted to ensure data conversion meets the established acceptance criteria.

After data conversion cutover is successfully implemented, inevitably data issues will be uncovered and the number of data issues may be greater than originally anticipated. Post-migration support plan is implemented and post-conversion support staff will begin the process of identifying, recording, and resolving data issues. This is also the time when data conversion decommissioning and data quality monitoring activities begin.

2. PROJECT DEFINITION

This section describes the purpose of the data conversion plan, goals and objectives, scope of data conversion, critical success factors, acceptance criteria, assumptions, constraints, and risks associated with the plan for achieving the goals and objectives.

2.1. PURPOSE OF DATA MIGRATION PLAN

The purpose of this data conversion plan is to describe the strategy, preparation, and specifications for migrating existing images and data from the existing legacy databases to the SAVR database. This is intended to provide not only a roadmap for performing data conversion, but also a means to discuss assumptions, risks, limitations, constraints, and essential processes that will be used in the process of data conversion.

2.2. GOALS AND OBJECTIVES

The objective of this data conversion effort is the migration of data from mainframe and FileNet to SAVR to support core business processes in the new target system.

The underlying goal of this data conversion effort is to populate the new target system with data necessary to support core business processes. The core business processes to be supported by the conversion of data from mainframe and FileNet to SAVR are:

- Collection of Vital Event records
- Reporting of Vital Events
- Storage of Vital Event records
- Issuance of Vital Event Certificates

The migration will occur within the milestone timelines mentioned within this document. These timelines are crucial to project success. Migration includes not only the movement of the data, but validation of data as well.

2.3. SCOPE OF DATA CONVERSION

The scope of the data migration is to bring all completed records from the mainframe and FileNet to SAVR application. The scope specifically excludes incomplete records. This will include data from five (5) different modules. These modules are WebLE, Birth, Death, Fetal Death, and Fee. The data to be migrated into SAVR will include both the relevant data that the new system will collect along with the legacy data that will no longer be collected. Legacy data will be stored within the SAVR application.

2.3.1. INCLUSIONS

The following items are included in the scope of the data conversion effort:

Electronic Index

IN-SCOPE ITEMS	NOTES
Certificate First Name	
Certificate Middle Name	
Certificate Last Name	
Suffix (if any)	
Date of Event (Birth or Death)	
Sex (F or M)	
Local File Number	
State File Number	
Type of Record (Birth, Death, or Fetal Death)	
Local File Date	
Hospital Name	
Mother's First Name	
Mother's Middle Name	
Mother's Last Name	
Mother's DOB	
Father's First Name	
Father's Middle Name	
Father's Last Name	
Father's DOB	
Residence	
Residence (line 2)	
Zip code	
State	
County	

IN-SCOPE ITEMS	NOTES
City	
Print RestrictedCodes	
ReplacementRecord	
DateAmendmentReceived	

Records Issuance and Sales History

IN-SCOPE ITEMS	NOTES
Local File Number	
Security Sheet Number	
Security Paper SheetPrefix	
Certificate First Name	
Certificate Middle Name	
Certificate Last Name	
Record Type (Local, Legal, Death, Void)	
Location issued	
Date Issued	
Cashier	
Applicant First Name	
Applicant Middle Name	
Applicant Last Name	
Applicant ID Type	
Applicant ID Number	
Sheet comments	
Purpose	

Box and Issue/Return Logs

IN-SCOPE ITEMS	NOTES
----------------	-------

Box Number	
Type of Paper (Standard, Legal, State)	
Status (Open, Close, Available)	
Box Location (VPOS, LINK Name)	
Open Date	
Open Time	
Open Box UserID	
Balance Count	
Starting Security Sheet Number	
Ending Security Sheet Number	
Close Date	
Close Time	
Close Box UserID	
Box Number	
Record Type (Issue or Return)	
Log Index	
Date	
Time	
User ID	
Start (Security sheet number)	
End (Security sheet number)	
TotalSheets	

2.3.2. EXCLUSIONS

The following items are excluded from the scope of the data conversion effort:

EXCLUSIONS	NOTES

2.4. CRITICAL SUCCESS FACTORS

The following success factors are considered pivotal to the success of the data conversion effort.

1. Complete and thorough data mapping, signed off on by Genesis and COSA
2. Data Migration project will run concurrently with development process
3. Validation of data will be performed by COSA
 - Weekly meetings will be held between Genesis and COSA migration teams to map data and then validate data.
4. Scope is fully agreed to and signed off on.
5. Partial migrations are validated in accordance with the data migration schedule.
6. Final migration is accomplished in accordance with the data migration schedule.
7. Delta migrations are accomplished in accordance with the data migration schedule.
8. Schedule is followed as closely as possible.

2.5. CONVERSION ACCEPTANCE CRITERIA

This section defines the conditions that must be met for the converted data to be considered ready for cutover. It is nearly impossible to have all records migrated from source to target with no functional, reconciliation, or compatibility data errors by the time of system cutover. Therefore, it is vital to establish acceptance criteria within this section.

First, Genesis and COSA will prioritize the importance of the data. The data will first be sorted by business function. After this, there will be assigned severity levels as described below. Lastly, there will be an acceptance criteria level assigned to each function and severity level.

DATA CONVERSION ACCEPTANCE CRITERIA

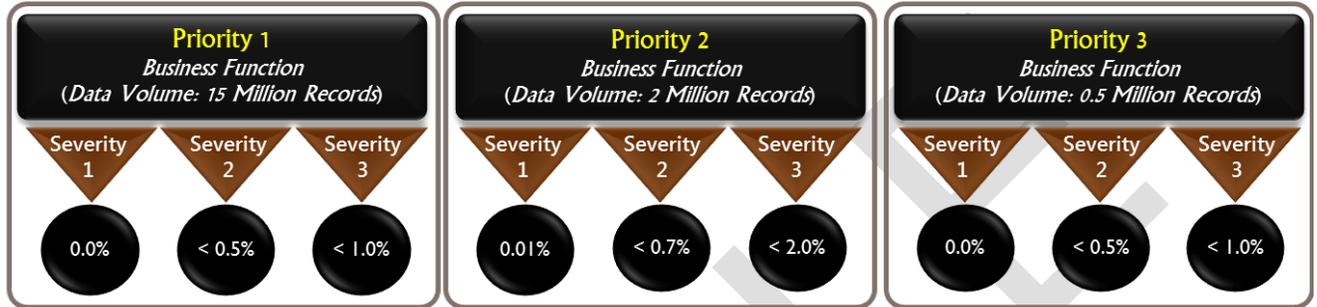


FIGURE 2-1: DATA CONVERSION ACCEPTANCE CRITERIA

2.5.1. DEFINE DATA ERROR SEVERITY LEVELS

DEFINITION OF DATA ERROR SEVERITY LEVELS		
SEVERITY LEVEL	SEVERITY DESCRIPTION	EXAMPLE
Severity 1	<ul style="list-style-type: none"> Defect prevents <<business function>> from rendering critical business services accurately to its employees and Business Partners. No work-around, as acceptable to the <<project leadership team>>, is available and service cannot be rendered until the defect is resolved. 	Failure to convert an employee demographic and employment data thereby preventing the employee from receiving correct employment benefits.
Severity 2	<ul style="list-style-type: none"> Defect prevents <<business function>> from rendering critical business services accurately to its employees and Business Partners. An acceptable workaround was provided and approved by the <<project leadership team>>. 	<p>Incorrect application of rules to create offset transactions resulting in an inaccurate account balance.</p> <p>Workaround: users should use the Detailed Account screen to manually enter adjustment transactions.</p>
Severity 3	Defect does not prevent current services from being rendered accurately by <<Department>> to its employees and Business Partners.	Incorrect data types and data defects pertaining to old data used for reporting/inquiry purposes only.

FIGURE 2-2: DEFINITION OF DATA ERROR SEVERITY LEVELS

2.5.2. DEFINE ACCEPTANCE CRITERIA

<i>ACCEPTANCE CRITERIA</i>		
<i>BUSINESS FUNCTION (RANKED)</i>	<i>SEVERITY</i>	<i>MAXIMUM TOLERANCE AS % OF CONVERTED DATA VOLUME</i>
<i>Electronic Index (All Vital Records) (Data Volume: #####)</i>	<i>1</i>	<i>0.0%</i>
	<i>2</i>	<i>0.3%</i>
	<i>3</i>	<i>1.0%</i>
<i>Record Issuance and Sales history (Data Volume: #####)</i>	<i>1</i>	<i>0.1%</i>
	<i>2</i>	<i>0.4%</i>
	<i>3</i>	<i>1.5%</i>
<i>Box and Issue?Return Logs (Data Volume: #####)</i>	<i>1</i>	<i>0.0%</i>
	<i>2</i>	<i>0.3%</i>
	<i>3</i>	<i>1.0%</i>

FIGURE 2-3: DATA CONVERSION ACCEPTANCE CRITERIA

2.6. ASSUMPTIONS, CONSTRAINTS, AND RISKS

This section describes the relevant assumptions, constraints, and risks concerning the scope, strategies, and goals of the data conversion effort.

2.6.1. ASSUMPTIONS

The following assumptions are made with regards to the COSA Data Migration and must be taken into consideration prior to the data conversion effort beginning.

ASSUMPTIONS	LEVEL OF IMPACT
COSA will provide a SFTP to provide Genesis with the data to be migrated.	Critical
COSA will provide a data expert for each module that requires migration (same person may be the expert in multiple modules).	Critical
Weekly data meetings (Wednesday, 2:00 C.T.) will occur between Genesis staff and COSA. Meetings will require the Genesis DBA and the COSA data expert for each module.	Critical
All modules will be mapped prior to migration testing and agreed and signed off on by Genesis and COSA.	Critical
All severity 1 and 2 data exceptions originating from source data will be cleansed by the data cleanup team before the scheduled final data conversion execution.	Marginal

ASSUMPTIONS	LEVEL OF IMPACT
Independent data validation is not within the scope of the data conversion team's responsibilities.	Marginal
Data obfuscation is not within the scope of the data conversion team's responsibilities.	Marginal

2.6.2. CONSTRAINTS

The following constraints have been identified concerning the COSA Data Migration and must be taken into consideration prior to the data conversion effort beginning.

CONSTRAINTS	SEVERITY LEVEL
Go Live deadline must be on January 6, 2025.	1
Availability of COSA staff to map and validate data.	1
Database completely built prior to test migration.	2

2.6.3. RISKS

PROBABILITY RATING	DESCRIPTION
<i>High</i>	<i>Likelihood > 80%</i>
<i>Medium</i>	<i>80% < Likelihood > 50%</i>
<i>Low</i>	<i>50% < Likelihood > 10%</i>

IMPACT LEVEL RATING	DESCRIPTION
<i>Catastrophic</i>	<i>Failure of mission-critical services</i>
<i>Critical</i>	<i>Significantly degraded project performance</i>
<i>Marginal</i>	<i>Negligible</i>

RISKS	PROBABILITY RATING	IMPACT RATING
The data conversion plan may not be feasible to achieve the expected goals and objectives because data conversion scoping was based entirely on theory and previous experience.	Low	Marginal
The expense of overtime may be required to perform certain steps during non-business hours to reduce impact on the current production system.	Medium	Critical
Incongruencies between data requirements	Medium	Marginal
Data loss during migration	Low	Critical
Differences in database, database schema and dependencies	Low	Critical

2.6.4. RISK MITIGATION STRATEGY

RISKS	PROBABILITY	IMPACT LEVEL	MITIGATION
Plan not feasible	Low	Marginal	The plan will be a living document and able to be amended to fit the needs of Genesis and COSA
Overtime may be needed	Medium	Critical	Data validation is vital to the process and only achievable by COSA. Timelines are tight and some overtime may need to be approved.
Incongruencies between data requirements	Medium	Marginal	Data is mapped and mapping is reviewed to ensure that data requirements are consistent
Data loss	Low	Critical	Data is backed up and migrations are validated to ensure accuracy and data retention

RISKS	PROBABILITY	IMPACT LEVEL	MITIGATION
Database Differences	Low	Critical	Migration is between databases designed by Genesis, so familiarity will reduce risks substantially. Further, iterative validation of data will ensure that discrepancies will be resolved proactively.

2.7. COMMUNICATION STRATEGY

The following are the documents that the project team will prepare and share with the corresponding recipients according to the schedule, format, and delivery method.

DOCUMENT	RECIPIENT	FREQUENCY/ SCHEDULE	FORMAT	DELIVERY METHOD
Status Report	Key data stakeholder distribution list	Weekly/ Monthly	PDF	Email
Data Conversion Deliverables	City Contract Manager, City Database Administrator	As per the scope of work.	PDF	Email
Data Cleansing Reports	City Contract Manager, City Database Administrator	As necessary after any instance of cleansing.	PDF	Email
Data Validation Reports	City Contract Manager, City Database Administrator	To coincide with validation testing.	PDF	Email
Escalation Procedures	City Contract Manager, City Database Administrator	As necessary.	PDF	Email
Business Rules	City Contract Manager	As necessary.	PDF	Email

3. CONVERSION REQUIREMENTS

3.1. BUSINESS REQUIREMENTS AND EXPECTATIONS

BUSINESS REQUIREMENTS & EXPECTATIONS		PRIORITY
1	Migration will include Birth and Death data.	
2	Migration will include record issuance and sales history.	
3	Migration will include Fee data from the tables listed within the inclusions noted in this document.	
4	Migration will happen in one phase – with all data being moved prior to go live.	

3.2. TECHNOLOGY AND INFRASTRUCTURE CONSIDERATIONS

This section describes the hardware and software that are necessary to effectively facilitate data conversion activities.

TECHNOLOGY & INFRASTRUCTURE REQUIREMENTS		PRIORITY
1	SQL Server 2019 	High
2	Microsoft Visual Studio 2022	High

3.3. DATA SECURITY AND PRIVACY REQUIREMENTS

This section describes all relevant data security and privacy requirements to which the data conversion effort must adhere. It also describes the process to be used to ensure that data confidentiality will be protected throughout the data conversion effort.

DATA SECURITY & PRIVACY REQUIREMENTS		PRIORITY
1	Genesis will ensure that the tests for data migration are done securely due to PHI/PII.	High
2	Migration validation will be conducted in the Production Environment to ensure data secrecy. Production environment encrypts data while at rest as well as while in motion.	High

4. DATA CLEANSING

This section describes the process that will be used to facilitate data cleansing.

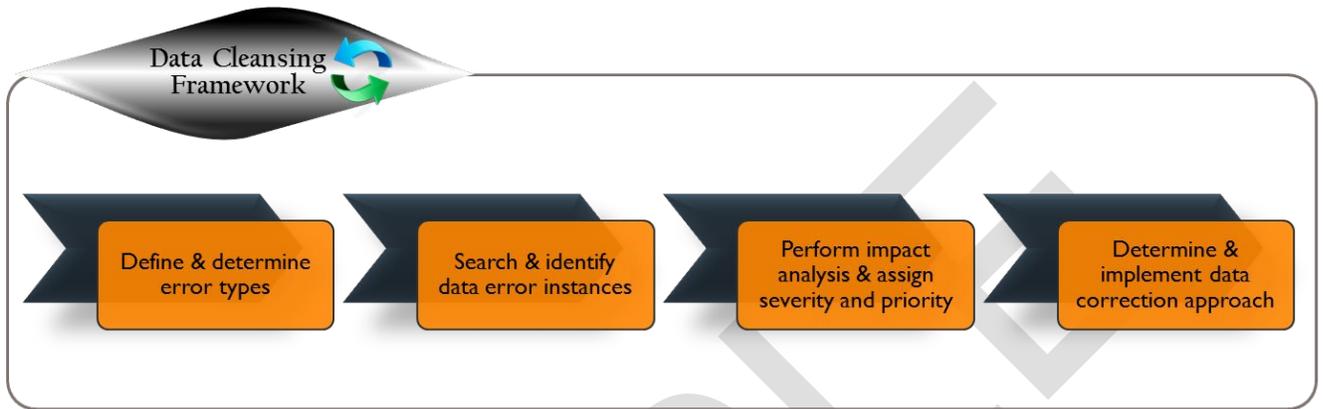


FIGURE 4-1: DATA CLEANSING FRAMEWORK

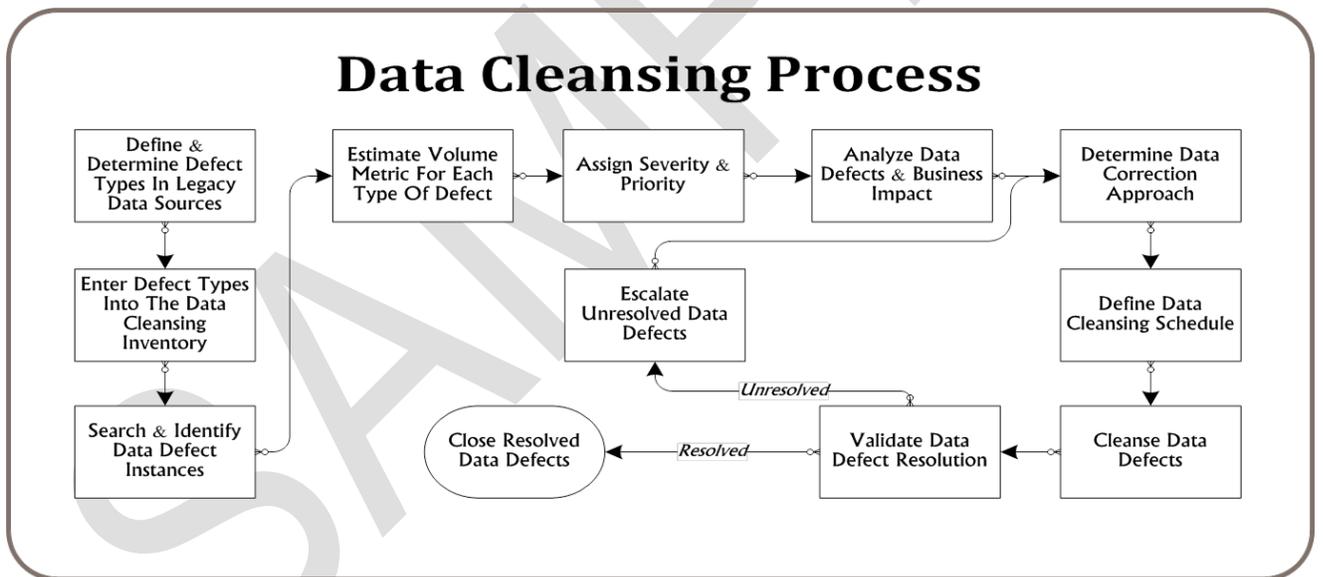


FIGURE 4-2: DETAILED DATA CLEANSING PROCESS

DATA CONVERSION CATEGORY				
CONVERSION CATEGORY	BUSINESS IMPACT	TIMING-PRIORITY	CRITERIA	ENVIRONMENT TO CLEANSE
A	1	Pre-Cutover-1 Pre-Cutover-2	“Fail to load”, “Severely impact business services within first week after cutover”, etc.	Legacy Source
B	1	Post-Cutover-1	“Fail to process”, “To be fixed as much as possible by cutover,” “Severely impact business services within second week after cutover; to be fixed manually one record at a time by business staff, ” etc.	Production-copy/ Staging area/ in-flight as part conversion process
C	2	Post-Cutover-2	Data issues can be fixed by business staff as part of their regular business process	Target post conversion

5. CONVERSION APPROACH

This section describes the approach to data conversion.

5.1. METHODS OF CONVERSION

This section discusses the conversion method that will be used for migrating legacy data to the new target system.

Manual vs. automated conversion: most conversion will be accomplished through some form of automated processes. However, there may be some datasets where manual conversion is a more effective approach. The criteria for deciding which datasets warrant manual conversion will be different for each project. For some, it may be because the size of the record set is too small or involves manual research to determine the appropriate transformation and reconciliation rules for each different record type. In either case, automated conversion may not even be possible or may take more time to develop all the necessary automated processes than to convert the data manually. To ensure a smooth conversion cutover, it is recommended that specific plans be developed, verified, and factored into the overall conversion plan for every dataset requiring manual conversion.

Describe the overall approach to data conversion. The following should be considered and addressed in this section or the following subsection, if applicable:

- **Conversion Category** – If applicable, define the conversion categories and for each conversion category, the criteria that will be used to identify what datasets will be converted first, second, third, etc. This will help the project team prioritize the work and ensure that the work is in alignment with business expectations and other project teams, such as the application development team, as they may have specific application functions that require the use of converted data for testing or user acceptance test sooner than the other application functions.
- **Manual Conversion** - Define the criteria that will be used to identify what datasets will be performed manually and describe the overall approach to manual conversion.
- **Automated Conversion** - Define the criteria that will be used to identify what datasets will be accomplished by automated conversion and describe the overall approach to automated conversion.

5.2. DATA MAPPING

This section describes the process that will be used to determine what functionality will be implemented in the target system and what legacy data or data sources are necessary to support the functionality in the target system. It also discusses the process that will be used to determine how data will be mapped to the target system and what conversion programs must be developed

to extract, transform, and load the target system. Attached to this document as Appendix A is the data mapping for this plan.

Genesis works with COSA to provide for a complete data mapping of the data from the legacy system to the new application. Step 1 will be the process of mapping the objects from the legacy system to the new application. Step 2 is identifying the legacy fields and matching them to the corresponding field within the new database. Finally, Step 3 will be discerning the values within the fields and ensuring that the coding matches correctly.

This process is critical to a successful migration. Therefore, there will be mapping meetings between Genesis and COSA to ensure legacy data is interpreted correctly and mapped to the correct place within the new application.

5.3. DATA EXTRACTION AND STAGING PROCESS

This section describes the approach that will be used to extract and stage legacy data.

- **Source Data** – what are the data source environments and how will the data be extracted from each environment?
- **Staging** - once the data from each environment is extracted, what happens next? Where and how will it be staged? Are there any other data processes?

Source Data: Source data will be pulled from Filenet and the COSA mainframe.

Transfer: The data and images will be placed into a Secure File Transfer Portal (SFTP) for Genesis to access and move to the COSA servers.

Staging: Data will be staged within the COSA servers in its own structure. Genesis will then migrate data from the staged database to the SAVR database.

5.4. DATA TRANSFORMATION AND LOADING PROCESS

This section describes the approach that will be used to transform and load legacy data to the target data store.

Transformation types:

- **Reformatting:** Format revisions are very common in data conversion as the data must conform to the format required by the target system. Format revisions include changes to the data types, length, and case (e.g., alphanumeric to numeric, integer to decimal, 40 characters to 25 characters, lower case to mixed case, etc.).
- **Translation:** Due to the difference between the source and target data models, data in the source system may have to be reconstituted, translated, enhanced, or converted during the conversion process to conform to the target data requirements. Take for example gender “male” in the source data might be represented as “1” but “M” in the target data. Therefore, formulating correct mapping and transformation rules to convert the data is one of the key tasks in a data conversion effort.
- **Integration:** When data is being migrated from multiple legacy sources into a single target system, undoubtedly there will be various conflicts among the data and inconsistent representations of the same data (e.g., the same person or entity might be represented differently in different legacy systems – “John Smith Jr.,” “John S. Jr.,” “John Smith”, “LA City”, “Los Angeles City”, “LA”, etc.), and that must be reconciled in order to satisfy the target data consolidation requirements and to have an integrated and reconciled view of data of the department.

Transformation Process

The transformation process will incorporate all the transformation types as necessary. The need for transformation will be identified both during the mapping process and through the validation process. As the need arises, Genesis and COSA will evaluate the data that is in need of transformation. Once the transformation type is decided, it will be marked within the data mapping document.

5.5. SYNCHRONIZATION PROCESS

This section describes the approach to be used to keep data conversion in sync with other relevant efforts.

During the preparation for migration, the legacy systems will remain active. Because of this, there will need to be steps in place to maintain synchronization of what has been migrated and what is still to be migrated. To mitigate this when the final migration begins, the legacy system will be frozen. This will allow for a much simpler transfer of the data and eliminate synchronization issues as much as is possible.

5.6. CONVERSION REVERSAL STRATEGY

This section describes the process that will be used to roll back the legacy data in the event the data conversion process does not go as planned.

The legacy environment will not be modified or otherwise discontinued. The SAVR environment is a brand new production environment. Further, a backup is always created for any production environment before a go-live to ensure the availability of a rollback.

5.7. DATA CONVERSION SCHEDULE

This section provides a schedule for data conversion activities to be accomplished. The conversion schedule is a combined approach whereby the packages are run sequentially, module by module with a single cutover.

DATA CONVERSION SCHEDULE						
ACTIVITY	DESCRIPTION	DATE	BEGIN	END	KEY PERSON(S) RESPONSIBLE	DEPENDENCIES
Birth	SSIS packages and update scripts for Birth records up to 12/6/2024	12/6/2024			Dimple Kaku/David Maxwell	
Death	SSIS packages and update scripts for Death records up to 12/6/2024	12/6/2024			Dimple Kaku/David Maxwell	Birth activity complete
Fee	SSIS packages and update scripts for Fee records up to 12/6/2024	12/6/2024			Dimple Kaku/David Maxwell	
Images	SSIS packages and update scripts for Images up to 12/6/2024	12/9/2024			Dimple Kaku/David Maxwell	

5.8. DATA CONVERSION MILESTONES

This section lists the major milestones pertaining to the data conversion effort.

The data conversion milestone table below provides a baseline version of the expected schedule of key data conversion milestones.

MILESTONE	END DATE
Finalization of data mapping	9/13/2024
Test migration 1	10/3/2024
Data validation 1	10/20/2024
Primary Migration Validation	12/11/2024
Shutdown Legacy System	1/4/2025
Second Migration Validation	1/4/2025

6. CONVERSION PROJECT TEAM

This section discusses staff planning, structure of the data conversion team, and roles and responsibilities of each team member.

6.1.1. STAFFING PLAN

This section provides the data conversion staffing plan. The staffing plan will be regularly updated as changes occur. This staffing plan may be impacted by any change to the project schedule, resource availability, data conversion activities scheduled/prioritized in various areas, and data cleansing schedule. Therefore, the staffing plan will need to be reviewed periodically, and the number of staff required will need to be reassessed.

DATA CONVERSION STAFFING PLAN				
ROLE	RESPONSIBILITY	# OF STAFF REQUIRED	START DATE	END DATE
Project Manager	Lead the project and oversee data migration	1	Contract Start Date	Through Stabilization
Tech Lead	Oversee all technical aspects of the project	1	Contract Start Date	Through Stabilization
Data Lead	Lead and perform data migration	1	Contract Start Date	Through Stabilization
Subject Matter Expert	Assist on all matters of data migration	1	Contract Start Date	Through Stabilization

6.1.2. TEAM ORGANIZATIONAL CHART

This section discusses the structure of the data conversion team.

DATA CONVERSION ORGANIZATIONAL CHART			
ROLE	NAME	START DATE	END DATE
Project Manager	Chad Denlinger	05/24/2024	TBD
Tech Lead	Hung Tran	05/24/2024	TBD
Data Lead	David Maxwell	05/24/2024	TBD
Co-Data Lead	Dimple Kaku	05/24/2024	TBD
Subject Matter Expert	Christopher Hoffmann	05/24/2024	TBD

7. DATA QUALITY STRATEGY

This section describes the strategy that will be used to test all custom-developed data conversion programs to ensure that the results produced by the conversion programs meet the established conversion acceptance criteria.

The first part of the quality assurance is to thoroughly test the migrated data. The testing of the data can be described as both functional and non-functional testing. Functional testing verifies that converted data functions appropriately in the new application and does not break down the system. Non-functional testing confirms that all data within scope was successfully migrated and displayed correctly.

Genesis aids with functional testing during conversion unit testing but this testing will be carried on further by COSA as they look deeper into records to validate data. COSA will be solely responsible for non-functional testing. This will include reviewing the records and comparing the data displayed within the new application to the data that should be appearing for the record. This will help ensure that all data is brought over to the new application. This will also ensure that all fields are mapped to the correct corresponding field.

- **Data Usability Testing** – this testing primarily focuses on verifying that converted data is functionally compatible with the target application system. This should be done by checking a sampling of records over a myriad of years. Genesis recommends selecting multiple records from each year to ensure that there was no data change that occurred. This means going through the Production environments and ensuring that the following activities can be done:
 - Open the record
 - Print/open filled worksheets

- **Data Validation and Reconciliation (DVR)** – this testing leverages relevant information from the conversion design specifications to validate the entire converted data volumes to collect and provide statistical information that is necessary to determine whether data conversion satisfies the established acceptance criteria.

7.1. CONVERSION UNIT TESTING

The main purpose of conversion unit testing is to verify whether conversion programs conform to detailed design specifications and to ensure that the converted data produced by these conversion programs are accurate compared to legacy data. This section describes the process that will be used by conversion developers to conduct unit testing.

After performing a migration, Genesis will open the application and verify that the records are appearing and are functional. Upon verification that the migration occurred, Genesis will pass the responsibility to COSA for validation.

7.2. DATA USABILITY TESTING

This testing primarily focuses on verifying that converted data is functionally compatible with the target application system. This should be done by checking a sampling of records over a myriad of years. Genesis recommends selecting multiple records from each year to ensure that there was no data change that occurred. This means going through the Production environments and ensuring that the following activities can be done:

- a. Open the record
- b. Print/open filled worksheets

Data usability testing is accomplished through the following mechanisms:

- System test and User Acceptance Test (UAT): testing mock converted data through the application user interface using existing system test and UAT test cases with a selective set of converted data. The purpose is to discover discrepancies between the application and the converted data.
- Independent data validation: testing mock converted data through a series of batch processes and functional queries developed based on data validation rules and business rules. This test helps identify inconsistencies and incompatibilities between the converted data and the target application.

7.3. MOCK CONVERSIONS

A mock conversion is a controlled “dress rehearsal” that includes all steps that will occur during the actual live conversion to migrate data from the legacy systems to the target system. Each mock conversion simulates the real conversion cutover process with actual data volumes. The purpose of mock conversions is to identify and resolve any conversion program issues and configuration problems ahead of time. Also, it provides opportunities for independent data

validation of the actual data volumes, assessment of data conversion readiness, and ensures that the entire data conversion process can be finished within the timeframe allocated for data conversion cutover.

As part of the conversion process, Genesis and COSA will run iterative conversions to test and validate the conversion. The first test conversion will be 10 years' worth of data provided in two 5-year batches. The first group of 5 years will consist of older records and images. The second group of five years will consist of recent data and images. This will help ensure all data types and quality move into the application appropriately. This will then be tested and validated by COSA. For mainframe records, batches of 200,000 records at a time will be submitted, to complete each 5-year group of older and recent records. After validation, Genesis will purge the database. This will allow for the final migration to be done all at once.

7.4. DATA VALIDATION AND RECONCILIATION (DVR)

The purpose of data validation and reconciliation is to ensure that all required legacy data has been accurately converted to the target system. It is a comprehensive process that rigorously tests the data as it is migrated through different stages to determine whether the converted data is a true representation of the data that exists in the legacy data sources.

The data validation and reconciliation process verify the validity of the converted data and the conversion metrics. These metrics are the counts of records converted and the summations of critical numeric values such as annual deposit totals, quarterly account balances, etc.

Furthermore, the data validation and reconciliation process ensure that all records to be converted are accounted for and that the critical numeric amounts are either the same in the target system as they are in the legacy systems or any variance is a result of adjustment and transformation rules approved by the business via documented decisions. This includes accounting for records that are not converted, either intentionally or unintentionally, and the reasons for the failures.

This testing leverages relevant information from the conversion design specifications to validate the entire converted data volumes to collect and provide statistical information that is necessary to determine whether data conversion satisfies the established acceptance criteria.

The objectives of this data validation are as follows:

- Ensure that critical conversion errors are discovered and corrected early.
- Ensure that the data needed to support the target application functionality is converted and validated for correctness prior to system cutover and during the application user acceptance testing cycle.
- Ensure that all pertinent records and other information is correctly transformed and converted including all the relationships among the various data elements.

- Ensure that all pertinent records and other information is completely transformed and converted and provides project leadership with the confidence that no information is lost in the process.
- Provide input to the formal and final data certification of the converted data which is to confirm whether data conversion meets the established acceptance criteria.

To achieve these objectives, COSA will thoroughly check the data and validate accuracy. All issues that are discovered will be entered into a spreadsheet and shared with Genesis. Issues should be shared daily between Genesis and COSA to not slow any reconciliation. Genesis and COSA will meet at least weekly to review discovered issues and share potential fixes.

7.5. DATA ERROR RESOLUTION PROCESS

This section describes the process that will be used to identify, escalate, and resolve data errors during the data conversion process.

There are two types of errors, Critical and Non-Critical.

- **Critical** data errors are those that prevent a record from being loaded into the target data storage and/or cause data integrity errors. These types of data errors should be identified and addressed as soon as possible. If possible, these types of data errors should be corrected in the legacy system prior to subsequent extracts and loads. Critical data errors will more than likely prevent continuing with other conversion loads that are dependent on the failed records and must be resolved quickly or the records have to be skipped or removed from subsequent conversions until fixed.
- **Non-Critical** data errors are those that have invalid values or missing configuration data which will not prevent a record from being loaded. These types of errors should be identified and reported for resolution.

All data errors that are discovered during the validation process will be recorded into a spreadsheet that will be shared between Genesis and COSA. The spreadsheet will need to provide as much information as possible regarding the incorrect data to aid Genesis in rectifying. At a minimum, the recorded error should include record number, year of event, module, data field, incorrect data, expected data, and type of error (critical v non-critical).

Genesis will utilize this spreadsheet to rectify all errors and supply notes back to COSA about what was found. Further, there will be a weekly meeting where all issues are discussed and remediations are verified. Verified remediations will be marked as complete within the spreadsheet.

8. CONVERSION IMPLEMENTATION

This section discusses the implementation approach, conversion cutover process, implementation planning and considerations, and data certification process that will be used to facilitate conversion implementation.

8.1. APPROACH TO IMPLEMENTATION

This section discusses the conversion implementation approach that will be used for this data conversion effort. It also discusses the pros and cons of this approach, the risks associated with the selected implementation approach, as well as the strategies required to mitigate those risks.

1. The “big bang” cutover (with or without parallel option)

This approach, in concept, requires all the source data to be extracted, transformed, and migrated all in one process during the time span of the cutover window.

Pros:

- No two systems running simultaneously
- No synchronization between systems to deal with
- With parallel option
 - Allows business time to fully validate and sign-off the new system

Cons:

- Risks associated with having a limited time-frame
- Rollback strategies may be challenging
- Business downtime
- With parallel option
 - Risks and costs associated with keeping data current in both systems
 - Dual-keying for system users
 - Requires more resources

2. The Incremental cutover (with or without parallel option)

This approach reduces the risk of a big bang approach by extracting, transforming, and migrating discrete parts of the business and associated data. This approach, in concept, sounds great but it can be very challenging to execute effectively due to the complexity of the underlying data structure, application architecture, data, and the interwoven business processes.

Pros:

- Fewer risks associated with having a limited time-frame
- Rollback strategies may be less challenging
- Less business downtime
- With parallel option
 - Allows business time to fully validate and sign-off on the new system

Cons:

- Extremely difficult to manage all the risks associated with intricate relationships between business processes and the underlying data associated with those business processes
- With parallel option
 - Risks and costs associated with keeping data current in both systems
 - Dual-keying for system users
 - Requires more resources

Business needs must be the primary driver in determining the best-fit data conversion implementation strategy for the project. Different business needs require different implementation approaches and it pays to fully understand each approach as well as its associated pros and cons so the right decisions can be made and work can be planned at the outset of the project.

Genesis will utilize a hybrid approach which adopts attributes of the “Big Bang Approach” and a module by module approach when it comes to the conversion cutover process. Genesis will migrate all data from the legacy system to the new application over a 2-day span.

Pros

- No two systems running simultaneously.
- No synchronization between systems to deal with

Cons

- Risks associated with having a limited time-frame.
- Rollback strategies may be challenging.
- Business downtime

8.2. CONVERSION CUTOVER PROCESS

This section discusses the approach to extracting, transforming, and loading legacy data to the target production environment. Also, it discusses the data retention requirements for certain data conversion artifacts concerning legacy system data and the conversion cutover window.

The following describes the activities which must be completed before the legacy data can be migrated to the new system:

1. Legacy System Closedown

Freeze all input - At this point in time, no data input should be allowed into any of the legacy systems, from which source data will be extracted, either by direct entry or through the various interfaces. This will be a mutually agreed upon time, Genesis recommends the freeze beginning on January 3, 2025.

Complete all data processing - At this stage, verify that all background data processing jobs such end-of-day financial reconciliation or posting processes are complete. This time should mirror that of when the input is frozen, Genesis recommends January 3, 2025.

Freeze the data - Once all background data processing jobs are complete, legacy data will be “frozen” and no data changes will be allowed until data conversion process is complete and the target system is operational. This should shortly prior to Go-Live, Genesis recommends the freeze beginning on January 3, 2025.

Start data conversion process - During this stage, data conversion process will follow the conversion run book developed during the mock conversions. This will run over the course of 2 days.

2. **Extract and Load Staging Data to Target**
3. **Execute Data Validation and Reconciliation Process**
4. **Verify Acceptance Criteria Are Met**
5. **Obtain Business Acceptance and Sign-off**

8.3. IMPLEMENTATION PLANNING & CONSIDERATIONS

This section discusses the implementation planning and considerations that will be used.

- **Mock conversions** –Every test run after the initial will act as a mock conversion to ensure both Genesis and COSA get at least one practice attempt.
- **Conversion programs optimization** – This consists of keeping track of all the details associated with each mock conversion, actively fine tuning and optimizing data conversion programs, and making sure that a data conversion run book is built, kept current, and the order of execution for each conversion program is continuously monitored and optimized. This will be tracked within the issue resolution spreadsheet used for validation.
- **Data categorization and prioritization** – special consideration should be given to the following data categories with respect to conversion cutover:
 - **Static data**- data that will remain unaltered such as prior fiscal year data.
 - **Archive data** – data that is no longer actively used which is stored on a separate data storage device for long-term retention.
 - **Document images** – paper documents that were scanned and converted to digital images.
 - **Dynamic data** – data that is actively being used, updated, or newly generated.
Dynamic data will not be migrated.
 - **Open data transaction** – a business transaction that has not completed its process cycle (e.g., a workflow item or a service ticket that remains open with additional

activities required prior to being closed). **Open data transaction data will not be migrated.**

- **Closed data transaction** – a business transaction that has completed its business cycle and is subsequently used for information purposes only, for example a service ticket with all related activities completed and a ticket status of “closed.”
- Datasets that can be extracted, transformed, and loaded to the target system ahead of time before the final cutover.

