Foster Moore
The registry people

State of Nebraska
Business Services Filing System

RFP 5301Z1
RFP Response

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Business Services Filing System

RFP 5301Z1
RFP Response

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Request for Proposal
Contractual Services Form

Request for Proposal Contractual Services Form

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

RETURN TO:
State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
Phone: 402-471-6500
Fax: 402-471-2089

SOLICITATION NUMBER	RELEASE DATE
RFP 5301Z1	**April 21, 2016**
OPENING DATE AND TIME	PROCUREMENT CONTACT
July 21, 2016 2:00 p.m. Central Time	**Nancy Storant/Connie Heinrichs**

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

PLEASE READ CAREFULLY!

SCOPE OF SERVICE

The State of Nebraska, Administrative Services (AS), Materiel Division, State Purchasing Bureau, is issuing this Request for Proposal, RFP Number 5301Z1 for the purpose of selecting a qualified contractor to provide a Business Services Filing System.

Written questions for the first round of questions are due no later than May 5, 2016. Written questions for the second round of questions are due no later than May 26, 2016. Questions should be submitted via e-mail to as.materielpurchasing@nebraska.gov or may be sent by facsimile to (402) 471-2089.

The First Pre-Proposal Conference will be held on April 28, 2016 at 1:00pm CT at 1526 K Street, Development Center or via WebEx. A Second Pre-Proposal Teleconference will be held on May 20, 2016 at 1:00pm CT.

Bidder should submit one (1) original of the entire proposal. Proposals must be submitted by the proposal due date and time.

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

1. Sealed proposals must be received in State Purchasing Bureau by the date and time of proposal opening per the schedule of events. No late proposals will be accepted. No electronic, e-mail, fax, voice, or telephone proposals will be accepted.
2. This form "REQUEST FOR PROPOSAL FOR CONTRACTUAL SERVICES" MUST be manually signed, in ink, and returned by the proposal opening date and time along with bidder's proposal and any other requirements as specified in the Request for Proposal in order for a bidder's proposal to be evaluated.
3. It is the responsibility of the bidder to check the website for all information relevant to this solicitation to include addenda and/or amendments issued prior to the opening date. Website address is as follows: http://das.nebraska.gov/materiel/purchasing.html

IMPORTANT NOTICE: Pursuant to Neb. Rev. Stat. § 84-602.02, all State contracts in effect as of January 1, 2014, and all contracts entered into thereafter, will be posted to a public website. Beginning July 1, 2014, all contracts will be posted to a public website managed by the Department of Administrative Services.

In addition, all responses to Requests for Proposals will be posted to the Department of Administrative Services public website. The public posting will include figures, illustrations, photographs, charts, or other supplementary material. Proprietary information identified and marked according to state law is exempt from posting. To exempt proprietary information you must submit a written statement showing that the release of the information would give an advantage to named business competitor(s) and show that the named business competitor(s) will gain a demonstrated advantage by disclosure of information. The mere assertion that information is proprietary is not sufficient. (Attorney General Opinion No. 92068, April 27, 1992) The agency will then determine if the interests served by nondisclosure outweigh any public purpose served by disclosure. Cost proposals will not be considered propriety.

To facilitate such public postings, the State of Nebraska reserves a royalty-free, nonexclusive, and irrevocable right to copy, reproduce, publish, post to a website, or otherwise use any contract or response to this RFP for any purpose, and to authorize others to use the documents. Any individual or entity awarded a contract, or who submits a response to this RFP, specifically waives any copyright or other protection the contract or response to the RFP may have; and, acknowledge that they have the ability and authority to enter into such waiver. This reservation and waiver is a prerequisite for submitting a response to this RFP and award of the contract. Failure to agree to the reservation and waiver of protection will result in the response to the RFP being non-conforming and rejected.

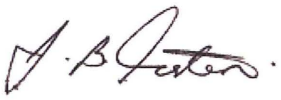
Any entity awarded a contract or submitting a RFP agrees not to sue, file a claim, or make a demand of any kind, and will indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State, arising out of, resulting from, or attributable to the posting of contracts, RFPs and related documents.

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

FIRM: Foster Moore US, LLC

COMPLETE ADDRESS: 5520 Dillard Drive, Suite 280, Cary NC 27518-9237

TELEPHONE NUMBER: _+1 (919) 745 2141 FAX NUMBER: ___



SIGNATURE: _____ DATE: 19 / 07 / 2016

TYPED NAME & TITLE OF SIGNER:

Kelly Kopyt, VP US Operations

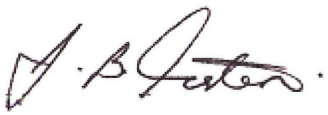
Details for the attached response are as follows:

Name of the Offeror: Foster Moore US, LLC
Contact person for this Request for Proposal.
Kelly Kopyt
Email: kelly.kopyt@fostermoore.com
Mobile +1 (617) 519 1942 **Phone** +1 (919) 745 2141
5520 Dillard Drive, Suite 280, Cary NC 27518-9237

I confirm that we have read and agree to comply with the requirements stated in the Request for Proposal document. I also confirm that our proposal accurately describes the information technology solution and services being offered to the Stats. I confirm that neither the firm nor its employees have an apparent or actual conflict of interest in relation to this Request for Proposal.

We look forward to the opportunity to work further with the State to complete the successful deployment of the Business Services Filing System using the Catalyst COTS solution.

Yours Sincerely



Joel Foster
President & CEO
Foster Moore International

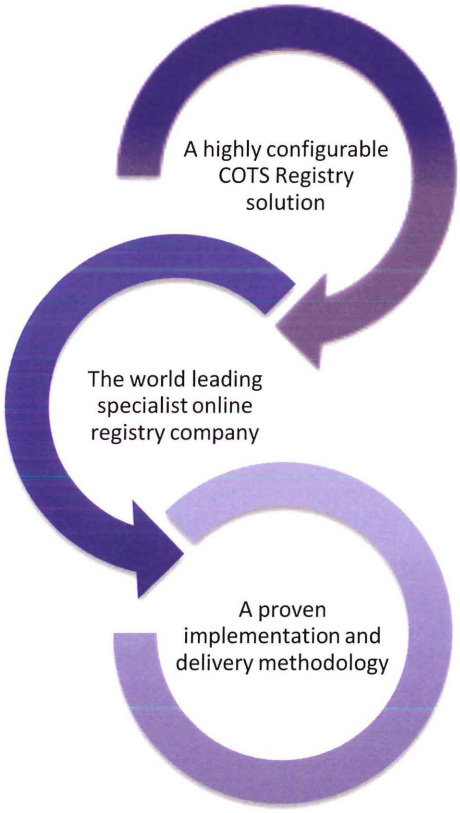
Executive Summary

1. Executive Summary

The Foster Moore team is excited about the opportunity to deliver the world's leading registry solution, Catalyst™- the Registry Manager, to the Nebraska Secretary of State, Administrative Services (AS), Materiel Division, State Purchasing Bureau ("the State"). Our proposal addresses all the functional and non-functional requirements as set out in the RFP and detailed Requirements Matrix through our fully configurable and globally proven COTS software. Our highly experienced team will be focused on working in partnership with the Nebraska Secretary of State in updating and replacing all the systems and then ensuring the provision of both local, national and global ongoing support services of the solution.

Our team offers the best opportunity to the State in replacing the existing Uniform Commercial Code (UCC), Corporation (Corp) Database with a new Business Services Filing Systems (BSFS) in professional, timely and effective manner while providing flexibility and scalability for future growth.

Our solution is based on:



Goal Alignment and Guiding Principles

We understand the importance the State has placed on implementing a COTS solution this is to be used by the Business Services Division ensuring it:

1. **Uses modern technology that is supportable using local resources and can be configured using SoS internal IT resources.**

The Foster Moore Team (New Zealand, US and the local Nebraska group) will provide the best solution at the lowest risk to meet the State's needs, leveraging Catalyst. Our solution will meet the requirements stated by the State in the RFP.

Catalyst is a fully online system that operates through a browser. Online forms for both public users and registry staff are driven by the entity configuration within the register, and the business rules. This ensures that Catalyst provides a solution which auto-populates data based on existing data within the register, performs data validation at the time of entry, and meets accessibility requirements (such as the Americans with Disabilities Act).

The Catalyst Adoption Methodology (CAM), detailed in subsequent sections of our response, is developed by Foster Moore to streamline the effort and maximize the results of our Catalyst implementation.

The benefits that CAM brings can be seen in two particular areas. Firstly, it brings all the stakeholders to the project upfront and ensures that the implementation process runs as smoothly and efficiently as possible, minimizing risks associated with scope management and any misunderstandings or misinterpretations around requirements. In this way we ensure that, at the initiation of the project, all stakeholders are introduced to Catalyst and our methodology to ensure they understand what they are getting, and how we will deliver it

Secondly, it demonstrates at a very early project stage the functionality, capabilities and features of Catalyst 'out of the box' and also appreciates the distinction between which functionality requirements can be achieved through configuration and which represent software customization.

2. **Improves all levels of functionality of the existing system and expands services currently provided.**

Catalyst can be configured to support a range of different registers and entity types, with registry templates used to provide core configuration for different register types (i.e. corporations and numerous business entity types, trademarks/service Marks, professional entities and UCC/EFS).

Catalyst configuration allows the Foster Moore team to build new stable registers in much less time that is possible with traditional development projects, and allows us to leverage existing code components (e.g. payments, security and document management) adding new registers. It also allows us to provide significant integration and data-sharing between registers (where provided for by legislation and where so configured within the system).

This configuration approach will enable Foster Moore to deliver the range of registers required by the RFP.

3. **Eliminates existing silos in the current system so that filing processes, accounts receivable, and deposit preparation are completed in one system.**

Catalyst – the Registry Manager provides a single view into all of the SOS's registers and functions (through both the internal and external Dashboard). Features to support all filing processes are completed in one system and the Accounts receivable (AR) module supports all the implemented registers and functions.

As outlined in the RFP, and covered in our detailed response to the Requirements Matrix, the State has outlined key high-level Project and Technical Requirements that must be provided and/or met. Foster Moore will commit to delivering all of them to the Nebraska Secretary of State, at a summary view:

Nebraska Secretary of State Key Project Requirements	Foster Moore Team Proven Capabilities
Modern Technology and Proven COTS Registry Platform	
Single fully integrated system, easily configured, uses responsive design, and meets all the business requirements of Corp and UCC/EFS functions	✓
Provides APIs to other partners and systems with the ability to easily share data with other State agencies	✓
Simple access to system data with extensive and intuitive reporting tools	✓
Online Solution / Customer Satisfaction	
Easy, intuitive, and professional customer experience	✓
24/7/365 online availability for customers and accessibility to users running popular browsers	✓
Configurability which easily accommodate statutory requirements, rules and regulations, and policy changes	✓
Experienced Global Software/Implementation and Support Partner	
Industry-leading vendor who utilizes best practices. An improved level of functionality of the existing systems and expansion of services currently provided	✓
Detailed plan for proper system rollout and a highly experienced team and proven processes for conversion of the current systems data	✓
Strong training, change management and communication to all system users. Local and international helpdesk support	✓
Enhancements, product upgrades ALL part of the Product Roadmap (under License and Support & Maintenance)	✓

Solution for Nebraska Secretary of State

Using our COTS product **Catalyst™ – The Registry Manager** implemented with our highly experienced team will ensure the optimal balance for meeting all the needs of the State. Some of the essential and key elements have been illustrated in the diagram below.

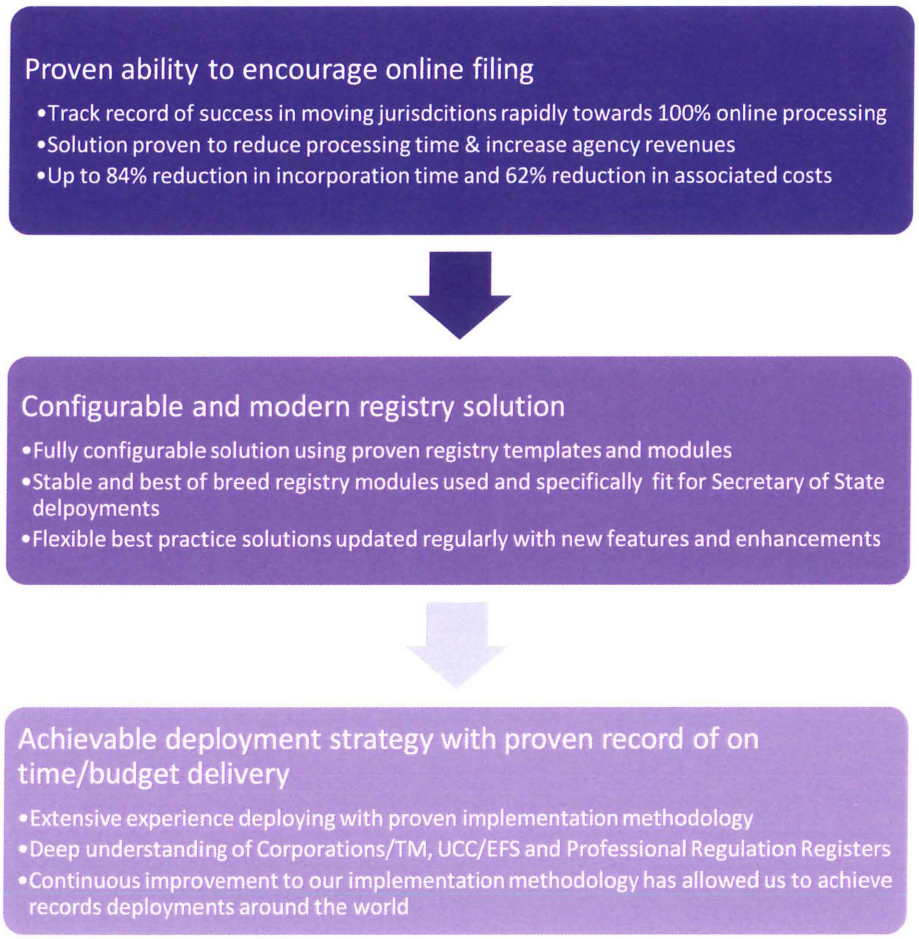


Figure 1. Solution fit for Nebraska Secretary of State

Summary of solution fit to stated requirements

The Foster Moore team will provide the best solution at the lowest risk to meet the State's needs leveraging Catalyst and the core value of *"our registry know-how, our deep understanding of the unique and inherent complexities of electronic registry form and function."* **Our solution will meet ALL the requirements stated by the State in the RFP.**

Our proposition consists of:

1) **Expert registry know-how and a solution to encourage online filing**

   The core registry team have been directly involved in multiple projects across the USA, Canada, New Zealand, Africq, Asia and throughout the Pacific, to provide the implementation services for the solution. These staff will be pivotal to

the business process improvement deliverables, as well as the analysis and design for the online business and licensing registers using Catalyst.

We understand the domain of online registers from the technology, legislative and business process perspectives. This allows us to rapidly deploy our solution, and to harmonize the product to the applicable legislation, saving time and money.

We know what it takes to implement online electronic systems supported by a streamlined set of procedures and processes that maximize the advantage of the available technologies. Our deep experience also includes the training and operational support of the registers that have been implemented.

Our projects often include significant data migration activities, covering current data as well as historic data. Foster Moore has an extremely mature and refined data migration process, which leverages a series of automation tools, developed by us, to streamline the process. Use of our data migration methodology reduces time, technical complexity and risk.

2) The right platform for a modern business services filing system

We are proposing the Catalyst Registry Manager, which utilizes pre-configured templates for Corporations, TMs, UCC/EFS and Professional Entities, be used to develop the online registers for the State.

Catalyst's core functionality, including unique capabilities such as versioning to store all historic data changes and business/licensing registration filings, is proven and closely aligned with the objectives of the State. These common core functions are at the heart of the Catalyst solution, and shared by all registers, ensuring a consistent and intuitive experience for users across the entire system.

Catalyst allows us to deliver a solution that meets the specific functional and non-functional needs of the client primarily by configuration. This reduces effort, risk, time and cost and also allows us to deliver, very early in the project, a functional system which can be used to finalize user requirements and legislative compliance. Our product approach means that clients get a functionally superior, more stable and more feature rich solution to market more quickly and at a lower risk.

As well as customization, Catalyst offers a multitude of options for integration within the client's environment and other online registers and systems, and within their legislative environment, including local, regional and national systems such as identity management systems, payment processing systems, external registers and address validation etc.

For example, Catalyst has the ability to integrate with any payment processor for electronic payments. To assist in the Secretary of State's office in their continued efforts to streamline operations Catalyst may be integrated into Nebraska Interactive's TPE® payment engine offering.

Nebraska Interactive's self-funded model provides the Secretary of State's office with an optimal funding option for consolidating financial functionality with TPE®. As a Transaction Cost Service, a gateway fee is charged each time an electronic payment passes information through TPE®. These charges will require negotiation and agreement between the Secretary of State's office and Nebraska Interactive, LLC. Additional approvals would be required but the ongoing benefits to the Secretary of State are measurable through;

(a) *Consolidated reporting across all electronic services* - The Nebraska Interactive TPE® payment engine is a fully hosted, software-as-a-service, enterprise-class payment processing solution. Its hierarchy based electronic payment system is built specifically for complex multi-channel payment, disbursement, and reconciliation processes specific to government. The hierarchical setup and transaction type data

storage is ideal for processing, disbursing, and reconciliation of back-end financial systems with Nebraska State treasury deposits. It processes electronic payments in real time without the need for batch files and without any limitations on the volume of transactions that can be processed per day. Each payment service will be configured based upon service type, merchant account, payment channel, and fee structure.

The hierarchy provides additional security features. The administrative interface allows for user credentials based on the staff member's department. For example, personnel having access to Corporations and Business services will not have access to Licensing payment information unless explicitly granted. Enterprise administrator credentials are available to view the payment data in its entirety across all channels and services. TPE® is continually updated to maintain security compliance while also incorporating additional features and payment options desired. With a SSAE 16 independent audit report issued on the TPE® payment engine, and certified as a PCI DSS Level 1 Service Provider.

(b) *Reduced time with reconciliation and deposits* – TPE® Payment Engine provides a highly robust and comprehensive financial management platform providing you with industry-leading reporting and tools, search capability, reconciliation, and transaction management functionality. Nebraska Interactive TPE® Payment Engine automatically imports and processes daily deposit details from the processing bank and matches these deposits to the transactions in TPE®. This results in streamlined efforts, avoiding longs hours of manual reconciliation. Partners who leverage Nebraska Interactive's payment processing have a huge benefit in the ability to have end to end visibility of the full transaction life-cycle.

TPE® includes robust credit card and ACH customer account validation capabilities to ensure initiated transaction requests are processed accurately, ensuring accuracy with transaction reporting and minimizing refunds. Beneficially, it provides a fully functional test environment that is deployed for use for development and testing that is fully separate from the production Payment Engine. This allows agencies to fully test new payment services and proactively identify issues before moving to a production environment.

Foster Moore continually invests research and development effort in the enhancement and improvement of Catalyst, delivering significant value to clients through ongoing product updates which include support for new features, functions and technology.

3) An experienced local team to deliver full solution on-time and to budget

The project will be led by Foster Moore's Project Manager highly experienced in government projects and procedures. Working as an integrated project team with the State, we will leverage CAM, our proven global delivery methodology and governance model to deliver the project. The Foster Moore team provides a global service desk, staffed by our team in offices located in the Nebraska and North Carolina, USA – Toronto, Canada and Auckland, New Zealand to deliver customer and product support, and our experience in managing and operating solutions for customers means we understand how to build and support stable systems which have 24/7 service levels.

4) Future flexibility of a registry development platform

Catalyst provides a wide range of options and configuration points which fit the requirements as stipulated in the RFP. In the future, when business requirements or legislation changes, and the system needs to be modified, our approach will often simply require a change to a customized option.

The following are a few scenarios where systems most frequently experience changes, and are accompanied by an explanation of how the relevant Catalyst component can be reconfigured to support the change.

In addition to meeting the needs of the State's requirements now, another advantage of using Catalyst is its flexibility in addressing whatever new requirements are needed or imposed.

Future changes can be made without a large scale software re-development project. These changes simply take advantage of configuration options or installing new functionality released from regular updates to the Catalyst platform, or through the installation and configuration of a new module.

Some examples of common post implementation changes that Foster Moore has added for other State and Business registries include:

Fee Changes

It is common for Secretaries of State to use fees to drive behaviors within the business community. The fee change may be a price reduction to reduce regulatory burden or a price increase to fund activity within the office. As the case may be, the fee change is usually signaled in advance with an associated effective date.

Catalyst Payments allows the SME within the office to update any fees quickly through a simple interface. The fee change can be set to take effect at a future date. Filings (including late filings where the earlier fee still applies) can then have the correct fee charged.

Text or correspondence content changes

In response to user feedback or trends in office inquiries, the State may easily make changes to language used within the system. Examples would include field labels; help text and the content of any output from the system.

Where the Secretary's Office was running an information campaign, for example, Catalyst Correspondence easily allows for content to be added to emails and generate any mail items. These can be changed as and when required.

Form design

Similarly, user feedback or behavior may indicate that users are not completing a task in the way the office expects or needs. The appropriate internal user within the Secretary of State office can customize changes to its mandatory fields or add or remove certain section in order to better accommodate its users, thereby more accurately meeting the office's expectations.

Legislature added requirements

It is not uncommon for the legislature in some jurisdictions to add or remove a requirement to the filings needed for the formation or renewal of a particular entity. For example, a new regulation may require the addition of a requirement for an industry code at formation, or perhaps, the removal of address detail for an officer or director. Authorized users can customize these types of changes to accommodate legislative or rule changes.

The Partnership of Foster Moore and Nebraska Interactive, LLC.

Foster Moore and Nebraska Interactive, LLC have partnered to provide the Secretary of State with the most effective team to deliver to the requirements and meet the goals and objectives as set out in this RFP.

Our solution is supported by a world class award winning software platform, a globally proven and structured implementation methodology and an accomplished project team experienced in electronic registry solutions, eGovernment best practices and superior customer support.

In order to achieve the goals defined by Nebraska Secretary of State and outlined in the above section, we are proposing a team made up of the most experienced and cost-effective professionals and what we believe is the best of breed solution for the modernized Business Services Filing System.

Foster Moore
The registry people

- Best of breed COTS registry platform
- Proven fit to form and highly configurable solution
- Worldwide experience and capability
- Low TCO and high value proposition
- Excellence in online registries

NEBRASKA INTERACTIVE

- Proven e-government capability
- Dedicated domain specific expertise local to Nebraska
- Ideal product and customer support partner for Foster Moore and the Secretary of State
- Excellence in training and online adoption

Figure 2. Nebraska Secretary of State Business Services Filing System solution team

The key to the success of this team, and ensuring maximum value to State, is the 20+ years of experience working with the Nebraska government and 20+ years of global registry experience we bring to the table on day one of the project.

Our team is built to leverage that knowledge using key SMEs within the implementation team to support the rapid configuration of functional requirements and design of the data migration and solution testing plans. It is this approach, which ensures our solution optimizes the balance between the State's business needs/practices and the COTS software capabilities.

Foster Moore – The Registry People

Foster Moore are the world's leading specialist online registry company, specializing in the implementation of electronic registries built to meet the statutory and business needs of government and executive agencies. We offer comprehensive end-to-end solutions that significantly enhance functionality and lower the total cost of ownership of business registries.

With offices in Auckland – New Zealand, Raleigh – North Carolina, and Toronto - Canada we successfully support delivery and implementations, and provide ongoing operations and support globally.

For over two decades the team at Foster Moore has developed and maintained registry systems across the globe. From ten major New Zealand public registry systems to registries in North America, Asia, Africa, the Pacific and the Middle East. Our work with the New Zealand government commenced at the very early stages of their initiative to deliver the world's first online companies register.

Since developing the worlds' first fully-electronic online register in 1996, Foster Moore has designed and built over thirty different types of registers, from relatively simple Motor Vehicle Traders Registry to Business Entity, Secured Transaction and highly complex Radio Spectrum Management Registers. Our registry experience is unsurpassed internationally. We are exclusively focused in the registry domain and our personnel are acknowledged as innovative industry leaders in this field.

In the last six years, we have implemented business registers for ten jurisdictions covering a total of almost 60 business entity types. Recent projects which have used pre-existing Catalyst templates and the CAM implementation methodology have seen full register implementations completed within as little as four months.

In addition, our project for the Montana Secretary of State delivered 51 different business entity types, along with trademarks, all within a thirteen-month timeframe. This rapid register deployment is demonstrable evidence of the efficiencies and implementation speed (and quality) possible with the Catalyst COTS registry product.

The following tables highlights Foster Moore's current and completed projects.

Recently Completed Projects
Montana Secretary of State (Go-Live August 22nd) • Business Entities & Trademarks (BR)
Missouri Secretary of State • Business Entities & Trademarks (BR) • Uniform Commercial Code (UCC)
ServiceOntario: • Corporations, Business Names and Limited Partnerships Register (Province), Ontario, Canada (BR) • Ontario Security Guards & Private Investigators Register, Ontario, Canada (Occupational Register (OR))
Puerto Rico Department of State (BR and Trademarks) – Hosted Transactional Model
Colorado UCC Acquisition Project – Catalyst Secure Transaction UCC Integration
New Zealand Financial Management Authority (FMA) Disclose Register (BR)
Abu Dhabi Global Market Registry Solution (BR, ST and OR's)
Labuan Financial Services Authority, Malaysia Five Registries (Business Register (BR))
Solomon Islands Business Register Upgrade Project (BR)
Brunei Darussalam, Companies and Business Names Register (BR)
New Zealand Financial Management Authority (FMA) Authorized Financial Advisers Register (OR)
Samoan Companies Office (BR), about to start on a ST (PPSR)

Cook Islands Offshore Register (BR)
Solomon Companies Office (BR)
Kingdom of Cambodia Business Registration System (BR)
Vanuatu Business Register (BR)
Papua New Guinea Companies Office (BR) • Domestic Companies Register • Business Names Register • Overseas Companies Register • Foreign Certification Register

Current Projects
Canadian Securities Administrators • 8 Business Registers (BR) • 4 Occupational Registers (OR)
Montana Secretary of State • Uniform Commercial Code (UCC) • eNotaries and Apostilles (OR)
US Virgin Islands Office of the Lieutenant Governor • Business Entities and Trademarks • Uniform Commercial Code (UCC)
Puerto Rico Department of State - Uniform Commercial Code (UCC)

Nebraska Interactive, LLC.