8.4. DATA CERTIFICATION

This section describes the approach that will be used for determining whether data conversion meets the established acceptance criteria.

Data certification will follow these steps to ensure proper acceptance.

1. Validate functionality of the Production environment to ensure data does not affect performance.
2. Validate data between Production environment and legacy environment.
3. Complete record counts between the legacy and production environments.
4. Sign-off on Migration.

9. POST-CONVERSION SUPPORT

This section describes the approach to be used for identifying and addressing data issues discovered in the target system after conversion implementation.

Genesis knows and fully understands that data issues may still arise after migration has been completed and signed-off on. All issues that arise after the sign-off of migration are considered bugs in the system and will be fully covered by the support agreement. Genesis will maintain the full data conversion team as part of the SAVR project for 3 months after Go-Live.

9.1. IDENTIFY POST-CONVERSION DATA ISSUES

This section describes the approach to be used for identifying and classifying data issues.

Data issues will be reported and entered into TRIMMSOFT in the same manner as any other bug within the system.

9.2. RESOLVE POST-CONVERSION DATA ISSUES

This section describes the approach to be used for prioritizing and resolving data issues.

1. Any data issue that causes the application to not perform
2. Any data issue that is keeping a record from being issued

3. Data issues not cleansed in the source data at the time of cutover
4. Data issues caused by conversion bugs not fixed at the time of cutover
5. New data issues discovered in the target system after cutover

SAMPLE

APPENDIX A

DATA MAPPING

SAMPLE

**GENESIS SYSTEMS, INC.
MAINTENANCE AND SUPPORT AGREEMENT**

This software Maintenance and Support Agreement (the “Agreement”) is between Genesis Systems, Inc. (“GENESIS”), 2400 Park Drive, Suite 102, Harrisburg, Pennsylvania, 17110, and the Puerto Rico Department of Health (the “DOH” or the “Department”) effective as of July 1, 2023.

1. Support Services/Definitions:

a. For the fees listed herein, Genesis shall provide Telephone Support, Functional Corrections, Performance Corrections, and Software Updates.

b. *Software:* Software supplied by GENESIS includes but is not limited to the modules selected below:

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> WebLE | <input checked="" type="checkbox"/> WebMARManager | <input checked="" type="checkbox"/> WebITOP-Facility |
| <input checked="" type="checkbox"/> WebEBC-Facility | <input type="checkbox"/> WebDIV-Facility | <input checked="" type="checkbox"/> WebITOP-Manager |
| <input checked="" type="checkbox"/> WebEBC-Manager | <input type="checkbox"/> WebDIV-Manager | <input checked="" type="checkbox"/> Web Fee & Issuance |
| <input checked="" type="checkbox"/> WebEDC-Facility | <input checked="" type="checkbox"/> WebEFDR-Facility | <input checked="" type="checkbox"/> Genesis Interoperability
Module (GIM) |
| <input checked="" type="checkbox"/> WebEDC-Manager | <input checked="" type="checkbox"/> WebEFDR-Manager | <input checked="" type="checkbox"/> Web-Imaging |
| <input checked="" type="checkbox"/> WebMAR-Facility | | |

c. *Telephone Support:* Calls received during normal support hours (Monday through Friday, 9:00 AM to 7:00 PM, EST) are answered directly by a support technician. The support technician will assign an event number. If a support technician is not immediately available, the call will be placed in a callback queue, with a priority rating as determined by the Technical Support Manager. The priority rating will be highest for issues causing non-operability of the software with the lowest priority given to aesthetic issues. Every effort will be made to have the support issue addressed within two hours of the original call. Calls received after normal support hours are received by an automated answering system, which notifies a support technician. The support technician will return the call as soon as possible.

d. *Technical Support:* Operator error (i.e., turning off the computer at the wrong time) or hardware failure under some circumstances can cause physical damage to the data stored by the program. In these cases, the data file must be physically repaired so that as much data as possible can be recovered. This work or any other work that requires one of our technicians to use a keyboard to make changes to the GENESIS software files on a customer’s or client’s system is defined as technical support. Technical support also includes telecommunications support where GENESIS technicians connect with the facility via Virtual Private Network (VPN) connections, Glance, or any other remote connection to transfer files, free up hard drive space, etc. All assistance provided, regarding the configuring of reports and screens, with respect to Drag-It is categorized as technical support. Technical Support will be billed at Genesis’ current

hourly rates as set forth herein at Appendix B.

* The diagnosis of a problem(s) will be determined to be either Telephone Support or Technical Support depending on the type of effort required by a support technician to diagnosis the problem(s). Such determination shall be made solely by Genesis Systems, Inc.

e. *Basic Function:* The basic function of the software is specified in the design documents.

f. *Functional Correction:* A functional correction is a modification to the software implemented to make the software perform its basic function in accordance with the design specifications. Functional corrections relate to corrections of the software, which are necessary to provide accurate data entry, accurate printing, and accurate data transfer.

g. *Performance Correction:* A performance correction is a modification to the software implemented to correct a feature of the software that is not directly related to impairment of basic function. A performance correction is indicated if the software is not operating as intended by GENESIS or as detailed in the design specifications but the variance does not have direct impact on the basic function of the software (i.e., data capture, certificate printing and data transfer). These corrections are distinct from functional corrections in that a performance correction is not required for the software to fulfill its basic function of data capture, accurate printing of the certificate and accurate transmission of the data function.

h. *Functional Change:* A functional change involves modifications to the software made necessary by changes required by Laws, Regulations, Internal Procedures etc., changes in the state's mainframe database, or changes in other destination databases. Functional changes are required to permit the software to continue to fulfill its basic function in the light of other external changes. Functional changes require additional design specifications that detail the necessary modifications and which in combination with existing specifications become the new design document.

i. *Performance Change:* A performance change is a modification to the software implemented to improve an existing feature of the software that is not directly related to basic function. Performance changes are primarily made to satisfy preferences, improve efficiency, or to improve the ease of use of the software. Performance changes affect how the software operates but are not required for the software to continue to fulfill its basic function.

j. *Enhancement:* An enhancement to the program is the addition of a feature beyond the original design. Enhancements are usually added from time to time as suggestions are received from existing installations. Enhancements add to the usefulness of the program but are not required to allow the program to fulfill its basic function. Enhancements add features to the software that were not already there. Enhancements are limited to changes in the existing product operation on the same computer and accessed from the same main menu as the existing software.

k. *Software Update:* A software update is a new version of the software containing functional corrections or performance corrections. An update either corrects an existing defect

(functional or performance) or provides a change needed to allow the software to continue to fulfill its basic function.

1. *Software Upgrade:* A software upgrade is a new version of the software containing functional changes, enhancements and/or performance changes. An upgrade is not necessary for the software to continue to fulfill its basic function. Upgrades are not provided as part of this Support Agreement, and will be accomplished only through the Change Order and Acceptance Process.

m. Distribution of functional corrections and performance corrections will be at the expense of GENESIS.

2. **Support Level.** GENESIS shall provide **telephone support** based on the Plan and Level selected by the Customer:

Plan Options

GOLD PLAN – Unlimited 24/7-telephone support of GENESIS supplied software as described herein. Incoming calls between 9:00 AM and 7:00 PM Eastern Standard Time during the business day period are answered directly by a technical support specialist. After hours, our on call support specialist responds to calls within 2 hours of the original call. Technical support, or programmers or systems analyst or database administrator's time to perform development and/or coding to resolve reported issues not included in paragraph 1 a., will be billed at GENESIS current hourly rate. If prepaid hours are available, they will be reduced by the actual hours used.

SILVER PLAN – Unlimited 24/5-business day telephone support of GENESIS supplied software as described herein including functional corrections and performance corrections. Incoming calls between 9:00 AM and 7:00 PM Eastern Standard Time during the business day period are answered directly by a technical support specialist. After hours, our on call support specialist responds to calls within 2 hours of the original call. Technical support, or programmers or systems analyst or database administrator's time to perform development and/or coding to resolve reported issues not included in paragraph 1 a., will be billed at GENESIS current hourly rate. If prepaid hours are available, they will be reduced by the actual hours used.

BRONZE PLAN – Limited business day telephone support between 9:00 AM and 7:00 PM Eastern Standard Time of GENESIS supplied software as described herein. Technical support, or programmers or systems analyst or database administrator's time to perform development and/or coding to resolve reported issues not included in paragraph 1 a., will be billed at GENESIS current hourly rate. If prepaid hours are available, they will be reduced by the actual hours used.

Level Options

TIER 1 – This level of support is defined as direct calls originating from an End User of the

GENESIS software product. In this capacity GENESIS will offer the corresponding support as stated in the customers selected Support Plan Option to the end user of the software product who directly contacts GENESIS technical support.

TIER 2 – This level of support is defined as direct calls originating from the customer as defined by this Agreement. In this capacity, the customer will take direct calls from the end user of the GENESIS software product. GENESIS will offer the corresponding support as stated in the customers’ selected Support Plan Option only to the Customer and not directly to the End User.

Telephone support will be provided to locations as outlined in Appendix A.

3. **The Customer has selected the following Plan and Level support options for the GENESIS supplied software.**

Plan Option: (select one)

- Gold Plan
- Silver Plan
- Bronze Plan

Level Option: (select one)

- Tier 1
- Tier 2

4. **Notification and Cooperation.** Customer shall promptly notify GENESIS of all circumstances requiring support. Such notice shall detail the name of person requesting support, the installation name, serial number of the Software, the circumstance, the conditions under which it occurred and, if known, its source. Customer shall cooperate in all reasonable ways with GENESIS, including by providing such access, computer time information, equipment, staff and facilities as may be reasonably necessary to identify, reproduce and remedy the circumstances.
5. **Issue Resolution.** In the event that the customer determines that the Technical Support Staff that is assisting them is unable to resolve the issue to the Customer’s satisfaction, Customer may escalate the issue to the Technical Support Supervisor for satisfactory resolution. In the event the Customer determines that the Technical Support staff Supervisor is unable to resolve the issue to Customer’s satisfaction, Customer may escalate the issue to Genesis’ senior management for full resolution of the issue.
6. **Taxes.** Customer shall pay all international, federal, state or local tariffs, duties, withholdings and taxes (other than taxes on GENESIS’ net income), including and without limitation, sales, use, excise, privilege, ad valorem and property taxes, or amounts in lieu thereof, based on the products, their use or any services performed hereunder, whether such tariffs, duties or taxes are now or hereafter imposed by said jurisdictions, except to the extent that Customer is exempt from such taxes.
7. **Termination.** GENESIS may terminate this Agreement, and renewal, for any of the following:
(a) Failure to pay the support fee; (b) Failure to pay any outstanding debt owed by the

Customer to GENESIS under this, or any other agreement with GENESIS; or (c) Upon ninety days prior notice GENESIS may at any time discontinue support.

8. Warranty.

a. All new software development performed by GENESIS is warranted for ninety (90) days after the new development is installed at the End User site (“Initial Warranty Period”). During this time any defect found in the software that requires correction (either functional or performance as defined above and whether related to the new development or not) will be corrected at no charge for either the work required to correct the software or the distribution of the resulting update. Once the Initial Warranty Period has expired, GENESIS reserves the right to charge for work done to make and distribute functional or performance corrections unless such work and distribution is covered by a Support Agreement that has been continuously in effect since the expiration of the Initial Warranty Period.

b. GENESIS warrants that in the event that no recovery can be effected on a support call, the Customer will not be billed for the time spent attempting recovery. Except as provided in paragraph 8a of this agreement, GENESIS does not guarantee that any service/product that it provides to the Customer will be effective and therefore does not warrant any of the services/products provided under this Agreement. GENESIS shall have no liability under this Agreement to Customer or any other party for any loss or damage including, without limiting the generality of the foregoing, any direct, general, incidental, indirect, special, or consequential damages, resulting from the failure of GENESIS to comply with any warranties set forth in this Agreement.

c. GENESIS’ WARRANTY IN THIS AGREEMENT IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL GENESIS BE LIABLE TO CUSTOMER FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, LOST PROFITS, LOST DATA OR COMPUTER HARDWARE OR SOFTWARE DAMAGE, FAILURE OR MALFUNCTION.

d. Customer agrees that all data transmissions, searches, requests or queries to or from the database shall be through Genesis’ proprietary software only. Genesis shall have the right to audit, at its own expense, all inputs and outputs of the database. Any transmission of data or any searches, requests or queries to or from the database by means other than Genesis’ proprietary software or other means approved by Genesis in writing shall immediately void the warranty granted hereunder and relieve Genesis of any liability if support services cannot be successfully provided.

e. Neither this Section 9, nor this Agreement as a whole, shall result in any limitation of liability for personal injury or death resulting from the fault of GENESIS, its employees or agents. Additionally, GENESIS shall be responsible for physical hardware damage caused by the fault of GENESIS, its employees, or its agents in making repairs to

data files or software, except in the limited circumstances where GENESIS has explained there is reasonable risk of such damage and obtained the Department's or facility's written permission to proceed relative to the location of the equipment (Customer or facility) in the specific instance.

9. **Waivers.** The failure or delay of any party to exercise any right or option arising out of a breach of this Agreement shall not be deemed a waiver of any right or option with respect to any subsequent or different breach, or the continuance of any existing breach, after demand for strict performance.
10. **Entire Agreement.** This Agreement constitutes the entire Agreement between the parties and supersedes all previous Agreements and understanding relating to the work. The Agreement may not be altered, amended, or modified except by a written instrument signed by the duly authorized representatives of both parties.
11. **Interpretation.** To the fullest extent possible each provision of this Agreement shall be interpreted in such fashion as to be effective and valid under applicable law. If any provision of this Agreement is declared void or unenforceable for particular facts or circumstance, such provision shall remain in full force and effect for all other facts and circumstances. If any provision of this Agreement is declared entirely void or unenforceable, such provision shall be deemed severed from this Agreement, which shall otherwise remain in full force and effect.
12. **Fee.** The Fee for the term of this Agreement shall be as stated in Exhibit A of the Contract.
13. **Term.** The Term of this Agreement is to begin July 1, 2023 and end June 30, 2024.

IN WITNESS WHEREOF, the Parties hereto, intending to be legally bound hereby, have each caused to be affixed hereto its or his/her hand and seal on the day indicated.

As Licensee's duly authorized representative, I have read and agree to this Genesis Maintenance and Support Agreement.

XXXXXXXXXXXXXXXXXXXXXXX

Printed name of signatory:

Signature:

Date: _____

GENESIS SYSTEMS, INC.

Printed name of signatory:

Signature:

Date: _____

APPENDIX A

LISTING OF FACILITIES/LOCATIONS TO BE SERVED

SAMPLE

APPENDIX B

Staff Pricing Schedule as of 1/1/2023

Staff Title	Location	Hourly Rate US Dollars
Subject Matter Specialist	Genesis	\$379.50
Project Director	Genesis	\$258.75
Project Manager	Genesis	\$287.50
Business Analyst	Genesis	\$264.50
SQL Database Administrator	Genesis	\$230.00
Oracle Database Administrator	Genesis	\$299.00
Sr. Web Programmer	Genesis	\$281.75
Jr. Web Programmer	Genesis	\$264.50
Sr. Citrix Technicians	Genesis	\$247.25
Jr. Citrix Technicians	Genesis	\$230.00
Sr. Programmer	Genesis	\$218.50
Jr. Programmer	Genesis	\$207.00
Network Engineer	Genesis	\$250.00
Operator	Genesis	\$201.25
Testing Technician	Genesis	\$161.00
Help Desk Analyst	Genesis	\$161.00
Documentation Specialist	Genesis	\$241.50
Assistant Documentation Analyst	Genesis	\$138.00
Project Trainer	Genesis	\$241.50
Assistant Trainer	Genesis	\$161.00
Data Entry Specialist	Genesis	\$120.75
NON-CUSTOMER TECHNICAL SUPPORT	1 ST HOUR OF TECHNICAL SUPPORT (2 HOUR MINIMUM)	\$379.50
All additional Technical Support Services		Billable at the above hourly rates for the technicians involved

On-site travel and subsistence costs are in addition to the above referenced rates



**San Antonio Vital Registry
Modified Commercial Off-the-Shelf Product
for Vital Events Registration System
PROJECT PLAN**

Version – 1.0
7/30/2024



Revision History

Date	Description	Version of System	Author
7/30/2024	Initial Document.	1.0	Chad Denlinger



Table of Contents

1	PROJECT OVERVIEW	5
1.1	Introduction	5
1.2	Mission Objectives	5
1.3	Current State.....	6
1.4	Future State	6
1.5	Definitions	6
1.6	Order of Precedence.....	7
2	PROJECT SCOPE	7
2.1	Scope Overview	7
2.2	Scope Timelines	8
2.3	Project Kick Off	9
3	PROJECT DEVELOPMENT OBJECTIVES	9
3.1	Business Objectives.....	9
	Number	9
	Description	9
3.2	Technical Objectives.....	9
	Number	9
	Description	9
4	DELIVERABLES	10
4.1	Deliverable Submission and Review Process	10
4.2	Deliverable Acceptance Procedure.....	14
4.3	Project Milestones.....	14
4.3.1	Milestone 1: Contract Signing	15
4.3.2	Milestone 2: COTS Joint Application Design Complete	16
4.3.3	Milestone 3: Environment Provisioned.....	16
4.3.4	Milestone 4: System Design Documents Complete	16
4.3.5	Milestone 5: Test Migration Complete	17
4.3.6	Milestone 6: User Acceptance Testing Complete	17
4.3.7	Milestone 7: User Training Complete.....	18
4.3.8	Milestone 8: Final Data Migration Complete	18
4.3.9	Milestone 9: Final Acceptance	18
5	SAVR PROJECT ORGANIZATION	19
5.1	Stakeholders	19
5.2	Project Team Roles and Responsibilities.....	19
5.3	Project Assumptions	21
5.4	Constraints.....	22
5.5	Dependencies	22
5.6	Project Deliverable Timeline	22
5.7	Project budget tracking	22
6	INTEGRATED SYSTEM TASKS	22



6.1	Internal Knowledge Transfer Strategy and System Training.....	22
6.2	Project Close-Out & Lessons Learned.....	23
6.3	Administrative Closure.....	23
7	CHANGE REQUEST PROCESS.....	24
8	APPROVALS.....	25

SAMPLE



1 Project Overview

1.1 Introduction

The City of San Antonio (COSA) seeks an Internet-based Vital Records Information Systems Management and Issuance system for the storage and issuance of vital events within the city of San Antonio. COSA engages in the provision of vital statistics information for the city of San Antonio. Vital Statistics are defined as: “the registration, preparation, transcription, collection, compilation, distribution and preservation of data pertaining to births, adoptions, paternity determinations, deaths, fetal deaths, suits affecting parent child relationship, court of continuing jurisdiction, marital status, and such other data as deemed necessary by the department.” (Texas Administrative Code §181.1 (34)).

1.2 Mission Objectives

COSA objectives for the San Antonio Vital Registry (SAVR) are defined with the ultimate goal being a system that provides for the accurate storage of data and images as well as the issuance of the certificates. Considering this goal, specific mission objectives for SAVR are as follows:

1. Resolve current system limitations.
2. Resolve difficulties that the current system presents in all aspects of issuance and paper inventory.
3. Resolve maintainability issues as documented in RFP Attachment C – Non-Functional Requirements.
4. Enhance security in order to safeguard records from fraud, misuse, and identity theft. The use of single sign on, proactive flags, and enforced segregation of duties will aid in preventing fraudulent registration and unauthorized access and issuance of records.
5. Provide an easier pathway to paper inventory controls.
6. Improve functional capabilities, performance, capacity, scalability, reuse, and maintainability.
7. Comply with Vital Statistics rules, laws, and requirements as defined in statutes and rules.
8. Modernize user access to vital records including data retrieval through reports and queries.
9. ***SAVR must go live at the beginning of a calendar year, currently planned for January 2025.***



1.3 Current State

COSA's current system is operated through a combination of mainframe and FileNet. COSA users do not have access to pull any reports from the mainframe. There are also few automated processes that makes the work of its users simpler to perform.

While the current system is operational, it is an aged system both in terms of technology and infrastructure. It has become costly to maintain the application and the database, ensure reliability and availability, and meet the state and federal data security requirements for safeguarding Personally Identifiable Information (PII).

1.4 Future State

COSA needs a web based solution for the electronic storage and issuance of birth and death events. The new system will employ the National Center for Health Statistics (NCHS) 2003 recommendations for birth, death and fetal death sets tailored to Texas requirements and regulations; and other defined forms and reports. The new system will allow users to quickly and easily locate and issue a record. The State will have easy access to their complete data set at any given time.

The San Antonio Vital Records (SAVR) System will be a web-based application for the City of San Antonio. The SAVR System will include a Commercial-Off-The-Shelf (COTS) product customized to a Modified-Off-The-Shelf (MOTS) product integrated with an Imaging solution, other ancillary systems, and a private dedicated Hosting solution.

The SAVR System will provide a turn-key capability to support its user base. This system will enable the secure storage, management, issuance, and reporting of vital event data on a wide variety of operating systems and platforms to serve the people of San Antonio.

The Statement of Work contains specific details of each requirement for a replacement system and additive alternatives for imaging and/or hosting solutions based on identified requirements, including requirements discovered through legislative changes, and input from stakeholders.

1.5 Definitions

Project Plan— This document identified as SOW Deliverable 2.

Project Schedule— Integrated Master Schedule developed collaboratively between COSA and Genesis that details, deliverables and dates and responsibilities for completing each of the Phases of the Project. Identified as SOW Deliverable 3.



Project-Shall mean the development of the electronic vital records system by Genesis known as SAVR.

1.6 Order of Precedence

Should any inconsistencies arise between this document and the Contract, the contract shall be controlling.

After COSA approval of the initial Project Plan, the Project Plan will be considered a “living document” that may require periodic updating and revision, as mutually agreed to by the Contractor Project Manager (CPM) and COSA Project Manager, over the course of the SAVR project.

2 Project Scope

2.1 Scope Overview

COSA solicited a proposal for procurement, configuration and installation of a commercial off the shelf web based vital records software system. Genesis Systems, Incorporated was awarded the contract on May 23, 2024. Genesis will provide the following overall Scope:

a) The following system modules as specified in the RFP response:

WebLE	Security and User Parameters
WebBirth-Manager	Data Storage, History, and Flags
WebDeath-Manager	Data Storage, History, and Flags
WebFee and Issuance	Customer Service (POS) module including Issuance
WebImaging	Image storage and configuration module

b) Replacement of the Existing Vital Records System to make certain it is:

- Configurable
- Secure
- Event-driven
- Architecture is adaptive and extensible for future expansion and scalability
- Supports Web-interfaces
- Graphical User Interface (GUI)
- Standard Report Generation
- Provide On-going Support



- c) In addition, Genesis has been awarded and will provide a hosting solution for the SAVR System and an Imaging solution, including migration of existing images.

Design, configuration, testing and training will occur for each module as part of the system installation. After a successful user acceptance test, the module will be placed into production. There will be a three-month stabilization period, after which final system acceptance will occur.

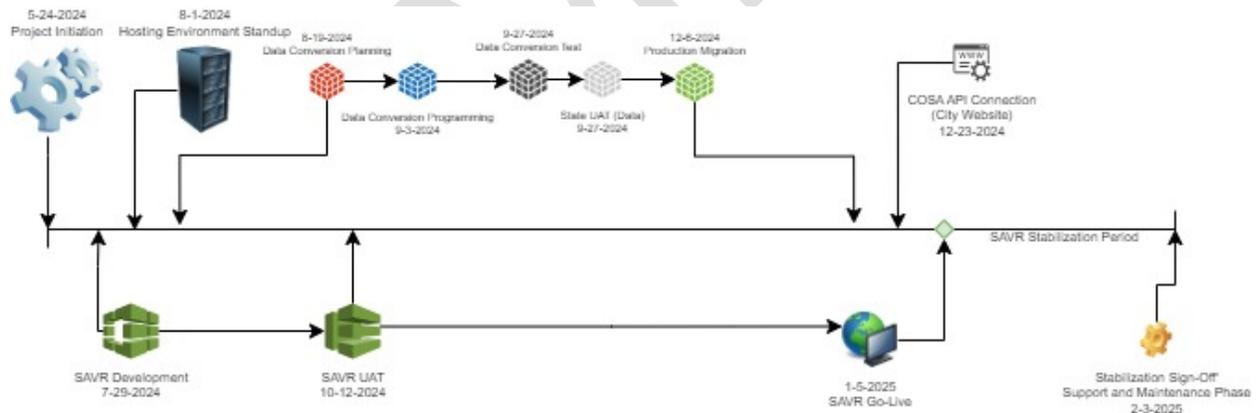
Rollout will be achieved as established by the final System Implementation Plan (SOW Deliverable 9), System Deployment Plan (SOW Deliverable 28), and System Training Plan (SOW Deliverable 24). All users will be required to meet COSA requirements for training and security prior to being allowed to process records on the production server.

2.2 Scope Timelines

The following diagrams provide a high-level visual representation of approximate timeframes that COSA has allocated for each block of the project. These timelines are not inclusive of all tasks required to complete the project and are only intended to provide a general idea of the overall elapse times that the State has allocated per project block.

Timeline:

Birth, Death, Fee and Issuance, Imaging





2.3 Project Kick Off

A project kick off meeting was held on May 24, 2024 with representatives from COSA and Genesis. Items covered in the kick off meeting included, but not limited to:

- Deliverable review process
- Setting the schedule for meetings between representatives from the State and Genesis to develop the detailed project plan
- Defining lines of communication and reporting relationships
- Reviewing the project mission, scope, approach and timeline
- Pinpointing high-risk or problem areas
- COTS system Review and functionality demonstration

On a periodic basis, COSA reserves the right to review the approved project plan and associated deliverables to assess the direction of the project and determine if changes are required, as mutually agreed. Changes to the approved project plan and/or associated deliverables may result in a contract amendment.

3 Project Development Objectives

Overall Project mission Objectives are defined in Section 1.2 of the Project Plan. Specific objectives for development of the SAVR system are defined as follows:

3.1 Business Objectives

Number	Description
Objective 1	Ensure that key stakeholders have input into the design process.
Objective 2	Accomplish project mission goals and objectives within defined budget and time parameters.
Objective 3	Minimize impact to standard business operations within the affected units.
Objective 4	Develop mutually agreeable system design documents between COSA and Genesis.

3.2 Technical Objectives

Number	Description
Objective 1	Build an infrastructure environment at the Genesis hosting location that will support the City of San Antonio new SAVR application environment



Number	Description
Objective 2	Develop detailed specifications to accommodate the SAVR stakeholder requirements and accomplish mission objectives
Objective 3	Convert the legacy systems data using a planned data conversion approach as specified in SOW Deliverable 8.

4 Deliverables

4.1 Deliverable Submission and Review Process

The complexity and scale of the SAVR project requires a comprehensive set of deliverables identified herein as SOW Deliverables (SOWD). SOWD's shall be prepared and delivered by Genesis for COSA review and or approval as defined herein.

Table 1 summarizes all document deliverables including the format and time frame for delivery on the project. All SOWD's are referenced within the associated Work Breakdown Structure (WBS) activities. Deliverables are grouped in three categories: Plans, Reports, and Technical Documents. Each SOWD has a unique identifying number.

Genesis shall provide all SOWD's per the defined deliverable formats, dates, and timeframes listed in the referenced SOW paragraphs and Table 1. Genesis shall perform all contract activities In Accordance With (IAW) the COSA approved SOWDs.

Table 1 SOWD Notes:

1. "d = day" and refers to business days.
2. "ACA = After Contract Award date" and measured from the date of contract start of work.
3. Deliverables shall be in Microsoft Office 365 compatible file formats unless stated otherwise.
4. Recurring weekly reports are due NLT 5 pm CST each Friday.
5. Recurring monthly reports are due NLT 5 pm CST on the last Thursday of each month. Quarterly reports are due NLT 5 pm CST on the last Monday of each State fiscal quarter (e.g. Q1= Nov, Q2= Feb, Q3=May, Q4=Aug).
6. Due dates that reference a project major milestone (i.e. SRR, PDR, CDR, etc.), refer to Table 2 Project Milestones and the associated Project Integrated Master Schedule (PIMS).



Table 1. Scope of Work Deliverable (SOWD) Documents

No.	Deliverable Document Title	Document Format	Contractor Due Date	COSA Review Period
SAVR Project Deliverable Plans				
02	Project plan	MS Word	30d ACA	10d
03	Project schedule	MS Project	30d ACA	10d
04	Weekly status report	MS Word	Initial – 5d ACA	N/A
05	Functional Specifications Document	MS Word		10d
06	Functional Design Document	MS Word		10d
07	Interface Control Documents	MS Word		10d
08	Data Conversion Plan – (System Data; Statistical Data; Imaging Data)	MS Word	Initial - PDR; Final - CDR	10d
10	System Deployment/Installation Plan	MS Word	Initial – CDR; Final - TRR	15d
11	System Customization Document	MS Word	Initial – PDR; Final CDR	15d
12	Configurations Document	MS Word		10d
13	Integrations Document	MS Word		10d
19	System Test Plan	MS Word/ Excel	Initial – CDR; Final - TRR	15d
21	Test cases, Scripts, Scenarios	MS Word/ HHSC/DSH S Excel Template	Initial – CDR; Final - TRR	15d
24	Training plan	MS Word	Initial – CDR; Final - TRR	15d
28	Deployment plan	MS Word	Initial - PDR; Final - CDR	15d
29	System Security plan	MS Word	30d ACA	10d
30	Service Level Agreement	MS Word	30d after go-live	5d
31	System Incident and Corrective Actions Report	MS Word	Within 24 hrs of event	10d



COSA shall acknowledge receipt of each Genesis deliverable in writing. COSA shall review and provide comments, questions, clarifications requests, approval and or rejections with required corrective actions within the specified time frame. If COSA is unable to provide a timely response COSA shall notify Genesis of the reason for the delay and negotiate a revised due date.

Deliverable Submission

The deliverable document must contain an approval/rejection section that can be completed by the City.

Deliverables must be developed by Genesis according to the approved format and content for each specific 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 Genesis.

Deliverable Review

The City's review time begins on the next working day following receipt of the deliverable.

The City's review time will be determined in accordance with Table 1 or the approved and accepted detailed Project Schedule (SOWD 3), if such review times are listed therein.

Any failure by the City to review a deliverable within the time specified in the detailed project schedule will result in a corresponding change to all subsequent deliverable dates for all deliverables in the detailed project schedule.

Any subsequent deliverable dependent upon the City'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 Genesis.

After review of a deliverable, the City will return to Genesis the project deliverable sign-off form with the deliverable submission and review history section completed.

Accepted for Review by the City

If the deliverable is accepted, the original deliverable sign-off form signed by the appropriate City representatives will be returned to Genesis within the specified review time.

If the City has comments and/or revisions to a deliverable, the following will be provided to the



Genesis:

- The original deliverable sign-off form with an updated entry in the deliverable submission and review history section.
- 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.
- The City's first review and return with comments will be completed within the times specified in the project schedule.

Genesis will have the time set forth in the detailed project schedule for review, acceptance and/or rejection of the City's comments.

A meeting to resolve outstanding issues must be completed within three (3) working days after completion of Genesis's review or a mutually agreed upon time frame. Once an agreement is reached regarding changes, Genesis must incorporate them into the deliverable for resubmission to the City.

Resubmission of the deliverable must occur within five (5) working 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 City may only comment on the original exceptions noted; all other items not originally commented on are considered to be accepted by the City.

Once all revisions have been accepted, the original deliverable sign-off form signed by the appropriate City representatives will be returned to Genesis within two business days.

Genesis must provide one (1) updated and complete master paper copy, where applicable and a corresponding electronic file of each deliverable after approval and acceptance by the City.

Once Genesis receives the original deliverable sign-off form, the City can then be invoiced for the deliverable.

Rejected, Not Considered Ready for Review by the City

If the City considers a deliverable not ready for review, the following will be returned to the Genesis:

- The original deliverable sign-off form with an updated entry to the deliverable submission and review history section.
- The original deliverable and all copies with a written explanation as to why the deliverable is being rejected, not considered delivered.



Genesis will have five (5) working days, unless otherwise mutually agreed to, for review, acceptance and/or rejection of the City’s comments.

A meeting to discuss the City’s position regarding the rejection of the deliverable must be completed within three (3) working days after completion of Genesis’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 City will follow the steps outlined in above to determine if the document is ready for review.

4.2 Deliverable Acceptance Procedure

COSA will review each deliverable as cited in **Table 1, Scope of Work Deliverables**. The committee will include the following members:

TBD	TBD

The entire committee is not required to review each submitted deliverable from Table 1, however signed deliverable approval and acceptance is needed from at least one committee member.

4.3 Project Milestones

The on-time deployment of the custom SAVR System is the most critical milestone deliverable of the contract. A joint Genesis and COSA Project Integrated Master Schedule (PIMS) shall be developed, baselined, and maintained throughout the project lifecycle as part of the IPT activities (SOWD 3).

The project’s major milestones are depicted in Table 2. These milestones represent the key checkpoints to be incorporated into the project schedule and used as a reference for communicating status of project progress, deliverables, and associated Genesis payment milestones.

Changes to any major milestone date must be agreed in writing. If the Contractor schedule performance indicates one or more major milestone cannot be achieved, the Contractor shall provide written notice to System Agency about the developing situation (including the



recommended corrective action plan) to bring the project back into compliance.

If an adaptation of the project activities will not allow a return to the original milestone date, Genesis and COSA shall meet to discuss and mutually agree on a suitable action plan. Genesis shall proceed with changes in Scope, Schedule, or Cost only on written contractual authorization issued by the designated COSA Contract Manager.

Genesis shall conduct major milestone event reviews to facilitate COSA review and approval of each milestone transition point.

Table 2. SAVR Project Major Milestones

Milestone Number	SAVR Project Milestone Event/Achievement	Planned Date
1	Contract Signing	06/01/24
2	Joint Application Design Complete	07/01//24
3	Environment Provisioned	07/01//24
4	System Design Documents Complete	08/01/24
5	Test Migration Complete	09/15/24
6	UAT Complete	09/15/24
7	User Training Complete	11/21/24
8	Final Data Migration	01/05/25
9	Final Acceptance	04/05/25

4.3.1 Milestone 1: Contract Signing

Planned Completion Date: 6/1/24

The objective of this Milestone is to begin the development of the SAVR system. Upon the signing of the contract, Genesis can prepare to conduct Joint Application Design Sessions (JADS) and beginning design document planning.

Required activities:

- Both parties sign contract
- Have Kick-off Meeting

Milestone 1 Document Deliverables:

N/A



4.3.2 Milestone 2: COTS Joint Application Design Complete

Planned Completion Date: 7/1/24

The objective of this Milestone is for Genesis to work with COSA staff to gather information on the requirements of the SAVR application and to fully understand the needs of COSA staff to operate at the highest level. This deliverable also provides for the functional design documents to ensure that all workflows are captured.

Required Activities:

- On site JAD sessions and observation sessions to gather required information
- Walkthrough of current application with COSA users to find gaps and needs
- Completion and presentation of JAD notes
- Completion Functional Design Documents

Milestone 2 Document Deliverables:

Deliverable Number	Description of Deliverable
06	Functional Design Document

4.3.3 Milestone 3: Environment Provisioned

Planned Completion Date: 7/1/24

The objective of this Milestone is to build and provision the hosting environment for COSA production and User Acceptance Testing. This will include the physical build of the hosting environment as well as all security hardening procedures.

Required Activities:

- Standing up of the Environment for UAT and Production
- Hardening of environment for security purposes
- Deployment of test version of SAVR to validate environment functionality

Milestone 3 Document Deliverables:

N/A

4.3.4 Milestone 4: System Design Documents Complete

Planned Completion Date: 8/1/24

The objective of this Milestone is to finalize the system design and functionality. This will ensure that Genesis and COSA are singularly focused on configuring SAVR to function as defined in



the documents. This will lessen issues during UAT where COSA staff is expecting one workflow and finding another.

Required Activities:

- Meet with Stakeholders, subject matter experts, and decision makers on system design questions and needed modifications to the COTS system.
- Identify any action items from both COSA and Genesis that need to be completed to finalize successful system design documentation and preparation for system customization to begin.
- Complete final drafts of System Design Documents

Milestone 6 Document Deliverables:

Deliverable Number	Description of Deliverable
05	Functional Specifications Documents
06	Functional Design Documents

4.3.5 Milestone 5: Test Migration Complete

Planned Completion Date: 10/15/24

The objective of this Milestone is two-fold. The first primary objective is for Genesis to move the data from the COSA environment into the Genesis hosted environment. This move is done as a single move that establishes a backup of the data before merging into SAVR. The second primary objective is to test the migration into SAVR and allow COSA staff to review and ensure data is accessible and correct.

Required Activities:

- Move data and images into the Genesis hosted environment
- Migrate the data and images into SAVR
- Work with COSA staff to validate the data

Milestone 5 Document Deliverables:

Deliverable Number	Description of Deliverable
08	Data Conversion Plan

4.3.6 Milestone 6: User Acceptance Testing Complete

Planned Completion Date: 11/1/24

The objective of this milestone is to confirm system requirements based on initial design decisions understood during the JAD sessions. Genesis will present COSA with SAVR in the UAT environment for user testing and acceptance. Genesis will provide COSA with test scripts. COSA will create its own test scripts as needed. COSA will test and provide bugs/issues/concerns to Genesis, who will work with the COSA project manager and project



lead to determine criticality and relevance. Genesis will remedy all critical and high issues prior to completion of UAT. Medium and Low issues will be subject to the System Test Plan.

Required Activities:

- Genesis provides System Test Plan to COSA
- Genesis deploys SAVR into the UAT environment and creates users for COSA testers
- Genesis provides test scripts to COSA
- COSA creates additional test scripts (if desired)
- COSA tests application and reports all bugs and errors for remediation
- Genesis remediates bugs and errors

Milestone 6 Document Deliverables:

Deliverable Number	Description of Deliverable
19	System Test Plan
21	Test cases, Scripts, Scenarios

4.3.7 Milestone 7: User Training Complete

Planned Completion Date: 11/21/24

The objective of this Milestone is to ensure all COSA users are sufficiently trained on how to operate SAVR and that the users are prepared for Go Live.