Nebraska Interactive, LLC. helps Nebraska government use technology to increase efficiencies and enhance constituent electronic government services. Nebraska Interactive builds and supports numerous online services for the Nebraska Secretary of State which serve citizens and business across the world.

Nebraska interactive is dedicated exclusively to e-government services in the state of Nebraska, having worked with 153 state and local government agencies, boards and commissions, educational institutions and associations across the state to deliver more than 400 unique applications, services and websites.

Nebraska Interactive, LLC. provides more than simply Nebraska-specific domain expertise. We are a part of the largest and most production network of electronic government providers in the world. Their Parent company, NIC, Inc. has affiliates that provide electronic government programs that serve more than 3,900 federal, state and local agencies. NIC has led the e-government industry since 1992, and offers the deepest portfolio of solutions that currently deliver a broad set of benefits to 29 states.

Nebraska Interactive, LLC. has a proven track record of helping Nebraska deliver online service – allowing the state to enhance their service delivery capabilities.

Headquartered in Lincoln, Nebraska, Nebraska Interactive, LLC. is Comprised of experienced management, technical, marketing and customer service professionals, Nebraska Interactive's Nebraska-based resources represent the most

experienced personnel available to assist the state with its e-government agenda. Our top priority is to provide continuity through dedicated personnel who are focused full-time on portal services for the state of Nebraska. Through these existing personnel resources in Lincoln, Nebraska Interactive offers the state a team of professionals who have worked side-by-side with state developers and agency project managers to provide complementary services that build upon the successful technical foundation already established with the state.

Nebraska Interactive LLC. offers a wide range of expertise, including:

- Portal operations support
- Database design and web-to-database design integration
- Usability and accessibility
- Application configuration
- Payment processing and merchant services
- Identity management and single sign-on
- Directory Services
- Hosting Services
- Web-to-legacy system integration
- Internet security
- Network engineering
- DataCenter management
- Training
- Marketing and public relations
- Customer relations management
- Application re-engineering and platform migration
- Content management
- Flow-of-funds management and accounts receivable collections

RRP Response Material

2. Corporate Overview

2.1 Bidder Identification And Information

Bidder Identification and Information	Response
Full Company Name	Foster Moore US, LLC
Address of Headquarters	5520 Dillard Drive, Suite 280, Cary NC 27518-9237
Entity Organization	Limited Liability Company
State in which incorporated	North Carolina
Drug Free Workplace	Foster Moore certifies that it maintains a drug free workplace.

2.2 Financial Statements

Please refer to Appendix 4. Financial Statements (page 465) for financial statements.

2.3 Change Of Ownership

Foster Moore does not anticipate any change of ownership within the next twelve months.

2.4 Office Location

The office responsible for performance pursuant to an award of a contract in relation to this RFP is:

Foster Moore
5520 Dillard Drive, Suite 280,
Cary
North Carolina 27518-9237

2.5 Relationships With The State

Foster Moore has not had any contractual dealings with the State over the previous three (3) years.

2.6 Bidder's Employee Relations To State

No people named in the bidder's proposal response are, or were, an employee of the State within the past thirty-six (36) months.

2.7 Contract Performance

Foster Moore has not had a contract terminated for default within the last three years.

2.8 Summary Of Bidder's Corporate Experience

2.8.1 Summary Matrix

The following table presents a summary of Foster Moore's previous registry projects. This is followed by narrative project descriptions for three key projects for the Foster Moore Team representative in the RFP.

Customer Name	Jurisdiction	Register Type(s)	Register Details	Implementation Date(s)
Montana Secretary of State – State Information Management System	Montana, USA	Business Entities & Trademarks Uniform Commercial Code (UCC) Notaries and Apostilles	Foster Moore is in the initial phases of implementation for the State's Business Entities and Trademarks Register with "go-live" date targeted in 2016. Catalyst Register Manager and all Registry modules (Business (BR), Secures Transactions (ST) and Occupational (OR)) will form the Montana Secretary of State Enterprise Edition of our product. The remaining modules of Catalyst will be delivered over the course of 2016.	August 2016
Service Ontario	Ontario, Canada	Business Register *Corporations, Business Names and Limited Partnerships*	In 2011 Foster Moore secured the contract to modernize the provincial companies register of Ontario, administered by ServiceOntario. The project was delivered over a period of two and a half years and is currently complete, awaiting legislative changes before being made public. ServiceOntario administers corporate and business records associated with the registration and regulatory compliance of companies doing business in the province of Ontario. These administrative functions apply to firms initially registered to do business in the province, as well as corporations transferring to Ontario from other jurisdictions. The objectives of the project were to implement a commercial off the shelf solution that established a single, central source of data on businesses operating in Ontario enabling a broader enterprise role for the business public record. It also sought to modernize and streamline business registration services by providing a single, seamless, integrated electronic registration process through the design, development and implementation of a new system. Foster Moore delivered the solution using Catalyst and the Business Register template. The solution integrates with the following systems within Ontario and across Canada: • Canadian Revenue Authority (tax numbers and entity details) • NUANS (New Upgraded Name Automated Name Search) • ccPay for credit card payments • oneKey for province-wide user authentication • Industry Canada Business Directory Over 128GB of data records and documents have been migrated from the legacy system to Catalyst. http://www.ontario.ca	November 2013
New Zealand Ministry of Business Innovation and	New Zealand	Business Register *NZ Companies, Australian*	The new New Zealand Companies Office Register is a major redevelopment of the original version. At the time of original development, the current register was the first in the world. This redevelopment uses the Catalyst product to deliver a system that will again lead the world in online business registers.	June 2010

Customer Name	Jurisdiction	Register Type(s)	Register Details	Implementation Date(s)
Employment (NZMBIE)		*Companies, Co-operatives, Overseas Companies*	This project sets out to deliver improvements in every area including usability for public users, web design, backend processes for internal (register) users, configurability, flexibility, security and performance. http://www.companies.govt.nz	
Labuan Financial Services Authority (LFSA)	Labuan, Malaysia	Business Registers *Companies, Partnerships, Foundations, Trusts* Occupational Register: *Auditors and Liquidators*	Labuan Financial Services Authority (LFSA) is the government agency that acts as the registrar of Labuan entities. The new registry installation proposed in this Statement of Work covers the Labuan entities identified as Labuan Companies (Local, Foreign, Pre-Incorporated and Protected Cell Companies), Labuan Trust, Labuan Partnership, Labuan Foundation, Auditor and Liquidator. Labuan entities must be registered or incorporated with LFSA in order to be recognized as a Labuan entity. The registration process involves the submission of the relevant forms and documents to LFSA for processing and approval in accordance with the relevant Labuan Acts. These documents are submitted to LFSA by trust companies. The trust companies act as agents and provide secretarial services for the Labuan entities. In April 2013 Foster Moore issued a proposal to LFSA to implement LFSA's new registry system (COR@L). Foster Moore, a software company specializing in the development of electronic registries were delighted to be informed on the 12th June 2013 that they had been appointed as the Vendor for Labuan FSA's Registration of Companies (ROC) new system. The Foster Moore solution is based on an implementation of the Catalyst Registry Manager with the pre-configured Business Register (Catalyst BR) and Occupational Register (Catalyst OR) templates along with consulting and implementation services. Catalyst is a software solution that provides the base requirements of an online register, in a single configurable product. By using the pre-configured Business Register and Occupational Register templates, Foster Moore is able to quickly configure, deploy, test and deliver flexible registries, such as the new ROC System. http://www.labuanfsa.gov.my	June 2014
New Zealand Ministry of Business Innovation and Employment (NZMBIE)	New Zealand	Secured Transactions	The New Zealand Personal Property Securities Register was the first fully electronic register implemented by the Ministry of Economic Development. It enables secured parties to register details about their security interests in the PPSR (including details of the debtor). The public can search the PPSR to find out about security interests in personal property. Secured parties discharge (remove) their security interests from the PPSR when the obligations have been met, e.g. money has been repaid. http://www.ppsr.govt.nz	May, 2002
Service Ontario	Ontario, Canada	Occupational Register	In 2013 Foster Moore delivered the Security Guards and Private Investigators register for Service Ontario. This Catalyst register manages the licensing of all authorized security guards and private investigators across the province, covering almost 80,000 individuals, 600 employers and 600	October 2013 (Release 1),

Customer Name	Jurisdiction	Register Type(s)	Register Details	Implementation Date(s)
		Security Guards and Private Investigators	agencies. The implementation was completed within eight months, from project commencement to go-live, using the Catalyst Adoption Methodology (CAM). In the first two months of operation, with a soft launch and minimal promotion, online registration and self-service activity increased from 21% to 66%. This provided a significant contribution to the cost reductions and efficiency increases by the project. http://www.ontario.ca	February 2014 (Release 2)
New Zealand Financial Markets Authority (NZFMA)	New Zealand	Occupational Register *Authorised Financial Advisers*	Foster Moore has deployed a registry platform for the New Zealand Financial Markets Authority (FMA) using Catalyst. The Authorised Financial Advisers (AFA) register is used to manage the regulatory returns of authorised financial advisers. The KiwiSaver Disclosure Statement (KDS) register supports the requirements for managers of KiwiSaver retirement fund schemes to file quarterly and annual disclosure statements. The registry platform utilises Catalyst, with incremental releases of the platform planned in order to support an increasing number of registries, as required to support the legislation and regulations which the FMA must monitor. The platform is integrated with RealMe™ for authentication, and Foster Moore is supporting FMA in progressing through the Agency Engagement process with Department of Internal Affairs (DIA).	September 2013
New Zealand Ministry of Business Innovation and Employment (NZMBIE)	New Zealand	Occupational Register *Financial Service Providers*	The Catalyst product was used to develop the Financial Services Provider register to ensure it meet its objectives under the Financial Service Providers (Registration and Dispute Resolution) Act. The solution provides an electronic register of FSPs, as mandated by the Financial Service Providers (Registration and Dispute Resolution) Act 2008. It provides an increased the level of transparency of public information related to FSPs, their licensed services and their related dispute resolution schemes. The register also assist New Zealand in complying with its international obligations to prevent money laundering and the financing of terrorism; The application was developed in parallel with the legislation being finalized. An agile type approach was required to ensure that new requirements could be effectively resolved. The application is fully integrated with the Ministry's shared services platform (security, payments, correspondence) and with other government departments systems including MOJ criminal checks, Securities Commission and iGovt authentication service. http://www.business.govt.nz/fsp/	August 2010
Ministry of Trade and Industry, Co-	Lesotho	Company Register	In February 2014 Foster Moore was engaged by MBIE to provide their registry product and implementation services as part of the New Zealand government's aid program.	November 2014

Customer Name	Jurisdiction	Register Type(s)	Register Details	Implementation Date(s)
operatives and Marketing (MTICM)		*Companies and Business Licenses*	We worked with the New Zealand Companies Office (NZCO), who was providing online business registry technical assistance in Africa under the Ministry of Foreign Affairs and Trade's (MFAT) New Zealand Aid Program. The overarching goal is to achieve faster, cheaper, more accurate Business Registration in African countries through the introduction of, or upgrading to, international best practice Online Business Registries. The country of Lesotho is the first jurisdiction in the MFAT sponsored program. The Ministry of Trade and Industry, Cooperatives and Marketing (MTICM) are the Lesotho government agency that acts as the registrar of Lesotho entities, and our solution covers Lesotho Companies and Lesotho Business Licenses. The Foster Moore solution is based on an implementation of the Catalyst Registry Manager with the pre-configured Business Register (Catalyst BR) templates along with consulting and implementation services. Catalyst is a software solution that provides the base requirements of an online register, in a single configurable product. By using the pre-configured Business Register templates, Foster Moore was able to quickly configure, deploy, test and deliver a flexible registry for the new Lesotho System.	
Papua New Guinea Investment Promotion Authority	Papua New Guinea	Business Register *Companies, Business Names, Business Groups, Foreign Certifications And Associations Registers*	The Investment Promotion Authority (IPA) in Papua New Guinea (PNG) runs that country's business registers. Foster Moore delivered a solution for them, using their Catalyst Registry Manager product, that manages the companies, business names, business groups, foreign certifications and associations registers The business registers include over 200,000 entities of the various types, with the project including migration to Catalyst from a legacy Oracle system. Migration included the current state of each entity, as well as historic documentation. http://www.ipa.gov.pg	November 2013
Samoan Companies Office, Ministry of Commerce, Industry & Labour (plus Asian Development Bank, ADB)	Samoa	Business Register *Companies*	The Samoa Company Registry is a Catalyst implementation that delivers the companies register for Samoa. Historically registrations within Samoa were performed manually using spreadsheets. The Samoan project was funded by the Asian Development Bank (ADB) as part of their initiative to improve the business environment in Samoa, including legislative reforms and the implementation of an electronic online companies register. http://www.companies.gov.ws	February 2013
Solomon Islands – Company Haus	Solomon Islands	Business Register *Companies*	The Solomon Island's companies register is operated by the Company Haus. Historically registrations within the Solomon Islands were performed manually using paper records, with the register itself being managed by register staff using spreadsheets. Some time ago Foster Moore	December 2010

Customer Name	Jurisdiction	Register Type(s)	Register Details	Implementation Date(s)
			provided these spreadsheets as an intermediary step as an initial set of electronic records that could be migrated to the Catalyst-based system. The Catalyst implementation was undertaken in parallel with legislative changes in the Solomon Islands, including the introduction of a new Companies Act. Foster Moore assisted ADB and the Company Haus with the legal reform aspects of the project, reviewing and providing input to the legislation to ensure harmonisation with the online register. Foster Moore also engaged directly with stakeholders to ensure buy-in within the business community, providing solution demonstrations during the implementation project. Foster Moore also provided training in the new system and procedures. Foster Moore deployed the Catalyst solution within a very short timeframe, demonstrating the capabilities of the product to be configured to suit local legislation and the efficiencies enabled through the Software as a Service (SaaS) model.	
Cook Islands – Company Haus	Cook Islands	Business Register *Companies*	The Cook Island's companies register is operated by the Company Haus. Historically registrations within the Cook Islands were performed manually using paper records, with the register itself being managed by register staff using spreadsheets. Some time ago Foster Moore provided these spreadsheets as an intermediary step as an initial set of electronic records that could be migrated to the Catalyst-based system. The Catalyst implementation was undertaken in parallel with legislative changes in the Cook Islands, including the introduction of a new Companies Act. Foster Moore assisted ADB and the Company Haus with the legal reform aspects of the project, reviewing and providing input to the legislation to ensure harmonisation with the online register. Foster Moore also engaged directly with stakeholders to ensure buy-in within the business community, providing solution demonstrations during the implementation project. Foster Moore also provided training in the new system and procedures. Foster Moore deployed the Catalyst solution within a very short timeframe, demonstrating the capabilities of the product to be configured to suit local legislation and the efficiencies enabled through the Software as a Service (SaaS) model.	December 2010
Tongan Companies Office (MLCI)	Kingdom of Tonga	Business Register *Companies*	After the Tongan Companies Office, along with all historic paper records, was destroyed by fire in 2006, the International Finance Corporation (IFC), part of the World Bank Group, approached Foster Moore to assist with the implementation of an online Companies Register. The project entailed the definition of processes and functions, the implementation of a software solution, and the loading of data related to 1300 Tongan companies into the new system. The system supports online public searching and electronic filing by Tongan companies office (MLCI) staff.	November 2009

Customer Name	Jurisdiction	Register Type(s)	Register Details	Implementation Date(s)
Brunei Companies Registry	Brunei Darussalam	Business Register	Foster Moore has completed the first phase of implementation in Brunei, incorporating the following registers: • Businesses – sole proprietor and partnership • Companies – private, public and branch of foreign company The initial scope delivered by the project is as follows: • Online name search • Online applications for Business Names and Companies name application/reservation • Online applications for Business Name registration and Company incorporation • Online submission of supporting documentation attached to applications[1] • Online payment capability for application fees	February 2015
Abu Dhabi Global Market	Abu Dhabi	Business Register	The Abu Dhabi Global Market (ADGM) was created as one of the key vehicles for achieving the goal of becoming a global top ten International Financial Centre (IFC) by 2030. It is being established as a financial free-zone to connect the economies of the Middle East, Africa and South Asia with world markets. The ADGM Registry Solution is a key part of the business enablement program to achieve this goal. The Foster Moore solution is based on an implementation of the Catalyst Registry Manager with the pre-configured Business Register (Catalyst BR). Catalyst is a software solution that provides the base requirements of an online register in a single configurable product. By using the pre-configured Business Register templates, Foster Moore is able to quickly configure, deploy, test and deliver flexible registries, such as this new Business Registry System. The first phase delivered the companies register, including an "application to establish a presence" step as a pre-cursor to registering a company, with a limited range of services. Integration with accounting system and payment gateways was also part of phase one. The seven week implementation for Phase One was delivered using a combination of the Catalyst product and Catalyst Adoption Methodology (CAM) implementation methodology.	June 2015 (Phase 1)

[1] It is assumed these supporting documents will be included as part of the online application to reserve a name or incorporate/register an entity.

Customer Name	Jurisdiction	Register Type(s)	Register Details	Implementation Date(s)
			Additional services will be added by subsequent project phases, as well as additional registers including partnerships.	
Ministry of Commerce	Kingdom of Cambodia	Companies, Partnerships and Sole Proprietors	The Cambodia Ministry of Commerce's overarching goal was to achieve faster, cheaper, more accurate Business Registration in best practice Online Business Registries. By using Catalyst's pre-configured Business Register templates, Foster Moore was able to quickly configure, deploy, test and deliver 3 registers (Companies, Partnerships and Sole Proprietorships) for the Ministry's new Online Business Registration system - https://www.businessregistration.moc.gov.kh/ To date in Cambodia, there are more than 30,000 enterprises registered with the Ministry of Commerce.	December 2015
Companies and Intellectual Property Authority (CIPA)	Botswana	Companies & Business Names		Q4, 2016

2.8.2 Montana SOS Business Entities/Trademarks Register/UCC (USA)

Company	**Foster Moore**
Country	United States
Location	Helena, Montana
Client Name	Montana Secretary of State
Addresses	1301 6th Avenue, State Capitol, Room 260 PO Box 202801 Helena MT, 59620-2801
Web Site	http://sos.mt.gov/Business/index.asp
Contact Person	Mark Van Alstyne, CIO Montana SOS
Contact Details	Phone: +1 406 444 4243 Email: MVanAlstyne@mt.gov
Start Date	May 2015
Completion Date	August 2016 (BE/TM) December 2016 (UCC) On-going enhancement, maintenance and support to date
Professional Staff Provided	Full development team including project manager, business analyst, system architects, developers, web designer, testers, database administrators and infrastructure/network specialists
No. of Staff	Varying levels depending on priority of on-going projects, enhancements and regulatory deadlines. Approximately 12 staff over the duration of the development project.
No. of Staff Months	240 Months
Duration of Assignment in Months	18 months
Name of Senior Staff Involved and Functions Performed	• Raewyn Biddick – Project Manager in charge of project management and reporting to IT Steering Committee; • Cora Dignadice – Lead business analyst responsible for writing functional specifications and migration requirements, liaising with business users and addressing day-to-day development, test and user acceptance issues;

	• Don Mason – Business analyst responsible for writing functional specifications and handling development and test issues • Philip Long - Lead system architect responsible for designing the database and system architecture and managing the development team • Kerstin Littin – Design Manager in charge of the web design and 'look and feel' for the system • Lukas Rossa - Lead developer responsible for designing the database and writing code • Sam Long – Senior developer responsible for writing code and unit testing • Laura Brown – Web designer in charge of the web design and 'look and feel' for the system • Trudi Donahoe – Tester responsible for testing system functionality • Richard Griffin – Database lead • Matthew Zeeman – Infrastructure architect and designer
Narrative Description of the Project	Implementation of Catalyst The Registry Manager – Secretary of State (SOS) Enterprise solution. This implementation will deliver Business Entities and Trademarks Registers, UCC Register and Notaries/Apostilles Registers. This project set out to deliver improvements in every area including usability for public users, web design, backend processes for internal (register) users, configurability, flexibility, security and performance.
Actual Services Provided by Foster Moore Staff	Foster Moore provided the full range of Software Development Life Cycle services related to Catalyst product implementation. This included project management, business analysis, requirements definition, data migration, solution design, configuration, testing, user training, implementation rollout, support and maintenance and post rollout software enhancements.

2.8.3 State of Nebraska

Company	**Nebraska Interactive**
Country	United States
Location	Lincoln, Nebraska
Client Name	State of Nebraska
Addresses	Mailing Address: P.O. Box 94608, Lincoln, NE 68509-4608 Location: State Capitol, 1445 K St., Suite 2300, Lincoln, NE 68508
Web Site	www.nebraska.gov
Contact Person	Steve Chase, Executive director

Contact Details	Phone: 402.471.2745 Email:steven.chase@nebraska.gov
Start Date	February 1994 (contract start date)
Completion Date	On-going engagement, enhancements, maintenance and support to date
Professional Staff Provided	Full Development team including project managers, developers, web designer, Quality Assurance, and infrastructure/network specialists
No. of Staff	19
Name of Senior Staff Involved and Functions Performed	• Brent Hofffman– General Manager in charge of overall management and reporting to the State; • Carmen Easley – Director of Operations in charge of business and project management. • Bruce Rice 0 Director of Development in charge of overall development and network operations. • Jessica Evers – Lead Project Manager responsible for writing functional specifications and migration requirements, liaising with business users and addressing day-to-day developments; • Brian Schmoll– Senior developer responsible for writing code and unit testing • Aaron Steager – Senior developer responsible for writing code and unit testing • Ashly Eickmier – Web designer in charge of the web design and 'look and feel' for the system • Neil Sorensen – Tester responsible for testing system functionality •
Narrative Description of the Project	Nebraska Interactive, LLC is the predominant leader in e-government achievements of the state of Nebraska. Nebraska Interactive is a trusted partner to a variety of government entities across the state. Having created a library of more than 400 unique applications, services, and websites, Nebraska Interactive has actively engaged with more than 100 state and local government entities over the past 20 years. Our services demonstrate at the highest level on how beneficial a long- term partnership can be.
Actual Services Provided by Nebraska Interactive Staff	Nebraska Interacive, LLC. provides a wide range of management, development, project, website, payment and support services related to online e-government in Nebraska.

2.8.4 Ontario Business Register (Canada)

Company	**Foster Moore**
Country	Canada
Client Name	Service Ontario
Contact Person	Robert Devries, Chief Information Officer, ServiceOntario IT Cluster
Contact Details:	robert.devries@ontario.ca Phone:+1 (416)-212-3517 Fax: +1 (416) 326 9424 222 Jarvis Street, 5th Floor, Toronto, ON M7A 0B6
Web Site	http://www.ontario.ca
Start Date	June 2011
Completion Date	November 2013
Duration	29 months
Staff months	350 person months
Number of staff	14 on average
Professional Staff Provided	Project Manager, Business Analyst, Developers and Tester.
Professional Staff Provided	Project Manager, Business Analyst, Developers and Tester. • Shirley King – Project Manager (Ontario) • Raewyn Biddick – Delivery Manager (New Zealand) • Cora Dignadice – Lead business analyst in charge of writing functional specifications and overseeing the project • Colin McIsaac – Catalyst Architect • Ian Kettle – Solution & Catalyst Architect • Graeme Handisides – Senior developer leading product configuration and unit testing • Trudi Donahoe – Lead tester responsible for testing system functionality, handling business acceptance issues and investigating bugs and issues reported in production
Narrative Description of the Project	In 2011 Foster Moore secured the contract to deliver the major redevelopment of the ServiceOntario provincial companies register, covering the province of Canada. The project was delivered over a period of two and a half years and is currently complete, awaiting legislative changes before being made public. ServiceOntario administers corporate and business records associated with the registration and regulatory compliance of companies doing business in the province of Ontario. These administrative functions apply to firms initially registered to do business in the province, as well as corporations transferring to Ontario from other jurisdictions. The objectives of the project were to implement a commercial off the shelf solution that established a single, central source of data on businesses operating in Ontario

	enabling a broader enterprise role for the business public record. It also sought to modernize and streamline business registration services by providing a single, seamless, integrated electronic registration process through the design, development and implementation of a new system. Foster Moore delivered the solution using Catalyst and the Business Register template. The solution integrates with the following systems within Ontario and across Canada: • Canadian Revenue Authority (tax numbers and entity details) • NUANS (New Upgraded Name Automated Name Search) • ccPay for credit card payments • oneKey for province-wide user authentication • Industry Canada Business Directory As part of the go-live, over 128GB of data records and documents were migrated from the legacy system to Catalyst. The solution delivers online services to the registry staff, as well as self-service functions for members of the public and for professionals (lawyers and accountants) managing entities on behalf of their clients. The Ontario register contains around 4.5 million business records, with approximately 186,000 new business registration per year. Catalyst is delivered via by ServiceOntario's OneSource business portal which provides the public with access to ServiceOntario's online services. The register operates on the province's all of government infrastructure (IBM WebSphere Portal), which takes care of user authentication. Catalyst uses web services to integrate with the ccPay payment gateway for credit card payments, the Canadian Address Lookup Service for postal address verification and the Ontario Business Directory for company lookups. **Data Migration** The ONBIS legacy system was an IBM mainframe solution. The client extract their data into fixed width ASCII text files and provided these data files to Foster Moore for migration into Catalyst. Once Foster Moore received the flat file they were loaded into a staging area where the data was transformed (as part of the ETL process) into migration specific tables. This transformation process is tailored to the migration requirements of each specific client. Data migration was performed using the Catalyst Migration libraries to write the data from the staging/transformation tables into the Catalyst product. Foster Moore has specific libraries for business, occupational and secured transaction (UCC) registry migration. The ONBIS data migration involved over 50GB of legacy data, including 6.5 million entities (4 million partnerships & sole proprietors and 2.5 million Corporations). In

	addition there were over 30 million roles (Directors, Chairpersons, Sole Proprietors etc.) and 25 million filings (e.g. a change, or an Annual Return etc.).
Actual Services Provided by Foster Moore Staff	Software development partner supplying the IT services required in the provision of the for ServiceOntario business register. These services included project management, business analysis, software configuration and testing and product support.