Required Activities:

- Genesis will provide remote training for all COSA users. This training will follow the Training Plan.
-

Milestone 7 Document Deliverables:

Deliverable Number	Description of Deliverable
24	Training Plan

4.3.8 Milestone 8: Final Data Migration Complete

Planned Completion Date: 1/5/25

4.3.9 Milestone 9: Final Acceptance

Planned Completion Date: 4/5/25

The Objective of this milestone is for COSA to sign off on the acceptance of the SAVR



application after a 90-day warranty period.

5 SAVR Project Organization

5.1 Stakeholders

Role / Title	Person	Email	Telephone
Executive Sponsor, Chief Operating Officer			
Project Sponsor, City Registrar	Debbie Racca-Sittre		
Technology Sponsor	David Sweet		
Project Manger	Bridget Lewis McKinney		
Project Lead	Terri Hernandez-Chapa		
Genesis Systems, Inc. CEO	Richard Huber		
Genesis Systems, Inc. Project Manager	Chad Denlinger	cdenlinger@genesisisinfo.com	717-909-8519
Genesis Systems, Inc. Assistant Project Manager	Christopher Hoffmann	choffmann@genesisisinfo.com	717-909-8522
Genesis Systems, Inc. Technical Lead	Hung Tran	htran@genesisisinfo.com	717-909-8548
Genesis Systems, Inc. Technical Writer	Laurie Gray	lgray@genesisisinfo.com	717-909-8528

5.2 Project Team Roles and Responsibilities

Role	Responsibilities	Person	Position, Organization
Executive Sponsors	✓ Facilitate cooperation with external stakeholders		



Role	Responsibilities	Person	Position, Organization
	<ul style="list-style-type: none"> ✓ Communicate project goals, objectives and progress to executive stakeholders ✓ Ensure appropriate staffing, commitment and participation of appropriate resources ✓ Own final budget authority ✓ Review and approve scope of project ✓ Address project issues as required ✓ Manage project risks through identification and mitigation 		
Business Owner	<ul style="list-style-type: none"> ✓ Assist in establishing project scope ✓ Assist in project management activities ✓ Ensure appropriate staffing, commitment and participation of appropriate resources ✓ Review and approve project deliverables ✓ Participate in monthly status meetings ✓ Address project issues as required ✓ Manage project risks through identification and mitigation ✓ Assist in facilitating communication and coordination 	Debbie Racca-Sittre	City Clerk/Registrar
Project Manager	<ul style="list-style-type: none"> ✓ Assist in establishing project scope ✓ Direct and commit appropriate resources necessary to achieve project deliverables ✓ Review and approve project deliverables ✓ Develop input and content to monthly status report ✓ Manage weekly and monthly status meetings ✓ Respond to project control documents in a timely fashion 	Bridget Lewis McKinney	Project Manager



Role	Responsibilities	Person	Position, Organization
	<ul style="list-style-type: none"> ✓ Manage project risks through identification and mitigation ✓ Facilitate communication and coordination with project team 		
Project Teams and SME's	<p>Project teams provide subject matter expertise in the areas of business process, data design, testing, development, infrastructure, change and learning.</p> <ul style="list-style-type: none"> ✓ Understand the user needs and business processes of their area ✓ Act as consumer advocate in representing their area ✓ Communicate project goals, status and progress throughout the project to personnel in their area ✓ Review and approve project deliverables ✓ Creates or helps create work products ✓ Coordinates participation of work groups, individuals and stakeholders ✓ Provide knowledge and recommendations ✓ Helps identify and remove project barriers ✓ Assure quality of products that will meet the project goals and objectives 	Vital Records Team	

5.3 Project Assumptions

Number	Assumption
1.	Failure to identify changes to deliverable within the time specified in the project timeline will result in project delays.
2.	Management will ensure that project team members are available as needed to complete project tasks and objectives



Number	Assumption
3.	COSA will continue to support and drive the project forward.
4.	All project participants will abide by the guidelines identified within this plan.
5.	The Project Plan may change as new information and issues are revealed.
6.	COSA will participate in the timely execution of the Project Plan (i.e., timely approval cycles and meeting when required).

5.4 Constraints

Number	Description
1.	Project funding sources are limited.
2.	Resource constraints due to limited funds to hire additional FTEs.
3.	Project Timeline constrained by January 5, 2025 Go-Live date, no room for delay

5.5 Dependencies

Number	Description
1.	FileNet for successful Image migration.
2.	NCR for credit card interface.
3.	COSA IT for SSO integration.

5.6 Project Deliverable Timeline

Refer to Table 2 for Milestone Project Timeline and Table 1 for Document Deliverables Timeline

5.7 Project budget tracking

The Vital Records budget will be tracked by the Business Sponsor.

6 Integrated System Tasks

6.1 Internal Knowledge Transfer Strategy and System Training



Genesis will provide functional training to COSA staff and stakeholders. As defined in Project Schedule (SOWD 03) and Training Plan (SOWD 24), Genesis will provide training sessions for the preparation of the user base to utilize the new system on Jan 5, 2025.

6.2 Project Close-Out & Lessons Learned

Project Close-Out & Formal Lessons Learned are project management activities performed at the end of the System Stabilization Period to ensure the proper closure of a current life cycle phase before proceeding to the next phase. Close-out activities include review of all goals and objectives of the project, final status and closure of issues and risks related to the phase, and review of documentation and files for archival or destruction.

At the close of the System Stabilization Period, the SAVR project team will prepare a lessons learned report. This includes an analysis of project objectives achieved during the completed project development and implementation phase. Lessons Learned reports will be kept on the designated SAVR drive for use by other projects and identifying areas for process improvement action.

6.3 Administrative Closure

The Administrative Closure is the process of preparing closure documentation of the project deliverables for Vital Records as well as taking other administrative actions to ensure that the project and its asset are redistributed.

- ✓ Financial Closure and Audit – completing and terminating the financial and budgetary aspects of the project being performed.
- ✓ Archiving- creating and storing a hard and/or soft copy of all documentation related to the project.
- ✓ Personnel and Facilities – reassignment and reallocation of personnel and equipment that have been used during the project.



7 Change Request Process

As part of the change management, once the project has been “base-lined,” scope, cost, or schedule changes will go through the Project Change Control process. Upon receipt of a requested change, Genesis will submit COSA a Project Change Request form along with an Estimate to include:

- The Scope of Work;
- A brief description of the requested change;
- Opinion as to the impact to the schedule for remaining work for implementing the identified change;
- A summary of the Tasks involved to complete the requested change
- Risks of not completing the change, if any
- Estimated cost of change (an estimated high and low end cost);

Genesis will present the Project Change Request form with an estimate to COSA for final acceptance and approval. Once final approval has been received from COSA, Genesis will prepare a formal Change Order (with additional information where applicable) and a firm fixed price for City’s approval. Once final approval of the Change Order has been received from COSA, Genesis will prepare an amended project schedule at no cost to the City which will detail all impacts to the project

If an approved Change Request results in a contractual scope, cost, or significant schedule change, a bilateral contract amendment will be executed and the Purchase Order will be adjusted accordingly.



8 Approvals

Sign-off Sheet

The undersigned acknowledge they have reviewed the SAVR Project Plan and accept the contents herein written. Changes to this project plan will be coordinated with and approved by the undersigned or their designated representatives.

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

ID		% Complete	WBS	Name	Start	Finish
1		0%	1	Phase I - Death, Birth, Imaging, Fee	Mon 3/2/26	Fri 8/27/27
2		0%	1.1	Project Kickoff	Mon 3/2/26	Mon 3/2/26
3		0%	1.2	Requirements Gathering	Tue 3/3/26	Fri 3/20/26
4		0%	1.2.1	Genesis to provide a list of information needed	Tue 3/3/26	Tue 3/3/26
5		0%	1.2.2	State to gather information and provide to Genesis	Wed 3/4/26	Tue 3/17/26
6		0%	1.2.3	Genesis to review	Wed 3/18/26	Fri 3/20/26
7		0%	1.3	Joint Application Design	Mon 3/23/26	Thu 4/9/26
8		0%	1.3.1	JAD preparation	Mon 3/23/26	Fri 3/27/26
9		0%	1.3.2	JAD-Birth Registration	Mon 3/30/26	Mon 3/30/26
10		0%	1.3.3	JAD-Birth Amendments	Mon 3/30/26	Mon 3/30/26
11		0%	1.3.4	JAD-Birth Reports	Mon 3/30/26	Mon 3/30/26
12		0%	1.3.5	JAD-Birth certificates and parentage	Mon 3/30/26	Mon 3/30/26
13		0%	1.3.6	JAD-Death Registration	Tue 3/31/26	Tue 3/31/26
14		0%	1.3.7	JAD-Death Amendments	Tue 3/31/26	Tue 3/31/26
15		0%	1.3.8	JAD-Death Reports	Tue 3/31/26	Tue 3/31/26
16		0%	1.3.9	JAD-Death certificates and permits	Tue 3/31/26	Tue 3/31/26
17		0%	1.3.10	JAD-Fee certificate issuance	Wed 4/1/26	Wed 4/1/26
18		0%	1.3.11	JAD-Fee extra equipment and process review	Wed 4/1/26	Wed 4/1/26
19		0%	1.3.12	JAD-Payment processes, Paper Inventory	Wed 4/1/26	Wed 4/1/26
20		0%	1.3.13	JAD-Fee Accounting and reports	Thu 4/2/26	Thu 4/2/26
21		0%	1.3.14	JAD-Imaging	Thu 4/2/26	Thu 4/2/26
22		0%	1.3.15	JAD notes written up and provided to State	Fri 4/3/26	Thu 4/9/26
23		0%	1.4	System Design and Specification Documents	Fri 4/10/26	Thu 6/11/26

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID		% Complete	WBS	Name	Start	Finish
24		0%	1.4.1	Death Functional Design Document	Fri 4/10/26	Thu 4/16/26
25		0%	1.4.2	Death Functional Specification Document	Fri 4/17/26	Thu 4/23/26
26		0%	1.4.1	Birth Functional Design Document	Fri 4/24/26	Thu 4/30/26
27		0%	1.4.2	Birth Functional Specification Document	Fri 5/1/26	Thu 5/7/26
28		0%	1.4.5	Fee Design Document	Fri 5/8/26	Thu 5/14/26
29		0%	1.4.6	Fee Functional Specification Document	Fri 5/15/26	Thu 5/21/26
30		0%	1.4.7	Imaging Functional Design Document	Fri 5/22/26	Mon 5/25/26
31		0%	1.4.8	Imaging Functional Specification Document	Tue 5/26/26	Thu 5/28/26
32		0%	1.4.9	State to review and approve	Fri 5/29/26	Thu 6/11/26
33		0%	1.5	Genesis Death Development	Fri 6/12/26	Thu 10/29/26
34		0%	1.5.1	Death Sprint 1	Fri 6/12/26	Wed 6/24/26
35		0%	1.5.2	Death Sprint 1 Review	Thu 6/25/26	Thu 6/25/26
36		0%	1.5.3	Death Sprint 2	Fri 6/26/26	Wed 7/8/26
37		0%	1.5.4	Death Sprint 2 Review	Thu 7/9/26	Thu 7/9/26
38		0%	1.5.5	Death Sprint 3	Fri 7/10/26	Wed 7/22/26
39		0%	1.5.6	Death Sprint 3 Review	Thu 7/23/26	Thu 7/23/26
40		0%	1.5.7	Death Sprint 4	Fri 7/24/26	Wed 8/5/26
41		0%	1.5.8	Death Sprint 4 Review	Thu 8/6/26	Thu 8/6/26
42		0%	1.5.9	Death Sprint 5	Fri 8/7/26	Wed 8/19/26
43		0%	1.5.10	Death Sprint 5 Review	Thu 8/20/26	Thu 8/20/26
44		0%	1.5.11	Death Sprint 6	Fri 8/21/26	Wed 9/2/26
45		0%	1.5.12	Death Sprint 6 Review	Thu 9/3/26	Thu 9/3/26
46		0%	1.5.13	Death Sprint 7	Fri 9/4/26	Wed 9/16/26

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID		% Complete	WBS	Name	Start	Finish
47		0%	1.5.14	Death Sprint 7 Review	Thu 9/17/26	Thu 9/17/26
48		0%	1.5.15	Death Sprint 8	Fri 9/18/26	Wed 9/30/26
49		0%	1.5.16	Death Sprint 8 Review	Thu 10/1/26	Thu 10/1/26
50		0%	1.5.17	Death Sprint 9	Fri 10/2/26	Wed 10/14/26
51		0%	1.5.18	Death Sprint 9 Review	Thu 10/15/26	Thu 10/15/26
52		0%	1.5.19	Death Sprint 10	Fri 10/16/26	Wed 10/28/26
53		0%	1.5.20	Death Sprint 10 Review	Thu 10/29/26	Thu 10/29/26
54		0%	1.5	Genesis Birth Development	Fri 6/12/26	Mon 10/19/26
55		0%	1.5.1	Birth Sprint 1	Fri 6/12/26	Wed 6/24/26
56		0%	1.5.2	Birth Sprint 1 Review	Thu 6/25/26	Thu 6/25/26
57		0%	1.5.3	Birth Sprint 2	Fri 6/26/26	Wed 7/8/26
58		0%	1.5.4	Birth Sprint 2 Review	Thu 7/9/26	Thu 7/9/26
59		0%	1.5.5	Birth Sprint 3	Fri 7/10/26	Wed 7/22/26
60		0%	1.5.6	Birth Sprint 3 Review	Thu 7/23/26	Thu 7/23/26
61		0%	1.5.7	Birth Sprint 4	Fri 7/24/26	Fri 7/24/26
62		0%	1.5.8	Birth Sprint 4 Review	Mon 7/27/26	Mon 7/27/26
63		0%	1.5.9	Birth Sprint 5	Tue 7/28/26	Fri 8/7/26
64		0%	1.5.10	Birth Sprint 5 Review	Mon 8/10/26	Mon 8/10/26
65		0%	1.5.11	Birth Sprint 6	Tue 8/11/26	Fri 8/21/26
66		0%	1.5.12	Birth Sprint 6 Review	Mon 8/24/26	Mon 8/24/26
67		0%	1.6.13	Birth Sprint 7	Tue 8/25/26	Fri 9/4/26
68		0%	1.6.14	Birth Sprint 7 Review	Mon 9/7/26	Mon 9/7/26
69		0%	1.6.15	Birth Sprint 8	Tue 9/8/26	Fri 9/18/26

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

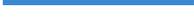
ID		% Complete	WBS	Name	Start	Finish
70		0%	1.6.16	Birth Sprint 8 Review	Mon 9/21/26	Mon 9/21/26
71		0%	1.6.17	Birth Sprint 9	Tue 9/22/26	Fri 10/2/26
72		0%	1.6.18	Birth Sprint 9 Review	Mon 10/5/26	Mon 10/5/26
73		0%	1.6.19	Birth Sprint 10	Tue 10/6/26	Fri 10/16/26
74		0%	1.6.20	Birth Sprint 10 Review	Mon 10/19/26	Mon 10/19/26
75		0%	1.7	Genesis Fee Development	Fri 6/12/26	Thu 10/29/26
76		0%	1.7.1	Fee Sprint 1	Fri 6/12/26	Wed 6/24/26
77		0%	1.7.2	Fee Sprint 1 Review	Thu 6/25/26	Thu 6/25/26
78		0%	1.7.3	Fee Sprint 2	Fri 6/26/26	Wed 7/8/26
79		0%	1.7.4	Fee Sprint 2 Review	Thu 7/9/26	Thu 7/9/26
80		0%	1.7.5	Fee Sprint 3	Fri 7/10/26	Wed 7/22/26
81		0%	1.7.6	Fee Sprint 3 Review	Thu 7/23/26	Thu 7/23/26
82		0%	1.7.7	Fee Sprint 4	Fri 7/24/26	Wed 8/5/26
83		0%	1.7.8	Fee Sprint 4 Review	Thu 8/6/26	Thu 8/6/26
84		0%	1.7.9	Fee Sprint 5	Fri 8/7/26	Wed 8/19/26
85		0%	1.7.10	Fee Sprint 5 Review	Thu 8/20/26	Thu 8/20/26
86		0%	1.7.11	Fee Sprint 6	Fri 8/21/26	Wed 9/2/26
87		0%	1.7.12	Fee Sprint 6 Review	Thu 9/3/26	Thu 9/3/26
88		0%	1.7.13	Fee Sprint 7	Fri 9/4/26	Wed 9/16/26
89		0%	1.7.14	Fee Sprint 7 Review	Thu 9/17/26	Thu 9/17/26
90		0%	1.7.15	Fee Sprint 8	Fri 9/18/26	Wed 9/30/26
91		0%	1.7.16	Fee Sprint 8 Review	Thu 10/1/26	Thu 10/1/26
92		0%	1.7.17	Fee Sprint 9	Fri 10/2/26	Wed 10/14/26

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID		% Complete	WBS	Name	Start	Finish
93		0%	1.7.18	Fee Sprint 9 Review	Thu 10/15/26	Thu 10/15/26
94		0%	1.7.19	Fee Sprint 10	Fri 10/16/26	Wed 10/28/26
95		0%	1.7.20	Fee Sprint 10 Review	Thu 10/29/26	Thu 10/29/26
96		0%	1.8	Genesis Imaging Development	Fri 6/12/26	Thu 10/29/26
97		0%	1.8.1	Imaging Sprint 1	Fri 6/12/26	Wed 6/24/26
98		0%	1.8.2	Imaging Sprint 1 Review	Thu 6/25/26	Thu 6/25/26
99		0%	1.8.3	Imaging Sprint 2	Fri 6/26/26	Wed 7/8/26
100		0%	1.8.4	Imaging Sprint 2 Review	Thu 7/9/26	Thu 7/9/26
101		0%	1.8.5	Imaging Sprint 3	Fri 7/10/26	Wed 7/22/26
102		0%	1.8.6	Imaging Sprint 3 Review	Thu 7/23/26	Thu 7/23/26
103		0%	1.8.7	Imaging Sprint 4	Fri 7/24/26	Wed 8/5/26
104		0%	1.8.8	Imaging Sprint 4 Review	Thu 8/6/26	Thu 8/6/26
105		0%	1.8.9	Imaging Sprint 5	Fri 8/7/26	Wed 8/19/26
106		0%	1.8.10	Imaging Sprint 5 Review	Thu 8/20/26	Thu 8/20/26
107		0%	1.8.11	Imaging Sprint 6	Fri 8/21/26	Wed 9/2/26
108		0%	1.8.12	Imaging Sprint 6 Review	Thu 9/3/26	Thu 9/3/26
109		0%	1.8.13	Imaging Sprint 7	Fri 9/4/26	Wed 9/16/26
110		0%	1.8.14	Imaging Sprint 7 Review	Thu 9/17/26	Thu 9/17/26
111		0%	1.8.15	Imaging Sprint 8	Fri 9/18/26	Wed 9/30/26
112		0%	1.8.16	Imaging Sprint 8 Review	Thu 10/1/26	Thu 10/1/26
113		0%	1.8.17	Imaging Sprint 9	Fri 10/2/26	Wed 10/14/26
114		0%	1.8.18	Imaging Sprint 9 Review	Thu 10/15/26	Thu 10/15/26
115		0%	1.8.19	Imaging Sprint 10	Fri 10/16/26	Wed 10/28/26

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID		% Complete	WBS	Name	Start	Finish
116		0%	1.8.20	Imaging Sprint 10 Review	Thu 10/29/26	Thu 10/29/26
117		0%	1.9	Genesis Integration Testing	Fri 6/26/26	Thu 11/12/26
118		0%	1.9.1	Sprint 1 Testing	Fri 6/26/26	Thu 7/9/26
119		0%	1.9.2	Sprint 2 Testing	Fri 7/10/26	Thu 7/23/26
120		0%	1.9.3	Sprint 3 Testing	Fri 7/24/26	Thu 8/6/26
121		0%	1.9.4	Sprint 4 Testing	Fri 8/7/26	Thu 8/20/26
122		0%	1.9.5	Sprint 5 Testing	Fri 8/21/26	Thu 9/3/26
123		0%	1.9.6	Sprint 6 Testing	Fri 9/4/26	Thu 9/17/26
124		0%	1.9.7	Sprint 7 Testing	Fri 9/18/26	Thu 10/1/26
125		0%	1.9.8	Sprint 8 Testing	Fri 10/2/26	Thu 10/15/26
126		0%	1.9.9	Sprint 9 Testing	Fri 10/16/26	Thu 10/29/26
127		0%	1.9.10	Sprint 10 Testing	Fri 10/30/26	Thu 11/12/26
128		0%	1.10	Genesis System Testing	Fri 11/13/26	Thu 12/3/26
129		0%	1.10.1	Integration Testing Bug Remediation	Fri 11/13/26	Thu 11/19/26
130		0%	1.10.2	Full System/Regression Testing	Fri 11/20/26	Thu 12/3/26
131		0%	1.10.3	System Test Remediation	Fri 11/20/26	Thu 12/3/26
132		0%	1.11	Data Conversion Testing	Fri 6/12/26	Thu 12/3/26
133		0%	1.11.1	Review Data and Data Formats from current system	Fri 6/12/26	Thu 7/23/26
134		0%	1.11.2	Data Mapping	Fri 7/24/26	Thu 9/17/26
135		0%	1.11.3	Create Data Conversion packages	Fri 9/18/26	Thu 10/29/26
136		0%	1.11.4	Test Data Conversion	Fri 10/30/26	Thu 11/5/26
137		0%	1.11.5	Data Validation	Fri 11/6/26	Thu 11/26/26
138		0%	1.11.6	Data fixes	Fri 11/27/26	Thu 12/3/26

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID		% Complete	WBS	Name	Start	Finish
139		0%	1.12	User Acceptance Testing	Thu 12/3/26	Thu 2/11/27
140		0%	1.12.1	UAT Kick-off	Thu 12/3/26	Thu 12/3/26
141		0%	1.12.2	UAT Testing	Fri 12/4/26	Thu 1/28/27
142		0%	1.12.3	UAT Remediation	Fri 1/29/27	Thu 2/4/27
143		0%	1.12.4	Regression Test	Fri 2/5/27	Thu 2/11/27
144		0%	1.13	Training	Fri 2/5/27	Thu 4/8/27
145		0%	1.13.1	Technical Training for System Admin	Fri 2/5/27	Fri 2/5/27
146		0%	1.13.2	Train the Trainer Training-Death	Mon 2/8/27	Mon 2/8/27
147		0%	1.13.3	Train the Trainer Training-Birth	Tue 2/9/27	Tue 2/9/27
148		0%	1.13.4	Train the Trainer Training-Fee	Wed 2/10/27	Wed 2/10/27
149		0%	1.13.5	Train the Trainer Training-Imaging	Thu 2/11/27	Thu 2/11/27
150		0%	1.13.6	End User Training	Fri 2/12/27	Thu 4/8/27
151		0%	1.14	Go Live	Fri 12/4/26	Fri 4/23/27
152		0%	1.14.1	Final UAT sign off	Thu 2/11/27	Thu 2/11/27
153		0%	1.14.2	Final Data sign off	Fri 12/4/26	Fri 12/4/26
154		0%	1.14.3	Final preparations for Go Live	Fri 4/9/27	Thu 4/22/27
155		0%	1.14.4	Go Live	Fri 4/23/27	Fri 4/23/27
156		0%	1.15	Burn-In Period	Mon 4/26/27	Fri 8/27/27
157		0%	1.15.1	Stabilization	Mon 4/26/27	Fri 8/27/27
158						
159		0%	1	Phase 2 - Fetal Death, ITOPS, Marriage, Divorce	Fri 6/26/26	Tue 9/14/27
160		0%	1.2	Requirements Gathering	Fri 6/26/26	Fri 7/17/26
161		0%	1.2.1	Genesis to provide a list of information needed	Fri 6/26/26	Fri 6/26/26

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID		% Complete	WBS	Name	Start	Finish
162		0%	1.2.2	State to gather information and provide to Genesis	Mon 6/29/26	Fri 7/10/26
163		0%	1.2.3	Genesis to review	Mon 7/13/26	Fri 7/17/26
164		0%	1.3	Joint Application Design	Mon 7/20/26	Wed 8/5/26
165		0%	1.3.1	JAD preparation	Mon 7/20/26	Fri 7/24/26
166		0%	2.2.2	JAD-Fetal Death Registration and Amendments	Mon 7/27/26	Mon 7/27/26
167		0%	2.2.3	JAD-Fetal Death Reports, certificates, and permits	Mon 7/27/26	Mon 7/27/26
168		0%	2.2.4	JAD-ITOP	Tue 7/28/26	Tue 7/28/26
169		0%	1.3.6	JAD-Marriage Registration and Amendments	Tue 7/28/26	Tue 7/28/26
170		0%	1.3.7	JAD-Marriage Reports, certificates, and license	Wed 7/29/26	Wed 7/29/26
171		0%	1.3.12	JAD-Divorce	Wed 7/29/26	Wed 7/29/26
172		0%	1.3.13	JAD notes written up and provided to State	Thu 7/30/26	Wed 8/5/26
173		0%	1.4	System Design and Specification Documents	Thu 8/6/26	Wed 9/16/26
174		0%	2.3.1	ITOP Design Document	Thu 8/6/26	Mon 8/10/26
175		0%	2.3.2	ITOP Functional Specification Document	Tue 8/11/26	Wed 8/12/26
176		0%	2.3.3	Fetal Death Design Document	Thu 8/13/26	Mon 8/17/26
177		0%	2.3.4	Fetal Death Functional Specification Document	Tue 8/18/26	Wed 8/19/26
178		0%	1.4.3	Marriage Design Document	Thu 8/20/26	Mon 8/24/26
179		0%	1.4.4	Marriage Functional Specification Document	Tue 8/25/26	Wed 8/26/26
180		0%	1.4.5	Divorce Design Document	Thu 8/27/26	Mon 8/31/26
181		0%	1.4.6	Divorce Functional Specification Document	Tue 9/1/26	Wed 9/2/26
182		0%	1.4.9	State to review and approve	Thu 9/3/26	Wed 9/16/26
183		0%	2.4	Genesis Fetal Death Development	Thu 9/17/26	Wed 11/25/26
184		0%	2.4.1	Fetal Death Sprint 1	Thu 9/17/26	Tue 9/29/26

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID		% Complete	WBS	Name	Start	Finish
185		0%	2.4.2	Fetal Death Sprint 1 Review	Wed 9/30/26	Wed 9/30/26
186		0%	2.4.3	Fetal Death Sprint 2	Thu 10/1/26	Tue 10/13/26
187		0%	2.4.4	Fetal Death Sprint 2 Review	Wed 10/14/26	Wed 10/14/26
188		0%	2.4.5	Fetal Death Sprint 3	Thu 10/15/26	Tue 10/27/26
189		0%	2.4.6	Fetal Death Sprint 3 Review	Wed 10/28/26	Wed 10/28/26
190		0%	2.4.7	Fetal Death Sprint 4	Thu 10/29/26	Tue 11/10/26
191		0%	2.4.8	Fetal Death Sprint 4 Review	Wed 11/11/26	Wed 11/11/26
192		0%	2.4.9	Fetal Death Sprint 5	Thu 11/12/26	Tue 11/24/26
193		0%	2.4.10	Fetal Death Sprint 5 Review	Wed 11/25/26	Wed 11/25/26
194		0%	1.6	Genesis Marriage Development	Thu 9/17/26	Wed 11/25/26
195		0%	1.6.1	Marriage Sprint 1	Thu 9/17/26	Tue 9/29/26
196		0%	1.6.2	Marriage Sprint 1 Review	Wed 9/30/26	Wed 9/30/26
197		0%	1.6.3	Marriage Sprint 2	Thu 10/1/26	Tue 10/13/26
198		0%	1.6.4	Marriage Sprint 2 Review	Wed 10/14/26	Wed 10/14/26
199		0%	1.6.5	Marriage Sprint 3	Thu 10/15/26	Tue 10/27/26
200		0%	1.6.6	Marriage Sprint 3 Review	Wed 10/28/26	Wed 10/28/26
201		0%	1.6.7	Marriage Sprint 4	Thu 10/29/26	Tue 11/10/26
202		0%	1.6.8	Marriage Sprint 4 Review	Wed 11/11/26	Wed 11/11/26
203		0%	1.6.9	Marriage Sprint 5	Thu 11/12/26	Tue 11/24/26
204		0%	1.6.10	Marriage Sprint 5 Review	Wed 11/25/26	Wed 11/25/26
205		0%	1.8	Genesis Divorce Development	Thu 9/17/26	Wed 11/25/26
206		0%	1.8.1	Divorce Sprint 1	Thu 9/17/26	Tue 9/29/26
207		0%	1.8.2	Divorce Sprint 1 Review	Wed 9/30/26	Wed 9/30/26

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID		% Complete	WBS	Name	Start	Finish
208		0%	1.8.3	Divorce Sprint 2	Thu 10/1/26	Tue 10/13/26
209		0%	1.8.4	Divorce Sprint 2 Review	Wed 10/14/26	Wed 10/14/26
210		0%	1.8.5	Divorce Sprint 3	Thu 10/15/26	Tue 10/27/26
211		0%	1.8.6	Divorce Sprint 3 Review	Wed 10/28/26	Wed 10/28/26
212		0%	1.8.7	Divorce Sprint 4	Thu 10/29/26	Tue 11/10/26
213		0%	1.8.8	Divorce Sprint 4 Review	Wed 11/11/26	Wed 11/11/26
214		0%	1.8.9	Divorce Sprint 5	Thu 11/12/26	Tue 11/24/26
215		0%	1.8.10	Divorce Sprint 5 Review	Wed 11/25/26	Wed 11/25/26
216		0%	2.7	Genesis ITOP Development	Thu 9/17/26	Wed 11/25/26
217		0%	1.8.1	ITOP Sprint 1	Thu 9/17/26	Tue 9/29/26
218		0%	1.8.2	ITOP Sprint 1 Review	Wed 9/30/26	Wed 9/30/26
219		0%	1.8.3	ITOP Sprint 2	Thu 10/1/26	Tue 10/13/26
220		0%	1.8.4	ITOP Sprint 2 Review	Wed 10/14/26	Wed 10/14/26
221		0%	1.8.5	ITOP Sprint 3	Thu 10/15/26	Tue 10/27/26
222		0%	1.8.6	ITOP Sprint 3 Review	Wed 10/28/26	Wed 10/28/26
223		0%	1.8.7	ITOP Sprint 4	Thu 10/29/26	Tue 11/10/26
224		0%	1.8.8	ITOP Sprint 4 Review	Wed 11/11/26	Wed 11/11/26
225		0%	1.8.9	ITOP Sprint 5	Thu 11/12/26	Tue 11/24/26
226		0%	1.8.10	ITOP Sprint 5 Review	Wed 11/25/26	Wed 11/25/26
227		0%	1.9	Genesis Integration Testing	Thu 10/1/26	Wed 12/9/26
228		0%	1.9.1	Sprint 1 Testing	Thu 10/1/26	Wed 10/14/26
229		0%	1.9.2	Sprint 2 Testing	Thu 10/15/26	Wed 10/28/26
230		0%	1.9.3	Sprint 3 Testing	Thu 10/29/26	Wed 11/11/26

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID		% Complete	WBS	Name	Start	Finish
231		0%	1.9.4	Sprint 4 Testing	Thu 11/12/26	Wed 11/25/26
232		0%	1.9.5	Sprint 5 Testing	Thu 11/26/26	Wed 12/9/26
233		0%	1.10	Genesis System Testing	Thu 12/10/26	Wed 12/30/26
234		0%	1.10.1	Integration Testing Bug Remediation	Thu 12/10/26	Wed 12/16/26
235		0%	1.10.2	Full System/Regression Testing	Thu 12/17/26	Wed 12/30/26
236		0%	1.10.3	System Test Remediation	Thu 12/17/26	Wed 12/30/26
237		0%	1.11	Data Conversion Testing	Thu 9/17/26	Wed 1/6/27
238		0%	1.11.1	Review Data and Data Formats from current system	Thu 9/17/26	Wed 10/7/26
239		0%	1.11.2	Data Mapping	Thu 10/8/26	Wed 11/4/26
240		0%	1.11.3	Create Data Conversion packages	Thu 11/5/26	Wed 12/2/26
241		0%	1.11.4	Test Data Conversion	Thu 12/3/26	Wed 12/9/26
242		0%	1.11.5	Data Validation	Thu 12/10/26	Wed 12/30/26
243		0%	1.11.6	Data fixes	Thu 12/31/26	Wed 1/6/27
244		0%	1.12	User Acceptance Testing	Thu 12/31/26	Thu 3/4/27
245		0%	1.12.1	UAT Kick-off	Thu 12/31/26	Thu 12/31/26
246		0%	1.12.2	UAT Testing	Fri 1/1/27	Thu 2/18/27
247		0%	1.12.3	UAT Remediation	Fri 2/19/27	Thu 2/25/27
248		0%	1.12.6	Regression Test	Fri 2/26/27	Thu 3/4/27
249		0%	1.13	Training	Fri 2/26/27	Mon 4/26/27
250		0%	1.13.2	Train the Trainer Training-Fetal Death	Fri 2/26/27	Fri 2/26/27
251		0%	2.12.2	Train the Trainer Training-ITOP	Fri 2/26/27	Fri 2/26/27
252		0%	1.13.3	Train the Trainer Training-Marriage	Mon 3/1/27	Mon 3/1/27
253		0%	1.13.4	Train the Trainer Training-Divorce	Mon 3/1/27	Mon 3/1/27

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID		% Complete	WBS	Name	Start	Finish
254		0%	2.12.5	End User Training	Tue 3/2/27	Mon 4/26/27
255		0%	1.14	Go Live	Thu 1/7/27	Tue 5/11/27
256		0%	1.14.1	Final UAT sign off	Fri 3/5/27	Fri 3/5/27
257		0%	1.14.2	Final Data sign off	Thu 1/7/27	Thu 1/7/27
258		0%	1.14.3	Final preparations for Go Live	Tue 4/27/27	Mon 5/10/27
259		0%	1.14.4	Go Live	Tue 5/11/27	Tue 5/11/27
260		0%	1.15	Burn-In Period	Wed 5/12/27	Tue 9/14/27
261		0%	1.15.1	Stabilization	Wed 5/12/27	Tue 9/14/27

Project: Nebraska Schedule
Date: Thu 12/4/25

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

DATABASE LICENSE AGREEMENT

THIS DATABASE LICENSE AGREEMENT (this “**Agreement**”) is made as of _____ (insert date) (the “**Effective Date**”) by and between **Genesis Systems, Inc.** a Pennsylvania corporation with an address of 2400 Park Drive, Suite 102, Harrisburg, PA 17110 (“**Licensor**”) and XXXXXXXXXXXXXXXXXXXX (the “**DOH**” or the “**Licensee**”) (each, individually, a (“**Party**” and both, collectively, the “**Parties**”).

WITNESSETH:

WHEREAS, Licensor makes available for license computer-related software systems and related products and has created and developed a system referred to as Electronic Vital Records System (“**EVRS**”) intended for the recording, processing, registering, and/or reporting of vital events.

WHEREAS, the Database structure of such software systems is proprietary and highly confidential information of Licensor of the utmost importance;

WHEREAS, Licensee desires to utilize such Systems for the recording, processing, registering, and/or reporting of vital events; and

WHEREAS, the Parties are entering into a Software License Agreement, dated as of the date hereof (the “**Software Agreement**”);

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties agree, intending to be legally bound, as follows:

1. DEFINITIONS

- A. “**Authorized Purpose**” shall mean the use of the database listed above, for the recording, processing, registering, and reporting of vital events subject to the jurisdiction of the Licensee.
- B. “**Authorized User**” shall mean a named individual employee or someone on behalf of Licensee, identified by Licensee in a written notice to Licensor, who uses the Licensed Database solely for the Authorized Purpose.
- C. “**Derivative Work**” has the meaning as defined in the Copyright Act, 17 U.S.C. 101 (2000).
- D. “**Intellectual Property Rights**” shall mean any and all registered and unregistered rights granted, applied for or otherwise now or hereafter in existence under or related to any patent, copyright, trademark, trade secret, database protection or other intellectual property rights laws, and all similar or equivalent rights or forms of protection, in any part of the world.

E. **“Licensed Database”** shall mean the database schema provided by Licensor to Licensee in connection with this agreement.

F. **“License Term”** shall mean the term commencing on the date hereof and terminating upon the termination of this Agreement. For clarification, the license granted herein shall terminate at the end of the License Term.

G. **“Modifications”** shall mean any addition, change, manipulation, translation, or alteration to the Licensed Database.

H. **“Person”** shall mean an individual, corporation, partnership, joint venture, limited liability entity, governmental authority, unincorporated organization, trust, association or other entity.

I. **“Software”** shall have the meaning ascribed to such term in the Software Agreement.

J. **“Territory”** shall mean the State of **XXXXXXXXXXXXXXXXXXXX**

K. **“Trade Secrets”** shall mean any scientific or technical information, design, process, procedure, formula, or improvement that is commercially valuable and secret in the sense that its confidentiality affords Licensor a competitive advantage over its competitors, and shall include the Licensed Database Schema. “Trade Secrets” shall also include all trade secrets of Licensor, as such term is used under Pennsylvania law.

2. LICENSE GRANT AND OWNERSHIP; RESTRICTIONS ON USE

A. Licensor hereby grants to Licensee, during the License Term, a limited, non-exclusive, non-transferable, non-sublicensable, non-assignable license to use the Licensed Database in each case for the Authorized Purpose only, in and for use in the Territory only, and subject to the terms and conditions hereof.

B. Any use of the Licensed Database not expressly authorized in this Agreement is strictly prohibited. Without limiting the generality of the foregoing or anything else contained herein, Licensee is expressly prohibited from: (i) sublicensing, transferring, assigning or reselling the Licensed Database Schema to any Person; (ii) granting access to the Licensed Database Schema to any Person, either within or outside Licensee’s company, except to Authorized Users; (iii) using the Licensed Database Schema in any service or product, in any manner in competition with or to the detriment or commercial disadvantage of Licensor, or any other manner whatsoever or for any purpose whatsoever, except for the Authorized Purpose; (iv) using the Licensed Database Schema in any manner or for any purpose that infringes, misappropriates or otherwise violates any Intellectual Property Right or other right of any Person, or that violates any applicable law; (v) removing, obscuring, altering or hiding any identification markings,

including copyright notices and trademarks, from the Licensed Database Schema; (vi) making any Modification, enhancement, or Derivative Work of the Licensed Database Schema or any portion thereof; (vii) using the Licensed Database Schema or any portion thereof to develop, sell or distribute any software product with similar functionality or design; (viii) granting or attempting to grant a security interest in the Licensed Database Schema or this Agreement, or recording or permitting to be recorded any such security interest (including for patents, trademark or copyright registrations) with respect to the Licensed Database Schema with any governmental authority in the United States or any other jurisdiction; and (ix) using the Licensed Database Schema or any Confidential Information of Licensor to dispute or contest Licensor's intellectual property rights in the Licensed Database Schema.