2.9 Summary of Bidder's Proposed Personnel/Management Approach

2.9.1 Team Members

As part of this response, Foster Moore has included staff profiles for a range of staff from Foster Moore. These profiles are indicative of the people we can provide for the project. We have provided sample staff profiles for the following staff, detailed here with their positions within the organization, indicating the role they could take on in the project.

- Joel Foster – President & CEO, Foster Moore (project role: Client Executive Sponsor)
- Kelly Kopyt – VP US Operations
- Bill Clarke – VP Business Development and Partnerships
- Justin Hygate – VP Registry Innovation
- Brent Hoffman – General Manager (Nebraska Interactive)
- Don Mason – Director US Catalyst Consulting
- Gareth Morris – Senior Project Manager
- Jane Rihanek – Senior Project Manager (Nebraska Interactive)
- Phil Long – Catalyst Application Architect
- Linda Hughes – Lead Catalyst Consultant
- Stephanie Nixon – Lead Tester
- Richard Griffin – Data Migration Lead
- Mike Elmsly – Senior Infrastructure Architect
- Saphia Thatch – Senior Catalyst Configuration Analyst
- Gabriel JungBerg– Test Automation Lead
- Carmen Easley – Director of Operations (Nebraska Interactive)

The following table describes the responsibilities for these roles:

Role	Responsibility
Senior Project Manager	Responsible for all project management of the registry application implementation component of the Project, in coordination with the system integration project manager. The Project Manager is responsible for planning, creating, and/or managing all work activities, variances, tracking, reporting, communication, performance evaluations, staffing, and internal coordination with functional managers. Foster Moore Senior Project Manager will be supported by project manager from Nebraska Interactive.
Project Administrator	Provides administrative support for the project manager and project team members.
Lead Catalyst Consultant	Responsible for elicitation, documenting, review and signoff of artefacts that form the business specification for design, configuration and development of

Role	Responsibility
	software and infrastructure aspects of the solution. Also responsible for educating business representatives regarding Catalyst capabilities and CAM methodology.
Lead User Interface / Usability Consultant	Develops look and feel design concepts. Documents look and feel design specifications. Verifies implementation of design specifications and compliance with standards.
Senior Infrastructure Architect	Responsible for infrastructure requirements and leading design of the infrastructure solution for hosting the registries.
Catalyst Solution Architect & Catalyst Application Architect	Responsible for the design of the Catalyst solution and integration, ensuring the requirements are met by leveraging the features of the product.
Catalyst Configuration Analyst (including Senior)	Responsible for development and configuration of the Catalyst based registry application.
Lead Tester	Responsible for leadership, planning and reporting for the software testing effort.
Senior Tester	Responsible for preparation and execution of all software testing prior to the user acceptance test phase.
Senior Automation Lead	Responsible for planning and managing the user of the Catalyst automated test suite for a range of testing purposes including regression testing, performance testing and scalability testing.
Subject Matter Experts (client role)	Provides input to the business specifications for the
User Acceptance Tester (client role)	Responsible for testing of the registry solution to ensure that it meets the business needs and objectives.
Catalyst Trainer	Responsible for training planning, course and materials preparation and training delivery.
Service Transition Manager	Responsible for support of the registry solution during the warranty period and while Foster Moore is contracted to provide service operation support.
Service Desk Analyst	The point of contact for any registry solution support that us required post-production go-live.
Data Migration Lead	Plans data migration and prepares data migration scripts.

2.9.2 Staff Profiles

Profiles for these staff are provided in Appendix 3. Staff Profiles (page 415).

2.9.3 Subcontractors

The following table presents the work that will be completed by subcontractors to this RFP proposal.

Role	Percentage Involvement (Estimated)	Hours Involvement (Estimated)
Executive Management and Project Management Support	10% of overall PM Activities	400 hours
Business Analyst (SME)	20% of overall Consulting Activities for UCC specific work	290 hours
Testing Support	30% of all Testing Activities	530 hours
Trainer (Lead for Client Training)	50% of all Training Activities	140 hours
Support Desk Support - Level 1-2 Support for Client Implementation Layer	100%	Ongoing

3. Technical Approach

3.1 General

General Statement of Requirements					
The Secretary of State intends to replace the existing Business Services Filing System (BSFS) with a comprehensive, configurable system that is easy to understand and provides cutting edge technology to improve functionality and expand services					
RTM #	**System Architecture, Licensing, and Ownership**	**Yes**	**Customization Required**	**No**	**Alternate**
SAL-1	Bidder should provide a high-level description (and optional diagram) of their proposed system to provide a BSFS that handles filing processes, accounts receivable, and deposit preparation.	Yes			

Bidder Response:

Introduction

Our BSFS solution is based on an implementation of Catalyst The Registry Manager™. The following provides an overview of the product, its core features, and the benefits it can deliver.

Catalyst The Registry Manager™ is a software platform that is configured to meet the individual needs of different registers in different jurisdictions. Catalyst is based on a set of core components that interact with each other to deliver the business functionality required to operate online registries such as business registries, secured transaction and occupational registries.

Using Catalyst, Foster Moore is able to quickly configure, deploy, test and deliver flexible registries, which meet the jurisdiction's specific needs. Catalyst is based on a set of core components that interact with each other to deliver the business functionality required to operate online registries

Our product-based approach means that once an initial register has been implemented within a jurisdiction or region, subsequent registers can draw on this work as a starting point, with alternative requirements made via product configuration. Foster Moore has compiled a library of configurations that support a range of registers and jurisdictions with the objective of being able to draw on the closest existing configuration as a starting point for new registers.

Catalyst is an extremely flexible platform that has been used in many jurisdictions to deliver a range of registers including business registers, secured transaction registers and occupational registers.

A consultant uses Catalyst to define the structure, content and processing rules for entities managed within the registry (e.g. corporations, charities and trusts). Catalyst uses this definition to deliver web-based screens to incorporate, maintain and control the entities and the associated processes. It also produces the secure registry database in which details of the defined entities will be stored.

Catalyst also builds a business services layer that can be securely invoked by custom-developed applications, or external systems, to deliver custom functionality. Catalyst also includes components that provide management of communications, document and records management and payment processing.

Catalyst provides an online, browser-based solution for access by both members of the public performing online transactions, and by back-office staff responsible for the management and operation of the register. Catalyst provides members of the public with integrated search, reservation, registration (incorporation) and compliance functions as well as access to online payment facilities. Back-office staff use Catalyst to carry out the daily functions required to maintain the register; working from an online interactive task list they complete the tasks allocated to them based on their defined responsibilities and security level.

Catalyst workflows are constructed to control the business processes that take place within the registry. This may include the registration or incorporation of new entities, entity administration and completion of regular compliance functions online, such as annual filing notices.

Online registers built using Catalyst provide significant **business benefits** to registry operators, including:

1) **Flexible** solution meets requirements of complex or simple registries
2) Significantly **lowers project risk** by deploying proven product
3) **Quicker initial implementation** through product configuration
4) **Improved support for changing legislative** environment through rapid product configuration changes
5) Access to **product updates** provide enhanced features and functionality, including leading technologies
6) **Improved efficiency** through task-driven approach for registry staff
7) **Team-based task management** accurately assigns tasks to users, and teams of users
8) Features and flexibility based on **over 20 years of registry experience**
9) **Increased range of self-service functions** through intuitive online application
10) Flexibility through a **range of payment methods**
11) Accessible from a **range of devices** including web browsers and mobile phones

12) **Reduced errors and omissions** through team-based assignment, management and monitoring of tasks

Online registers built using Catalyst provide significant **technical benefits**, including:

1) **Reduced operational costs** through increased self-service uptake and improved internal efficiencies
2) **Integration with provincial and federal initiatives** such as identification and login services
3) **Leverages existing IT** operational and support skills through support for a wide range of infrastructure
4) Long-term support for growing registers through **platform scalability**
5) **Retains existing IT investment** through integration with existing infrastructure
6) **Extended functionality and data integrity** through data sharing between registers
7) **Flexible licensing model**, with a range of options, covers full range of implementations, from small to large
8) **Open source platform** reduces implementation and support costs
9) **Open design** allows for the implementation and evolution of true "best of breed" solutions

Catalyst Solution

Using Catalyst, Foster Moore is able to quickly configure, deploy, test and deliver flexible registries which meet the individual needs of different registers. This includes business, occupational and secured transaction registers. Catalyst is based on a set of core components that interact with each other to deliver the business functionality required to operate online registries

The Catalyst core includes the following components:

1) **User Dashboard** – Catalyst provides a workspace for logged in users that allows them to see the status of transactions they have lodged with the registry. The dashboard also allows the registry to push reminders and transaction requests to the user. Frequently accessed services and personalized settings are also managed through the dashboard.
2) **Searching –** Catalyst includes an embedded search engine that allows system users to search for and retrieve entity records based on a range of criteria. The range of search options can be configured to control availability to different groups of users within the registry.
3) **Document Management and Searching –** Catalyst provides for the centralized configuration of document and letter templates and integration with document repositories to manage the creation, sending, retrieval and viewing of documents based on access permissions. Documents are versioned and tracked and are centrally accessible.
4) **Reminder Management –** Responsible for distributing reminders for pending and overdue tasks within Catalyst.
5) **Correspondence–** Catalyst includes a centralized correspondence management system that controls the generation and delivery of external written communication with entities and their representatives. Catalyst manages addresses and user information, and supports communication methods such as, email, text message notifications and post.

6) **Business Calendar –** Catalyst includes a global calendar that defines national holidays. The workflow engine uses this calendar for calculations relating to task timers and due date.

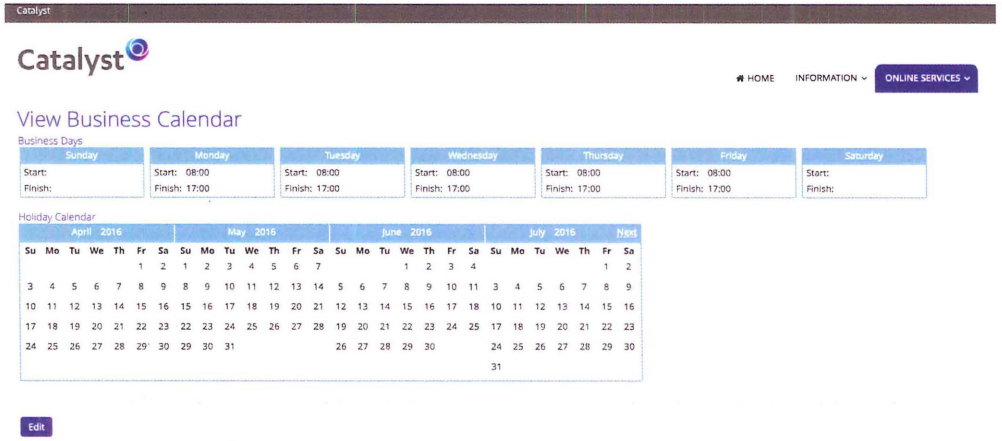


Figure 3. Catalyst Business Calendar

In addition, Catalyst supports a range of common services that are shared by all registry solutions delivered with Catalyst:

1) **Enterprise Dashboard –** Catalyst provides a unified dashboard across all registers delivered from the platform (shown below). The enterprise dashboard provides a launching point for services available to users across all registers to which they have access.

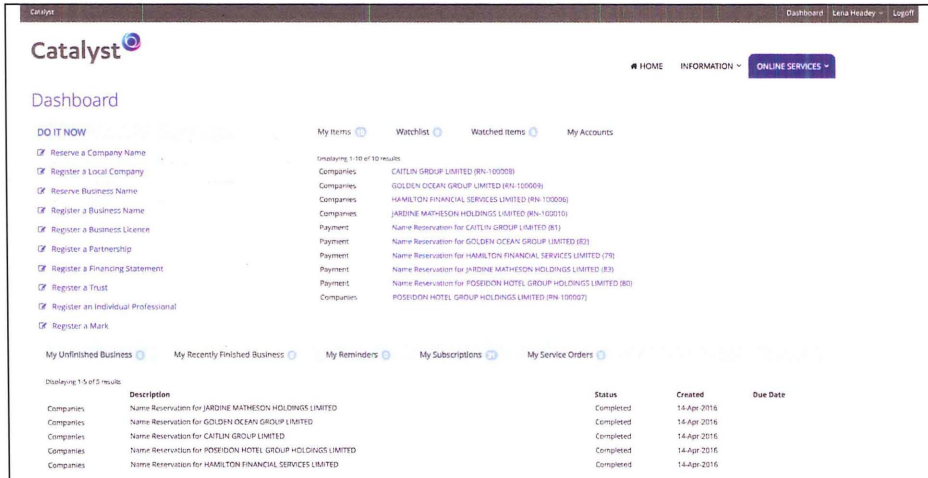


Figure 4. Catalyst Enterprise Dashboard

2) **Payment–** Catalyst supports a range of payment processing options including real-time payment (for example, via credit card), direct debit and invoicing. Catalyst also includes the ability to integrate with an external accounting system, or can be configured to enable a simple Accounts Receivable system if required.
3) **Security –** The system employs a role-based security model that controls access to the system by registered users. This allows the system to restrict access to data and functionality based on user accounts and their membership to security groups. Catalyst caters for internal users (staff who work in the registry office) and external users (members of the public with a declared interest in one or more entities), and controls their access accordingly.
4) **Content Management System (CMS) –** Catalyst provides integration with a content management system. This simplifies the on-going administration and management of the content and navigation structure that surrounds the core registry functionality. The content management system separates the look and feel of the site from the content and provides the capability to configure workflows to control the loading, approval and publishing of content.
5) **Case Management –** The Case Management service supports the creation and subsequent management of an 'operational' case that can be either associated to a specific entity or stand alone in its own right.