C. Licensee acknowledges that all rights (including all Intellectual Property Rights), title and interest to the Licensed Database Schema, regardless of the form of media in which it is contained, shall be retained by Licensor, subject to the license expressly granted to Licensee hereunder. [For clarification, Licensor shall exclusively own all rights (including all Intellectual Property Rights), title and interest in all Modifications, whether created by Licensor or Licensee, subject to the license expressly granted to Licensee hereunder.] Licensee agrees to take any actions reasonably requested by Licensor in connection with Licensor's maintenance of its rights in the Licensed Database Schema.

D. Licensee hereby unconditionally and irrevocably assigns to Licensor its entire right, title and interest in and to any Intellectual Property Rights that Licensee may now or hereafter have in or relating to the Licensed Database Schema or any portion thereof (including any rights in [Modifications], Derivative Works or patent improvements relating to either of them), whether held or acquired by operation of law, contract, assignment or otherwise.

E. Licensee acknowledges and agrees that (i) Licensor has expended significant resources gathering, assembling and compiling the data in the Licensed Database Schema and that such data is the valuable property of Licensor, and (ii) the Licensed Database Schema is an original compilation protected by United States copyright laws, and comprises and contains the Trade Secrets of Licensor.

F. Licensee acknowledges that Licensor has created, and from time to time will create, other databases that may be based upon or related to the Licensed Database Schema and that those other databases are not licensed to Licensee under this Agreement. Licensee further acknowledges that except for the Licensed Database Schema no other database owned by Licensor is being licensed to Licensee hereunder.

G. Notwithstanding any other provision in this Agreement, Licensor shall have the unconditional and irrevocable right to use any ideas, information, understandings, communications (including all suggestions, comments, feedback, ideas or know-how, whether in oral, written or electronic form), and concepts derived from Licensee's use of the Licensed Database Schema without restriction and without compensation.

H. The Licensed Database Schema is licensed and not sold, and Licensor reserves all rights not expressly granted to Licensee in this Agreement. Except for the limited rights and licenses expressly granted under this Agreement, nothing in this Agreement grants, by implication, waiver, estoppel or otherwise, to Licensee or any third party any Intellectual Property Rights or other right, title, or interest in or to any of the Licensed Database Schema.

3. SCOPE OF LICENSED USE; AUTHORIZED USERS; MODIFICATIONS

A. Licensee must securely store and protect the Licensed Database Schema at all times. Licensee may not store the Licensed Database Schema on any computer or server with a direct connection to a public network such as the Internet, nor may the Licensed Database Schema be accessed remotely except through Licensee-owned computers and servers (e.g., no access to the Licensed Database Schema may be made through public computers or through an employee's home computer or a computer owned by a contractor). In no event may the Licensed Database Schema be transmitted electronically over any public network such as the Internet without (i) Licensor's express prior written consent, and (ii) if such consent is granted, being encrypted. In the event the Licensed Database Schema is reduced to printed form, when not in use such printouts must be stored in a locked safe or other secure container. Each printed copy must be clearly marked as "Confidential" and sequentially numbered. On termination of this Agreement, the Licensed Database Schema and all printed copies must be securely and irrevocably scrubbed from all media or otherwise irretrievably destroyed using methods consistent with best industry practices.

B. Licensee shall not make any copy of the Licensed Database Schema.

C. Licensee shall provide prior written notice to Licensor of the name of each new Authorized User and a prompt written notice of any individuals who are no longer Authorized Users. The number of Authorized Users shall not exceed [0] without Licensor's express prior written consent. Licensee acknowledges and agrees that an Authorized User does not acquire individual rights in the Licensed Database Schema, other than the right to use the Licensed Database Schema on Licensee's behalf and pursuant to the rights granted to Licensee and subject to the terms and conditions herein.

D. Licensee acknowledges and agrees that Licensee is responsible for all use of the Licensed Database Schema as accessed by Licensee and its Authorized Users and for ensuring that all use of the Licensed Database Schema is for the Authorized Purposes only and complies fully with the provisions of this Agreement, including assuring that only Authorized Users are accessing and using the Licensed Database Schema.

E. Without limiting anything else contained herein, in no way does this Agreement confer any right in Licensee to license, sublicense, sell, distribute or transfer in any manner or form, in whole or in part, or otherwise authorize the use of the Licensed Database Schema, in any form, by any third parties.

4. REPRESENTATIONS AND WARRANTIES

A. Each Party warrants and represents to the other Party that (i) it has the necessary power and authority to enter into and perform its obligations under this Agreement; (ii) the execution of this Agreement by its representative whose signature is set forth at the end of this Agreement has been duly authorized by all necessary corporate or organizational action of such Party; (iii) this Agreement does not conflict with or violate any other agreement to which such Party is a party or by which it is bound; and (iv) when executed and delivered by both Parties, this Agreement will constitute the legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms. The foregoing, however, shall not be construed as a warranty of non-infringement by Licensor.

B. Licensor further warrants and represents that Licensor has no actual knowledge as of the Effective Date that the licensed use of Licensed Database Schema infringes upon any Intellectual Property Rights of any third party.

C. Except for those warranties previously set forth above, the Licensed Database Schema is licensed on an "AS IS" basis without warranties or guarantees of any kind, and Licensor does not guarantee (i) that the Licensed Database Schema will meet the Licensee's requirements absent those specifically agreed to; (ii) that it will operate in combination with Licensee's systems or equipment; (iii) that it is compatible with any software (including Licensor's software), hardware, system or network; (iv) that it is secure, accurate, complete or free of harmful code; or (v) that its operation will be error-free or without interruption. EXCEPT AS EXPRESSLY WARRANTED IN THIS SECTION 4, LICENSOR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, OF MERCHANTABILITY, OR WARRANTY OF NO INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS UNDER THIS AGREEMENT. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY LICENSOR OR ITS AUTHORIZED REPRESENTATIVES WILL CREATE ANY ADDITIONAL WARRANTIES OR IN ANY WAY INCREASE THE SCOPE OF LICENSOR'S OBLIGATIONS HEREUNDER.

D. Licensee further warrants and represents that Licensee has no actual knowledge that its services infringe upon any Intellectual Property Rights of any third party. EXCEPT AS EXPRESSLY STATED HEREIN, LICENSEE MAKES NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR WARRANTY OF MERCHANTABILITY.

5. LICENSEE OBLIGATIONS

A. Licensee shall maintain a system of controls that will: (i) protect the integrity of the Licensed Database Schema; (ii) control access to the Licensed Database Schema and prevent access by non-Authorized Users and by third parties; (iii) prevent unauthorized usage of the Licensed Database Schema; and (iv) otherwise ensure compliance with this Agreement.

B. Licensee shall not (i) combine the Licensed Database Schema in any way with any other database or portion of database nor (ii) add any data to the Licensed Database Schema except data created by Licensor or Licensee for the Authorized Purpose.

C. Licensee shall use, and shall ensure that all Authorized Users use, the Licensed Database Schema in strict compliance with all applicable federal, state and local laws, rules and regulations, including all applicable export laws, restrictions and regulations. Without limiting anything contained herein, Licensee agrees that Licensee will not export, or allow the export or re-export of the Licensed Database Schema in violation of any such laws, restrictions and/or regulations.

D. Licensee shall promptly notify Licensor of any unauthorized use or disclosure of the Licensed Database Schema or any other Confidential Information of Licensor or any other breach of this Agreement and, without limiting any remedy available to Licensor, Licensee shall use its best efforts and shall cooperate with Licensor to prevent further unauthorized use or disclosure or further breach.

6. TERM AND TERMINATION

A. This Agreement shall be effective as of the date of execution by both parties and shall continue in effect through the effective date of the Master Agreement.

B. This Agreement and the license granted hereunder shall terminate immediately and automatically upon the earlier of the following:

i. The termination of the Software Agreement;

ii. The mutual agreement of the parties to terminate this Agreement in a written instrument executed by both Parties; or

iii. If either Party (i) is dissolved or liquidated, discontinues or dissolves its business, or takes any corporate action for such purpose; (ii) becomes insolvent or is generally unable to pay its debts as they become due; (iii) becomes the subject of any voluntary or involuntary bankruptcy proceeding under any jurisdiction's bankruptcy or insolvency laws; (iv) makes or seeks to make a general assignment for the benefit of its creditors; or (v) applies for, or consents to, the appointment of a trustee, receiver or custodian for a substantial part of its property.

C. Without limiting the foregoing, either Party may terminate this Agreement and the license granted hereunder on a 10 days' written notice to the other Party in the event of a breach of any provision of this Agreement by the other Party, *provided* that, during such ten-day period, the breaching Party fails to cure such breach. For the avoidance of doubt, Licensee's

breach of Sections 2, 3, 5, or 7 shall constitute a material, non-curable breach of this Agreement, entitling Licensor, among other remedies, to immediately terminate this Agreement and the license granted hereunder.

D. Upon the termination of this Agreement, all rights and license granted to Licensee under this Agreement shall automatically terminate and immediately revert to Licensor and Licensee shall immediately (i) discontinue all use of the Licensed Database Schema; (ii) destroy the Licensed Database Schema; and (iii) provide a certificate executed by an authorized officer of Licensee of its compliance with this Section.

E. Except as otherwise provided in this Agreement, the remedies contained in this Agreement are in addition to all other remedies available to either party at law or in equity.

7. CONFIDENTIALITY

A. Licensee acknowledges and agrees that the Licensed Database Schema is the proprietary and highly confidential property of Licensor, and contains substantial Trade Secrets. Licensee represents and warrants that Licensee does not currently have (i) the Licensed Database Schema nor any portion thereof, (ii) any proprietary knowledge with respect to the Licensed Database Schema, or (iii) any similar database that it has developed or acquired, or that it has provided or intends to provide to its customers.

B. Without limiting anything contained in any applicable Non-Disclosure Agreement between the Parties, the Software Agreement, or herein, Licensee further agrees to take all reasonable precautions to preserve the confidentiality of the Licensed Database Schema as required hereby and shall assume responsibility that its employees, affiliates, officers, directors, agents, subcontractors and representatives (“**Representatives**”) will similarly preserve and protect the Licensed Database Schema against third parties and will not use, disclose or access the Licensed Database Schema except as permitted hereby.

C. Licensee shall not disclose the Licensed Database Schema or any portion thereof in any litigation, arbitration or claim that Licensee may bring against Licensor or any third party, even if Licensee would be required by law to make such disclosure in order to support its allegations – except for disclosure only to any judge and/ or arbitrator and/ or other certified entity subject to obligation of confidentiality.

D. Without limiting the foregoing, if Licensee becomes compelled, upon advice of legal counsel licensed in the applicable jurisdiction, under court order or applicable law or regulation, to disclose the Licensed Database Schema or any portion thereof, it shall (i) give Licensor prompt and timely written notice so that Licensor may take steps to oppose such disclosure, (ii) use its reasonable best efforts to oppose such disclosure and cooperate with Licensor in its attempts to oppose such disclosure, (iii) in case of failure of such opposition despite such efforts, Licensee (x) may only disclose such Licensed Database Schema or portion under seal or

otherwise on a confidential basis, (y) shall use its reasonable best efforts to obtain a protective order and shall cooperate with Licensor in obtaining a protective order or other remedy, and (z) shall acknowledge in connection with such required disclosure that the Licensed Database Schema or such portion is a trade secret of Licensor of the utmost importance and shall not contest such fact or make any representation to the contrary.

8. LIMITATION OF LIABILITY

IN NO EVENT SHALL LICENSOR BE LIABLE FOR ANY DAMAGES WHATSOEVER, INCLUDING (A) ANY OR ALL GENERAL, SPECIAL, CONSEQUENTIAL, INCIDENTAL, DIRECT, INDIRECT, ENHANCED, EXEMPLARY OR PUNITIVE DAMAGES, (B) LOSS OF PROFITS, BUSINESS, PRODUCTION, REVENUES, OR INCREASED COSTS OR DIMINUTION IN VALUE, (C) LOSS OF GOODWILL OR REPUTATION, (D) USE, INABILITY TO USE, LOSS, INTERRUPTION, DELAY OR RECOVERY OF THE LICENSED DATABASE SCHEMA, (E) LOSS, DAMAGE, CORRUPTION OR RECOVERY OF DATA, INACCURATE OUTPUT, WORK DELAYS OR LOST REVENUE/FUNDING RESULTING FROM LICENSEE'S USE OF THE LICENSED DATABASE SCHEMA, OR BREACH OF DATA OR SYSTEM SECURITY, OR (F) COST OF REPLACEMENT GOODS OR SERVICES, OR ANY CLAIM OR DEMAND OF A SIMILAR NATURE OR KIND TO ANY OF THE FOREGOING, IN EACH CASE WHETHER ASSERTED BY LICENSEE AGAINST LICENSOR OR ASSERTED AGAINST LICENSEE BY ANY OTHER PARTY, ARISING OUT OF THIS AGREEMENT OR USE OF THE LICENSED DATABASE SCHEMA, DATA, INFORMATION INCLUDING CONFIDENTIAL INFORMATION OR OTHER MATERIAL FURNISHED TO LICENSEE HEREUNDER, HOWEVER CAUSED, UNDER ANY LEGAL OR EQUITABLE THEORY, INCLUDING BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY AND OTHERWISE, AND WHETHER OR NOT LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE(S). IN ANY EVENT, THE TOTAL LIABILITY OF LICENSOR TO LICENSEE OR ANY THIRD PARTY ARISING OUT OF THIS AGREEMENT AND THE SOURCE CODE AND SOFTWARE LICENSE AGREEMENT OR THE USE OF THE LICENSED DATABASE SCHEMA IN CONNECTION WITH ANY CLAIM OR TYPE OF DAMAGE (WHETHER IN CONTRACT OR TORT) WILL NOT EXCEED \$100,000. THESE LIMITATIONS SHALL APPLY NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OF ANY LIMITED REMEDY.

9. INDEMNITY

A. Licensee agrees to defend, indemnify, and hold Licensor and its affiliates, and their respective officers, directors, agents, and employees, harmless against all costs, expenses, and losses (including reasonable attorney fees and costs) ("**Losses**"), including those arising out of or resulting from any third party claim, suit, action or proceeding (each, a "**Third Party Claim**"), related to, arising out of, or resulting from (i) Licensee's breach of this Agreement, (ii) Licensee's negligence, abuse, misapplication, misuse or more culpable act or omission (including recklessness or willful misconduct) by or on behalf of Licensee or any Authorized

User or other Representative with respect to the Licensed Database Schema or otherwise in connection with this Agreement; or (iii) any use of the Licensed Database Schema by or on behalf of Licensee or any of its Representatives, including by any Authorized User, that is outside the purpose, scope or manner of use authorized by this Agreement.

B. In the event that Licensor becomes aware of any Third Party Claim which Licensor believes may result in a claim for Losses hereunder, Licensor shall promptly notify the Licensee of such Third Party Claim. No delay in notifying the indemnifying party of such Third Party Claim in accordance with the terms hereof shall affect an indemnified party's rights hereunder, unless (and then only to the extent that) the indemnifying party or any of its Representatives are prejudiced thereby.

C. If Licensor gives such notice, the Licensee will be entitled to participate in such Third Party Claim and to assume the defense of such Third Party Claim at the Licensee's sole cost and expense. If the Licensee exercises its rights to assume the defense of such Third Party Claim, the Licensee shall have no obligation to indemnify or pay for or reimburse Licensor for any attorneys' fees, investigation costs or litigation expenses incurred by the Licensor after the assumption of the defense of such Third Party Claim. The Licensor may participate in and observe, but not to determine or conduct, the proceedings at its own cost and expense. The Licensee agrees that it will not, without the prior written consent of the Licensor, which consent shall not be unreasonably withheld or delayed, settle, compromise or consent to the entry of any judgment in any pending or threatened Third Party Claim relating to the matters contemplated hereby, unless such settlement, compromise or consent (i) includes an unconditional release of Licensor from all liability arising or that may arise out of such Third Party Claim, or (ii) requires as the sole remedy a payment of monetary damages, all of which shall be paid by the Licensee. The Licensee shall not be liable for any settlement of any Third Party Claim by Licensor without the Licensee's prior written consent.

10. GOVERNING LAW AND JURISDICTION

A. This Agreement shall be interpreted, enforced, and governed by the laws of the Commonwealth of Pennsylvania.

11. MISCELLANEOUS

A. **FURTHER ASSURANCES.** On a Party's reasonable request, the other Party shall, and shall cause its Representatives (including, in the case of Licensee, Authorized Users and former Authorized Users, even if no longer employed by Licensee) to, execute and deliver all such documents and instruments, and take all such further actions, as may be necessary to give full effect to any provision of this Agreement.

B. **RELATIONSHIP OF PARTIES.** This Agreement does not create a joint venture or partnership between Licensor and Licensee, and each will act independently of the other. Except

as expressly set forth herein neither Party is empowered to bind or commit the other to any contract or other obligation.

C. NO CIRCUMVENTION. The Parties shall not take any action, and shall cause their respective Representatives not to take any action, directly or indirectly, the effect of which is to circumvent or avoid any provision of this Agreement.

D. EQUITABLE REMEDIES. Licensee acknowledges that any violation, breach or other failure on Licensee's or its Representatives to comply with this Agreement shall materially and irreparably injure Licensor and its business in a manner inadequately compensable in damages, and that Licensor shall be entitled to seek and obtain equitable relief, including by way of preliminary and/or permanent injunction and specific performance against the breach or threatened breach of this Agreement, without posting any bond, in addition to any other legal remedies that may be available.

E. SURVIVAL. Sections 1, 2 (except 2.A), 3, 4, 5, 6.D, 6.E, 7, 8, 9, 10, and 11, and any other section, right, obligation or provision under this Agreement that, by its nature, should survive termination or expiration of this Agreement, will survive any expiration or termination of this Agreement.

F. NOTICES.

i. Any notice required to be given under this Agreement shall be in writing and delivered personally to the other Party at the above stated address or mailed by certified, registered or Express mail, return receipt requested or by Federal Express.

ii. Either Party may change the address to which notice or payment is to be sent by written notice to the other under any provision of this Section.

G. AGREEMENT BINDING ON SUCCESSORS. The provisions of this Agreement shall be binding upon and shall inure to the benefit of the Parties hereto, their administrators, receivers, liquidators, trustees, successors and assigns.

H. ASSIGNABILITY. Neither Party may assign this Agreement, assign any rights or delegate any obligations hereunder to any third party, in each case whether voluntarily, involuntarily, by operation of law or otherwise, without the express prior written approval of the other Party, which shall not be unreasonably withheld; *provided* that no such approval shall be required in case of an assignment by Licensor, by operation of law or otherwise, in connection with a merger, consolidation, or the sale of all or substantially all of its assets, business or stock.

I. WAIVER. No waiver by either Party of any default shall be deemed as a waiver of prior or subsequent default of the same of other provisions of this Agreement.

J. SEVERABILITY. If any term, clause or provision hereof is held invalid or unenforceable by a court of competent jurisdiction, such invalidity shall not affect the validity or operation of any other term, clause or provision and such invalid term, clause or provision shall be deemed to be severed from this Agreement.

K. ENTIRE AGREEMENT. This Agreement, together with the Term Sheet, the NDA, and the Source Code and Software Agreement, constitutes the sole and entire agreement of the parties with respect to the subject matter hereof and thereof and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter. In the event of any inconsistency between this Agreement and the NDA or between this Agreement and the Term Sheet, the provisions of this Agreement shall prevail. This Agreement shall not be modified or amended except in writing signed by the Parties hereto and specifically referring to this Agreement.

L. NO THIRD-PARTY BENEFICIARIES. Except as set forth in Section 9 (*Indemnity*), this Agreement is for the sole benefit of the Parties hereto and their respective permitted successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer on any other Person any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

M. INTERPRETATION. For purposes of this Agreement: (a) the words “include,” “includes” and “including” are deemed to be followed by the words “without limitation”; (b) the word “or” is not exclusive; (c) the words “herein,” “hereof,” “hereby,” “hereto” and “hereunder” refer to this Agreement as a whole; and (d) words denoting the singular have a comparable meaning when used in the plural, and vice versa. Unless the context otherwise requires, references in this Agreement: (x) to sections and schedules mean the sections and schedules of this Agreement; and (y) to an agreement, instrument or other document means such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof. The parties intend this Agreement to be construed without regard to any presumption or rule requiring construction or interpretation against the party drafting an instrument or causing any instrument to be drafted. The headings in this Agreement are for reference only and do not affect the interpretation of this Agreement.

N. COUNTERPARTS. This Agreement may be executed in counterparts, each of which will constitute one and the same instrument. Facsimile and .PDF format signature pages shall be legally sufficient for all purposes hereof.

IN WITNESS WHEREOF, the Parties hereto, intending to be legally bound hereby, have each caused to be affixed hereto its or his/her hand and seal on the day indicated.

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Printed name of signatory

Signature_____

Date _____

GENESIS SYSTEMS, INC.

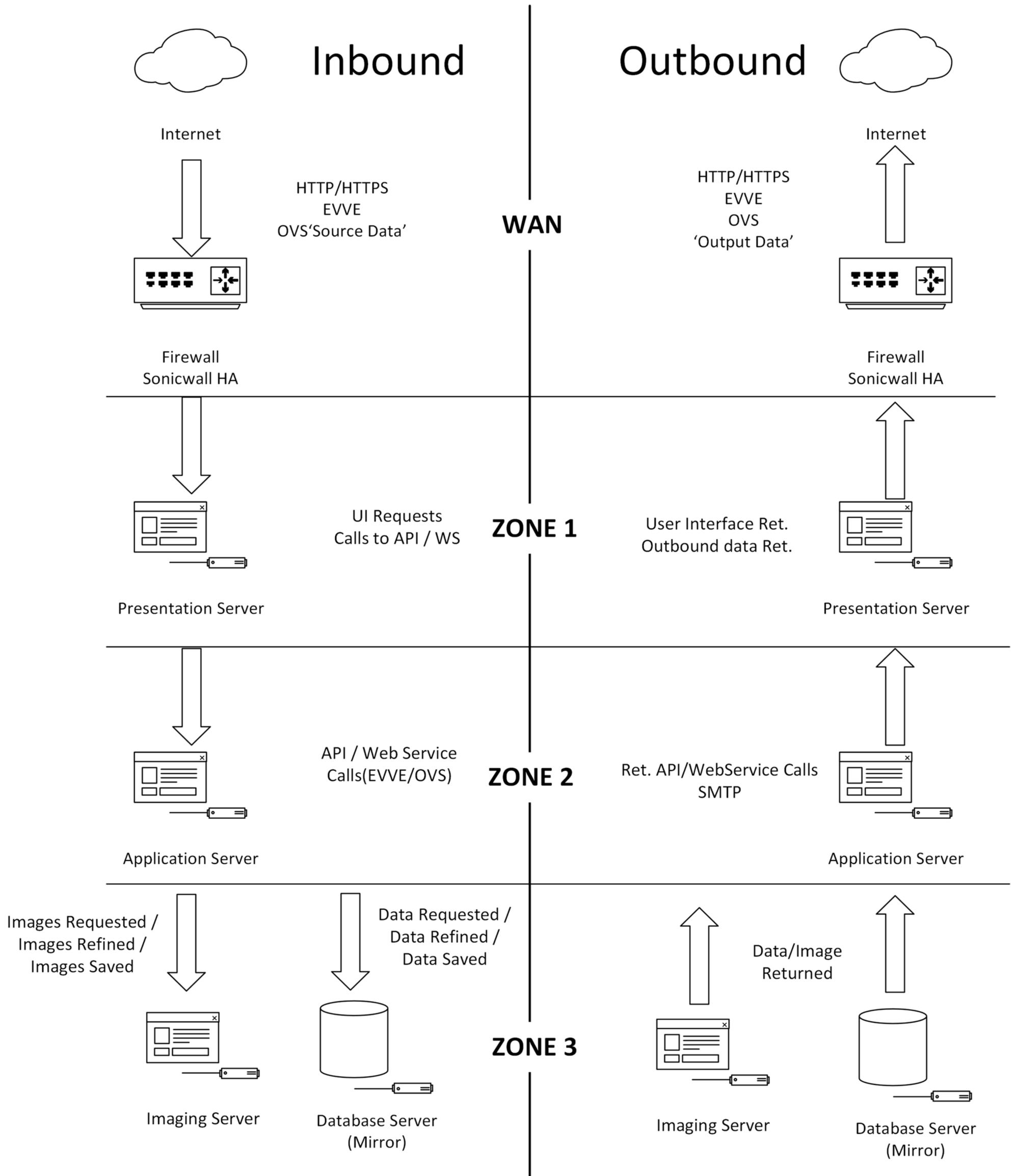
Printed name of signatory

Signature_____

Date _____

SAMPLE

GENESIS DATA FLOW DIAGRAM





SOFTWARE LICENSE AGREEMENT

THIS SOFTWARE LICENSE AGREEMENT (the “**Agreement**”) is made as of _____ (the “**Effective Date**”) by and between **Genesis Systems, Inc.** a Pennsylvania corporation with an address of 2400 Park Drive, Suite 102, Harrisburg, PA 17110 (“**Licensor**” or “**Genesis**”) and the **State** (“**Licensee**”) (each, individually, a “**Party**” and both, collectively, the “**Parties**”).

WITNESSETH:

WHEREAS, Licensor makes available for license computer-related software systems and related products and intends to create and develop a system referred to as San Antonio Vital Records System (“SAVRS”) for the recording, processing, registering, and/or reporting of vital events.

WHEREAS, Licensee desires to utilize such a System for the recording, processing, registering, and/or reporting of vital events;

WHEREAS, the Software and Source Code is proprietary and highly confidential information of Licensor of the utmost importance; and

WHEREAS, concurrent with this Software License Agreement, the Parties are entering into a Database License Agreement, dated as of the date hereof (the “**Database License Agreement**”);

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties agree, intending to be legally bound, as follows:

1. DEFINITIONS

- A. “**Authorized Purpose**” shall mean the use of the Software listed above, for the recording, processing, registering, and reporting of vital events subject to the jurisdiction of the Licensee.
- B. “**Authorized User**” shall mean a named individual employee or someone on behalf of Licensee who uses the Licensed Intellectual Property solely for the Authorized Purpose.
- C. “**Derivative Work**” has the meaning as defined in the Copyright Act, 17 U.S.C. 101 (2000).
- D. “**Documentation**” shall mean the user manual or other documentation, specifications, written instructions or explanatory material related to the Source Code, or the Software, and any subsequent versions thereof, that Licensee may receive from Licensor. Nothing contained herein will be construed as requiring Licensor to create any new or different Documentation.
- E. “**Intellectual Property Rights**” shall mean any and all registered and unregistered rights granted, applied for or otherwise now or hereafter in existence under or related to any patent,



copyright, trademark, trade secret, database protection or other intellectual property rights laws, and all similar or equivalent rights or forms of protection, in any part of the world.

F. **“Licensed Intellectual Property”** shall mean the Software, the Source Code, the Documentation, and any portion of thereof.

G. **“License Term”** shall mean the term commencing on the date hereof and terminating upon the termination of this Agreement. For clarification, the license granted herein shall terminate at the end of the License Term.

H. **“Modification”** shall mean any addition, change, manipulation, translation, or alteration to the Source Code.

I. **“Open Source Software”** means any software, programming, or other intellectual property that is subject to (i) the GNU General Public License, GNU Library General Public License, Artistic License, BSD license, Mozilla Public License, or any similar license, including, but not limited to, those licenses listed at www.opensource.org/licenses or (ii) any agreement with terms requiring any intellectual property owned or licensed by Licensor (including the Licensed Intellectual Property) to be (a) disclosed or distributed in source code or object code form; (b) licensed for the purpose of making derivative works; or (c) redistributable.

J. **“Person”** shall mean an individual, corporation, partnership, joint venture, limited liability entity, governmental authority, unincorporated organization, trust, association or other entity.

K. **“Software”** shall mean the executable code as delivered by Licensor to Licensee.

L. **“Source Code”** shall mean computer programming code in human readable form for the Software that is not suitable for machine execution without the intervening steps of interpretation or compilation, which is delivered by Licensor to Licensee, all Modifications made by Licensor that are delivered to Licensee and all Modifications made by Licensee.

M. **“Trade Secrets”** shall mean any scientific or technical information, design, process, procedure, formula, or improvement that is commercially valuable and secret in the sense that its confidentiality affords Licensor a competitive advantage over its competitors, and shall include the Licensed Intellectual Property, system design and specification, programming sequences, algorithms, flowcharts, screen layouts and formats pertaining to the Software. “Trade Secrets” shall also include all trade secrets of Licensor, as such term is used under Texas law.

2. LICENSE GRANT AND OWNERSHIP; RESTRICTIONS ON USE

A. Licensor hereby grants to Licensee, during the License Term, a limited, non-exclusive, non-transferable, non-sublicensable, non-assignable, license to use the Licensed Intellectual Property in each case for the Authorized Purpose only, in and for use by the Licensee at its principal place(s) of business only, and subject to the terms and conditions hereof.

B. Any use of the Licensed Intellectual Property not expressly authorized in this Agreement is strictly prohibited. Without limiting the generality of the foregoing or anything else contained herein, Licensee is expressly prohibited from: (i) sublicensing, transferring, assigning or reselling the Licensed Intellectual Property to any Person; (ii) granting access to the Licensed Intellectual Property to any Person, either within or outside Licensee's company, except to Authorized Users; (iii) using the Licensed Intellectual Property in any service or product, in any manner in competition with or to the detriment or commercial disadvantage of Licensor, or any other manner whatsoever or for any purpose whatsoever, except for the Authorized Purpose; (iv) using the Licensed Intellectual Property in any manner or for any purpose that infringes, misappropriates or otherwise violates any Intellectual Property Right or other right of any Person, or that violates any applicable law; (v) removing, obscuring, altering or hiding any identification markings, including copyright notices and trademarks, from the Licensed Intellectual Property; (vi) making any Modification, enhancement, or Derivative Work of the Licensed Intellectual Property, or any portion thereof, other than Modifications expressly permitted hereby and in accordance with the terms and conditions hereof; (vii) using the Licensed Intellectual Property, any portion thereof, or any Modification to develop, sell or distribute any software product with similar functionality or design; (viii) granting or attempting to grant a security interest in the Licensed Intellectual Property or this Agreement, or recording or permitting to be recorded any such security interest (including for patents, trademark or copyright registrations) with respect to the Licensed Intellectual Property with any governmental authority in Israel, the U.S. or any other jurisdiction; (ix) using the Licensed Intellectual Property for any purpose not contemplated by the Documentation; (x) using the Licensed Intellectual Property or any Confidential Information of Licensor to dispute or contest Licensor's intellectual property rights in the Licensed Intellectual Property; and (xi) using the Licensed Intellectual Property in a production environment.

C. Licensee acknowledges that all rights (including all Intellectual Property Rights), title and interest to the Licensed Intellectual Property, regardless of the form of media in which it is contained, shall be retained by Licensor, subject to the license expressly granted to Licensee hereunder. For clarification, Licensor shall exclusively own all rights (including all Intellectual Property Rights), title and interest in all Modifications, whether created by Licensor or Licensee, subject to the license expressly granted to Licensee hereunder. Licensee agrees to take any actions reasonably requested by Licensor in connection with Licensor's maintenance of its rights in the Licensed Intellectual Property.

D. Licensee hereby unconditionally and irrevocably assigns to Licensor its entire right, title and interest in and to any Intellectual Property Rights that Licensee may now or hereafter have in or relating to the Licensed Intellectual Property or any portion thereof (including any rights in Modifications, Derivative Works or patent improvements relating to either of them), whether held or acquired by operation of law, contract, assignment or otherwise.

E. Licensee acknowledges that Licensor has created, and from time to time will create, other computer software programs that may be based upon or related to the Software and that those other programs are not licensed to Licensee under this Agreement. Licensee further



acknowledges that except for the Source Code and the Software no other source code or software owned by Licensor is being licensed to Licensee hereunder.

F. Notwithstanding any other provision in this Agreement, Licensor shall have the unconditional and irrevocable right to use any ideas, information, understandings, communications (including all suggestions, comments, feedback, ideas or know-how, whether in oral, written or electronic form), Modification, and concepts derived from Licensee's use of the Licensed Intellectual Property without restriction and without compensation.

G. The Licensed Intellectual Property is licensed and not sold, and Licensor reserves all rights not expressly granted to Licensee in this Agreement. Except for the limited rights and licenses expressly granted under this Agreement, nothing in this Agreement grants, by implication, waiver, estoppel or otherwise, to Licensee or any third party any Intellectual Property Rights or other right, title, or interest in or to any of the Licensed Intellectual Property.

H. All orders entered into the system for any certified copy of a vital record must either directly import into the system through Licensor created functionality or manually keyed by Licensee personnel. Use of tools in the system including, but not limited to, "keyboard emulators" is prohibited and deemed a violation of the license. Only Licensor or one of its related entities may use keyboard emulators in the system.

3. SCOPE OF LICENSED USE; AUTHORIZED USERS; MODIFICATIONS

A. Except as expressly required for the licensed use of the Licensed Intellectual Property, Licensee shall not make any copy of the Licensed Intellectual Property.

B. Licensee acknowledges and agrees that an Authorized User does not acquire individual rights in the Licensed Intellectual Property, other than the right to use the Licensed Intellectual Property on Licensee's behalf and pursuant to the rights granted to Licensee and subject to the terms and conditions herein.

C. Licensee acknowledges and agrees that Licensee is responsible for all use of the Licensed Intellectual Property as accessed by Licensee and its Authorized Users and for ensuring that all use of the Licensed Intellectual Property is for the Authorized Purposes only and complies fully with the provisions of this Agreement, including assuring that only Authorized Users are accessing and using the Licensed Intellectual Property and creating Modifications.

D. Without limiting anything else contained herein, in no way does this Agreement confer any right in Licensee to license, sublicense, sell, distribute or transfer in any manner or form, in whole or in part, or otherwise authorize the use of the Licensed Intellectual Property, whether in executable form, source code or otherwise, by any third parties.

4. REPRESENTATIONS AND WARRANTIES

A. Each Party warrants and represents to the other Party that (i) it has the necessary power and authority to enter into and perform its obligations under this Agreement; (ii) the execution of this Agreement by its representative whose signature is set forth at the end of this Agreement has been duly authorized by all necessary corporate or organizational action of such Party; (iii) this Agreement does not conflict with or violate any other agreement to which such Party is a party or by which it is bound; and (iv) when executed and delivered by both Parties, this Agreement will constitute the legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms. The foregoing, however, shall not be construed as a warranty of non-infringement by Licensor.

B. Licensor further warrants and represents that Licensor has no actual knowledge as of the Effective Date that the licensed use of Licensed Intellectual Property infringes upon any Intellectual Property Rights of any third party.

C. Except for those warranties previously set forth above, the Licensed Intellectual Property is licensed on an "AS IS" basis without warranties or guarantees of any kind, and Licensor does not guarantee (i) that the Licensed Intellectual Property will meet the Licensee's requirements absent those specifically agreed to; (ii) that it will operate in combination with Licensee's systems or equipment; (iii) that it is compatible with any software, hardware, system or network; (iv) that it is secure, accurate, complete or free of harmful code; or (v) that its operation will be error-free or without interruption. **EXCEPT AS EXPRESSLY WARRANTED IN THIS SECTION 4, LICENSOR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, OF MERCHANTABILITY, OR WARRANTY OF NO INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS UNDER THIS AGREEMENT. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY LICENSOR OR ITS AUTHORIZED REPRESENTATIVES WILL CREATE ANY ADDITIONAL WARRANTIES OR IN ANY WAY INCREASE THE SCOPE OF LICENSOR'S OBLIGATIONS HEREUNDER.**

D. Licensee further warrants and represents that Licensee has no actual knowledge that its services infringe upon any Intellectual Property Rights of any third party. **EXCEPT AS EXPRESSLY STATED HEREIN, LICENSEE MAKES NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR WARRANTY OF MERCHANTABILITY.**

5. LICENSEE OBLIGATIONS

A. Licensee shall maintain a system of controls that will: (i) protect the integrity of the Licensed Intellectual Property; (ii) control access to the Licensed Intellectual Property and prevent access by non-Authorized Users and by third parties; (iii) prevent unauthorized usage of the Licensed Intellectual Property; and (iv) otherwise ensure compliance with this Agreement.

B. Licensee shall not combine the Licensed Intellectual Property in any way with Open Source Software, including using any Open Source Software in any Modifications.

C. Licensee shall use, and shall ensure that all Authorized Users use, the Licensed Intellectual Property in strict compliance with all applicable federal, state and local laws, rules and regulations, including all applicable export laws, restrictions and regulations. Without limiting anything contained herein, Licensee agrees that Licensee will not export, or allow the export or re-export of the Licensed Intellectual Property in violation of any such laws, restrictions and/or regulations.

D. Licensee shall promptly notify Licensor of any unauthorized use or disclosure of the Licensed Intellectual Property or any other Confidential Information of Licensor or any other breach of this Agreement and, without limiting any remedy available to Licensor, Licensee shall use its best efforts and shall cooperate with Licensor to prevent further unauthorized use or disclosure or further breach.

6. TERM AND TERMINATION

A. This Agreement shall be effective as of the date of execution by both parties and shall continue in effect annually and in conjunction with an active Support and Maintenance Agreement.

B. This Agreement and the license granted hereunder shall terminate immediately and automatically upon the earlier of the following:

i. The termination of the Database License Agreement;

ii. The mutual agreement of the parties to terminate this Agreement in a written instrument executed by both Parties; or

iii. If either Party (i) is dissolved or liquidated, discontinues or dissolves its business, or takes any corporate action for such purpose; (ii) becomes insolvent or is generally unable to pay its debts as they become due; (iii) becomes the subject of any voluntary or involuntary bankruptcy proceeding under any jurisdiction's bankruptcy or insolvency laws; (iv) makes or seeks to make a general assignment for the benefit of its creditors; or (v) applies for, or consents to, the appointment of a trustee, receiver or custodian for a substantial part of its property.

C. Without limiting the foregoing, either Party may terminate this Agreement and the license granted hereunder on a 30 days' written notice to the other Party in the event of a breach of any provision of this Agreement by the other Party, provided that, during such thirty-day period, the breaching Party fails to reasonably cure such breach. For the avoidance of doubt, Licensee's breach of Sections 2, 3, 5, or 7 shall constitute a material, non-curable breach of this Agreement, entitling Licensor, among other remedies, to immediately terminate this Agreement and the license granted hereunder.

D. Upon the termination of this Agreement, all rights and license granted to Licensee under this Agreement shall automatically terminate and immediately revert to Licensor and Licensee shall immediately (i) discontinue all use of the Licensed Intellectual Property; (ii) destroy the Software, Source Code (including, for the avoidance of any doubt, all Modifications created by Licensee, and all Modifications created by Licensor that were delivered to Licensee or are otherwise in Licensee's possession or control), and all Documentation in electronic form, including all copies of the foregoing; (iii) return to Licensor all Documentation in physical form, if any; and (iv) provide a certificate executed by an authorized officer of Licensee of its compliance with this Section.

E. Except as otherwise provided in this Agreement, the remedies contained in this Agreement are in addition to all other remedies available to either party at law or in equity.

7. CONFIDENTIALITY

A. Licensee acknowledges and agrees that the Licensed Intellectual Property is the proprietary and highly confidential property of Licensor, contains substantial Trade Secrets. Licensee represents and warrants that Licensee does not currently have (i) the Licensed Intellectual Property nor any portion thereof, (ii) any proprietary knowledge with respect to the functionality, design and purposes of the Software, or (iii) any similar software or product that it has developed or acquired, or that it has provided or intends to provide to its customers.

B. Without limiting anything contained in any applicable Non-Disclosure Agreement between the Parties, the Database Agreement, or herein, Licensee further agrees to take all reasonable precautions to preserve the confidentiality of the Licensed Intellectual Property as required hereby and shall assume responsibility that its employees, affiliates, officers, directors, agents, subcontractors and representatives ("**Representatives**") will similarly preserve and protect the Licensed Intellectual Property against third parties and will not use, disclose or access the Licensed Intellectual Property except as permitted hereby.

C. Licensee shall not disclose the Source Code, any portion thereof or any other Trade Secrets of Licensor in any litigation, arbitration or claim that Licensee may bring against Licensor or any third party, even if Licensee would be required by law to make such disclosure in order to support its allegations – except for disclosure only to any judge and/ or arbitrator and/ or other certified entity subject to obligation of confidentiality.

D. Without limiting the foregoing, if Licensee becomes compelled, upon advice of legal counsel licensed in the applicable jurisdiction, under court order or applicable law or regulation, to disclose the Licensed Intellectual Property or any portion thereof, it shall (i) give Licensor prompt and timely written notice so that Licensor may take steps to oppose such disclosure, (ii) use its reasonable best efforts to oppose such disclosure and cooperate with Licensor in its attempts to oppose such disclosure, (iii) in case of failure of such opposition despite such efforts, Licensee (x) may only disclose such information or portion under seal or otherwise on a confidential basis, (y) shall use its reasonable best efforts to obtain a protective order and shall cooperate with Licensor in obtaining a protective order or other remedy, and (z) shall

acknowledge in connection with such required disclosure that the Licensed Intellectual Property or such portion is a trade secret of Licensor of the utmost importance and shall not contest such fact or make any representation to the contrary.

8. LIMITATION OF LIABILITY

EXCEPT AS EXPRESLY SET FORTH IN SECTION 9, IN NO EVENT SHALL LICENSOR BE LIABLE FOR ANY DAMAGES WHATSOEVER, INCLUDING (A) ANY OR ALL GENERAL, SPECIAL, CONSEQUENTIAL, INCIDENTAL, DIRECT, INDIRECT, ENHANCED, EXEMPLARY OR PUNITIVE DAMAGES, (B) LOSS OF PROFITS, BUSINESS, PRODUCTION, REVENUES, OR INCREASED COSTS OR DIMINUTION IN VALUE, (C) LOSS OF GOODWILL OR REPUTATION, (D) USE, INABILITY TO USE, LOSS, INTERRUPTION, DELAY OR RECOVERY OF THE LICENSED INTELLECTUAL PROPERTY, (E) LOSS, DAMAGE, CORRUPTION OR RECOVERY OF DATA, INACCURATE OUTPUT, WORK DELAYS OR LOST REVENUE/FUNDING RESULTING FROM LICENSEE'S USE OF THE LICENSED INTELLECTUAL PROPERTY, OR BREACH OF DATA OR SYSTEM SECURITY, OR (F) COST OF REPLACEMENT GOODS OR SERVICES, OR ANY CLAIM OR DEMAND OF A SIMILAR NATURE OR KIND TO ANY OF THE FOREGOING, IN EACH CASE WHETHER ASSERTED BY LICENSEE AGAINST LICENSOR OR ASSERTED AGAINST BY ANY OTHER PARTY, ARISING OUT OF THIS AGREEMENT OR USE OF THE LICENSED INTELLECTUAL PROPERTY, DATA, INFORMATION INCLUDING CONFIDENTIAL INFORMATION OR OTHER MATERIAL FURNISHED TO LICENSEE HEREUNDER, HOWEVER CAUSED, UNDER ANY LEGAL OR EQUITABLE THEORY, INCLUDING BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY AND OTHERWISE, AND WHETHER OR NOT LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE(S). IN ANY EVENT, THE TOTAL LIABILITY OF LICENSOR TO LICENSEE OR ANY THIRD PARTY ARISING OUT OF THIS AGREEMENT AND THE DATABASE AGREEMENT OR THE USE OF THE LICENSED INTELLECTUAL PROPERTY IN CONNECTION WITH ANY CLAIM OR TYPE OF DAMAGE (WHETHER IN CONTRACT OR TORT) WILL NOT EXCEED \$100,000. THESE LIMITATIONS SHALL APPLY NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OF ANY LIMITED REMEDY.

9. INDEMNITY

A. Licensee agrees to defend, indemnify, and hold Licensor and its affiliates, and their respective officers, directors, agents, and employees, harmless against all costs, expenses, and losses (including reasonable attorney fees and costs) ("**Losses**"), including those arising out of or resulting from any third party claim, suit, action or proceeding (each, a "**Third Party Claim**"), related to, arising out of, or resulting from (i) Licensee's breach of this Agreement, (ii) Licensee's negligence, abuse, misapplication, misuse or more culpable act or omission (including recklessness or willful misconduct) by or on behalf of Licensee or any Authorized User or other Representative with respect to the Licensed Intellectual Property or otherwise in connection with this Agreement; or (iii) any use of the Licensed Intellectual Property by or on



behalf of Licensee or any of its Representatives, including by any Authorized User, that is outside the purpose, scope or manner of use authorized by this Agreement.

B. If Licensor becomes aware of any Third Party Claim which Licensor believes may result in a claim for Losses hereunder, Licensor shall promptly notify the Licensee of such Third Party Claim. No delay in notifying the indemnifying party of such Third Party Claim in accordance with the terms hereof shall affect an indemnified party's rights hereunder, unless (and then only to the extent that) the indemnifying party or any of its Representatives are prejudiced thereby.

C. If Licensor gives such notice, the Licensee will be entitled to participate in such Third Party Claim and to assume the defense of such Third Party Claim at the Licensee's sole cost and expense. If the Licensee exercises its rights to assume the defense of such Third Party Claim, the Licensee shall have no obligation to indemnify or pay for or reimburse Licensor for any attorneys' fees, investigation costs or litigation expenses incurred by the Licensor after the assumption of the defense of such Third Party Claim. The Licensor may participate in and observe, but not to determine or conduct, the proceedings at its own cost and expense. The Licensee agrees that it will not, without the prior written consent of the Licensor, which consent shall not be unreasonably withheld or delayed, settle, compromise or consent to the entry of any judgment in any pending or threatened Third Party Claim relating to the matters contemplated hereby, unless such settlement, compromise or consent (i) includes an unconditional release of Licensor from all liability arising or that may arise out of such Third Party Claim, or (ii) requires as the sole remedy a payment of monetary damages, all of which shall be paid by the Licensee. The Licensee shall not be liable for any settlement of any Third Party Claim by Licensor without the Licensee's prior written consent.

10. GOVERNING LAW AND JURISDICTION

A. This Agreement shall be interpreted, enforced, and governed by the laws of the State of Texas.

11. MISCELLANEOUS

A. **FURTHER ASSURANCES.** On a Party's reasonable request, the other Party shall, and shall cause its Representatives (including, in the case of Licensee, Authorized Users and former Authorized Users, even if no longer employed by Licensee) to, execute and deliver all such documents and instruments, and take all such further actions, as may be necessary to give full effect to any provision of this Agreement.

B. **RELATIONSHIP OF PARTIES.** This Agreement does not create a joint venture or partnership between Licensor and Licensee, and each will act independently of the other.

C. **NO CIRCUMVENTION.** The Parties shall not take any action, and shall cause their respective Representatives not to take any action, directly or indirectly, the effect of which is to circumvent or avoid any provision of this Agreement.

D. **EQUITABLE REMEDIES.** Licensee acknowledges that any violation, breach or other failure on Licensee's or its Representatives to comply with this Agreement shall materially and irreparably injure Licensor and its business in a manner inadequately compensable in damages, and that Licensor shall be entitled to seek and obtain equitable relief, including by way of preliminary and/or permanent injunction and specific performance against the breach or threatened breach of this Agreement, without posting any bond, in addition to any other legal remedies that may be available.

E. **SURVIVAL.** Sections 1, 2 (except 2.A), 3, 4, 5, 6.E, 7, 7, 8, 9, and 10, and any other section, right, obligation or provision under this Agreement that, by its nature, should survive termination or expiration of this Agreement, will survive any expiration or termination of this Agreement.

F. **NOTICES.**

i. Any notice required to be given under this Agreement shall be in writing and delivered personally to the other Party at the above stated address or mailed by certified, registered or Express mail, return receipt requested or by Federal Express.

ii. Either Party may change the address to which notice or payment is to be sent by written notice to the other under any provision of this Section.

G. **AGREEMENT BINDING ON SUCCESSORS.** The provisions of this Agreement shall be binding upon and shall inure to the benefit of the Parties hereto, their administrators, receivers, liquidators, trustees, successors and assigns.

H. **ASSIGNABILITY.** Neither Party may assign this Agreement, assign any rights or delegate any obligations hereunder to any third party, in each case whether voluntarily, involuntarily, by operation of law or otherwise, without the express prior written approval of the other Party, which shall not be unreasonably withheld; *provided* that no such approval shall be required in case of an assignment by Licensor, by operation of law or otherwise, in connection with a merger, consolidation, or the sale of all or substantially all of its assets, business or stock.

I. **WAIVER.** No waiver by either Party of any default shall be deemed as a waiver of prior or subsequent default of the same of other provisions of this Agreement.

J. **SEVERABILITY.** If any term, clause or provision hereof is held invalid or unenforceable by a court of competent jurisdiction, such invalidity shall not affect the validity or operation of any other term, clause or provision and such invalid term, clause or provision shall be deemed to be severed from this Agreement.

K. **NO THIRD-PARTY BENEFICIARIES.** Except as set forth in Section 9 (*Indemnity*), this Agreement is for the sole benefit of the Parties hereto and their respective permitted successors and permitted assigns and nothing herein, express or implied, is intended to or shall

confer on any other Person any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

L. INTERPRETATION. For purposes of this Agreement: (a) the words “include,” “includes” and “including” are deemed to be followed by the words “without limitation”; (b) the word “or” is not exclusive; (c) the words “herein,” “hereof,” “hereby,” “hereto” and “hereunder” refer to this Agreement as a whole; and (d) words denoting the singular have a comparable meaning when used in the plural, and vice versa. Unless the context otherwise requires, references in this Agreement: (x) to sections mean the sections of this Agreement; and (y) to an agreement, instrument or other document means such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof. The parties intend this Agreement to be construed without regard to any presumption or rule requiring construction or interpretation against the party drafting an instrument or causing any instrument to be drafted. The headings in this Agreement are for reference only and do not affect the interpretation of this Agreement.

M. COUNTERPARTS. This Agreement may be executed in counterparts, each of which will constitute one and the same instrument. Facsimile and .PDF format signature pages shall be legally sufficient for all purposes hereof.



IN WITNESS WHEREOF, the Parties hereto, intending to be legally bound hereby, have each caused to be affixed hereto its or his/her hand and seal on the day indicated.

As Licensee's duly authorized representative, I have read and agree to this Software License Agreement.

Licensee

State

Printed name of signatory

Signature _____

Date _____

As Genesis Systems' duly authorized representative, I have read and agree to this Software License Agreement.

Printed name of Genesis Representative

Signature _____

Date _____

Status: Open

Status Reason: None

Cases: None

Affected Entities

Target Entities

IP Addresses:

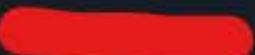


Show 1 more item



Source Entities

IP Address:



Hosts:



Affected Agents

Endpoint Agent:



Last Updated:

2025/11/11 21:32:25 UTC

View More

Endpoint Agent:



Last Updated:

2025/11/11 21:18:56 UTC

View More

Detection Description

A series of Taegis detections consistent with scanning activity from an internal IP address of 1[REDACTED] was identified. This may indicate that a threat actor is performing reconnaissance actions against your environment for the exploitation of a vulnerability or to shape follow-on behaviors.

External References

No external references available for analysis.

Detection Analysis

Taegis AI

Analysis of this detection and the specific events that led to its creation.

You may want to investigate this detection further.

- The detection indicates possible internal scanning activity originating from the IP address [REDACTED]. This activity involves multiple connections to various internal IP addresses, suggesting reconnaissance behavior.
- The source IP, [REDACTED], is associated with the host [REDACTED], which is a [REDACTED] system. This host is connected to a [REDACTED] sensor, indicating it is monitored for network activity.
- The detection includes numerous events where the source IP attempted connections to various destination IPs on different ports, such as 21 (FTP), 23 (Telnet), 3306 (MySQL), and 995 (IMAP over SSL), which are common ports for services that could be probed during a scan.
- The threat score is moderate, suggesting a potential risk that warrants further investigation. However, the threat intelligence data does not provide specific indicators of compromise for the involved IPs.
- Historical data shows related detections have been marked as "Not Actionable," which could indicate a pattern of benign activity or false positives. However, given the nature of the activity, it is prudent to verify the legitimacy of these connections.
- Recommendations:
 - Verify the purpose and legitimacy of the host [REDACTED]'s network activity. Check if the scanning behavior aligns with any scheduled or authorized network assessments.
 - Review the network logs for any successful connections or data transfers that could indicate unauthorized access or data exfiltration.
 - Consider isolating the host temporarily to prevent potential lateral movement if the activity is deemed suspicious.

View More

Detection Details

This detection title has been seen 7 times in the last 7 days across [redacted]

First Activity: 2025/11/11 02:02:00 UTC (20 hours ago)

Last Activity: 2025/11/11 10:33:26 UTC (11 hours ago)

Inserted At: 2025/11/11 07:35:51 UTC (14 hours ago)

Threat Score: 5.0

Severity: Medium (0.5)

Tenant: [redacted]

Detector: Tactic Graphs™ Detector

Tactics: Discovery, Reconnaissance

Techniques: [Network Service Discovery \(T1046\)](#)
[Active Scanning \(T1595\)](#)

Sensor Type: [redacted]

Confidence: 50%

Occurrence Count: 334

Grouped by (Group Key): app:tactic-detector:PossibleScanningActivityInternal:1f8d0547-71d2-4e3b-91e4-3ec4273fd155:31743:192.168.1.226:2142899978:31743:20403

Items per page

10

1 - 1 in 1

Possible Port Scan

2025/11/11 10:31:09 UTC - 2025/11/11 10:31:14 UTC

IPS Prevention Alert: WEB-ATTACKS NetScaler ADC/Gateway Directory Traversal

2025/11/11 10:31:09 UTC - 2025/11/11 10:31:09 UTC

IPS Prevention Alert: MISC Veritas Backup Exec Arbitrary File Overwrite

2025/11/11 10:31:06 UTC - 2025/11/11 10:31:06 UTC

IPS Prevention Alert: WEB-ATTACKS Schneider Electric U.motion Builder Command Injection

2025/11/11 10:31:06 UTC - 2025/11/11 10:31:06 UTC

IPS Prevention Alert: IoT-ATTACKS F5 BIG-IP TMUI Remote Command Execution

2025/11/11 10:31:06 UTC - 2025/11/11 10:31:06 UTC

IPS Prevention Alert: WEB-ATTACKS Alcatel-Lucent OmniPCX Remote Command Execution

	Genesis Systems, Inc.	Document ID: 112501 Issue Date:	Version: 1.01
Title: Business Continuity Plan		Approved By:	Page No: 1 of 9

Department of Health Office of Vital Records
SYSTEM
Business Continuity PLAN

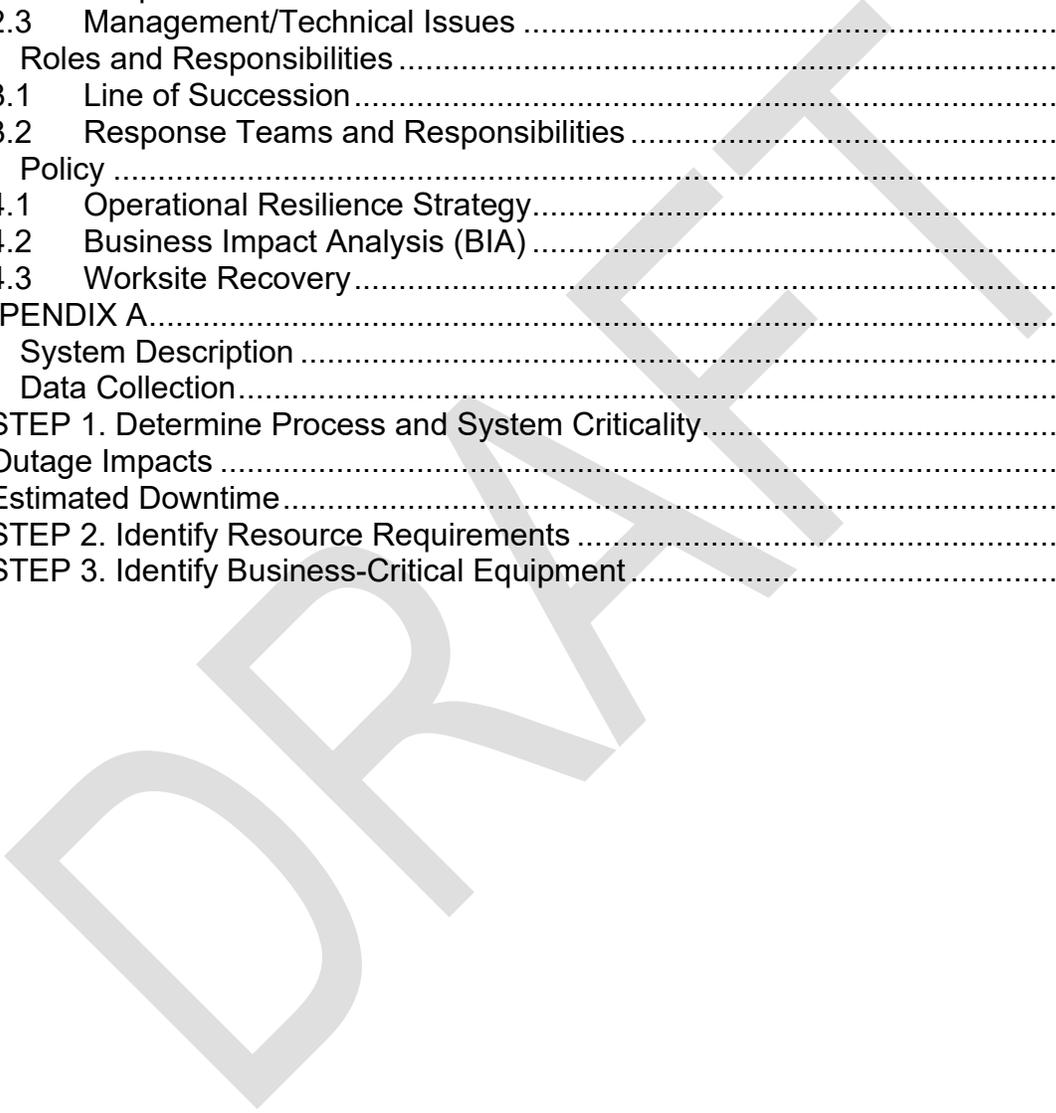
Version 1.01

DATE

	Genesis Systems, Inc.	Document ID: 112501 Issue Date:	Version: 1.01
Title: Business Continuity Plan		Approved By:	Page No: 2 of 9

Table of Contents

1	Change Log	3
2	Introduction	4
2.1	Purpose.....	4
2.2	Scope.....	4
2.3	Management/Technical Issues	4
3	Roles and Responsibilities	4
3.1	Line of Succession.....	4
3.2	Response Teams and Responsibilities	5
4	Policy	5
4.1	Operational Resilience Strategy.....	5
4.2	Business Impact Analysis (BIA)	6
4.3	Worksite Recovery	6
APPENDIX A.....		7
1	System Description	7
2	Data Collection.....	7
STEP 1.	Determine Process and System Criticality.....	7
Outage Impacts	7
Estimated Downtime	7
STEP 2.	Identify Resource Requirements	8
STEP 3.	Identify Business-Critical Equipment.....	9



	Genesis Systems, Inc.	Document ID: 112501 Issue Date:	Version: 1.01
Title: Business Continuity Plan		Approved By:	Page No: 3 of 9

1 Change Log

Version	Date	Author(s)	Revision Notes
1.01	DD/MM/YYYY	Chad Denlinger, Julia Martinez	Initial Draft

DRAFT

	Genesis Systems, Inc.	Document ID: 112501 Issue Date:	Version: 1.01
Title: Business Continuity Plan		Approved By:	Page No: 4 of 9

2 Introduction

2.1 Purpose

This policy establishes procedures to recover Genesis Systems, Inc. (“Genesis”)’s Vital Records System (“VR System”) following a disruption in conjunction with the Disaster Recovery Plan.

2.2 Scope

Genesis’s policy requires that:

- A plan and process for business continuity, including the backup and recovery of systems and data, must be defined and documented.
- The Business Continuity Plan shall be simulated and tested at least once a year. Metrics shall be measured and identified recovery enhancements shall be filed to improve the process.
- Security controls and requirements must be maintained at primary and alternate/backup sites during all Business Continuity Plan activities and disruptions.

2.3 Management/Technical Issues

Any management issues and/or problems that may affect the implementation of the Business Continuity Plan should be reported immediately to the following Genesis team members for the development of counter measures, solutions and/or alternatives:

Project Manager: XXXXXXXX

Technical Lead: XXXXXXXX

3 Roles and Responsibilities

This policy is maintained by Genesis’s executive management (“Executive Management”) and the Information Security Team. Executive Management shall be informed of any and all contingency events.

3.1 Line of Succession

The following order of succession ensures that decision-making authority for Genesis’s Business Continuity Plan is uninterrupted. Executive Management is responsible for ensuring the safety of personnel and the execution of procedures documented within this Plan. The Senior Network Administrator is responsible for the recovery of Genesis’s technical environments. If Executive Management and the Senior Network Administrator

	Genesis Systems, Inc.	Document ID: 112501 Issue Date:	Version: 1.01
Title: Business Continuity Plan		Approved By:	Page No: 5 of 9

are unable to function as the overall authority or choose to delegate this responsibility to a successor, the Business Operations Continuity Team shall function as that authority.

3.2 Response Teams and Responsibilities

The following teams have been developed and trained to respond to a contingency event affecting Genesis's infrastructure and systems.

- HR & Facilities is responsible for ensuring the physical safety of all personnel and environmental safety at each of Genesis's physical locations. The team members also include site leads at each of Genesis's work sites. The team leader is the Director of HR who reports to Executive Management.
- DevOps is responsible for assuring all applications, web services, platforms, and their supporting infrastructure. The team is also responsible for testing re-deployments and assessing damage to the environment. The team leader is the Software Development Manager.
- The Information Security Team ("IT") is responsible for assessing and responding to all cybersecurity-related incidents according to Genesis's Incident Response policy and procedures. IT shall assist the above teams in recovery as needed in non-cybersecurity events. The team leader is the Senior Network Administrator.

Members of the above teams must maintain local copies of the contact information of the Business Operations Continuity Team. Additionally, the team leads must maintain a local copy of this policy in the event internet access is not available during a disaster scenario.

4 Policy

4.1 Operational Resilience Strategy

Genesis's strategies for operational resilience take a holistic approach and its business processes are developed with consideration of acceptable limits regarding Genesis's risk appetite and tolerance. These strategies are developed through:

- **Risk Assessment** – to identify internal and external threats to Genesis's ability to conduct business, particularly in the areas of technology, human resources, facilities, and third-parties;
 - **Vulnerability Analysis** – to identify weaknesses that could raise the level of operational disruption risk;
 - **Business Impact Analysis** – (a) to define mission critical business processes, along with the technology, people and facilities that enable them; and (b) to assess the potential effects on if those processes cannot be performed.
-

	Genesis Systems, Inc.	Document ID: 112501 Issue Date:	Version: 1.01
Title: Business Continuity Plan		Approved By:	Page No: 6 of 9

4.2 Business Impact Analysis (BIA)

The BIA will determine the criticality of business activities to ensure operational resilience and business continuity during and after a disruption. The BIA will help identify and prioritize system components by correlating them to the business processes that the system supports. It will allow for the characterization of the impact on the processes if the system becomes unavailable. The BIA has three steps:

- **Determine business processes and recovery criticality.** Business processes supported by the system are identified and the impact of a system disruption to those processes is determined along with outage impacts and estimated downtime. The downtime should reflect the maximum that an organization can tolerate while still maintaining the mission.
- **Identify resource requirements.** Realistic recovery efforts require a thorough evaluation of the resources required to resume mission/business processes and related interdependencies as quickly as possible. Examples of resources that should be identified include facilities, personnel, equipment, software, data files, system components, and vital records.
- **Identify recovery priorities for system resources.** Based upon the results from the previous activities, system resources can more clearly be linked to critical mission/business processes. Priority levels can be established for sequencing recovery activities and resources.
- See Appendix A for the BIA breakdown.

4.3 Worksite Recovery

In the event a Genesis facility is not functioning due to a disaster, personnel will work from home or locate to a secondary site with Internet access, until the physical recovery of the facility impacted is complete.

Genesis's software development organization has the ability to work from any location with Internet access and does not require an office-provided Internet connection.

	Genesis Systems, Inc.	Document ID: 112501 Issue Date:	Version: 1.01
Title: Business Continuity Plan		Approved By:	Page No: 7 of 9

APPENDIX A

BUSINESS IMPACT ANALYSIS

1 System Description

Genesis maintains multiple environments, for the purposes of this document the scope is limited to that of a single state's vital records system ("VR System").

2 Data Collection

STEP 1. Determine Process and System Criticality

Identify the specific business processes that depend on or support the information system, using input from users, managers, business process owners, and other internal or external points of contact.

BUSINESS PROCESS	DESCRIPTION
Vital Record Registration	The environments that aid in the registration of vital record information are required for around-the-clock operating accessibility. These applications are used by states to register vital events.

Outage Impacts

Impact categories and values characterize levels of severity to Genesis that would result for that particular impact category, if the business process could not be performed.

BUSINESS PROCESS	IMPACT CATEGORY				IMPACT
	Financial	Reputation	Contractual	Production Output	
Vital Record Registration	X	X	X		Critical

Estimated Downtime

	Genesis Systems, Inc.	Document ID: 112501 Issue Date:	Version: 1.01
Title: Business Continuity Plan		Approved By:	Page No: 8 of 9

Downtime factors resulting from a disruptive event will be estimated by working directly with business process owners, departmental staff, managers, and other stakeholders. The following downtime categories will be considered:

- **Maximum Tolerable Downtime (MTD).** The MTD represents the total amount of time managers are willing to accept for a business process outage or disruption and includes all impact considerations. Determining MTD is important because it could leave continuity planners with imprecise direction on:
 - Selection of an appropriate recovery method; and
 - The depth of detail which will be required when developing recovery procedures, including their scope and content.
- **Recovery Time Objective (RTO).** The RTO defines the maximum amount of time that a system resource can remain unavailable before there is an unacceptable impact on other system resources, supported business processes, and the MTD. Determining the information system resource RTO is important for selecting appropriate technologies that are best suited for meeting the MTD.
- **Recovery Point Objective (RPO).** The RPO represents the point in time, prior to a disruption or system outage, to which business process data must be recovered (given the most recent backup copy of the data) after an outage.

BUSINESS PROCESS	MTD	RTO	RPO
Vital Record Registration	8 hours	8 hours	1 hour

STEP 2. Identify Resource Requirements

Identify the resources that compose the VR System in support of business processes, including hardware, software, and other resources such as data files.

SYSTEM RESOURCE/COMPONENT	PLATFORM/OS/VERSION (AS APPLICABLE)	DESCRIPTION
Dell PowerEdge R440	Windows 2019 - OEM	dcric1 – dc/dns
Dell PowerEdge R440	Windows 2019 - OEM	Datari41 – sql2019 standard production
Dell PowerEdge R440	Windows 2019 - OEM	Datari42 – sql2019 standard production
Dell PowerEdge R440	Windows 2019 - OEM	Webari41 – web iis10 application, smtp, production
Dell PowerEdge R440	Windows 2019 - OEM	Webari42 – web iis10 application, smtp, production

	Genesis Systems, Inc.	Document ID: 112501 Issue Date:	Version: 1.01
Title: Business Continuity Plan		Approved By:	Page No: 9 of 9

Dell PowerEdge R440	Windows 2019 - OEM	Webpi41 – web iis10 presentation, couch, production
Dell PowerEdge R440	Windows 2019 - OEM	Webpri42 – web iis10 presentation, couch, production
Dell PowerEdge R440	Windows 2019 - OEM	DCRI42 – DR, DC/DNS/SYM
Dell PowerEdge R440	Windows 2019 - OEM	DATARI43 – DR, sql2019 standard UAT/DR
Dell PowerEdge R440	Windows 2019 - OEM	WEBARI43 – DR, web iis10 application/SMTP/UAT
Dell PowerEdge R440	Windows 2019 - OEM	WEBPRI43 – DR, web iis10 presentation/SMTP/UAT

STEP 3. Identify Business-Critical Equipment

Business-critical equipment and redundant equipment are identified. Redundant business-critical equipment is evaluated for independent location at a reasonable distance according to industry standards.

BUSINESS-CRITICAL EQUIPMENT	NEED FOR REDUNDANCY	LOCATION
		Critical: Harrisburg Redundancy: Lewistown
		Critical: Harrisburg Redundancy: Lewistown
		Critical: Harrisburg Redundancy: Lewistown
		Critical: Harrisburg Redundancy: Lewistown

End of Document

	Genesis Systems, Inc.	Document ID:112503 Issue Date:	Version: 1.01
Title: Disaster Recovery Plan		Approved By:	Page No: 1 of 8

DRAFT

**Department of Health Office of Vital Records
SYSTEM
Disaster Recovery PLAN**

Version 1.01

DD/MM/YYYY

	Genesis Systems, Inc.	Document ID:112503 Issue Date:	Version: 1.01
Title: Disaster Recovery Plan		Approved By:	Page No: 2 of 8

Table of Contents

1	Change Log	3
2	Introduction	4
2.1	Purpose.....	4
2.2	Management/Technical Issues	4
2.3	Background.....	4
3	Policy	5
3.1	Threat and Risk Assessment and Management	5
3.2	Testing and Maintenance.....	5
3.2.1	Tabletop Testing	5
3.2.2	Technical Testing.....	6
4	Disaster Recovery Procedures.....	6
4.1	Notification and Activation Phase.....	6
4.1.1	Notification Sequence	6
4.1.2	Damage Assessment.....	6
4.1.3	Alternate Assessment.....	7
4.2	Recovery Phase.....	7
4.2.1	Recovery Goal	7
4.3	Reconstitution Phase	8
4.3.1	Original or New Site Restoration.....	8
4.3.2	Plan Deactivation.....	8

DRAFT

	Genesis Systems, Inc.	Document ID: 112503 Issue Date:	Version: 1.01
Title: Disaster Recovery Plan		Approved By:	Page No: 3 of 8

1 Change Log

Version	Date	Author(s)	Revision Notes
1.0	DD/MM/YYYY	Chad Denlinger, Julia Martinez	Initial Draft

DRAFT

	Genesis Systems, Inc.	Document ID:112503 Issue Date:	Version: 1.01
Title: Disaster Recovery Plan	Approved By:	Page No: 4 of 8	

2 Introduction

2.1 Purpose

This policy establishes procedures to recover Genesis Systems, Inc. (“Genesis”)’s Vital Records System (“VR System”) following a disruption resulting from a disaster. This Disaster Recovery Policy is maintained by Genesis’s Legal Team and System Network Administrator.

2.2 Management/Technical Issues

Any management issues and/or problems that may affect the implementation of the Disaster Recovery Plan. should be reported immediately to the following Genesis team members for the development of counter measures, solutions and/or alternatives:

Project Manager: XXXXXXXX

Technical Lead: XXXXXXXX

2.3 Background

The following objectives have been established for this plan:

- Maximize the effectiveness of contingency operations through an established plan that consists of the following phases:
 - **Notification/Activation Phase** to detect and assess damage and to activate the plan.
 - **Recovery Phase** to restore temporary operations and recover damage done to the original system.
 - **Reconstitution Phase** to restore system processing capabilities to normal operations.
 - Identify the activities, resources, and procedures needed to carry out Genesis’s processing requirements during prolonged interruptions to normal operations.
 - Identify and define the impact of interruptions to the VR System.
 - Assign responsibilities to designated personnel and provide guidance for recovering the VR System during prolonged periods of interruption to normal operations.
 - Ensure coordination with other Genesis personnel who will participate in the Disaster Recovery Planning strategies.
-

	Genesis Systems, Inc.	Document ID:112503 Issue Date:	Version: 1.01
Title: Disaster Recovery Plan		Approved By:	Page No: 5 of 8

- Ensure coordination with external points of contact and vendors who will participate in the Disaster Recovery Planning strategies.

3 Policy

Examples of the types of disasters that would initiate this plan are natural disasters, political disturbances, man-made disasters, external human threats, and internal malicious activities.

Genesis defines two categories of systems from a disaster recovery perspective:

- **Critical Systems.** These systems host application servers and database servers are required for the functioning of systems that host application servers and database servers. These systems, if unavailable, affect the integrity of data and must be restored, or have a process begun to restore them, immediately upon becoming unavailable.
- **Non-Critical Systems.** These are all systems not considered critical by the definition above. These systems, while they may affect the performance and overall security of critical systems, do not prevent Critical Systems from functioning and being accessed appropriately. These systems are restored at a lower priority than Critical Systems.

3.1 Threat and Risk Assessment and Management

There are many potential disruptive threats which can occur at any time and affect the normal business process. We have considered a wide range of potential threats and the results of our deliberations are included in this section. Each potential environmental disaster or emergency situation has been examined. The focus here is on the level of business disruption which could arise from each type of disaster.

Genesis's Risk Assessment documents a full detailed assessment of threats.

3.2 Testing and Maintenance

The Information Security Team shall establish criteria for validation/testing of a Disaster Recovery Plan, an annual test schedule, and ensure implementation of the test. This process will also serve as training for personnel involved in the plan's execution. At a minimum, the Disaster Recovery Plan shall be tested annually. The types of validation/testing exercises include tabletop and/or technical testing.

3.2.1 Tabletop Testing

The primary objective of the tabletop test is to ensure designated personnel are knowledgeable and capable of performing the notification/activation requirements and procedures as outlined in the Disaster Recovery Plan, in a timely manner. The exercises include, but are not limited to:

	Genesis Systems, Inc.	Document ID:112503 Issue Date:	Version: 1.01
Title: Disaster Recovery Plan		Approved By:	Page No: 6 of 8

- Testing to validate the ability to respond to a crisis in a coordinated, timely, and effective manner, by simulating the occurrence of a specific crisis.

3.2.2 Technical Testing

The primary objective of the technical test is to ensure the communication processes, data storage and recovery processes can function at an alternate site to perform the functions and capabilities of the system within the designated requirements. Technical testing shall include, but is not limited to:

- Process from backup systems at the alternate site
- Confirm the ability to restore systems using backups

4 Disaster Recovery Procedures

4.1 Notification and Activation Phase

This phase addresses the initial actions taken to detect and assess damage inflicted by a disruption to the VR System. Based on the assessment of the Event, sometimes according to Genesis's Incident Response Policy, the Disaster Recovery Plan may be activated by the Senior Network Administrator or the Disaster Recovery Center Manager.

4.1.1 Notification Sequence

- The first responder is to notify the Senior Network Administrator. All known information must be relayed to the Senior Network Administrator and Executive Management.
- The Senior Network Administrator is to contact the rest of the Information Security Team and inform them of the event. The Senior Network Administrator is to begin assessment procedures.
- The Senior Network Administrator is to notify team members and direct them to complete the assessment procedures outlined below to determine the extent of damage and estimated recovery time. If damage assessment cannot be performed locally because of unsafe conditions, the Senior Network Administrator is to follow the steps below.

4.1.2 Damage Assessment

- The Senior Network Administrator is to logically assess damage, gain insight into whether the infrastructure is salvageable, and begin to formulate a plan for recovery.
-

	Genesis Systems, Inc.	Document ID:112503 Issue Date:	Version: 1.01
Title: Disaster Recovery Plan		Approved By:	Page No: 7 of 8

4.1.3 Alternate Assessment

- Upon notification, the Senior Network Administrator is to follow the procedures for damage assessment with a combined DevOps and Web Services team.
- Genesis’s Disaster Recovery Plan (the “Plan”) is to be activated if one or more of the following criteria are met:
 - The VR System will be unavailable for more than 48 hours.
 - The hosting facility is damaged and will be unavailable for more than 24 hours.
 - Other criteria, as appropriate and defined by Genesis.
- If the Plan is to be activated, the Senior Network Administrator is to notify and inform team members of the details of the event and if relocation is required.
- Upon notification from the Senior Network Administrator, Executive Management, Management and supervisors are to notify their respective teams. Personnel are to be informed of all applicable information and prepared to respond and relocate if necessary.
- The Senior Network Administrator is to notify remaining personnel and Management on the general status of the incident.
- Notification can be delivered via message, e-mail, or phone.