Finally, Catalyst provides the following base functionality:

1) **Task and Workflow Management –** A configurable workflow system allows for the definition of business processes and escalation rules to assign tasks to teams and team members.
2) **Job Scheduling Management –** A job scheduling function enables the configuration and management of batch processes that interact with the register.
3) **Data Persistence –** The data persistence layer is responsible for storing all registry data into a database for subsequent searching, retrieval and reporting. Catalyst can be deployed to on an existing DBMS infrastructure such as Oracle. No changes are required to Catalyst when changing to an alternative DBMS since database-specific changes are managed within the persistence layer itself.
4) **External Web Services –** While Catalyst provides all of the necessary components required to deliver a fully functional online business registry; it also exposes a series of external web services that allow customers to integrate it into their existing IT environment. This allows clients to leverage their existing investment in technology, and data (such as user databases). Catalyst can leverage existing relational database management systems and hardware such as SANs, as well as user authentication/authorization systems, search engines and document/records management systems.

In addition, Catalyst provides the following features:

- Multiple language support
- Configurable options to support different legislative rules
- Database and application server agnostic, allowing integration with customer's existing infrastructure
- Modifiable 'look and feel' for screen presentation
- An integrated Content Management Systems (CMS) for the purposes of delivering content managed screens that sit on front of the Catalyst register, provide tiles around the application and also deliver the built-in Catalyst Help screens.
- Integration with existing authentication and authorization systems, including state and regional login services
- Integration with existing payment and financial systems including mobile payment gateways
- Integration with existing mobile delivery systems such as SMS gateways

SAL-2	Bidder should describe in detail the technical architecture and licensing of the software you are proposing in order to support the following requirements: A. independent development, test, QA, and training environments that mimic the production environment B. virtual, clustered web servers, application servers, database servers and FTP servers (if needed - will be provided and housed by the State) C. the coding languages and software database environment used for the proposed solution	Yes			

	D. The bidder's application will use Nebraska Directory Services (NDS) to access web-based applications. E. In order to take advantage of as much existing infrastructure as possible, the BSFS system will run on VMWare virtual machines hosted by the Office of the Chief Information Officer. The system will comprise of three (3) virtual servers; a database server, an internet web server, and an intranet/development web server. The database server will use Microsoft Windows Server OS and SQL Server 2012 R2 or above. The web servers will use Microsoft Windows Server OS and run IIS. Desktop PC's will use Office Suite 2010 or above.				

Bidder Response:

Catalyst Architecture

Our solution is based on an implementation of Catalyst the Registry Manager™, a commercial software product that is configured to meet the individual needs of different registers in different jurisdictions. Catalyst delivers the functionality required to operate online registries such as business registries, occupational registries and secured transaction registries. Catalyst operates entirely as a browser application, providing tailored user interfaces for both internal (registry office) users and external (public) users. Catalyst does not require the installation of any special software on the user's workstation.

Catalyst is designed using the modern best practice principles of solution architecture, following an n-tier architecture that ensures separation of layers within the application itself. Our solution is based on series of loosely coupled components, each delivering a specific area of functionality (e.g. security, document management, workflow management). This approach allows Foster Moore to quickly configure, deploy, test and deliver flexible registries that meet the individual needs of different jurisdictions.

Catalyst consists of a series of loosely coupled components that can be deployed in an industry standard manner; with web servers placed within a DMZ environment, and application and database servers in a secure backend. Catalyst can be deployed with multiple web servers, with external (public) users accessing a web server within a DMZ and internal (private) users accessing a secure web server that sits within the secured region of the network.

Catalyst is based on a set of core components that interact with each other to deliver the business functionality required to operate online registries. These components follow a loosely coupled architecture. As well as maintainability, this architecture contributes significantly to the scalability and performance capabilities of Catalyst.

The following diagram illustrates the components of Catalyst The Registry Manager™:

Figure 5. Catalyst High Level Application Architecture

Catalyst runs as a fully self-contained web application and does not require the involvement of any external web delivery platforms such as portals or content management systems to operate. Customers can however, if they desire, integrate Catalyst with an existing web delivery platform.

As part of the Catalyst configuration an implementation consultant defines the entities managed by the register and the rules associated with those entities. This includes the data structures and data entry rules for the entities, as well as the rules related to their maintenance and lifecycle. It also includes the security rules that control which users, with which relationships to the entity, can perform what types of maintenance.

Catalyst uses this configuration to create the register's secure database, the system's security model and a series of business services that control all processing performed by the register. The business services are then exposed in a number of different ways, including a series of online forms, portlets and also web services. Irrespective of the interface used, the Catalyst Business Service always ensures that the same underlying data validation and business rules are applied.

Catalyst uses a multi-layered architecture to deliver a functional registry to end-users. Catalyst layers are as follows:

- Catalyst Core
- Registry Template
- Subject Template
- Registry Modules
- Registry Administration Tools

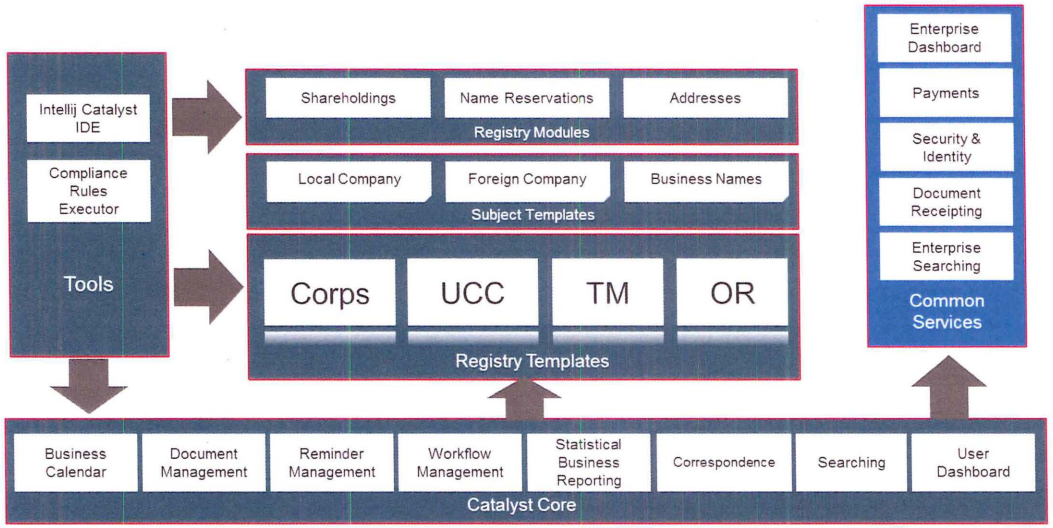


Figure 6. Catalyst Configuration

The **Catalyst Core** layer contains the core Catalyst code that delivers the ability to configure and operate a registry, including the common services used in all Catalyst implementations (e.g. Business Calendar, Document Management). This component reads and interprets the configuration and manages operation of the registry based on this configuration.

The **Registry Template** is an extension of the Core Layer that has been developed by Foster Moore specifically to deliver a unique type of registry (e.g. Business Register, Occupational Registers and Secured Transactions Register). This layer provides the central configurable functions that may be utilized by a register of a particular type. The invocation of these functions, and the way they operate, is configured within the higher layers.

Foster Moore takes the configuration template from the Catalyst template library, and modifies it to tailor a solution specific to the new register's unique requirements.

The **Subject Templates** are built on top of the Registry Templates, and are used to deliver a register of a specific type (e.g. Corporations Register, Commonwealth Companies Register, United States UCC Register).

The configured template provides the **Registry Modules**. This layer defines the entity definitions, data items, business rule and workflows associated with the client's own register. Once the register is implemented, changes to this layer are infrequent, and will typically be performed as a result of requirements changes, regulatory changes or changes in legislation.

The **Tools** access provides authorized users with the ability to perform ongoing administration of the register, providing administration of the areas of the register which change on a daily basis. This layer provides the configuration for such things as users and security groups, management and operational reports, correspondence and document templates, reference data and system messages (optionally in multiple languages) and content within the Content Management System. Users identified as Systems Administrators perform changes at this layer, allowing them to administer and operate the register on a day-to-day basis.

The core and template (registry and subject) layers are both comprised of code and configuration. These are the Catalyst "product" that is released by Foster Moore and installed on customer sites. This is maintained entirely by the Foster Moore product development team and the code itself is the Intellectual Property of Foster Moore.

Catalyst Licensing

This proposal includes statewide licenses for the Catalyst Registry Manager (Catalyst) product, and for the templates required to deliver the registers in scope for the RFP.

Under this statewide license, the client can use Catalyst and the supplied registry templates to deliver any of these registers that fall within their jurisdiction.

Statewide licenses for Catalyst covers a primary production environment, back-up and Disaster Recovery) environments, and an unlimited number of non-production environments (e.g. pre-production, training and development). Statewide licenses include unlimited interfaces (excluding custom integration development), with no restrictions on CPUs or servers in any environment.

Foster Moore charges an annual fee to cover the ongoing maintenance of the Catalyst product. Foster Moore plans to issue updates to the Catalyst product one or two times per year. Customers who have paid the Annual Support and Maintenance fees can elect whether or not they take new versions, with Foster

Moore continuing to support versions up to two years old. In the event that customers experience issues that are resolved by subsequent versions, then they are required to install those versions to address the issue.					
SAL-3	Bidder should acknowledge ability and willingness to provide the State with perpetual license for development, test, QA, training, and production environments.	Yes			
Bidder Response: Foster Moore's proposal provides the State with a perpetual license which covers an unlimited number of non-production environments (e.g. pre-production, training and development).					
SAL-4	Bidder should indicate understanding and acceptance of the requirement that the State will retain ownership of all entered, calculated, and derived data.	Yes			
Bidder Response: The State will retain ownership of all entered, calculated, and derived data held within the database.					

3.2 Project

RTM #	Project Requirements	Yes	Customization Required	No	Alternate
PR-1	Bidder should describe how their system meets the following requirements: A. Uses modern technology software that is easily supported and configured, uses responsive design, and meets business requirements of Corp, UCC and EFS functions B. Integrates filing processes, accounting functions, and deposit preparation features C. Provides APIs to Nebraska.gov, document imaging, State accounting, and credit card processing contractor	Yes			

RTM #	Project Requirements	Yes	Customization Required	No	Alternate
	D. Is accessible to users running browsers such as Microsoft Internet Explorer, Safari, Firefox, and Chrome. Please explain which version of browsers your system is compatible with. E. Offers enhancements/configurability to accommodate changes in statutory requirements, rules and regulations, and policy (e.g., add new business entity types, create or modify forms, and update filing fees)				

Bidder Response:

Modern Solution

Catalyst The Registry Manager™ is a software platform that is configured to meet the individual needs of different registers in different jurisdictions. Catalyst is based on a set of core components that interact with each other to deliver the business functionality required to operate online registries such as business registries, secured transaction and occupational registries.

Using Catalyst, Foster Moore is able to quickly configure, deploy, test and deliver flexible registries, which meet the jurisdiction's specific needs. Catalyst is based on a set of core components that interact with each other to deliver the business functionality required to operate online registries

Catalyst is an extremely flexible platform that has been used in many jurisdictions to deliver a range of registers including business registers, secured transaction registers and occupational registers. It will be configured by Foster Moore to meet the requirements of the State's Corp, UCC and EFS functions as outlined in this RFP response.

Corporations Register

The following diagrams show a high level view of a business registry solution based on Catalyst The Registry Manager™, followed by a summary of functionality delivered by a Catalyst business register. Within the context of this RFP, the business registry template will be used to deliver the requirements for the State.