4.2 Recovery Phase

This section provides procedures for recovering the application at an alternate site, whereas other efforts are directed to repair damage to the original system and capabilities.

The following procedures are for recovering Genesis’s infrastructure at the alternate site. Procedures are outlined per team required. Each procedure should be executed in the sequence it is presented to maintain efficient operations.

4.2.1 Recovery Goal

The goal is to rebuild the VR System’s infrastructure to a production state. The tasks outlined below are not sequential and some can be run in parallel.

1. Contact Partners and Customers affected.
 2. Assess damage to the environment.
-

	Genesis Systems, Inc.	Document ID:112503 Issue Date:	Version: 1.01
Title: Disaster Recovery Plan	Approved By:	Page No: 8 of 8	

3. Test new environment using pre-written tests.
4. Test logging, security, and alerting functionality.
5. Assure systems are appropriately patched and up to date.
6. Deploy environment to production.
7. Update DNS to new environment.

4.3 Reconstitution Phase

This section discusses activities necessary for restoring the VR System's operations at the original or new site. The goal is to restore full operations within 12 hours of a disaster or outage. When the hosted data center at the original or new site has been restored, operations at the alternate site may be transitioned back. The goal is to provide a seamless transition of operations from the alternate site to the computer center.

4.3.1 Original or New Site Restoration

- Begin replication of new environment using automated and tested scripts (DevOps)
- Test new environment using predetermined tests (Web Services)
- Test logging, security, and alerting functionality (DevOps)
- Deploy environment to production (Web Services)
- Assure systems are appropriately patched and up to date (DevOps)
- Update DNS to new environment (DevOps)

4.3.2 Plan Deactivation

If the VR System's environment is moved back to the original site from the alternative site, all hardware used at the alternate site should be handled and disposed of according to internal policy.

End of Document



San Antonio Vital Registry System Test Plan

SAMPLE

Version 1.1
8/29/2024

Revision History

Date	Description	Version of System	Author
8/1/2024	Initial Document	1.0	Christopher Hoffmann
8/29/2024	Revisions	1.1	Chad Denlinger

TABLE OF CONTENTS

1.0	INTRODUCTION	5
1.1	<i>Overview</i>	5
1.2	<i>Definitions</i>	6
1.3	<i>Test Flow Overview</i>	6
2.0	GENESIS SYSTEM TESTING	7
2.1	<i>Genesis Unit Testing Process Overview</i>	7
2.2	<i>Genesis Integration Testing Process Overview</i>	7
3.0	UAT OVERVIEW	9
3.1	<i>Testing Objective</i>	9
3.2	<i>UAT Scope</i>	10
4.0	ASSUMPTIONS AND RISKS.....	11
4.1	ASSUMPTIONS	11
4.2	RISKS.....	11
5.0	UAT TEST STRATEGY	12
5.1	OVERVIEW.....	12
5.2	PRE – UAT TRAINING	12
5.3	PROCESS DESCRIPTION.....	13
5.4	PRIORITIZATION AND PATCH DEPLOYMENT	13
5.5	REPORTING	14
5.6	TRIAGE.....	14
6.0	TEST DELIVERABLES	15
6.1	TEST PLAN.....	15
6.2	TEST SCRIPTS	16
6.3	TEST REPORTS	16
6.4	DATA VALIDATION.....	17
6.5	BUG REPORTS	17
6.6	UAT DEFECT TRACKING PLAN.....	17
7.0	TESTING AREAS.....	19
7.1	TESTING AREAS	19
8.0	RESOURCE & RESPONSIBILITIES	23
8.1	RESPONSIBILITY DEFINITIONS	23

SAMPLE

1.0 INTRODUCTION

The System Test plan describes the appropriate procedures, roles, responsibilities, and strategies used to plan, organize, execute and manage the UAT testing of the SAVR project. UAT Testing is one component of the full testing cycle of SAVR.

1.1 Overview

At a high-level SAVR Modules (Birth, Death, Fee, and Imaging) will do the following:

- Provide users with the ability to electronically search for filed birth and death records in the City of San Antonio (COSA).
- Provide users with the ability to issue birth and death records from the system.
- Provide users with an accounting system to account for all issuance activity within the City of San Antonio.
- Provide various users of the system with the ability to run ad-hoc reports.
- Provide users with running extracts at different frequencies for various agencies.

1.2 Definitions

User Acceptance Testing- a phase of software development in which the software is tested by a select group of testers designated by the intended audience, in this case members of the City of San Antonio City Clerk’s office.

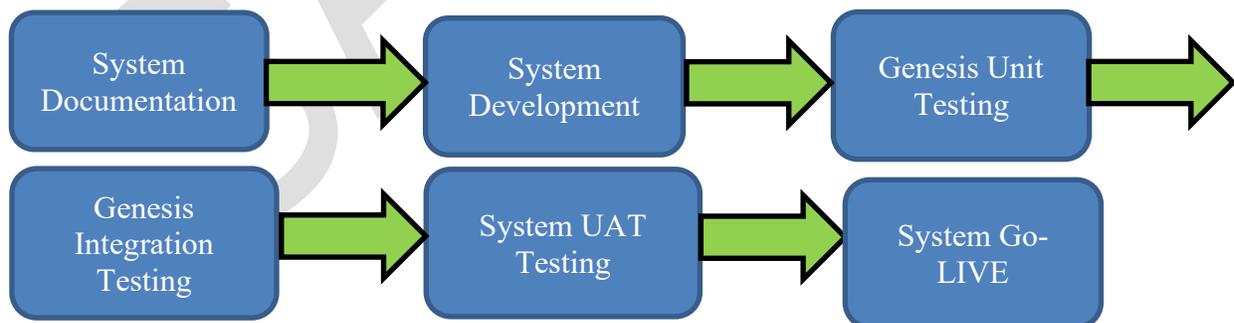
User Acceptance Testing is completed as a required part of the System Development Life Cycle (SDLC). This process for SAVR is to be completed before elements of the application are considered complete and ready for Production, and after Genesis Unit and Integration Testing has been completed on all integrated elements. UAT cycles will occur for each phase of system development and will be performed by designated State testers.

Bugs: Any error or defect that causes the software/application to malfunction, which is included in the requirements and does not meet the required workflow, process, or functional specification as documented.

Enhancement: Any alteration or modification to the existing system for better workflow, process, and/or any changes that were not noted in the functional specification documents.

1.3 Test Flow Overview

The testing flow for SAVR will follow the sequence as listed below. Timelines and release dates for reaching each testing process identified will be done in accordance with the Project Plan and overall Project Schedule.



2.0 GENESIS SYSTEM TESTING

2.1 Genesis Unit Testing Process Overview

Unit tests target the features and functionality that a developer has completed work on and are executed prior to passing the build update on for Integration Testing. These tests are designed to test the smallest testable parts of an application and ensure proper operation. If any unit test fails, the artifact is returned to development and does not proceed to Integration Testing.

Unit testing is performed by the application developers testing in the development environment. This testing strategy will have a “white box” perspective, which means the application developers know, and will be testing the internal logical structure of each software component.

During the unit testing phase, each of the individual functionalities within one module (for example, the Death module) is tested to ensure that it is performing its intended capability to the lowest level of the application. Following the confirmation of the correct optimal performance of an individual element of functionality within a module, this functionality is tested in terms of the other functionalities to ensure that it is interacting properly with other functionalities within the same module. Only after all functionalities within a single module have been unit tested may integration testing begin.

As part of the unit testing, Genesis developers also perform peer-review for the functionality defined in the test-deck. Errors found during the peer-review process are directly communicated to the original developer, with notification going to the technical lead of the application.

Errors found which require additional follow up or clarifications are logged in the Genesis TRIMSSOFT (TRIMS) tracking tool. The Genesis technical lead and project manager utilize TRIMS to track the progress and resolution of reported errors.

2.2 Genesis Integration Testing Process Overview

After successful unit testing, Genesis deploys the changes into its internal testing environment for integration testing. Genesis integration testing is performed by the application test team in the Genesis test environment. This testing strategy will have a “black box” perspective, which means the testers do not know the internal logical structure of each software component. System testing will validate

functional requirements against the text of the requirements themselves and is reliant upon the execution of test scripts and scenarios.

During the integration testing phase, each of the individual functionalities within one module (for example, the Fee module) is tested to ensure that it is performing its intended capability at the highest level. Following the confirmation of the correct optimal performance of an individual functionality within a module, this functionality is tested in terms of the other functionalities to ensure that it is interacting properly with other functionalities within the same module. Only after all functionalities within a single module have been tested may UAT testing begin.

Errors found which require additional follow up or clarifications are logged in the Genesis TRIMSSOFT (TRIMS) tracking tool. The Genesis technical lead and project manager utilize TRIMS to track the progress and resolution of reported errors.

3.0 UAT OVERVIEW

The UAT Test Plan is to achieve the following:

- ❖ Define UAT testing objectives.
- ❖ Define UAT testing scope, roles and responsibilities.
- ❖ Define UAT testing strategies to include all the functional requirements.
- ❖ Define UAT test deliverables.
- ❖ Start defining bug-tracking procedures (detailed processes updated in UAT defect tracking plan).

3.1 Testing Objective

A primary objective of testing the application is to assure that the system meets the requirements as documented in the functional specification documents and maintain the quality of the product. In addition to functional specification documents identified for SAVR, ancillary documents have been created as part of the design phase of the project. These documents are also a useful resource for testing elements of the application not directly addressed within the functional documents.

At the end of the project development cycle, the user should find that the project has met or exceeded all their expectations as detailed in the requirements and the descriptive documents identified below.

Functional Specification Documents include:

- System Functional Specification – Death
- System Functional Specification – Birth
- System Functional Specification – Imaging
- System Functional Specification – Fee
- System Customization Plan
- System Functional Designs – Death
- System Functional Designs – Birth
- System Functional Designs – Imaging
- System Functional Designs – Fee

Ancillary Documentation to be used as reference for testing:

- Extract and Report Format Specifications
- Certificate Forms provided from COSA

The other objective of testing the application is to identify all issues (enhancements and bugs) and ensure that all issues are addressed in an appropriate matter before release. This requires careful and methodical testing of the application to first ensure all areas of the system are scrutinized and, consequently, all issues found are dealt with appropriately.

3.2 UAT Scope

The test scope includes the testing of all functional requirements listed in the Functional Specification documents. Non-functional requirements – for example, system security or system performance, are also available to be tested during the UAT cycle as part of this project.

The overall UAT test scope includes the following:

- ❖ Testing of all functional, application performance and security requirements defined within project documentation
- ❖ Non-functional requirements validation
- ❖ Data Migration validation
- ❖ Testing of interfaces of all systems that interact with SAVR application(s).

The following are considered out of scope for SAVR UAT testing:

- ❖ Functional requirements testing for systems outside the SAVR application. (Issues will be classified as not-defect if reported)
- ❖ Disaster Recovery validation (Genesis tested, but not within UAT scope)
- ❖ Integration with the legacy system

4.0 ASSUMPTIONS AND RISKS

4.1 Assumptions

- ❖ The COSA project team has reviewed functionality identified in the specifications and requirements documents.
- ❖ The Genesis test team will have a separate test environment to perform testing.
- ❖ Unit testing will be completed by the development team prior to release to the test team.
- ❖ Integration testing will be completed by Genesis prior to release to the UAT team
- ❖ Testers will test what is documented in the requirements.
- ❖ Test scripts are developed and approved.
- ❖ COSA is executing completed test cases and testers report test case results into the TRIMSSOFT system.
- ❖ COSA testers will have completed a training session conducted by Genesis prior to beginning the execution of test scripts.

4.2 Risks

- ⇒ Scope creep (last minute addition of new requirements) impacts deadlines for development team and test team.
- ⇒ Any downtime of the test system will significantly impact the testing cycle.

5.0 UAT TEST STRATEGY

5.1 Overview

The test strategy consists of a series of different tests that will fully exercise the system. The primary purpose of these tests is to uncover the system's limitations and measure its full capabilities.

Genesis follows a rigorous and multi-faceted testing methodology throughout the course of the system development life cycle to ensure high performance and overall system stability. The components of the system are modularly designed, thus making it a requirement to evaluate each individual component one at a time.

UAT testing is performed by selected City users who will validate system functionality by executing established test scenarios. UAT testing will validate functional requirements against the text of the system requirements, as well as validate system usability and compliance with identified City business process flow and legislative rules. All test scenarios should be compliant with system documentation, which will be utilized to classify and resolve all bug reports.

5.2 Pre – UAT Training

Prior to beginning UAT, all City testers will be offered the opportunity to attend a Genesis-led training session for the functionality contained within the modules to be tested. Genesis training sessions for testers are intended to accomplish several things:

- 1) Provide testers with a basic understanding of application structure and logic so that they can successfully navigate the system.
- 2) Resolve ground-level questions which would otherwise hinder testing completion or disrupt accurate test case reporting.
- 3) Provide a clear definition of the scope of system functionality that has been prepared for the UAT session.

Training sessions for testers will be held immediately prior to the beginning of a UAT cycle. It is expected that attendance at a minimum of one training session will be completed by each City-designated tester, and that attendance at one training session will be sufficient to prepare them for UAT execution.

Training session schedules and assignments will be ascertained between the Genesis Project manager and COSA prior to UAT training beginning. No more than four training sessions in total will be held.

Following completion of the test-team trainings, any comprehension checks required of City testers will be determined between the Genesis Project Manager and City test lead at the time the training schedule is developed.

5.3 Process Description

During the UAT testing phase, the City will break up testing cycles and functional test areas based upon its evaluation of internal testing resources and system requirements. The City plans to do an initial validation test of the application, followed by the execution of detailed test scenarios.

Genesis does not prescribe any specific requirements for the City UAT process, and more details about the City organization for UAT can be found within the City's internal UAT planning documents.

Throughout the course of City UAT, the City test lead and the Genesis Project Manager will review case error reports and jointly track remedial action. Several iterations of the application are anticipated during City UAT. As problems are reported and resolved, Genesis will complete patch deployments of the application, and City testers will complete testing of the fixes by repeating the test cases which identified the initial error.

5.4 Prioritization and Patch Deployment

During UAT testing, any issues reported by the UAT testing team will be prioritized between Genesis Project manager and City test lead based on the severity of the reported issue. The issues will be prioritized under 3 broad categories:

1. High Priority Errors – Any issue(s) that adversely affects the ability of the testers to validate the stated functional requirements of the system.
2. Medium Priority Errors – Any issue(s) that does not work as intended or does not meet the functional/non-functional requirements as stated in the functional requirements or any other related documents, but does not block continued testing efforts.
3. Low Priority Errors – Any issue(s) that are insignificant to the proper functioning of the system.

During the initial phase of UAT testing, Genesis will employ more rigorous patch deployment frequency to address High priority cases and ensure the testing schedule is not disrupted. As the UAT phase progresses, Genesis patch deployment frequency will also taper progressively, in accordance with the number of new reported cases. Frequency of patch deployment will also depend upon the continued severity of the issues reported.

As a process, any deployment scheduled for UAT will first go through a thorough cycle of unit and system testing at Genesis' end. Only when such patch is approved by the Genesis testing team, it can be carried forward to UAT environment.

5.5 Reporting

City UAT reporting will be completed utilizing the Genesis TRIMSSOFT tool. City testers will log negative test results into TRIMSSOFT. Genesis staff will receive an automatic notification whenever a new case is logged into TRIMS. Genesis staff will review the details of the reported case and respond by requesting additional information where required. If the City is able, they may wish to have individual testers report results to a central testing lead who will manage the TRIMS cases. This may help reduce duplication and streamline the prioritization process.

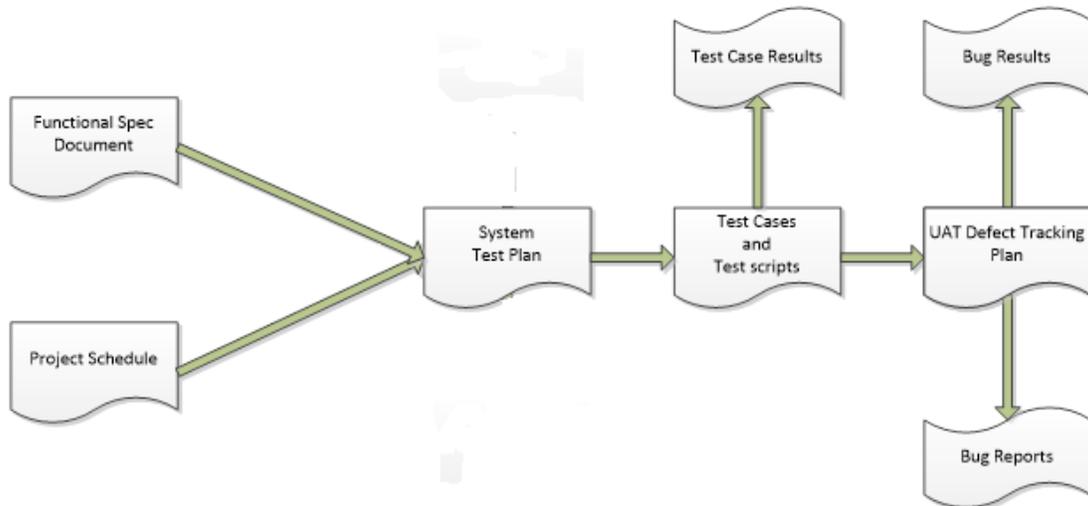
The Genesis Project Manager will also open a TRIMS case for any unlogged reported error received from the City test lead for tracking and resolution among the Genesis development team. The Genesis Project Manager will provide COSA with a weekly report of the cases logged into TRIMS and the current progress in resolving each of them.

5.6 Triage

Genesis recommends a daily triage meeting with the City testing group (depending on the velocity of issue reporting could be less frequent) to review the cases, collect any additional information, and identify any resolution details required. The triage process should be run by Genesis to collect information needed for case resolution.

6.0 TEST DELIVERABLES

Testing will provide specific deliverables during the project. Defect tracking will be best accomplished by fidelity to the test cases being utilized by City staff and adherence to the defect tracking plan. A specific picture of the key documents which shape the UAT period of the project are diagramed below:



6.1 Test Plan

The Test Plan identifies the details of the test strategy, identifying the associated test case areas within the specific product for this release cycle.

The purposes of the Major Test Plan documents are to:

- ❖ Define testing objectives.
- ❖ Define testing scope, assumptions and risks
- ❖ Define testing strategies to include all the functional requirements.
- ❖ Define resources and responsibilities
- ❖ Define test deliverables.

6.2 Test Scripts

Test scripts are a set of instructions that make up a test program to test that the system/software functions as expected. It indicates the actions that should be taken as well as the pass/fail criteria. Test scripts will be provided by Genesis prior to the initiation of UAT. The City may add their own test scripts as a supplement.

6.3 Test Reports

The test report is the detailed documentation from TRIMS of existing case statuses. It is intended to provide both a snapshot as well as an overall picture of the current issue reporting status.

The Test Report will include two components:

- 1) **Testing Error Summary Sheet** – this includes a summary status of all reported test cases errors and the current assigned status. Possible status include:
 - ❖ Deployment Pending – indicates a fix is completed and ready for deployment
 - ❖ Design – a fix is currently being worked on by development team
 - ❖ Management – a case is currently under review by the project management team
 - ❖ New – a case has been created and needs worked upon
 - ❖ City Response Pending – a case is on hold pending a decision or explanation from the City
 - ❖ City Testing – a fix has been deployed and is waiting for completion of City Testing to verify closure.
- 2) **Testing Case Error Report** – this document includes a more detailed breakdown of reported cases. It includes the following information:
 - ❖ TRIMS Case ID #
 - ❖ TRIMS Description
 - ❖ Date Created
 - ❖ Date Updated
 - ❖ Classification
 - ❖ Priority
 - ❖ Status

6.4 Data Validation

Data migration will be done by Genesis during the UAT process. The data will be migrated into an environment separate from the UAT application. Genesis will work with COSA to provide credentials to the users performing data validation to access this environment. Validation will be performed in multiple steps as shown below.

1. The data validation team will open records to ensure that data displays as expected within the electronic record. The data validation team ensure that records do not error out.
2. The data validation team will compare the data shown within SAVR with data from the current system. The data validation team will verify that data within SAVR is correct.
3. The data validation team will then view the images attached to the electronic record within SAVR. The data validation team will compare the image to the record to ensure that images are viewable and attached to the correct record.

Genesis recommends to COSA that validation occurs for records across a substantial number of years. The most effective validations are when a certain number of records per year are validated to ensure that data sets across the entire breadth of data have been verified.

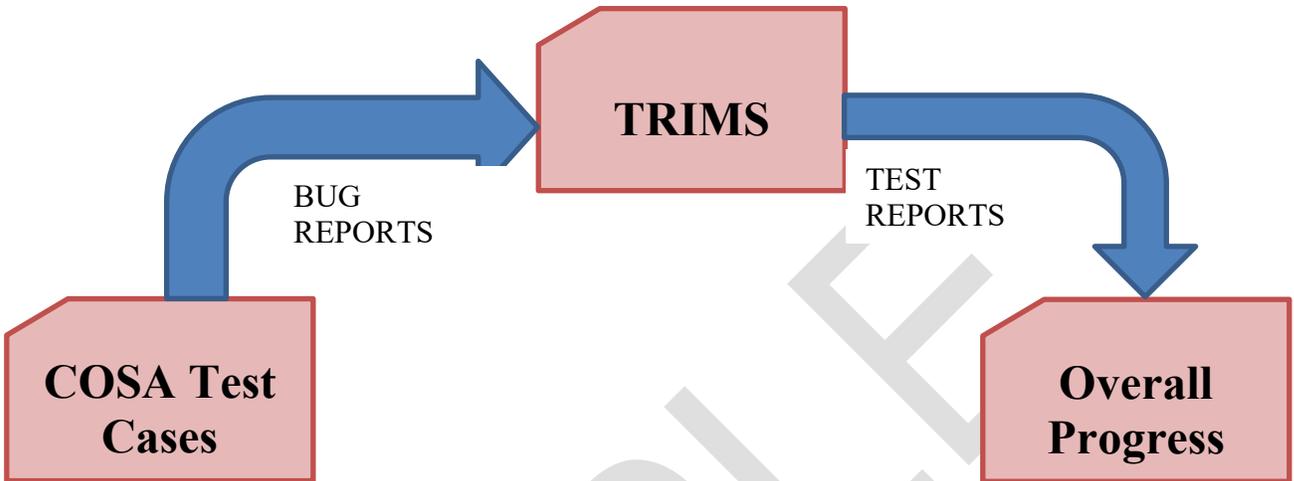
6.5 Bug Reports

Bug Reports are the primary means for the testing team to identify issues and report them to the development team. Genesis manages bug reports within its TRIMSSOFT application. Individual bug reports during UAT will be initiated by COSA testers in TRIMS. Genesis will be responsible for creating an overall Test Report sheet of issues identified during testing to provide to Genesis for review and resolution. Individual Bug Reports feed the creation of the Test Reports. The State may update priority or add additional notes to the individual bug reports utilizing TRIMS log-ins. Genesis will be responsible for updating case statuses.

6.6 UAT Defect Tracking Plan

The UAT Defect Tracking plan will provide details bridging the test case completion from the State with the bug reporting in TRIMS. Details will be included for each of the selectable values in TRIMS when creating a bug report,

how to link the report to a particular test case, and also instructions on how to most effectively report an issue. This will include information on uploading screenshots to assist in issue resolution.



To accomplish this feedback loop process, the City Testing Lead will be responsible for managing the test cases execution, while the Genesis Project Manager will be responsible for managing TRIMS. The City Testing Lead will track updates to the City test cases that are required based on bug report resolutions.

When a bug report status is updated, Genesis will add a comment and modify the status of the case. An email notice will be automatically generated from TRIMS to the individual who logged the case. If the resolution is being updated as part of a system deployment, details of the update will be included in the Genesis provided deployment plan.

7.0 TESTING AREAS

Testing areas are initially defined based on available menu options within the identified module or topic areas. Sub top-areas or functional areas may be defined by the testing group during the test case development process. Testing areas are not aligned with development areas or strategies. They are used to identify testing needs within the application and ensure thoroughness throughout the testing process.

7.1 Testing Areas

Session	Module	Users	Program Area	Functionality
1	Admin	City Users	User Security & Customization	<ul style="list-style-type: none"> • User Maintenance • Security/Group Maintenance • Switch Location • Security Settings • User Parameters • Change Password • Update Profile
			System Messaging	<ul style="list-style-type: none"> • Broadcast Message • Email Directory
			Printing	<ul style="list-style-type: none"> • Printer Setup • Directory
			Library Maintenance	<ul style="list-style-type: none"> • State/Country • County • City/Town • Zip Code • Funeral Homes • Physicians

				<ul style="list-style-type: none"> • Medical Examiners • Place of Death • Place of Disposition
2	Admin	City Users	Configuration	<ul style="list-style-type: none"> • Screen Configuration • Logic Builder • Search Configuration • Email Configuration
			Forms and Letters	<ul style="list-style-type: none"> • All Printable Forms and Letters
			Imports	<ul style="list-style-type: none"> • Image Import • TXEVER Import
			Reports	<ul style="list-style-type: none"> • User Maintenance Reports • Records Receiving Reports • Production Reports • Error Reports
			Help	<ul style="list-style-type: none"> • Help • About • Configuration Help • Back Office Help
3	Death	City Users	Death Module and Properties	<ul style="list-style-type: none"> • Data Entry

				<ul style="list-style-type: none"> • Image matching / change
4	Birth	City Users	User Security & Customization	<ul style="list-style-type: none"> • User Maintenance • Security/Group Maintenance • Switch Location • Security Settings • User Parameters • Single Sign On • Change Password • Update Profile
			System Messaging	<ul style="list-style-type: none"> • Broadcast Message • Email Directory
			Printing	<ul style="list-style-type: none"> • Printer Setup • Directory
			Library Maintenance	<ul style="list-style-type: none"> • State/Country • County • City/Town • Zip Code • Funeral Homes
5		City Users	Configuration	<ul style="list-style-type: none"> • Screen Configuration • Logic Builder • Search Configuration • Email Configuration
			Forms and Letters	<ul style="list-style-type: none"> • All Printable Forms and Letters

				•
6	Fee	City	Fee Processing	<ul style="list-style-type: none"> • Fee Registration • GoCertificates online ordering • Fee User Work Queue • Transaction Price Rules • Web Orders • Counter Orders • Mail Orders • Issuing Certified Copies • Demographic Amendments • City/Town Remote Issuance • Suspending a Transaction • Record Issuance History • Fee Overrides • Plain Paper Copies
7	Fee	City	AR	<ul style="list-style-type: none"> • AR Registration • AR Payment • AR Invoice Generation
			Paper Inventory	<ul style="list-style-type: none"> • Paper Inventory • Paper Inventory Voiding

			Reports-Fee	<ul style="list-style-type: none"> • Cash Drawers Summary Total Report • Individual Cash Drawer Summary Report • Individual Cash Drawer Detail Report
8	Death		Data Validation	<ul style="list-style-type: none"> • Validating data migration
9	Birth		Data Validation	<ul style="list-style-type: none"> • Validating data migration

8.0 RESOURCE & RESPONSIBILITIES

The Project Manager and Technical Lead will coordinate UAT testing procedures and responsibilities for Genesis. The Project Manager will also be responsible for coordinating schedules, equipment, & tools for the testers as well as writing/updating the Test Plan, and Status reports.

8.1 Responsibility Definitions

Project Manager	Responsible for Project schedules and the overall success of the project.
Technical Lead	Serve as a primary contact/liason between the development department and the Project Manager.
Genesis Testers	Responsible for performing system integration testing and generating test scripts.



City Testing Lead

Responsible for managing City testers and communicating City testing results with Genesis

City Testers

Responsible for performing UAT testing and reporting testing results.

Genesis development team lead will create the first sets of system admin users in the test environment so that such users can further create the users with appropriate security processes and access levels. Multiple users can login and test the system at the same time.

Sign-off Sheet

The undersigned acknowledge they have reviewed the COSA UAT Test Plan and accept the contents herein written. Changes to this plan will be coordinated with and approved by the undersigned or their designated representatives.

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____ Date: _____

Print Name: _____

Role: _____

Signature: _____

Date: _____

Print Name: _____

Role: _____

SAMPLE

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 1 of 16

Department of Health Office of Vital Records
SYSTEM
Change Management PLAN

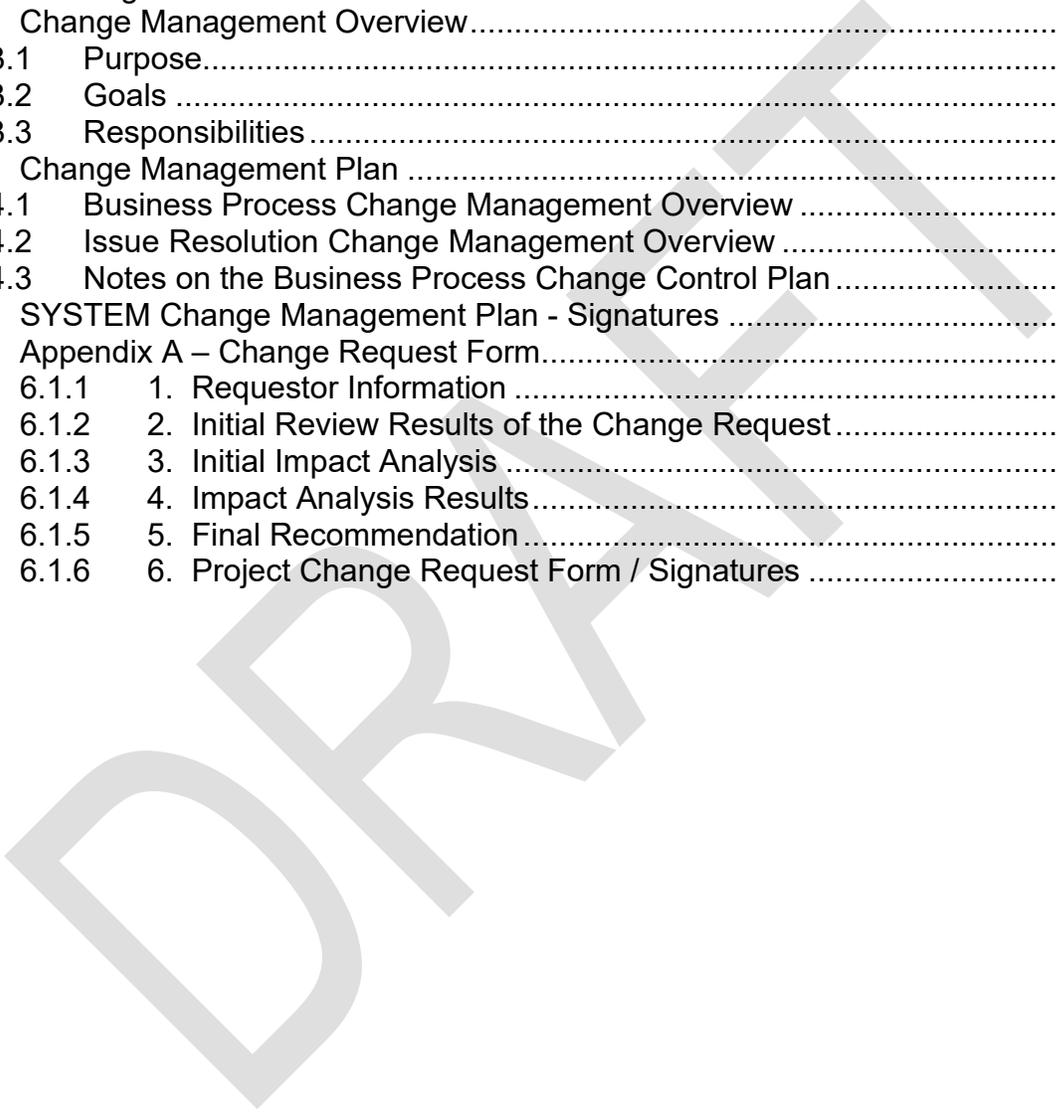
Version 1.01

DD/MM/YYYY

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 2 of 16

Table of Contents

1	Change Log	3
2	Introduction	4
2.1	Scope	4
2.2	Management/Technical Issues	4
3	Change Management Overview	4
3.1	Purpose.....	4
3.2	Goals	4
3.3	Responsibilities	5
4	Change Management Plan	5
4.1	Business Process Change Management Overview	5
4.2	Issue Resolution Change Management Overview	7
4.3	Notes on the Business Process Change Control Plan	10
5	SYSTEM Change Management Plan - Signatures	13
6	Appendix A – Change Request Form.....	14
6.1.1	1. Requestor Information	14
6.1.2	2. Initial Review Results of the Change Request	14
6.1.3	3. Initial Impact Analysis	15
6.1.4	4. Impact Analysis Results.....	15
6.1.5	5. Final Recommendation	15
6.1.6	6. Project Change Request Form / Signatures	16



	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 3 of 16

1 Change Log

Version	Date	Author(s)	Revision Notes
1.0	DD/MM/YYYY	Chad Denlinger, Julia Martinez	Initial Draft

DRAFT

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 4 of 16

2 Introduction

2.1 Scope

This Change Management Plan is designed to document the process of managing changes in SYSTEM. Change is defined as a modification in the initial design or structure of a project due to an identified change in business requirements or flaw in the design of a system. This Change Management Plan will dictate the path that individuals should take in regards to SYSTEM for both business requirement changes (scope change), and flaws in the design of the system.

2.2 Management/Technical Issues

Any management issues and/or problems that may affect the implementation of the Issue Management Plan should be reported immediately to the following Genesis team members for the development of counter measures, solutions and/or alternatives:

Project Manager: XXXXXXXX

Technical Lead: XXXXXXXX

3 Change Management Overview

3.1 Purpose

The purpose of this Change Management Plan is to:

- Ensure that all changes to the project are reviewed and approved in advance
- All changes are coordinated across the entire project.
- All stakeholders are notified of approved changes to the project.

All project Change Requests (CRs) must be submitted in written form using the Change Request Form provided. These CRs must also be attached to the case created in the Genesis Systems, Inc. Project Log tool for tracking and management.

The project team will keep a log of all Change Requests.

3.2 Goals

The goals of this Change Management Plan are to:

- Give due consideration to all requests for change.
- Identify define, evaluate, approve, and track changes through to completion.
- Modify Project Plans to reflect the impact of the changes requested.
- Bring the appropriate parties (depending on the nature of the requested change) into the discussion.
- Negotiate changes and communicate them to all affected parties.

	Genesis Systems, Inc.	Document ID: 112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 5 of 16

3.3 Responsibilities

Those responsible for Change Management	Their Responsibilities
Project Manager (with the Project Team)	Develop the Change Management Plan.
Project Manager	Facilitate or execute the change management process. This process may result in changes to the scope, schedule, budget, and/or quality plans. Additional resources may be required.
Project Manager	Maintain a log of all change requests.
Project Manager	Conduct reviews of all change management activities with senior management on a periodic basis.
The Executive Committee	Ensure that adequate resources and funding are available to support execution of the <i>Change Management Plan</i> . Ensure that the <i>Change Management Plan</i> is implemented.

4 Change Management Plan

4.1 Business Process Change Management Overview

During the Joint Application Design (JAD) sessions conducted during Phase Two of SYSTEM project, every effort will be made to completely document all business requirements and processes required for the system. Once the Functional Specification Documents are signed off on by both the State and Genesis Systems, Inc. will utilize those documents as a benchmark for system development. During the life of the system, the potential for business processes and requirements to change. For those changes that are outside of the scope of the project as agreed on by the State and Genesis Systems, the following Change Management process will be followed:

The Business Process Change Management process occurs in eight steps:

1. The State staff will submit a written Change Request to the Genesis Systems, Inc. Project Manager.
2. Genesis Project Manager will review the change request and accept the change request as it was submitted or return the change request for further information or analysis.
3. If approved, perform analysis with Genesis Technical Lead and develop a recommendation to incorporate the change into the current design of SYSTEM.
4. Submit the request and recommendation to the Genesis Management Team for review and acceptance.
5. Marketing will review the request and submit a quote to the State for the requested change.
6. The State will submit the change request and quote to Contract Management for a contract modification.
7. If the contract modification is accepted, the project plan and design documents will be modified appropriately.
8. All stakeholders will be notified of the change to the system.

	Genesis Systems, Inc.	Document ID: 112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 6 of 16

4.1 Business Process Change Management Overview

In practice the Change Request process is a bit more complex. The following describes the change control process in detail:

1. Any stakeholder can request or identify a change. He/she uses a *Change Request Form* to document the nature of the change request.

2. The completed form is sent to a designated member of the Project Team who enters the CR into the *Project Log*. The Project Team Member will also enter the change request into the Genesis Project Log tool for tracking, as well as attach a copy of the Change Request Document to the created case. (Directions for the Genesis Project Log tool are included in Appendix C)

[Link To Project Change Request Log](#)
[Link to Genesis Project Log](#)

3. CRs are reviewed daily by the Project Manager and assigned one four possible outcomes:

<ul style="list-style-type: none"> ▪ Reject: 	<ul style="list-style-type: none"> ▪ Notice is sent to the submitter ▪ Submitter may appeal (which sends the matter to the Project Team) ▪ Project Team reviews the CR at its next bi-weekly status meeting.
<ul style="list-style-type: none"> ▪ Defer to a date: 	<ul style="list-style-type: none"> ▪ Project Team is scheduled to consider the CR on a given date ▪ Notice is sent to the submitter ▪ Submitter may appeal (which sends the matter to the Project Team) ▪ Project Team reviews the CR at their bi-weekly status meeting.
<ul style="list-style-type: none"> ▪ Accept for analysis immediately (e.g., emergency): 	<ul style="list-style-type: none"> ▪ An analyst is assigned and impact analysis begins ▪ Project Team is notified.
<ul style="list-style-type: none"> ▪ Accept for consideration by the project team: 	<ul style="list-style-type: none"> ▪ Project Team reviews the CR at its next bi-weekly status meeting.

4. All new pending CRs are reviewed at the Project Team meeting. Possible outcomes:

<ul style="list-style-type: none"> ▪ Reject: 	<ul style="list-style-type: none"> ▪ Notice is sent to the submitter ▪ Submitter may appeal (which sends the matter to the Project Sponsor, and possibly to the Executive Committee) ▪ Executive Committee review is final.
<ul style="list-style-type: none"> ▪ Defer to a date: 	<ul style="list-style-type: none"> ▪ Project Team is scheduled to consider the CR on a given date ▪ Notice is sent to the submitter.
<ul style="list-style-type: none"> ▪ Accept for analysis: 	<ul style="list-style-type: none"> ▪ An analyst is assigned and impact analysis begins ▪ Notice is sent to the submitter.