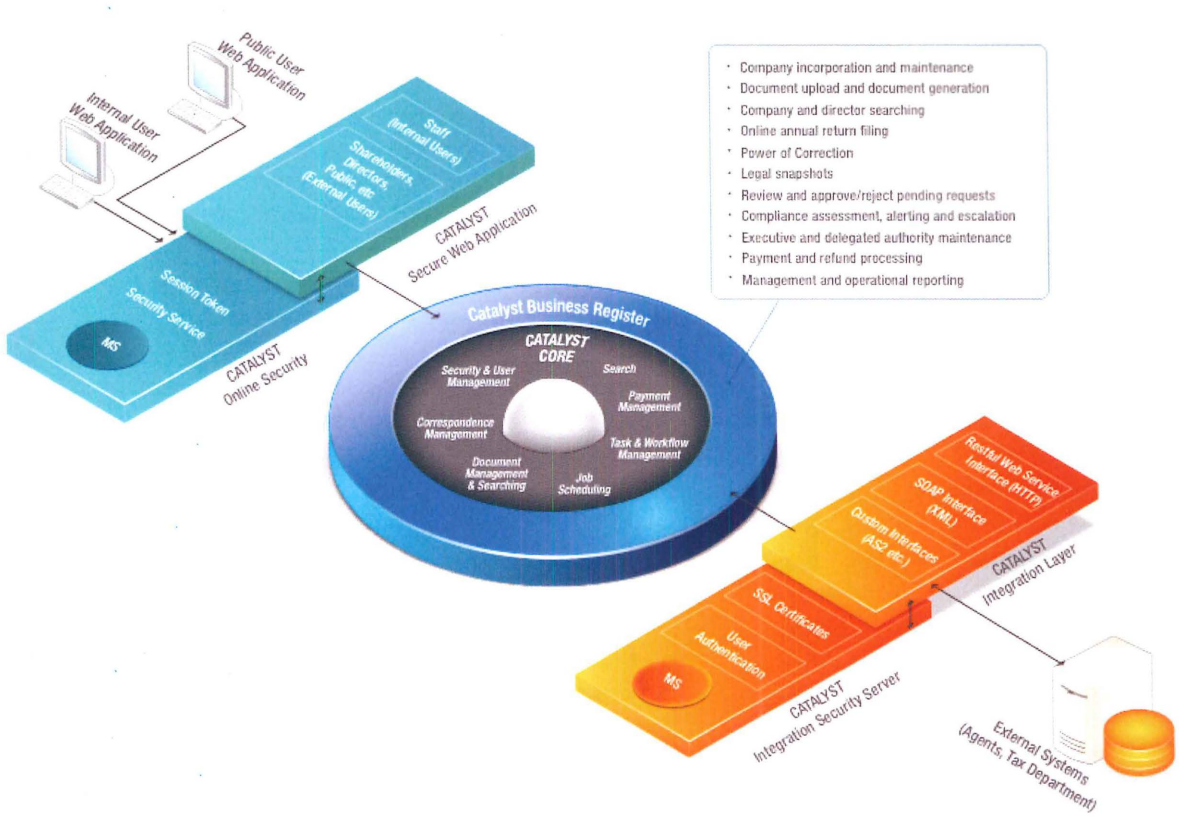


Figure 7. Business Register High Level Solution

Principally, Catalyst provides the following business functions with respect to a business register (Corporations, Partnerships etc.):

RTM #	Project Requirements	Yes	Customization Required	No	Alternate

1) Secure online access for registry staff and self-service functions for members of the public.
2) Support for a range of entity types including businesses, companies, corporations domestic and foreign.
3) Name reservation for a new company, including configurable name availability checking and name compliance checking (e.g. name structure, uniqueness and restricted/banned words, abbreviations etc.)
4) Entity registration including wizard data entry, incomplete form saving, defined completion period (e.g. two weeks), fee payment, integrated internal review defined by workflow engine and re-submission of incorrect applications. Registration includes entry of entity details, directors, shareholders, shareholding details and company addresses.
5) Document upload facility to attach supporting documents (e.g. director's consent) to company records
6) Generate documents such as Certificate of Incorporation, Certificate of Good Standing, Certificate of Amalgamation and company extracts.
7) Search for existing entities based on company name, directors, and other configured criteria. Public search includes display of previous company names, registered documents and historical director and shareholder records.
8) Entity maintenance including company details, directors, shareholders, shareholding details and company addresses. Includes ability to request a company name change.
9) Entity versioning which maintains a complete history of all entity changes and provides a view of the entity at any particular point in time.
10) Online Annual Return filing, including confirmation of general company details as well as directors, shareholdings and addresses. Users can also apply to restore a company removed from the registry for failure to file its annual return.
11) Online application for company amalgamation or removal from registry.
12) Executive and delegated authority model allows control over maintenance of entity details and administration of the company through filing of online forms. Delegated authority may be given to an individual user or to an organization acting as an agent, e.g. attorney firm, accounting firm
13) Back office functionality to allow registry staff to:

    - Incorporate new entities based on manual applications received
    - Lodge other paper documents on behalf of the filer
    - Maintain integrity of the register through authorized online register changes (power of correction)
    - Review and approve or reject pending self-service requests from members of the public
    - Continual compliance assessment, alerting and escalation
    - Enter payment and refunds, as well option to waive fees

14) Management and Operations

    - Company compliance checking and enforcement, including annual returns and re-registration monitoring.
    - Automated, configurable, reminders and alerts including annual return reminders. Configurable reminder escalations (e.g. first courtesy reminder, second courtesy reminder, overdue reminder and notice of intention to remove).

RTM #	Project Requirements	Yes	Customization Required	No	Alternate

- Built in functionality to force company re-registration within a configured time period of implementation, allowing the enforcement of re-registration within the new online registry. Includes flexible and configurable listing of companies with no re-registration, and removal of companies with no re-registration.
- Management and operational reporting around performance, compliance and system activity.
- Reporting around performance of staff and compliance with staff SLAs.
- Maintain communication and documentation templates to control the layout and content of outbound communications. Includes emails, letters and documents.
- Fully featured fee management system including fee schedules and multiple payment options.

15) Administration

- Flexible configuration of company data structures and types, including related attributes such as addresses and individuals (directors, shareholders etc.).
- Flexible support for workflow processes including registration rules and compliance rules.
- Flexible permissions and access control model including registry staff and team management.
- Built-in configurable data validation rules including date, street address, postal address and email address.

16) Security and traceability

- Capture legal snapshots of all key changes to registered entities (e.g. change in directors)
- Review activity in audit log and identify potential fraudulent activities.

UCC Register

The following diagram shows a high level view of a secured transaction (UCC) registry solution based on Catalyst The Registry Manager™. Within the context of this RFP, the secured transaction registry template will be used to deliver the requirements of the UCC register.

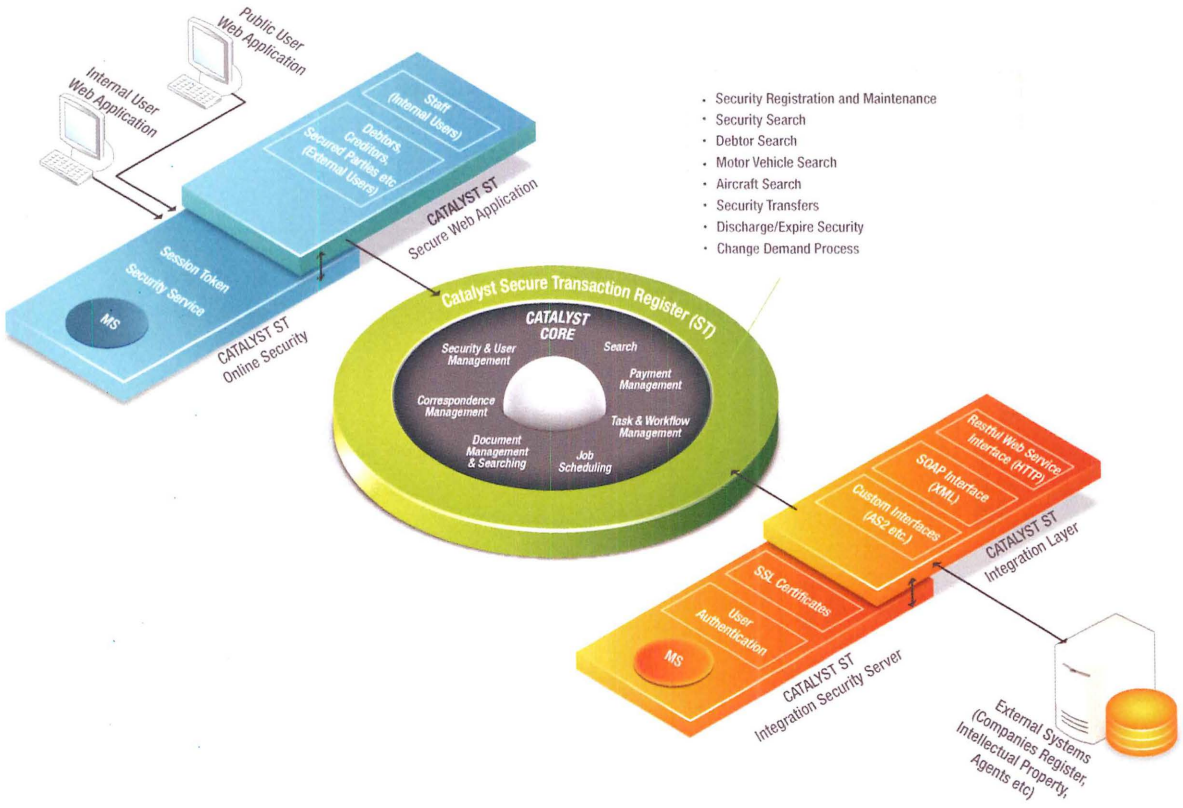


Figure 8. Secured Transaction Register High Level Solution

The Catalyst Secured Transactions (ST or UCC) Register is a public real-time, web-based register of security interests, available 24 x 7. At the minimum, the following online functions will be provided on implementation of the register:

- Register an initial notice of security interest

RTM #	Project Requirements	Yes	Customization Required	No	Alternate

- Register an amended notice
- Register an extension notice
- Register a termination notice
- Register a notice of objection
- Search by registration number, debtor or serial number

Watch lists provide the ability for users of the register to monitor their own interests easily. A user is able to add security interests that they have an interest in to a personalized list and receive notifications based on "triggers" or "events" such as changes of debtors and of the interest's details. The frequency and method of the delivery of the notification of the change may be determined from a set of options by the user. This service also serves to protect the owner of a record against unauthorized changes to their data as they are notified when changes are made.

The following notices can be filed on the Register:

- Registration of a Security Interest – defines the details of the security interest and establishes its publicity and priority on the register;
- Amendment of a Security Interest – records changes, addition or removal of details on the security interest, e.g. add a collateral type, change debtor address
- Extension of a Security Interest – a security interest typically expires five years from its primary registration date, or an earlier manually specified date. This notice extends the expiry date of a security interest to maintain its priority on the register.
- Termination of a Security Interest – removes the effectiveness of the security interest on its termination date
- Registration of a Notice of Lien
- Amendment of a Notice of Lien
- Extension of a Notice of Lien
- Termination of a Notice of Lien
- Correction of the Register – provides the Registrar to correct data errors, with a mandatory reason for correction provided. The notice will be available for public viewing.
- Notice of Disposal of Assets – allows the secured party to register their proposed disposal of an asset on non-payment of debt.
- Subordinate a Security Interest – establishes subordination of one or more inferior security interests to a superior security interest, in terms of priority.
- Un-subordinate a Security Interest – removes the subordination relationship between one or more security interests.
- Transfer a Security Interest – allows the selective or global transfer of security interests from one secured party to another.
- Lodge a Change Demand – allows a debtor or interested party to lodge specific changes to a security interest; Secured parties are informed of the lodgment. The change demands are automatically applied to the register, after a certain period, barring any objection from the secured parties.
- Withdraw a Change Demand – allows a debtor or interested party to withdraw a previously lodged pending change demand.
- System Acceptance of Change Demands - System automatically accepts a pending change demand after a specific period from lodgment.

Any user may search the Secured Transactions (UCC) register. Public users have limited access to security interest data while internal users and registered users associated with the security interest (secured parties and their agents) will have full access to data. The following search types are available:

1. Search by Security Interest Number
2. Search by Debtor – name or identification number
3. Search by Serial Number

Registered and casual users may search the Register online, and the system can be configured to charge a fee for each search submitted. Public searches include registered security interests only, excluding discharged and expired security interests.

Catalyst displays details of a selected search result, with options to print or email the details. Depending on the presentation approach, the system displays the original registration notice of the security interest or the current security interest version, with amalgamated changes from subsequent notices.

Browser Access and Responsive Design

Catalyst operates entirely as browser applications for both internal (private) users and external (public) users and does not require the installation of any special software on the user's workstation. Some functions require access to documents and images in particular formats (e.g. PDF) that may require a viewer application, however the formats typically used are relatively standard, and modern browsers will support the formats natively.

Catalyst uses responsive practices for most of its screens, meaning we keep the overall layout fluid and adaptive for different screen widths.

Furthermore, many of the screen elements within the layout adapt in order to improve the user experience on different devices. For example, the main navigation and top admin bars adapt and behave differently on devices with screen width below 600px.

Fundamental to our decisions about screen design is taking into consideration our user pool for particular activities. We need to tradeoff the usability for the majority of our users, including high volume users, using desktop-based browsers, versus a relatively small number of users performing functions on a mobile device. For example, it is perfectly possible to register a company on a mobile device, even though the screens have been designed to suit a larger sized screen.

Integrated Solution

Catalyst provides an integrated solution across all of the registers delivered by the platform. Catalyst provides a dashboard that, when a user logs into the system, provides a launching point for the business services available to them. The dashboard spans all registers and systems delivered by Catalyst within the client's site and provides integrated, consistent and seamless access across all registers.

For external users, Catalyst provides the following information on their dashboard.

- Quick links to business services;
- Details of applications have outstanding (that are pending, awaiting review or have been returned);
- Details of applications that have recently been submitted;
- A list of reminders such as an Annual Return due;
- Widget to identify if they are acting as an individual or on behalf of an organization
- List of entities the user has selected to watch;
- List of entities that a user or their organization has authority over, includes links to provide users with quick access to the entity profile information;
- List of payment accounts that the user or their organization is linked to.