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 7 of 16

4.1 Business Process Change Management Overview

5. Once the analysis is complete, the Project Team reviews the results. Possible outcomes:

<ul style="list-style-type: none"> ▪ Reject: 	<ul style="list-style-type: none"> ▪ Notice is sent to the submitter ▪ Submitter may appeal which sends the matter to the Project Sponsor (and possibly to the Executive Committee) ▪ Executive Committee review is final.
<ul style="list-style-type: none"> ▪ Accept: 	<ul style="list-style-type: none"> ▪ Project Team accepts the analyst's recommendation ▪ Notice is sent to Project Sponsor as follows: <ul style="list-style-type: none"> - Low-impact CR – Information only, no action required - Medium-impact CR – Sponsor review requested; no other action required - High-impact CR – Sponsor approval required.
<ul style="list-style-type: none"> ▪ Return for further analysis: 	Project Team has questions or suggestions that are sent back to the analyst for further consideration.

6. Accepted CRs are forwarded to the Project Sponsor for review of recommendations. Possible outcomes:

<ul style="list-style-type: none"> ▪ Reject: 	<ul style="list-style-type: none"> ▪ Notice is sent to the submitter ▪ Submitter may appeal to the Executive Committee ▪ Executive Committee review is final.
<ul style="list-style-type: none"> ▪ Accept: 	<ul style="list-style-type: none"> ▪ Notice is sent to the submitter ▪ Project Team updates relevant project documents ▪ Project Team modifies the project plan accordingly. ▪ Project Team acts on the new plan.
<ul style="list-style-type: none"> ▪ Return for further analysis: 	<ul style="list-style-type: none"> ▪ The Sponsor has questions or suggestions that are sent back to the analyst for further consideration ▪ Notice is sent to the submitter ▪ Analyst's recommendations are reviewed by Project Team (return to Step 5).

4.2 Issue Resolution Change Management Overview

During the development of the system, changes may be requested due to defects identified during testing and review of the project components. These defects will originally be identified as issues as described in the Issue Management Plan. If it is determined that an issue will require a change to be made to the construction of the system, the following plan will be followed:

	Genesis Systems, Inc.	Document ID: 112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 8 of 16

4.2 Issue Resolution Change Management Overview

The Issue Resolution Change Management process occurs in nine steps:

1. Issues are identified and logged according to the process described in the Issue Management Plan.
2. The Genesis Project Manager will enter the change request into the Change Request log and enter the assigned Change Request number into the description field in the Genesis Project Log. The Genesis Project Manager will also update the Project Log to reflect the current status of the issue.
3. The Genesis Project Manager will complete the Change Request form and attach it to the issue case in the Genesis Project Log.
4. Genesis Project Manager will review the change request and accept the change request as it was submitted or return the change request for further information or analysis.
5. If approved, perform analysis with Genesis Technical Lead and develop a recommendation to incorporate the change into the current design of the system.
6. Submit the request and recommendation to the Genesis Management Team for review and acceptance.
7. Marketing will review the request and submit a quote to the State for the requested change.
8. The State will submit the change request and quote to Contract Management for a contract modification.
9. If the contract modification is accepted, the project plan and design documents will be modified appropriately.

All stakeholders will be notified of the change to the system.

In practice the Change Request process is a bit more complex. The following describes the change control process in detail:

10. Any stakeholder can identify an issue that could be identified as a change request. Issues are entered into the Genesis Project Log tool. The Genesis Project Manager will complete the Change Request form when a required change is identified. This Change Request form will be attached to the case that was created when the issue was originally identified.

11. The completed change request is entered into the Project Log and the change request number is generated appropriately. The Genesis Project manager will attach the change request log to the case that was originally created.

[Link To Project Change Request Log](#)
[Link to Genesis Project Log](#)

12. CRs are reviewed daily by the Project Manager and assigned one four possible outcomes:

- | | |
|--|--|
| <ul style="list-style-type: none"> ▪ Reject: | <ul style="list-style-type: none"> ▪ Notice is sent to the submitter ▪ Submitter may appeal (which sends the matter to the Project Team) ▪ Project Team reviews the CR at its next bi-weekly status meeting. |
| <ul style="list-style-type: none"> ▪ Defer to a date: | <ul style="list-style-type: none"> ▪ Project Team is scheduled to consider the CR on a given date ▪ Notice is sent to the submitter ▪ Submitter may appeal (which sends the matter to the Project Team) ▪ Project Team reviews the CR at their bi-weekly status meeting. |
| <ul style="list-style-type: none"> ▪ Accept for analysis immediately (e.g., emergency): | <ul style="list-style-type: none"> ▪ An analyst is assigned and impact analysis begins ▪ Project Team is notified. |

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 9 of 16

4.2 Issue Resolution Change Management Overview	
<ul style="list-style-type: none"> ▪ Accept for consideration by the project team: 	<ul style="list-style-type: none"> ▪ Project Team reviews the CR at its next bi-weekly status meeting.
13. All new pending CRs are reviewed at the Project Team meeting. Possible outcomes:	
<ul style="list-style-type: none"> ▪ Reject: 	<ul style="list-style-type: none"> ▪ Notice is sent to the submitter ▪ Submitter may appeal (which sends the matter to the Project Sponsor, and possibly to the Executive Committee) ▪ Executive Committee review is final.
<ul style="list-style-type: none"> ▪ Defer to a date: 	<ul style="list-style-type: none"> ▪ Project Team is scheduled to consider the CR on a given date ▪ Notice is sent to the submitter.
<ul style="list-style-type: none"> ▪ Accept for analysis: 	<ul style="list-style-type: none"> ▪ An analyst is assigned and impact analysis begins ▪ Notice is sent to the submitter.
14. Once the analysis is complete, the Project Team reviews the results.¹ Possible outcomes:	
<ul style="list-style-type: none"> ▪ Reject: 	<ul style="list-style-type: none"> ▪ Notice is sent to the submitter ▪ Submitter may appeal which sends the matter to the Project Sponsor (and possibly to the Executive Committee) ▪ Executive Committee review is final.
<ul style="list-style-type: none"> ▪ Accept: 	<ul style="list-style-type: none"> ▪ Project Team accepts the analyst's recommendation ▪ Notice is sent to Project Sponsor as follows: <ul style="list-style-type: none"> - Low-impact CR – Information only, no action required - Medium-impact CR – Sponsor review requested; no other action required - High-impact CR – Sponsor approval required.
<ul style="list-style-type: none"> ▪ Return for further analysis: 	Project Team has questions or suggestions that are sent back to the analyst for further consideration.
15. Accepted CRs are forwarded to the Project Sponsor for review of recommendations. Possible outcomes:	
<ul style="list-style-type: none"> ▪ Reject: 	<ul style="list-style-type: none"> ▪ Notice is sent to the submitter ▪ Submitter may appeal to the Executive Committee ▪ Executive Committee review is final.
<ul style="list-style-type: none"> ▪ Accept: 	<ul style="list-style-type: none"> ▪ Notice is sent to the submitter ▪ Project Team updates relevant project documents ▪ Project Team modifies the project plan accordingly. ▪ Project Team acts on the new plan.

¹ Note: Sponsor participates in this review if the analysis was done at Sponsor's request.

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 10 of 16

4.2 Issue Resolution Change Management Overview

- | | |
|--|--|
| <ul style="list-style-type: none"> ▪ Return for further analysis: | <ul style="list-style-type: none"> ▪ The Sponsor has questions or suggestions that are sent back to the analyst for further consideration ▪ Notice is sent to the submitter ▪ Analyst's recommendations are reviewed by Project Team (return to <i>Step 5</i>). |
|--|--|

4.3 Notes on the Business Process Change Control Plan

1. A Change Request is:

- Included in the project only when both Sponsor and Project Team agree on a recommended action.

2. The CR may be:

- *Low-impact* – Has no material affect on cost or schedule. Quality is not impaired.
- *Medium-impact* – Moderate impact on cost or schedule, or no impact on cost or schedule but quality is impaired. If impact is negative, Sponsor review and approval is required.
- *High-impact* – Significant impact on cost, schedule or quality. If impact is negative, Executive Committee review and approval is required.

3. For this project:

- *Moderate-impact* – Between 20 and 40 programming hours change in schedule; less than \$12,000.00 change in budget; one or more major use cases materially degraded
- *High-impact* – More than 40 programming hours change in schedule; more than \$12,000.00 change in budget; one or more major use cases lost.

4. All project changes will require some degree of update to project documents:

- *Low-impact* – Changes are likely to require update only to requirements and specifications documents.
- *Moderate- or high-impact* – depending on the type of change, the following documents (at a minimum) must be reviewed and may require update.

Type of Change	Documents to Review (and update as needed)
Scope	<ul style="list-style-type: none"> • Scope Statement and WBS • Budget • Project Schedule • Resource Plan • Risk Log • Requirements • Specifications

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 11 of 16

4.3 Notes on the Business Process Change Control Plan					
Schedule	<ul style="list-style-type: none"> • Project Schedule • Budget • Resource Plan • Risk Log 				
Budget	<ul style="list-style-type: none"> • Budget • Project Schedule • Resource Plan • Risk Log 				
Quality	<ul style="list-style-type: none"> • Budget • Project Schedule • Resource Plan • Risk Log • Quality Plan • Requirements • Specifications 				
5. Project documents:					
<p><i>Whenever changes are made to project documents, the version history is updated in the document and prior versions are maintained in an archive. Edit access to project documents is limited to the Project Manager and designated individuals on the Project Team.</i></p>					
<ul style="list-style-type: none"> • For this project, all <u>electronic documents</u> are kept in (select one of the following and describe it in the adjacent space provided): 					
<input type="checkbox"/> Version Control System:					
<input type="checkbox"/> Central storage available to the Project Team:					
<input type="checkbox"/> Other:	Genesis Systems, Inc. will maintain electronic copies of all delivered documents on their secure, internal network.				
<ul style="list-style-type: none"> • For this project, all <u>paper documents</u> are kept in (select one of the following and describe it in the adjacent space provided): 					
<input type="checkbox"/> Project Notebook maintained by the Project Manager:	The Genesis Project Manager will maintain a project notebook of all paper documents submitted or created as part of the system development process.				
<input type="checkbox"/> Other:					
<ul style="list-style-type: none"> • The following individuals have edit access to project documents: 					
<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 50%;">Role</th> <th style="width: 50%;">Documents</th> </tr> </thead> <tbody> <tr> <td>Project Manager</td> <td> <ul style="list-style-type: none"> • All current documents • Project archive </td> </tr> </tbody> </table>	Role	Documents	Project Manager	<ul style="list-style-type: none"> • All current documents • Project archive 	
Role	Documents				
Project Manager	<ul style="list-style-type: none"> • All current documents • Project archive 				

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 12 of 16

4.3 Notes on the Business Process Change Control Plan	
Technical Lead	<ul style="list-style-type: none"> • All current documents • Project archive
Project Directors	<ul style="list-style-type: none"> • All current documents • Project archive
Developers	<ul style="list-style-type: none"> • All current technical specifications and design documents.
Trainers and Documentation Specialists	<ul style="list-style-type: none"> • All current technical specifications and design documents.

DRAFT

	Genesis Systems, Inc.	Document ID: 112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 13 of 16

5 SYSTEM Change Management Plan - Signatures

Project Name:			
Project Manager:			
<i>I have reviewed the information contained in this Project Change Management Plan and agree.</i>			
Name	Role	Signature	Date (MM/DD/YYYY)

The signatures above indicate an understanding of the purpose and content of this document by those signing it. By signing this document, they agree to this as the formal Project Change Management Plan.

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 14 of 16

6 Appendix A – Change Request Form

Project Name:	
Prepared by:	
Date: (MM/DD/YYYY)	
Control #: (from Change Request Log)	

Refer to your *Change Management Plan* for instructions on how to use this document.

6.1.1 1. Requestor Information		
<i>Fill in with appropriate information or place an "X" next to those that apply.</i>		
Area of Change		
Scope []	Schedule []	
Budget []	Quality []	
Is this Change the result of a Risk Management Action?		
No []	Yes []	Risk ID:
Proposed Change Description and References <i>[Provide information below concerning the requested change. Create links to any supporting documentation.]</i>		
Description:		
Justification:		
Hyperlinks:	Link_To_Supporting_Document1 Link_To_Supporting_Document2	
Impact of Not Implementing Proposed Change:		
Alternatives:		

6.1.2 2. Initial Review Results of the Change Request			
Initial Review Date: (MM/DD/YYYY)		Assigned to:	
Action		Comments	
Approve for Impact Analysis []			
Reject []			
Defer Until (MM/DD/YYYY) []			

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
	Title: Change Management Plan	Approved By:	Page No: 15 of 16

6.1.2 2. Initial Review Results of the Change Request	
Express Approval	<input type="checkbox"/>

6.1.3 3. Initial Impact Analysis			
Baselines Affected:			
Configuration Items Affected (e.g. product specifications):			
Cost / Schedule Impact Analysis Required? (check one)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Impact on Cost:			
Impact on Schedule:			
Impact on Resources:			
Risk associated with implementing the change:			
Risk associated with not implementing the change:			
Final Review Results:			
Review Date: (MM/DD/YYYY)			
Priority: (check one)	High <input type="checkbox"/>	Medium <input type="checkbox"/>	Low <input type="checkbox"/>

6.1.4 4. Impact Analysis Results			
Specific Requirements Definition:			
Additional Resource Requirements (insert rows as needed)	Work Days	Cost	
	Totals:		
Impact of <u>not</u> Implementing the Change:			
Alternatives to the Proposed Change:			

6.1.5 5. Final Recommendation

	Genesis Systems, Inc.	Document ID:112502 Issue Date:	Version: 1.01
Title: Change Management Plan		Approved By:	Page No: 16 of 16

6.1.6 6. Project Change Request Form / Signatures			
Project Name:			
Project Manager:			
<i>I have reviewed the information contained in this Project Change Request Form and agree.</i>			
Name	Title	Signature	Date (MM/DD/YYYY)

The signatures above indicate an understanding of the purpose and content of this document by those signing it. By signing this document, they agree to this as the formal Project Change Request Form.

End of Document

DRAFT

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 1 of 13

Department of Health Office of Vital Records
SYSTEM
Incident Response PLAN

Version 1.01

DD/MM/YYYY

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 2 of 13

Table of Contents

1	Change Log	3
2	Introduction	4
2.1	Purpose.....	4
2.2	Scope.....	4
2.2	Management/Technical Issues	4
2.3	Background.....	4
2.4	Roles and Responsibilities	5
3	Policy	5
3.1	General Policy.....	5
3.2	Periodic Evaluation	6
4	Procedure for Establishing Incident Response System.....	6
4.1	Reporting Incidents.....	6
4.2	Procedure for Executing Incident Response.....	7
	APPENDIX A.....	10

DRAFT

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 3 of 13

1 Change Log

Version	Date	Author(s)	Revision Notes
1.0	DD/MM/YYYY	Chad Denlinger, Julia Martinez	Initial Draft

DRAFT

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan	Approved By:	Page No: 4 of 13	

2 Introduction

2.1 Purpose

This security incident response policy is intended to establish controls to ensure detection of security vulnerabilities and incidents, as well as quick reaction and response to security breaches. This document also provides implementation instructions for security incident response, to include definitions, procedures, responsibilities, and performance measures (metrics and reporting mechanisms).

2.2 Scope

This policy applies to all users of information systems within Genesis Systems, Inc. (“Genesis”). This typically includes personnel and contractors, as well as any external parties that come into contact with systems and information controlled by Genesis (hereinafter referred to as “users”). This policy shall be made readily available to all users.

2.2 Management/Technical Issues

Any management issues and/or problems that may affect the implementation of the Incident Response Plan should be reported immediately to the following Genesis team members for the development of counter measures, solutions and/or alternatives:

Project Manager: XXXXXXXX

Technical Lead: XXXXXXXX

2.3 Background

A key objective of Genesis’s Information Security Program is to focus on detecting information security weaknesses and vulnerabilities so that incidents and breaches can be prevented wherever possible. Genesis is committed to protecting its personnel, customers, and partners from illegal or damaging actions taken by others, either knowingly or unknowingly. Despite this, incidents and data breaches are likely to happen; when they do, Genesis is committed to rapidly responding to them, which may include identifying, containing, investigating, resolving, and communicating information related to the breach.

This policy requires that all users report any perceived or actual information security vulnerability or incident as soon as possible using the contact mechanisms prescribed in this document. In addition, the Genesis must employ automated scanning and reporting mechanisms that can be used to identify possible information security vulnerabilities and incidents. If a vulnerability is identified, it must be resolved within a set period of time based on its severity. If an incident is identified, it must be investigated within a set period of time based on its severity. If an incident is confirmed as a breach, a set

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 5 of 13

procedure must be followed to contain, investigate, resolve, and communicate information to personnel, customers, partners and other stakeholders.

Within this document, the following definitions apply:

- **Information Security Vulnerability:** A vulnerability in an information system, information system safety procedures, or administrative controls that could be exploited to gain unauthorized access to information or to disrupt critical processing.
- **Information Security Incident:** A suspected, attempted, successful, or imminent threat of unauthorized access, use, disclosure, breach, modification, or destruction of information; interference with information technology operations; or significant violation of information security policy.
- **Information Security Event:** An occurrence or change in the normal behavior of systems, networks, or services that may impact security and organizational operations (e.g., possible compromise of policies or failure of controls).

2.4 Roles and Responsibilities

The Senior Network Administrator, Executive Management and Legal Teams are responsible for updating, reviewing, and maintaining this policy, and will work with Genesis's cyber liability insurers in determining if incidents need to be reported to outside entities and outside personnel (including customers).

All personnel are responsible for reporting incidents. The Senior Network Administrator and Information Security Team are responsible for receiving, managing and triaging incident reports, and resolving incidents. The Information Security Team is responsible for performing a post-mortem after an incident is resolved, and for testing the incident response plan in compliance with this policy.

3 Policy

3.1 General Policy

- All users must report any system vulnerability, incident, or event pointing to a possible incident to the Information Security Team as quickly as possible but no later than twenty-four (24) hours.
 - Incidents must be reported by sending an e-mail message with details of the incident.
 - Personnel must be trained on the procedures for reporting information security incidents or discovered vulnerabilities, and their responsibilities to report such incidents. Failure to report information security incidents shall be considered a
-

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 6 of 13

security violation and will be reported to the Director of Human Resources (HR) for disciplinary action.

- Information and artifacts associated with security incidents (including but not limited to files, logs, and screen captures) must be preserved appropriately in the event that they need to be used as evidence of a crime.
- All information security incidents must be responded to through the incident management procedures defined below.

3.2 Periodic Evaluation

It is important to note that the processes surrounding security incident response should be periodically reviewed and evaluated for effectiveness. This also involves appropriate training of resources expected to respond to security incidents, as well as training of the general population regarding Genesis's expectation for them, relative to security responsibilities. The incident response plan is tested annually, through either tabletop or technical means.

4 Procedure for Establishing Incident Response System

- Define a notification channel to alert the Information Security Team of a potential security incident, which is IT@genesisisinfo.com
- Assign management sponsors from the Information Security, Legal, and Project Management Teams, which will by default be the Senior Network Administrator and the Legal Team unless otherwise defined.
- Distribute the Procedure for Executing Incident Response ("PEIR") to staff and ensure up-to-date versions are accessible in a dedicated resource.
- Require all staff to complete training for the PEIR at least once per year. This includes security awareness training for all personnel, and Incident Response training for the Information Security Team.

4.1 Reporting Incidents

The following situations are to be considered for information security event reporting:

- Ineffective security control;
 - Breach of information integrity, confidentiality or availability expectations;
 - Human errors;
 - Non-compliance with policies or guidelines;
-

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 7 of 13

- Breaches of physical security arrangements;
- Uncontrolled system changes;
- Malfunctions of software or hardware;
- Access violations; and
- Malfunctions or other anomalous system behaviors indicative of a security attack or actual security breach.

4.2 Procedure for Executing Incident Response

- When an information security incident is identified or detected, users must notify their immediate supervisor within twelve (12) hours. The supervisor must immediately notify the Information Security Team. The following information must be included as part of the notification:
 - Person who discovered the incident
 - Date, time, and location of the incident
 - Description of the incident
 - How the incident was discovered
 - Known evidence of the incident
 - Affected system(s)
 - Within forty-eight (48) hours of the incident being reported, the Senior Network Administrator and the Information Security Team shall conduct a preliminary investigation and risk assessment to review and confirm the details of the incident. If the incident is confirmed, the Senior Network Administrator must assess the impact and assign a severity level, which will determine the level of remediation effort required:
 - **High:** The incident is potentially catastrophic to the hosted system and/or disrupts hosted customer's day-to-day operations; a violation of legal, regulatory, or contractual requirements is likely.
 - **Medium:** The incident will cause harm to one or more business units within Genesis and/or will cause delays to a business unit's activities.
 - **Low:** The incident is a clear violation of organizational security policy but will not substantively impact the business.
-

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 8 of 13

- The Senior Network Administrator, in consultation with management sponsors, shall determine appropriate incident response activities in order to contain and resolve incidents.
 - The Senior Network Administrator must take all necessary steps to preserve forensic evidence (e.g., log information, files, images) for further investigation to determine if any malicious activity has taken place. The collection of evidence will be managed by appropriate personnel with proper understanding and experience in forensic evidence collection. In the absence of such personnel, certified third-party professionals will be used. All such information must be preserved and provided to law enforcement if the incident is determined to be malicious.
 - If the incident is deemed as High or Medium, the Senior Network Administrator must work with the Project Manager of the affected environment, Legal Counsel, and Director of HR to create and execute a communications plan that communicates the incident to users, the public, and others affected and concurrently will work with Genesis's Cyber Liability Insurers in determining if incidents need to be reported to outside entities and outside personnel (including customers).
 - The Information Security Team must take all necessary steps to resolve the incident and recover information systems, data, and connectivity. All technical steps taken during an incident must be documented in Genesis's incident log, and must contain the following:
 - Description of the incident
 - Incident severity level
 - Root cause (e.g., source address, website malware, vulnerability)
 - Evidence
 - Mitigations applied (e.g., patch, re-image)
 - Status (open, closed, archived)
 - Disclosure (parties to which the details of this incident were disclosed to, such as customers, vendors, law enforcement, etc.)
 - After an incident has been resolved, the Senior Network Administrator must conduct a post-mortem that includes root cause analysis, documentation of any lessons learned, and the results of the applied mitigations.
 - In the event that the incident involves the breach of sensitive privacy data (e.g., PII), (1) an assessment will also be conducted to determine the
-

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan	Approved By:	Page No: 9 of 13	

extent of harm, embarrassment, inconvenience, or unfairness to affected parties; (2) all affected parties and appropriate organizations (e.g., law enforcement) will be notified; and (3) every effort will be made to mitigate the harm to affected parties.

- Depending on the severity of the incident and in conjunction with Genesis’s cyber liability insurer, Executive Management may elect to contact external authorities, including but not limited to law enforcement, private investigation firms, and government organizations as part of the response to the incident.
- Where necessary, the Information Security Team must notify all users of the incident, conduct additional training if necessary, and present any lessons learned to prevent future occurrences. Where necessary, the Director of HR must take disciplinary action if a user’s activity is deemed malicious.

DRAFT

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 10 of 13

APPENDIX A

SECURITY INCIDENT REPORT TEMPLATE

1.0 Reported by	
1.1 Last Name:	
1.2 First Name:	
1.3 Position:	
1.4 Company/Org Name:	
1.5 At this time, is it known that other companies/affiliates are affected by this incident? (If so, list the names & contact persons)	
1.6 Telephone No:	
1.7 E-mail:	

2.0 Incident Details Including Injury and Impact Level	
2.1 Date:	
2.2 Time:	
2.3 Location of affected site:	
2.4 Brief summary of the incident (what has happened, where did it happen, when did it happen):	
2.5 Description of the project/program and information involved, and, if applicable, the name of the specific program:	
2.6 Classification level of the information involved (See Risk Assessment Policy):	
2.7 System compromise (detail):	
2.8 Was the Cyber Liability Insurer notified? (List when, method).	
2.9 Data compromise (detail):	
2.10 Originator and/or Official Classification	

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 11 of 13

Authority of the information involved? (List name, address, telephone no., email and contact person).	
2.11 Is Foreign Government Information involved? Originating country or International organization?	
2.12 Did the incident occur on an accredited system authorized to process and store the information in question?	
2.13 Estimated injury level/sector:	
2.14 Estimated impact level: (any compromise or disruption to service?)	
2.15 Incident duration:	
2.16 Estimated number of systems affected:	
2.17 Percentage of systems affected:	
2.18 Action taken:	
2.19 Supporting documents attached (describe if any)	
2.20 Multiple occurrences or first time this type of incident occurs within this location?	
2.21 Incident Status (resolved or unresolved)	
2.22 Has the matter been reported to other authorities? If so, list names, addresses, telephone no., email and contact person.	

3.0 Status of Mitigation Actions	
3.1 Mitigation details to date: (List any actions that have been taken to mitigate incident and by whom)	
3.2 Results of mitigation:	
3.3 Additional assistance required? Continued monitoring period may be required.	

4.0 Computer Network Defense Incident Type (if applicable)	
4.1 Malicious code (Worm, virus, trojan, backdoor, rootkit, etc.):	

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 12 of 13

4.2 Known vulnerability exploit (List the Common Vulnerabilities and Exposures (CVE) number for known vulnerability):	
4.3 Disruption of service:	
4.4 Access violation (Unauthorized access attempt, successful unauthorized access, password cracking, Etc.):	
4.5 Accident or error (Equipment failure, operator error, user error, natural or accidental causes):	
4.6 If the incident resulted from user error or malfeasance, reasons (training, disregard for policy, other) and responsible parties:	
4.7 Additional details:	
4.8. Apparent Origin of Incident or Attack:	Source IP and port:
	URL:
	Protocol:
	Malware:
	Additional details:

5.0 Systems Affected	
5.1 Network zone affected (Internet, administration, internal, etc.):	
5.2 Type of system affected (File server, Web server, mail server, database, workstation (mobile or desktop), etc.):	
5.3 Operating system (specify version):	
5.4 Protocols or services:	
5.5 Application (specify version):	

6.0 Post Incident Activities	
6.1 Has information contained in this report been provided to the authorities? When?	
6.2 Complete a root cause analysis to determine the reason for the incident and steps to prevent	

	Genesis Systems, Inc.	Document ID: 112504 Issue Date:	Version: 1.01
Title: Incident Response Plan		Approved By:	Page No: 13 of 13

re-occurrence.	
6.3 Describe results of mitigation efforts.	
6.4 Is further mitigating action necessary? (If so, describe steps to be taken and when the next post-mortem analysis will take place.)	

End of Document

DRAFT

Evaluation Scoring Guide

This guide is intended to assist the evaluator in determining the quality of the response category and should be used to substantiate the basis for the percentage applied to calculate the points to be awarded. *See example below to show how the percentage score would be applied. Note: The percentage score is applied in accordance with how the scoring categories are set up (i.e., scoring a group of requirements or scoring an individual requirement).

Percentage Score	Quality of Response	Rating Description	Strengths Relative to Requirements	Weakness
100	Flawless	Response fully addresses the requirement(s), is superior in quality, and meets and/or exceeds the desired need / requirements, demonstrates outstanding knowledge, capabilities and/or other factors to justify this rating.	Meets and exceeds all strengths in all key areas in a superior manner	None
90-99	Excellent	Response fully addresses the desired need / requirement(s), demonstrates outstanding knowledge, capabilities and/or other factors to justify this rating.	Meets the standard - strengths in all key areas	Minor - not in key areas
80-89	Good	Response fully addresses the desired need / requirement(s) and some elements are of an above average standard.	Meets the standard - strengths in multiple key areas	Marginal - not in key areas
70-79	Moderate	Response addresses most elements of the desired need / requirement(s).	Meets most standards - minimal strengths provided in key areas	Mild to moderate - does not outweigh strengths
60-69	Marginal	Response addresses only some of the desired need / requirement(s).	Meets some of the standard - minimal strengths provided in key areas	Noteworthy in key areas
1-59	Unacceptable	Response falls within a range of somewhat to significantly deficient in meeting the desired need / requirement(s). Standard is met on few to none or there are no clear strengths.	Meets few to none of the the standards with only a few or no clear strengths	Significant and numerous
0	Non-responsive	No information submitted on a desired need / requirement(s) for evaluation.	No Standard Applied	N/A

Example: 10 points available - standard met is "Excellent", evaluator determines 95% will be applied. $10 \times .95 = 9.5$ points to be awarded.

Overall Evaluator Scoring Worksheet

Evaluators will read the RFP requirements and then review the bidder's proposal response and assess how well it meets the needs of the State as defined by the RFP.

Evaluator Worksheet will be used by the evaluators. Evaluators will record their score in the shaded box on the Evaluator Worksheet. Scores will be based on the number of points for each Proposal Section, which is provided in the Scoring Range column of the worksheet.

Proposal Section	RFP Scoring Requirements	Max Scoring	Scoring Range	Evaluator Score
Part 1 - Corporate Overview - 20 Points				
(VII)(A)(1)	Corporate Overview	20	0-20	20
	Financial Strength - Financial Stability of the Organization and Contract Performance	6	0-6	6
	Bidder's Corporate Experience - Past experience through the Matrix provided listing similar projects (including Government Organization, Applicable Programs) and how that work was performed.	6	0-6	6
	Bidder's Proposed Personnel/Management Approach - The proposed team being assigned to manage the State's project. Resumes outlining qualifications as key indicator to skill mixes and assessing experience of individuals. Examine information regarding utilization of subcontractors	8	0-8	8
Part 2 - Functional Specification - 30 Points				
ATTACHMENT NO. 1	SYSTEM MODULES AND SPECIFICATIONS	30	0-30	30
	GENERAL			
	COMPONENT			
	SYSTEM			
	DATA	3	0-3	3
	FUNCTIONALITY			
	CONFIGURATION			
	USERS			
	GENERAL			
	ACCESS			
	SEARCH	2	0-2	2
	FUNCTIONALITY			
	CONFIGURATION			
	SYSTEM ADMIN			
	ACCESS			
	DATA	3	0-3	3
	FUNCTIONALITY			
	AUDIT LOGS			
	GENERAL			
	ORDER MANAGEMENT			
	CERTIFIED PAPER	3	0-3	3
	FUNCTIONALITY			
	CONFIGURATION			
	ALL MODULES			
	GENERAL			
	SEARCH			
	CORRESPONDENCE			
	DOCUMENTATION			
	FIELDS	2	0-2	2
	ALERTS			
	QUEUE			
	WORKFLOW			
	FUNCTIONALITY			
	ALL VITAL EVENT REGISTRATION MODULES			
	GENERAL			
	REGISTER	2	0-2	2
	FUNCTIONALITY			
	COMBINED MODULES			
	BIRTH & DEATH			
	DEATH & FETAL DEATH			
BIRTH, DEATH, & FETAL DEATH	2	0-2	2	
BIRTH, DEATH, FETAL DEATH, MARRIAGE & DISSOLUTION OF MARRIAGE				
MARRIAGE & DISSOLUTION OF MARRIAGE				
BIRTH MODULE				
BIRTH MODULE	1	0-1	1	
DEATH MODULE				
DEATH MODULE	1	0-1	1	
MARRIAGE MODULE				
MARRIAGE MODULE	1	0-1	1	
DISSOLUTION OF MARRIAGE MODULE				
DISSOLUTION OF MARRIAGE MODULE	1	0-1	1	
FETAL DEATH MODULE				
FETAL DEATH MODULE	1	0-1	1	
ORDER MANAGEMENT MODULE				
GENERAL				
SYSTEM				
ORDERS				
DATA				

	DOCUMENTS			
	QUEUE	2	0-2	2
	PAYMENTS			
	PRINT			
	SHIP			
	FUNCTIONALITY			
	CONFIGURATION			
	REPORTS			
	GENERAL			
	FUNCTIONALITY	2	0-2	2
	CONFIGURATION			
	INTEGRATION			
	INTERFACE			
	IMPORT	2	0-2	2
	EXPORT			
	ANALYTICS TOOL			
	ANALYTICS TOOL	1	0-1	1
	HELP			
	HELP	1	0-1	1
Part 3 - Technical Specification - 30 Points				
	TECHNICAL SPECIFICATIONS - RESPONSES ATTACHMENT 2	30	0-30	30
ATTACHMENT NO. 2	ARCH - Architecture Capabilities and/or Requirements	7.5	0-7.5	7.5
	SPC - Security and Compliance Capabilities and/or Requirements	7.5	0-7.5	7.5
	DM - Database/Data Management Capabilities and/or Requirements	7.5	0-7.5	7.5
	OM - Operations Management Capabilities and/or Requirements	7.5	0-7.5	7.5

DHHS Vital Records Department
Modernization Requirements

REVISED Attachment 1 - Functional Specifications

RFP: 120277 O3 REBID

Vital Records Management System

State of Nebraska, Department of Health and Human Services

The items highlighted in gold and notated with an asterisk () within this document represent the capability and/or requirement that will be subject to the "Pass" or "Fail" assessment, as these are "must" requirements.*

Ref	System Modules and Specifications	PASS / FAIL
1	GENERAL	
1.1	COMPONENT	
1.1.1	The system must include the following modules:	
1.1.1.1*	Birth;	PASS
1.1.1.2*	Death;	PASS
1.1.1.3*	Marriage;	PASS
1.1.1.4*	Dissolution of Marriage;	PASS
1.1.1.5*	Fetal Death;	PASS
1.1.1.6*	Induced Termination of Pregnancy (ITOP);	PASS
1.1.1.7*	Order Management.	PASS
1.1.2*	The system must contain a report builder tool or associated utility.	PASS
1.2	SYSTEM	
1.2.1*	The system must not require the purchase of any additional proprietary applications.	PASS
1.2.2*	The system must support multiple environments, specifically, System Integration Testing (SIT), User Acceptance Testing (UAT), Training, Development, and Production.	PASS
1.2.3	The system should be configurable to present module fields in the order listed on its corresponding form.	PASS
1.2.4*	The system must have images be seamlessly accessible within the application.	PASS
1.2.5	The system should provide functionality to disallow any other screen shot tool, such as the "Snipping Tool" or the like.	PASS
1.2.6	The system should provide a managed print function.	PASS
1.2.7	The system should capture an audit log when the print function is used.	PASS
1.2.8*	The system's implementation and functionality must adhere to the technical specifications outlined in the accompanying Technical Specifications-Attachment 3.	PASS
1.2.9*	The system must support a minimum of 5,000 internal and external users.	PASS
1.2.10*	The system must support a minimum of 1,000 concurrent users regardless of user role and/or location.	PASS
1.2.11	The system should provide online help connected to the relevant routine, field, or report being used.	PASS
1.2.12*	The system must have the ability to connect to local or network printers.	PASS
1.2.13*	The system must have the ability to connect to local or network scanners.	PASS
1.3	DATA	
1.3.1*	The system must have the ability to complete a data conversion of all existing data, including images and files.	PASS
1.3.2*	The system must have configurable data retention rules.	PASS
1.3.3*	The system must provide immediate validation and error messaging needed for data interfaces.	PASS
1.3.4*	The system must have the ability to use field-level data integrity checks and data validation (e.g., numeric fields, verify a number is entered, date fields, verify a date is entered, etc.).	PASS
1.3.5*	The system must provide an integrated full-featured word processing function (including superscript, subscript, and scientific notations, cut and paste, and word wrap) to allow a user to enter data into large text fields.	PASS
1.3.6*	The system must validate against an integrated medical dictionary for medical related fields.	PASS
1.3.7*	The system must have real-time processing of data.	PASS
1.3.8*	The system must align with State of Nebraska and Federal guidelines to collect vital statistic data and other data points needed for federal reporting and evaluation purposes.	PASS
1.3.9*	The system must have graphical control elements to assist with data entry (e.g., checkbox, drop-down box, etc.).	PASS
1.4	FUNCTIONALITY	
1.4.1*	The system must have the ability to scan directly into the system.	PASS
1.4.2*	The system must have the ability to attach a file with a minimum of the following file types (.pdf, .doc, .jpeg, .png, .tiff).	PASS
1.5	CONFIGURATION	
1.5.1*	The system must have configurable field level warning notifications.	PASS
1.5.2	The system should auto advance a user from process start through process completion.	PASS
1.5.3	The system should have task list or work queue functionality.	PASS
1.5.4*	The system must have the ability to configure workflows.	PASS

**DHHS Vital Records Department
Modernization Requirements**

2	USERS	
2.1	GENERAL	
2.1.1*	The system must allow a user with necessary access to create a record, image, or attachment.	PASS
2.1.2*	The system must allow a user with necessary access to view a record, image, or attachment.	PASS
2.1.3*	The system must allow a user with necessary access to search a record, image, or attachment.	PASS
2.1.4*	The system must allow a user with necessary access to update a record, image, or attachment.	PASS
2.1.5*	The system must allow a user with necessary access to save a record, image, or attachment.	PASS
2.1.6*	The system must allow a user with necessary access to delete or purge a record, image, or attachment.	PASS
2.1.7*	The system must allow a user with necessary access to deactivate a record, image, or attachment.	PASS
2.1.8*	The system must have the ability to register a user for system access based on role and location.	PASS
2.2	ACCESS	
2.2.1*	The system must allow access to both internal (State of Nebraska employees) and external users (e.g., funeral directors, hospital staff, and county clerks).	PASS
2.2.2*	The system must have role-based security for application and administrative functions including views for all user roles across all modules.	PASS
2.2.3*	The system must provide a location selection prompt for users who have access to multiple locations.	PASS
2.2.5	The system should have the ability for a new user to complete a registration form.	PASS
2.2.6*	The system must have the ability for a user to complete self-service password changes and/or resets.	PASS
2.2.7*	The system must have the ability for a user to update their own user profile demographics once logged in (non-system security).	PASS
2.2.8*	The system must provide a warning message after user login based on a configurable time period when a password is expiring.	PASS
2.2.9*	The system must perform an automatic logoff for session inactivity based on a configurable length of time.	PASS
2.2.10*	The system must provide a warning message prior to automatic logoff for session inactivity based on a configurable length of time.	PASS
2.3	SEARCH	
2.3.1*	The system must allow a user with necessary access the ability to use a real-time search and filter function whereas all vital event records, requests, orders, payments, and invoices can be viewed, searched, and filtered by one or more data fields or variables in each record, and wildcards or partial entry of a field can be used.	PASS
2.3.2*	The system must allow a user with necessary access to export search results.	PASS
2.3.3*	The system must allow a user with necessary access to print search results.	PASS
2.3.4*	The system must have the ability to limit the number search result count by user.	PASS
2.4	FUNCTIONALITY	
2.4.1*	The system must have the ability for a user with the necessary access to create a new user and associate that user to specific user role(s).	PASS
2.4.2*	The system must have the ability for a user with the necessary access to delete a user.	PASS
2.4.3*	The system must have the ability to search the system for a user, including a filter to search for an expired user.	PASS
2.4.4*	The system must have the ability for a user with the necessary access to deactivate a user.	PASS
2.4.5*	The system must allow a user with necessary access to bypass security and update any entry when needed.	PASS
2.4.6	The system should allow a user with necessary access the ability to view more detailed information on any field when appropriate.	PASS
2.4.7*	The system must allow a user with necessary access to attach, link, and view any supporting document of any file format to a record or order.	PASS
2.5	CONFIGURATION	
2.5.1*	The system must have the ability to edit validation data through a front-end utility.	PASS
3	SYSTEM ADMIN	
3.1	ACCESS	
3.1.1*	The system must have a user role with elevated security access to the system (e.g., System Administrator).	PASS
3.1.2	The system should have system-level access to exports (create, configure).	PASS
3.1.3	The system should have system-level access to imports (create, configure).	PASS
3.1.4	The system should have system-level access to reports (create, configure).	PASS
3.1.5	The system should have system-level access to documents (create, configure).	PASS
3.2	DATA	
3.2.1*	The system must use a centralized data dictionary that fully describes table structure and appropriate levels of metadata.	PASS
3.2.2*	The system must allow a user with necessary access to have read-only access to the system's database(s).	PASS
3.2.3	The system should allow a user with necessary access to have full access to the system's database(s).	PASS
3.3	FUNCTIONALITY	
3.3.1	The system should have the ability to edit (e.g., checkbox, drop-down box, etc.).	PASS
3.3.2	The system should have the ability for the system administrators to create user roles.	PASS
3.3.3	The system should have the ability for the system administrators to modify user roles.	PASS
3.3.4	The system should have the ability for the system administrators to delete user roles.	PASS
3.3.5	The system should have the ability for system administrators to terminate a user connection and/or session remotely.	PASS
3.3.6	The system should have the ability to maintain a directory of all personnel currently active in the system.	PASS

**DHHS Vital Records Department
Modernization Requirements**

3.3.7*	The system must have the ability to produce a system access log (in/out history) by user with time stamp in seconds.	PASS
3.3.8	The system should allow the system administrator to make batch updates to data on admin-specified criteria (i.e., system-wide find/change functionality).	PASS
3.3.9	The system should allow the system administrator to schedule batch updates to data on admin-specified criteria (i.e., system-wide find/change functionality).	PASS
4	AUDIT LOGS	
4.1	GENERAL	
4.1.1	<i>The system must have action history logs to view modifications, deletions, data loading actions, reports, printing, and user log-ins/outs. At a minimum the log must contain the following:</i>	
4.1.1.1*	User;	PASS
4.1.1.2*	Date;	PASS
4.1.1.3*	Time;	PASS
4.1.1.4*	Data Prior to Edit;	PASS
4.1.1.5*	Data After Edit.	PASS
4.1.2	<i>The system must have audit history logs to view user activities, such as logging in and out of the system. At a minimum the log must contain the following:</i>	
4.1.2.1*	User;	PASS
4.1.2.2*	Date;	PASS
4.1.2.3*	Time.	PASS
4.1.3*	The system must track changes made to all data, keeping the integrity of the original document, data, and image with associated changes.	PASS
4.1.4*	The system must provide the ability to create, save, and export an audit log of the tracked changes made throughout the system.	PASS
4.1.5*	The system must maintain a history of all data.	PASS
4.2	ORDER MANAGEMENT	
4.2.1*	The system must track the data associated with serialized forms used within each order.	PASS
4.2.2*	The system must be able to store a user-defined, customizable volume of sales transactions, categorized by transaction date, for a minimum of five years.	PASS
4.2.3*	The system must contain reporting capabilities to assist with audit of document control number/certificate paper to the associated receipt and order, including by registrar and date.	PASS
4.3	CERTIFIED PAPER	
4.3.1*	The system must track the number of certificates printed by vital event record and certificate type.	PASS
4.3.2*	The system must track the serial number of issuance in chronological order within a print log.	PASS
4.4	FUNCTIONALITY	
4.4.1*	The system must capture an audit of all imports.	PASS
4.4.2*	The system must capture an audit of all exports.	PASS
4.4.3*	The system must allow a user with necessary access to search the audit log.	PASS
4.4.4*	The system must track the creating, viewing, printing, and deleting of attachments.	PASS
4.5	CONFIGURATION	
4.5.1*	The system must track and maintain an audit log of when configuration changes are made (e.g., changes to fees for certification types).	PASS
5	ALL MODULES	
5.1	GENERAL	
5.1.1*	The system must contain all existing and future records or orders with any associated images and/or attachments synchronously.	PASS
5.1.2*	The system must incorporate all previously available records or orders with any associated data or attachments from the current system.	PASS
5.1.3*	The system must allow a user with necessary access the ability to print an attachment.	PASS
5.1.4*	The system must allow input of a partial record or order without forcing a user to complete a process.	PASS
5.1.5*	The system must validate and issue vital event records.	PASS
5.1.6*	The system must allow a user with necessary access to view, change, and submit a record or order.	PASS
5.1.7*	The system must allow a user with necessary access to view, print, store, attach and scan documents or images into a record or order.	PASS
5.1.8*	The system must allow a user to save a record or order regardless of completed data except for fields that are flagged as required by the State of Nebraska.	PASS
5.1.9*	The system must have administrative tools to be customizable to meet specific user needs.	PASS
5.1.10	The system should save user data entry progress automatically upon moving to the next field on the form.	PASS
5.1.11	The system should allow the saving and pausing activity on one record or order and moving to a different record or order for processing.	PASS
5.2	SEARCH	
5.2.1*	The system must allow a user the ability to group, sort and count search result data.	PASS
5.2.2*	The system must allow a user with necessary access to search for a record or order using various metadata fields.	PASS
5.2.3*	The system must provide a real-time search and filter function whereas all vital event records, requests, orders, payments, and invoices can be electronically viewed, searched, and filtered by one or more data fields or variables in each record, and wildcards or partial entry of a field can be used.	PASS
5.2.4*	The system must allow a user with necessary access to manipulate search parameters.	PASS
5.2.5*	The system must allow a user with necessary access to save search parameters individually or to a group.	PASS
5.2.6*	The system must allow a user with necessary access to export (to Excel) search results.	PASS

**DHHS Vital Records Department
Modernization Requirements**

5.2.7*	The system must allow a user with necessary access to print search results.	PASS
5.2.8*	The search feature must have the ability to manipulate the number of records captured in a search by the user.	PASS
5.2.9*	The system must allow a user to render searches of over 1,000 vital events at a time.	PASS
5.3	CORRESPONDENCE	
5.3.1*	The system must have the ability to generate letters for customer correspondence.	PASS
5.3.2*	The system must have the ability to view previously generated and/or sent customer correspondence.	PASS
5.3.3*	The system must have the ability to edit and send customer correspondence.	PASS
5.3.4*	The system must have the ability to resend previously sent customer correspondence.	PASS
5.4	DOCUMENTATION	
5.4.1*	The system must have standard forms, permits, and worksheets that are accessible for a user with necessary access.	PASS
5.4.2*	The system must have the ability to propagate data onto documents, forms, permits, and worksheets.	PASS
5.4.3*	The system must have document management storage to house all certificates and associated supporting documents to be tied to the original records (e.g., adoptions).	PASS
5.5	FIELDS	
5.5.1	The system should provide real-time validation for an entered address and prompt if not valid.	PASS
5.5.2	The system should be able to populate validated country, state, county, city, and zip code based on selected address.	PASS
5.5.3	The system should prompt if a suite number is appropriate.	PASS
5.5.4	The system should prompt with any suggested address alternative.	PASS
5.5.5*	The system must have a consistent data input and display format for time across all modules.	PASS
5.5.6*	The system must have a consistent data input and display format for phone numbers across all modules.	PASS
5.5.7*	The system must have a consistent data input and display format for zip codes across all modules.	PASS
5.5.8*	The system must have a consistent data input and display format for dates across all modules.	PASS
5.5.9*	The system must have a consistent data input and display format for whole numbers, decimals, and amounts across all modules.	PASS
5.5.10*	The system must have the proper data input and display format for social security numbers "000-00-0000" across all modules.	PASS
5.5.11*	The system must provide spell check functionality for freeform text entry fields as designated by the State of Nebraska.	PASS
5.5.12*	The system must have the ability for a user to accept or ignore spell check suggestions.	PASS
5.5.13*	The system must have the ability to customize (e.g., add to dictionary) the spell check functionality by user with necessary access.	PASS
5.5.14*	The system must have the ability to configure any data field (user-defined and standard) to be "required" during data entry.	PASS
5.5.15*	The system must populate data entered into a field throughout the record or order if data is associated.	PASS
5.5.16*	The system must ensure that a record is not complete until all required fields pass validity checks.	PASS
5.6	ALERTS	
5.6.1*	The system must have prompts tied to various data fields to alert the user of questionable or incorrect data.	PASS
5.6.2*	The system must, at a minimum, follow the requirements for collecting and editing data as specified by National Vital Statistics System (NVSS), provided here: https://www.cdc.gov/nchs/nvss/revisions-of-the-us-standard-certificates-and-reports.htm	PASS
5.6.3*	The system must have configurable alerts which notifies the user of the status of the record they are accessing (e.g., OVS return status, child is deceased).	PASS
5.7	QUEUE	
5.7.1*	The system must provide a user with a view that highlights important information, notifications, and warnings (e.g., incomplete vital event records sorted by queue).	PASS
5.7.2*	The system must queue an incomplete record or order.	PASS
5.8	WORKFLOW	
5.8.1*	The system must have configurable workflows.	PASS
5.8.2*	The system must have automated workflow process for the electronic signature or completion of a record or order.	PASS
5.8.3*	The system must have the ability to automatically route a record or order to different users involved in the completion, registration and certification process of the record or order.	PASS
5.8.4*	The system must have the ability to automatically transfer a record or order to different users involved in the completion, registration and certification process of the record or order.	PASS
5.9	FUNCTIONALITY	
5.9.1*	The system must allow a user with necessary access the ability to query, override, or bypass defined fields.	PASS
5.9.2	The system should have the ability to send secure messages to any user within the respective module.	PASS
5.9.3	The system should have the ability to create and track timelines based on actual calendar or business days.	PASS
5.9.4*	The system must ensure that when a record or order is completed by an end user the record or order can no longer be manipulated by end user.	PASS
5.9.5*	The system must have the ability to place or remove a record from an administrative hold or alert, which is only put in place by a user with necessary access. This hold would disallow the printing of legal certified copies of a certificate.	PASS
5.9.6*	The system must allow a user with necessary access to view, print, crop, rotate and resize a vital event certificate image.	PASS
5.9.7*	The system must allow a user with the necessary access the ability to print attachments.	PASS
5.9.8*	The system must provide the ability to print a blank form.	PASS

DHHS Vital Records Department
Modernization Requirements

6	ALL VITAL EVENT REGISTRATION MODULES	
6.1	GENERAL	
6.1.1*	The system must be able to accommodate rejected vital event records, including queues for viewing the rejected records.	PASS
6.1.2*	The system must have the ability to manipulate and retain the original vital event record in the case of processing an amendment.	PASS
6.2	REGISTER	
6.2.1	<i>The system must encompass the end-to-end process of registering the following vital events:</i>	
6.2.1.1*	Birth;	PASS
6.2.1.2*	Death;	PASS
6.2.1.3*	Marriage;	PASS
6.2.1.4*	Dissolution of Marriage;	PASS
6.2.1.5*	Fetal Death;	PASS
6.2.1.6*	Induced Termination of Pregnancy (ITOP).	PASS
6.3	FUNCTIONALITY	
6.3.1*	The system must allow the collection of all vital record data with both data rules and field validations, based on the NCHS (National Center for Health Statistics) Standard Record layout or the Inter-Jurisdictional Exchange (IJE) file layout.	PASS
6.3.2*	The system must have a process to void a vital event record.	PASS
6.3.3*	The system must automatically route a vital event record through the predefined workflow, advancing it from one user to the next in the appropriate sequence until the record is completed and finalized.	PASS
6.3.4*	The system must generate and assign a unique and sequential State File Number for each vital event record.	PASS
6.3.5*	The system must allow a user with necessary access the ability to change a State File Number.	PASS
6.3.6*	The system must automatically search for duplicate vital event records and, if found, alert user.	PASS
6.3.7*	The system must be designed so that no duplicate vital event record can be entered. The system must use fields designated by the State of Nebraska for duplicate checks.	PASS
6.3.8*	The system must allow a vital event record to be corrected with the assignment of correction indicators (e.g., affidavit/correction number, "amendment" notation, and amended date).	PASS
7	COMBINED MODULES	
7.1	BIRTH & DEATH	
7.1.1*	The system must have the ability to identify records where birth and death record data does not match (e.g., when a death record does not have a corresponding birth record).	PASS
7.1.2*	The system must have the ability to match and link birth and death records together.	PASS
7.2	DEATH & FETAL DEATH	
7.2.1*	The system must provide spell check functionality for the cause of death or medically related fields.	PASS
7.2.2*	The system must allow for querying a medical certifier after a vital event record has been filed with a State File Number.	PASS
7.3	BIRTH, DEATH, & FETAL DEATH	
7.3.1*	The system must validate based on the Inter-Jurisdictional Exchange (IJE) standard.	PASS
7.3.2*	The system must allow for local registration by counties as specified by the State of Nebraska before registration at the state-level.	PASS
7.4	BIRTH, DEATH, FETAL DEATH, MARRIAGE, & DISSOLUTION OF MARRIAGE	
7.4.1*	The system must have the ability to print non-certified copies of certificates from the Birth, Death, Fetal Death, Marriage, and Dissolution of Marriage Modules.	PASS
7.4.2*	The system must store the State and Local Registrar's information that is to be added based on the file date on validated state vital event records.	PASS
7.5	MARRIAGE & DISSOLUTION OF MARRIAGE	
7.5.1*	The system must have document forms, licenses, and worksheets that are accessible to a user with necessary access.	PASS
8	BIRTH MODULE	
8.1	BIRTH MODULE	
8.1.1*	The system must have the ability to enter a delayed birth record, new adoption record, and a foreign-born birth record.	PASS
8.1.2*	The system must have the ability to flag and unflag a birth record as deceased.	PASS
8.1.3*	The system must pre-load data flagged by the State of Nebraska for multiples birth records (e.g., twins, triplets).	PASS
8.1.4	The system should auto-fill stored birth attendant information maintained by the facility.	PASS
9	DEATH MODULE	
9.1	DEATH MODULE	
9.1.1*	The system must allow a user with necessary access the ability to save a death record without the cause of death indicated, as a pending investigation record.	PASS
9.1.2*	The system must provide a connection to Validations and Interactive Edits Web Service (VIEWS) to review medically related fields.	PASS
9.1.3*	The system must allow a user with necessary access to sign permits.	PASS
10	MARRIAGE MODULE	
10.1	MARRIAGE MODULE	
10.1.1*	The system must automatically file a marriage record that has fulfilled State of Nebraska specific criteria.	PASS

DHHS Vital Records Department
Modernization Requirements

10.1.2*	The system must auto-fill county clerk and fee information.	PASS
11	DISSOLUTION OF MARRIAGE MODULE	
11.1	DISSOLUTION OF MARRIAGE MODULE	
11.1.1*	The system must automatically file a dissolution of marriage record that has fulfilled State of Nebraska specific criteria.	PASS
12	FETAL DEATH MODULE	
12.1	FETAL DEATH MODULE	
12.1.1*	The system must automatically search for associated birth events upon record entry, in the event a fetal death occurs, an error message must display for the affected user.	PASS
13	ORDER MANAGEMENT MODULE	
13.1	GENERAL	
13.1.1*	The system must allow a user with necessary access to issue certified copies of an individual certificate.	PASS
13.1.2*	The system must support the ordering and purchase of a commemorative certificate for a nonviable birth event.	PASS
13.1.3*	The system must provide a user with necessary access the ability to manage all transactions.	PASS
13.1.4*	The system must link the order to vital event record.	PASS
13.1.5*	The system must link the order to an invoice and payment.	PASS
13.1.6	The system should connect all issued controlled documents (serialized certificate paper) to a receipt and to an order.	PASS
13.1.7	<i>The system must support the ordering, purchase, and printing of legal certified copies of certificates on security paper for the following vital events:</i>	
13.1.7.1*	Birth;	PASS
13.1.7.2*	Death;	PASS
13.1.7.3*	Marriage;	PASS
13.1.7.4*	Dissolution of Marriage;	PASS
13.1.7.5*	Fetal Death;	PASS
13.1.7.6*	Birth Resulting in Stillbirth.	PASS
13.2	SYSTEM	
13.2.1*	The system must generate and assign a unique and sequential transaction number for each sales transaction.	PASS
13.2.2*	The system must generate and assign a unique and sequential invoice number for each invoice.	PASS
13.2.3*	The system must allow a user with necessary access to flag returned certificates on the order.	PASS
13.2.4*	The system must generate and assign a unique and sequential number for each print transaction of a legal certified copy of a certificate.	PASS
13.2.5*	The system must allow a user with necessary access to print a legal certified copy of a certificate from an altered (cropped, rotated, resized) vital event certificate image.	PASS
13.2.6*	The system must have a process to link, safeguard, and store serialized security paper identifiers.	PASS
13.3	ORDERS	
13.3.1*	The system must have the ability to process regular mail orders.	PASS
13.3.2*	The system must have the ability to add internal notes to an order without restricting the length.	PASS
13.3.3*	The system must enter and save shipping information, including shipping method and address.	PASS
13.3.4*	The system must have the ability to post by line item and fee.	PASS
13.3.5*	The system must have the ability to calculate accurate charges based on quantity of documents requested.	PASS
13.3.6*	The system must have the ability to set up a fee schedule by vital record document type, including effective and termination dates to the fees.	PASS
13.3.7*	The system must have the ability to set multiple fees for each vital record document type.	PASS
13.4	DATA	
13.4.1*	The system must be able to track the certificate type.	PASS
13.4.2*	The system must be able to track the method of certificate delivery.	PASS
13.5	DOCUMENTS	
13.5.1*	The system must maintain a record of all printed certificates that are destroyed, including method and reason for destruction.	PASS
13.5.2*	The system must have the ability to attach files with a minimum of the following file types (PDF, .doc, .jpeg, .png, .tiff) to an order.	PASS
13.5.3*	The system must have the ability to mark a document control number as "destroyed" with a reason for discarding (e.g., poor print quality, printing error, etc.).	PASS
13.6	QUEUE	
13.6.1*	The system must have the ability to queue orders based on status.	PASS
13.7	PAYMENTS	
13.7.1	<i>The system must have the ability to support the following payment types:</i>	
13.7.1.1*	Debit Card;	PASS
13.7.1.2*	Credit Card;	PASS
13.7.1.3*	Money order;	PASS
13.7.1.4*	Check;	PASS
13.7.1.5*	Cash.	PASS
13.7.2*	The system must enforce mandatory field validation to prevent payment processing before all required fields are populated, as mandated by the State of Nebraska.	PASS
13.7.3*	The system must have the ability to track payment status (i.e., refund, payment, discounted/free, or no payment).	PASS

**DHHS Vital Records Department
Modernization Requirements**

13.7.4*	The system must have cash handling capabilities for each cashier station.	PASS
13.8	PRINT	
13.8.1*	The print queue must list pending document print jobs, including approval status. Document Control Numbers must be assigned at print time and recorded in the database.	PASS
13.8.2*	The system must allow a user with necessary access the ability to print a replacement of a legal certified copy of a certificate.	PASS
13.8.3*	The system must provide the ability to print a certificate with amendments.	PASS
13.8.4	The system should print labels of various sizes, as needed for mailings, etc.	PASS
13.8.5*	The system must have the ability to print a batch of documents.	PASS
13.8.6*	The system must have the ability to reprint a batch of documents.	PASS
13.8.7	The system should have the ability to print common correspondence letters.	PASS
13.8.8*	The system must not allow a record with a specific status to be printed.	PASS
13.8.9*	The system must have the ability to print and reprint an invoice.	PASS
13.8.10*	The system must have the ability to print and reprint a receipt.	PASS
13.9	SHIP	
13.9.1	The system should have the ability to ship orders via UPS or USPS.	PASS
13.9.2	The system should have the ability to generate shipping labels to be printed, or blank labels that need to be handwritten.	PASS
13.9.3	The system should have the ability to void a shipping label.	PASS
13.9.4	The system should have the ability to view and access shipping functions.	PASS
13.9.5	The system should have the ability to generate a detailed report with an existing or previous shipping vendor manifest (e.g., when a manifest is created, an email is sent, notifying the customer their order has been shipped).	PASS
13.10	FUNCTIONALITY	
13.10.1	The system should provide a kiosk provided and maintained by the Vendor for the processing of vital record order requests and process payments for customers.	PASS
13.10.2	The system should provide credit card machines provided and maintained by the Vendor for the processing of payments for customers.	PASS
13.10.3*	The system must track requests and accept payment for all transactions.	PASS
13.10.4*	The system must have the ability to calculate order fees automatically.	PASS
13.10.5*	The system must allow manual processing of checks, money orders, or cash payments for orders including the requestor, request reason, amount, and request type.	PASS
13.10.6*	The system must have the ability to close orders.	PASS
13.10.7*	The system must allow a user with necessary access to void an order that has been paid in full.	PASS
13.10.8*	The system must allow a user with necessary access to void an order before it is closed.	PASS
13.10.9*	The system must allow a user with necessary access to make updates to a completed order.	PASS
13.10.10*	The system must allow a user with necessary access to cancel an unpaid order.	PASS
13.10.11*	The system must allow a user with necessary access to process individual orders.	PASS
13.10.12*	The system must have a specific status for certificates that are waiting on verification.	PASS
13.10.13*	The system must have an automated workflow to assign a specific status to certificates waiting on verification, this status would disallow the issuance of the certificate.	PASS
13.10.14*	The system must have the ability to process refunds.	PASS
13.10.15*	The system must have the ability to generate order slips.	PASS
13.10.16*	The system must be able to track how staff validated identity and eligibility of the person requesting the certificate.	PASS
13.10.17*	The system must produce a receipt for each order transaction based on fields that are stipulated by the State of Nebraska.	PASS
13.10.18*	The State maintains its own credit card processor. The vendor must ensure compatibility with this system. The vendor is not responsible for payment processing.	PASS
13.11	CONFIGURATION	
13.11.1*	The system must have the ability to add, update, or configure custom fees with a date parameter.	PASS
13.11.2*	The system must allow a user with necessary access to configure the invoice template.	PASS
13.11.3*	The system must allow a user with necessary access to configure the order slip template.	PASS
14	REPORTS	
14.1	GENERAL	
14.1.1*	The system must have the ability to create or modify reports.	PASS
14.2	FUNCTIONALITY	
14.2.1*	The system must allow a user with necessary access to generate a report of detailed and/or summary financial reports by user, terminal, or submission source and current status.	PASS
14.2.2*	The system must allow a user with necessary access to view custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	PASS
14.2.3*	The system must allow a user with necessary access to create custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	PASS
14.2.4*	The system must allow a user with necessary access to copy custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	PASS
14.2.5*	The system must allow a user with necessary access to update custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	PASS
14.2.6*	The system must allow a user with necessary access to delete custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	PASS
14.2.7*	The system must allow a user with necessary access to schedule and deliver custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	PASS

**DHHS Vital Records Department
Modernization Requirements**

14.2.8	The system should allow a user with necessary access to export or download custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	PASS
14.2.9*	The system must allow a user with necessary access to print or reprint custom, on-demand, or ad-hoc reports of any data, orders, payments, or records in the system.	PASS
14.3	CONFIGURATION	
14.3.1	The system should allow a user with necessary access to configure letter templates.	PASS
14.3.2	The system should have the ability to customize template letterhead.	PASS
15	INTEGRATION	
15.1	INTERFACE	
15.1.1*	The system must integrate with the State and Territorial Electronic Vital Event (STEVE), Social Security Administration (SSA), Electronic Verification of Vital Events (EVVE), and internal state agencies for data collection and reporting purposes.	PASS
15.1.2*	The system must securely integrate with various state agency systems for sharing HIPAA related data.	PASS
15.1.3*	The system must integrate with the State of Nebraska's Vital Records unit's online order management application.	PASS
15.1.4	The system should integrate with the State of Nebraska's financial system for all collected revenue.	PASS
15.2	IMPORT	
15.2.1*	The system must provide the ability to import files including but not limited to the Inter-Jurisdictional Exchange (IJE) standard.	PASS
15.2.2*	The system must generate error files identifying import failures.	PASS
15.2.3*	The system must generate error prompt boxes identifying any manual import failures.	PASS
15.2.4*	The system must have the ability to electronically schedule imports.	PASS
15.2.5*	The system must have the ability to cancel or reverse a data import which would automatically remove the imported record and/or associated data.	PASS
15.2.6*	The system must have an import process; as the data file is imported, values on the file should be able to be validated or decoded.	PASS
15.2.7*	The system must have the ability to decode or populate import data based on missing or incomplete values (e.g., table validation, stored procedure, or default values).	PASS
15.2.8*	The system must import dissolution of marriage events from the State of Nebraska's Justice System data daily (format fixed width).	PASS
15.2.9*	The system must provide the ability to import or lookup coded files from the National Center for Health Statistics (NCHS) in accordance with their reporting requirements, and once uploaded have the ability to insert these imported files (codes) and place them in to the appropriate fields attached to the applicable records. This includes International Classification of Diseases (ICD)-10 codes and bridge-race codes. See www.cdc.gov/nchs/nvss/revisions-of-the-us-standard-certificates-and-reports.htm	PASS
15.3	EXPORT	
15.3.1*	The system must provide the functionality to transmit from all death records the decedent's data to the Social Security Administration (SSA). This functionality meets the terms and conditions under which SSA will verify SSN's (social security numbers) for the State of Nebraska.	PASS
15.3.2*	The system must generate error files identifying export failures.	PASS
15.3.3*	The system must generate error prompt boxes identifying any manual export failures.	PASS
15.3.4*	The system must have the ability to electronically schedule exports.	PASS
15.3.5*	The system must have an export process; as the data file is produced, values on the file should be able to be validated or decoded.	PASS
15.3.6*	The system must have the ability to produce standard or ad hoc data exports with a file type (.xlsx, .csv, .txt, .pdf) of complete or partial information and/or records.	PASS
15.3.7*	The system must have a way for the State of Nebraska to automate control of when a record needs to be sent or resent.	PASS
16	ANALYTICS TOOL	
16.1	ANALYTICS TOOL	
16.1.1	The system should have an analytics tool within the system to identify data duplication, discrepancies, and outliers.	PASS
16.1.2	The system should have the ability to apply data visualizations such as charts, graphs, and dashboards, which can be drilled into for more granular information.	PASS
17	HELP	
17.1	HELP	
17.1.1*	The system must provide online help connected to the relevant workflow, field, or report being used.	PASS
17.1.2	The system should provide an overall up-to-date online tutorial to assist users learning the software as well as online help tool with glossary, index, and search capabilities.	PASS
17.1.3	The system should provide online documentation for all modules.	PASS

DHHS Vital Records Department
Modernization Requirements

Attachment 2 - Technical Specifications

RFP: 120277 O3 REBID

Vital Records Management System

State of Nebraska, Department of Health and Human Services

The items highlighted in gold and notated with an asterisk () within this document represent the capability and/or requirement that will be subject to the "Pass" or "Fail" assessment, as these are "must" requirements.*

Ref	System Modules and Specifications	PASS / FAIL
ARCH - Architecture Capabilities and/or Requirements		
ARCH-1	Describe the bidder solution to addressing the following architectural details: Technology Architecture: Describe the software components, including third-party software products, open-source libraries, and utilities that complete the platform for running a service or supporting an application. This section should document any technical requirements for accessing the software, including but not limited to client desktop installs, etc. Further, the section should clearly outline any State required infrastructure, such as setting up VPN, SFTP, etc., to implement or operate the system. Network Architecture: Describe the means of communication, the method of sending and receiving information, between the assets in the Technology Architecture. Application Architecture: Describe how the solution components are assembled and interact to meet the business needs. Describe the solution's ability to manage and store documents and attachments. Data Flow Architecture: Describe the data flows into and out of the system boundary, include transmission and storage, along with ports, protocols, and services of all inbound and	PASS
ARCH-2	The bidder solution must be a cloud-based hosted environment with all components and data residing in the United States and consisting of ready-made software products that do not require major modifications but support customization to meet the functional specifications as outlined in Attachment 2 – Functional Specifications. Bidder must describe how their approach will meet these requirements.	PASS
ARCH-3	Describe the bidder solution to address the following: <ul style="list-style-type: none"> • Type of Software – SaaS, PaaS or, IaaS • Licensing Model- Perpetual or Subscription based licenses • Single or Multi-Tenant architecture 	PASS
ARCH-4	The bidder solution must provide multiple environments concurrently to support functions including production, testing, and training. Bidder must describe how their approach will meet these requirements.	PASS
ARCH-5	Review the accessibility requirements described in the following: <ul style="list-style-type: none"> • Section 508 compliance standards (https://www.section508.gov/manage/laws-and-policies/) • 28 CFR Part 85 (https://www.ecfr.gov/current/title-45/subtitle-A/subchapter-A/part-85) • State of Nebraska Accessibility requirements (https://nitc.nebraska.gov/standards/index.html#2). Bidder must confirm that your company has read, understands, and can meet all the capabilities and/or requirements as outlined for each of the items and indicate how your solution will meet such requirements as they relate to the accessibility requirements.	PASS
SPC - Security and Compliance Capabilities and/or Requirements		
SPC-1	Review the standards and policies described in the following: <ul style="list-style-type: none"> • DHHS Information Technology (IT) Security Policies and Standards (http://dhhs.ne.gov/ITSecurity). • Nebraska Information Technology Commission (NITC) Standards and Guidelines (https://nitc.nebraska.gov/standards/index.html). • Health Insurance Portability and Accountability Act (HIPAA) of 1996. Bidder must confirm that your company has read, understands, and can meet all the capabilities and/or requirements as outlined for each of the items and indicate how your solution will meet such requirements as they relate to the standards and policies described above.	PASS
SPC-2	The bidder must agree to conduct an independent, third-party penetration test for the solution in which they are offering within one year prior to the anticipated go-live date, that includes, at a minimum, the Open Web Application Security Project (OWASP) Top 10. Identified risks must be classified by severity and additional information must be provided for any risks identified as medium and above. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this test at the appropriate time and describe how their approach will meet these requirements.	PASS
SPC-3	The bidder must agree to conduct an annual independent third-party penetration test of the solution that includes the Open Web Application Security Project (OWASP) Top 10. The report must provide details of the critical, high, and medium findings and associated risks. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this test at the appropriate time and describe how their approach will meet these requirements.	PASS

**DHHS Vital Records Department
Modernization Requirements**

SPC-4	The bidder must agree to conduct an independent, third-party security and privacy controls assessment that aligns with the National Institute for Standards and Technology (NIST) SP 800-53 moderate standard, within one year prior to the go-live date. Identified security gaps must be classified by severity and additional information must be provided for any gap identified as medium and above. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this assessment at the appropriate time and describe how their approach will meet these requirements.	PASS
SPC-5	The bidder must agree to conduct an annual independent third-party security controls assessment that meets the National Institute for Standards and Technology (NIST) SP 800-53 moderate standard. The report must provide details of the critical, high, and medium findings and associated risks. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this assessment at the appropriate time and describe how their approach will meet these requirements.	PASS
SPC-6	Describe the bidder solution for the following: <ul style="list-style-type: none"> • Support for self-service password activities. • Automatic log-off procedures after determined time of session inactivity. • Automatic account disablement after 120 days of inactivity. • Administrators' ability to lockout user(s). • Support and approach for single sign-on • Support and approach for Multi-Factor Authentication 	PASS
SPC-7	The bidder solution must use role-based security. Bidder must describe how their approach will meet this requirement.	PASS
SPC-8	Describe the bidder solution for the following: <ul style="list-style-type: none"> • How user accounts are assigned and managed. • How the system provides usage reports, such as a listing of all users and their last usage date. • How the system supports authorization at an attribute/field level (e.g. edit view) 	PASS
SPC-9	Review the State DHHS Information Technology (IT) Audit Standards located at: (https://www.dhhs.ne.gov/ITSecurity). Bidder must confirm that your company has read, understands, and can meet all the capabilities and/or requirements as outlined and indicate how your solution will meet such requirements. As a part of the bidder's response, at minimum, the State desires specific information regarding the following elements: <ul style="list-style-type: none"> • Detail the data elements that are audited. • Outline the level of audit tracking being maintained. • Provide a sample of their audit reports. • Capabilities for automated audit log evaluation to identify security issues. 	PASS
DM - Database/Data Management Capabilities and/or Requirements		
DM-1	The bidder solution must use industry standard cryptographic modules such as those certified to meet FIPS 140-2/-3 for encrypting data at rest and in transit. Bidder must describe how their approach will meet this requirement.	PASS
DM-2	The bidder solution must securely dispose of State data from its systems upon request and in accordance with the National Institute for Standards and Technology (NIST) Special Publication 800-88 revision 1 and must provide to the State of Nebraska a certificate of data destruction. Bidder must describe how their approach will meet this requirement. https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-88r1.pdf	PASS
DM-3	Describe the bidder's technical approach for supporting data conversion and data migration.	PASS
DM-4	The bidder's solution must support data integration. The bidder must confirm and describe how their solution will meet this requirement. In addition to confirmation on the ability to meet the requirement, the response must include the following, at a minimum the following details: <ul style="list-style-type: none"> • Ability to import and export data using these file types (XML, JSON, CSV). • Support for integration using industry standards approaches and principles for REST APIs and Webservices. • Support for industry integration data standards for Health Level 7 (HL7), Fast Healthcare Interoperability Resources (FHIR), X-12, HIPAA. 	PASS
DM-5	Describe bidder solution for the following: <ul style="list-style-type: none"> • Documentation to support testing and collaboration with integrating systems. • Documentation of the system's data dictionary which includes user-defined fields and tables. 	PASS
DM-6	Review the data retention requirements described in the following: <ul style="list-style-type: none"> • 5 CFR Part 164.316 (https://www.ecfr.gov/current/title-45/subtitle-A/subchapter-C/part-164/subpart-C/section-164.316) • DHHS Vital Records retention schedule is to retain information permanently. <p>Bidder must confirm that your company has read, understands, and can meet all the capabilities and/or requirements as outlined for each of the items and indicate how your solution will meet such requirements as they relate to the data retention requirements.</p>	PASS
OM - Operations Management Capabilities and/or Requirements		

DHHS Vital Records Department
Modernization Requirements

OM-1	Describe the Business Continuity and Disaster Recovery (BCDR) plan for the solution they are offering. Bidder's response must describe, at a minimum, their plan to include the following information: <ul style="list-style-type: none"> • Procedures for data backup, restoration, communication to the State of Nebraska, and emergency mode operations in the event of: <ul style="list-style-type: none"> a. Hardware or Software Failures. b. Human Error. c. Natural Disaster; and/or d. Other unforeseeable emergencies. 	PASS
OM-2	The bidder must agree to conduct a full disaster recovery test for the solution in which they are offering prior to the anticipated go-live date. The most recent test must be within one year prior to the go-live date. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this test at the appropriate time and describe how their approach will meet these requirements.	PASS
OM-3	The bidder must agree to conduct an annual disaster recovery test for the solution and submit the annual results to the designated individual for the State of Nebraska. This must be conducted at no additional charge to the State. Bidder must confirm their intent to conduct this test at the appropriate time and describe how their approach will meet these requirements.	PASS
OM-4	Describe the bidder solution for ability to meet the following: <ul style="list-style-type: none"> • Compliance with the Recovery Time Objective (RTO) of within twelve (12) hours when the system outage is declared as a disaster. • Compliance with the Recovery Point Objective (RPO) of fifteen (15) minutes of data lost before the disaster event. 	PASS
OM-5	Describe the bidder solution for the following: <ul style="list-style-type: none"> • Overall testing strategy and support for the following testing types: unit testing, system testing, integration testing, regression testing, user acceptance testing (UAT), parallel testing, performance and load testing, manual and automated and/or scripted testing, and end-to-end integration testing. • Approach to planning and preparing the test/staging environment. • Approach to conducting each test level. • Approach for testing nonfunctional requirements (security, performance, etc.) • Approach to test documentation (e.g., test cases, test scripts, test case matrices added as the design configuration progresses). • Approach to quality control/quality assurance. • Approach to test results reporting, traceability, and metrics. 	PASS
OM-6	Describe the bidder solution for software maintenance processes that address the following: <ul style="list-style-type: none"> • Approach to managing software versions to ensure bidder support. • Approach to Change Management, including defects and enhancements. • Approach to testing and release management. • Approach to maintaining integrations with external and internal trading partners. 	PASS
OM-7	Describe the incident management process that will be used to report business and security incidents (such as any unauthorized access to, or incidents where, data may have been compromised).	PASS
OM-8	The bidder's solution must be responsive to mobile technology devices such as smartphones or tablets. Bidder must describe how their approach will meet this requirement.	PASS
OM-9	The bidder's solution must provide Scalability and High Availability Architecture. The bidder must confirm and describe how their solution will meet this requirement. In addition to confirmation on the ability to meet the requirement, the response must include the following, at a minimum the following details: <ul style="list-style-type: none"> • The system architecture must support scaling with increased load. • The system must provide high availability to support minimum disruptions to the business operations. • The system must handle notifications when a component or interface endpoint is unavailable. • The system must handle performance functionality and monitoring tools. • The system must handle recovery of failed transactions because of a component failure. • The system must be available online 24 hours a day and 7 days a week, 99.9% of the time each month excluding scheduled downtime. 	PASS