The following screenshot illustrates an external user's dashboard in Catalyst:

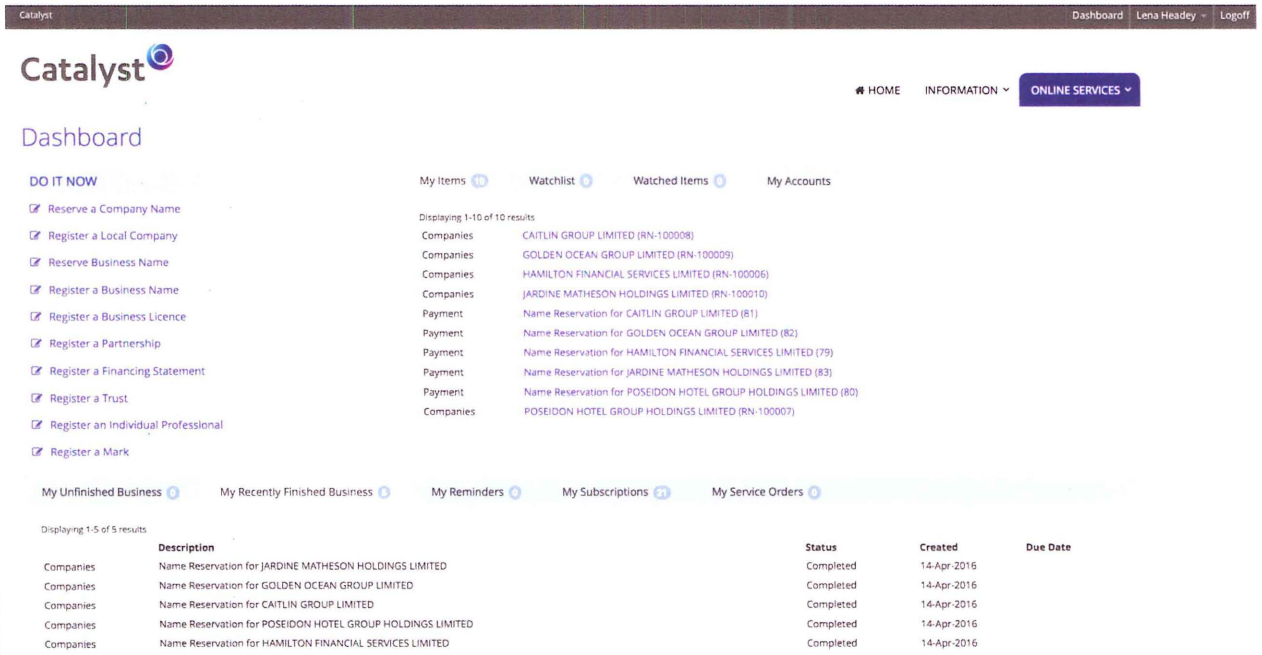


Figure 9. Sample Catalyst Screen – External User Dashboard

For internal users, Catalyst provides the following information on their dashboard.

- Work Queue;
- Details of pending applications they or other back-office staff have outstanding (that they are submitting on behalf of someone);
- Details of applications that have recently been submitted and allocated to them.

The following screenshot illustrates an internal user's dashboard in Catalyst:

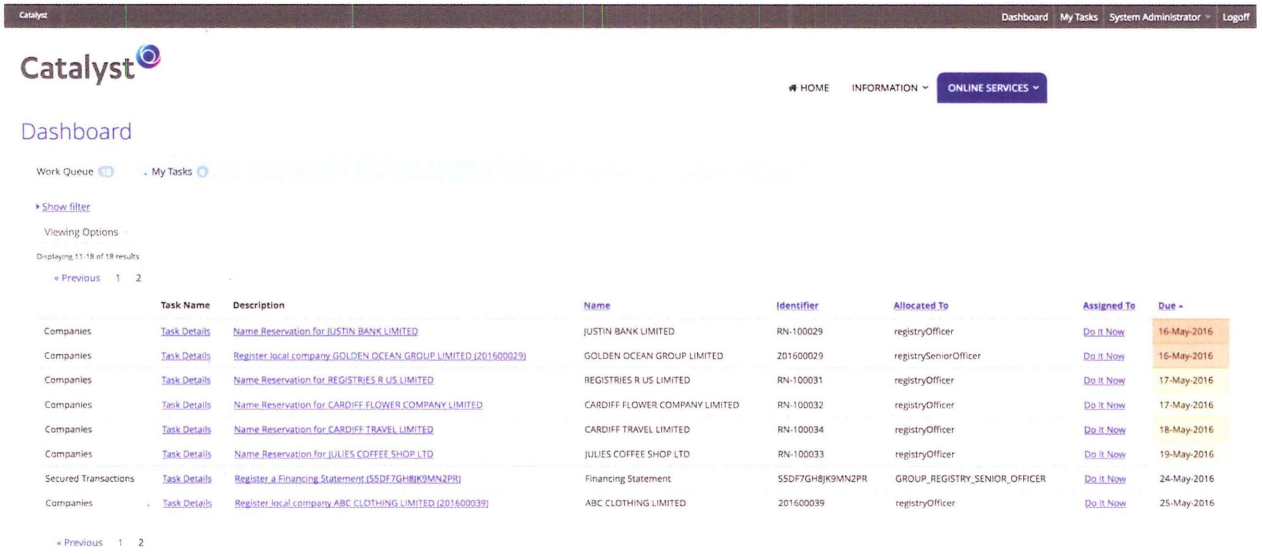


Figure 10. Internal User's Dashboard including Work Queue

Catalyst work queue that supports the assignment of tasks to teams and team members. A fully interactive task list provides each user with a view of outstanding tasks, allowing them to select, update and complete tasks online. Services to bulk assign, allocate or approve tasks are available to internal users with the appropriate permission. This allows the work to be quickly allocated to the appropriate user or team.

Similarly, fees and payments are handled in an integrated fashion across all registers managed by Catalyst.

RTM #	Project Requirements	Yes	Customization Required	No	Alternate

API

When Catalyst is configured, it automatically constructs a series of business services based on the configured entities and business rules. These business services are then used to create an online browser-based application, as well as being available to be consumed by external systems via a web services interface.

All data is validated using the same rules as employed in the online application. These web services are delivered thorough product configuration, based on the configuration of the entities managed within the register.

The following diagram illustrates a standard Catalyst configuration, including the creation of an online application and web services based on the Catalyst configuration:

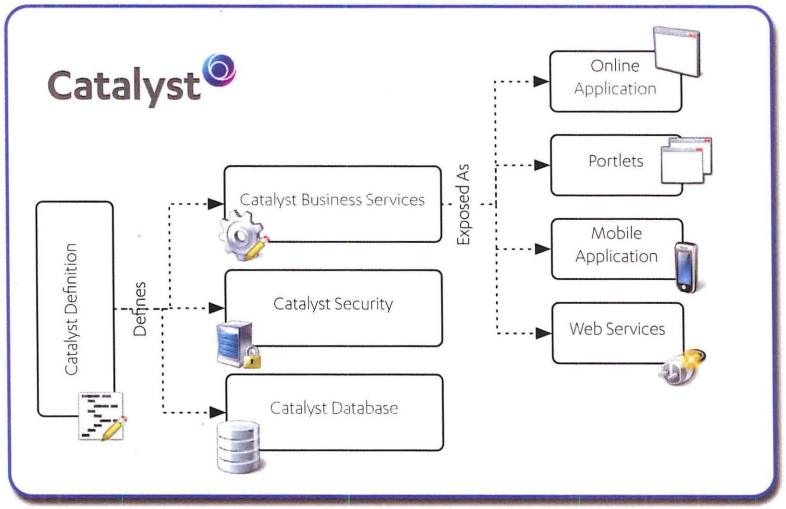


Figure 11. Standard Catalyst Configuration

RTM #	Project Requirements	Yes	Customization Required	No	Alternate

These services are available over a range of communication protocols including Restful Web Services (HTTPS) and Soap (XML) as well as custom interfaces using other protocols such as AS2. A range of authentication options are available, including HMAC and SSL certificates.

The SOAP services provided by Catalyst can also be configured to use standard Web service security mechanisms such as XML Digital Signature and XML encryption. We can also support WSDL and other standard soap bindings.

As an option, an Enterprise Service Bus (ESB) can be used to interface with the Catalyst web services. An ESB can be used for:

1) End point mapping
2) Additional security layers (e.g. extra security layers such as username/password)
3) Payload mapping to support alternative web service definitions to Catalyst's standard web services
4) Web service orchestration

As an extension, Foster Moore can wrap these services in customized interfaces to support the requirements of a particular external system (for example, to implement a flat file interface for data import, or to support an EDI style message in place of a web service call).

In addition, custom interfaces can be developed to suit particular purposes. These are also developed in such a way as to enforce the configured business rules.

Catalyst can be configured to deliver any available services and functions as web services. The following list provides examples of web services existing customers currently expose via web services via Catalyst:

1) Company history
2) Company details
3) Company searches
4) Director searches
5) Shareholder searches
6) Company changes
7) Banned directors

Browser Options

The following lists the supported and recommended client environment for operation of a Catalyst solution:

Recommended

- Microsoft IE 11
- Firefox – Last two versions
- Chrome – Last two versions

Supported

- Microsoft IE 9 or later
- Safari v4 or later
- Firefox - Versions up to two years old
- Chrome - Versions up to two years old

Note: Support for new releases of browsers may require styling changes and/or Catalyst product updates that will be issued as part of the standard Catalyst release cycle. Foster Moore therefore recommends clients view updated Catalyst browser support statements prior to upgrading browsers.

Configuration Options

Catalyst is designed as a product that can be configured to meet the specific legislative and regulatory requirements of each jurisdiction. It does this by allowing specific configuration points on top of a standard set of components which support eh fundamental requirements of registry systems.

One significant benefit of our proposed approach is the flexibility afforded by the configuration of COTS components, including changes that can be made by the client without the involvement of Foster Moore. While some changes to configuration must still be performed by Foster Moore, many can be delivered by suitably authorized staff within the client's organization. Subsequent to the initial implementation, when business requirements or legislation changes, and the system needs to be modified, our approach will often simply require a change to a configured option.

The following are scenarios where Foster Moore sees the majority of configuration changes to online registers. These are accompanied by an explanation of how the relevant Catalyst component can be configured to support the change, with minimal impact on other areas of the system.

Fee Changes

RTM #	Project Requirements	Yes	Customization Required	No	Alternate

It is common for Secretaries of State to use fees to drive behaviors within the business community. The fee change may be a reduction to reduce regulatory burden or an increase to fund activity within the office. Either way the fee change is usually signaled in advance and has an effective date.

Catalyst Payments allows the SME within the office to update any fees quickly through a simple interface. The fee can be set to take effect at a future date. Filings (including late filings where the earlier fee still applies) can then have the correct fee charged.

The following screenshot illustrates the Catalyst administration screen which gives an authorized internal user the ability to edit fees within the system:

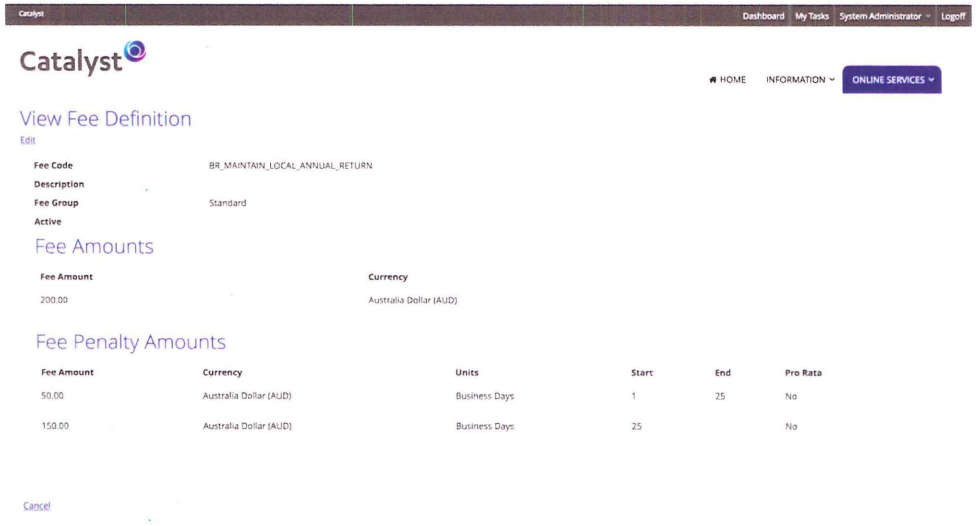


Figure 12. Catalyst Fee Maintenance Screen

Text or correspondence content changes

In response to user feedback or trends in the enquiries made of the office, the Secretary of State may easily make changes to language used within the system. Examples would include field labels; help text and the content of any output from the system.

RTM #	Project Requirements	Yes	Customization Required	No	Alternate

Where the Secretary's Office was running an information campaign for example Catalyst Correspondence easily allows for content to be added to emails and any mail items generated. These can be changed as and when required.

The following screenshot illustrates the editing of a notification within the system:

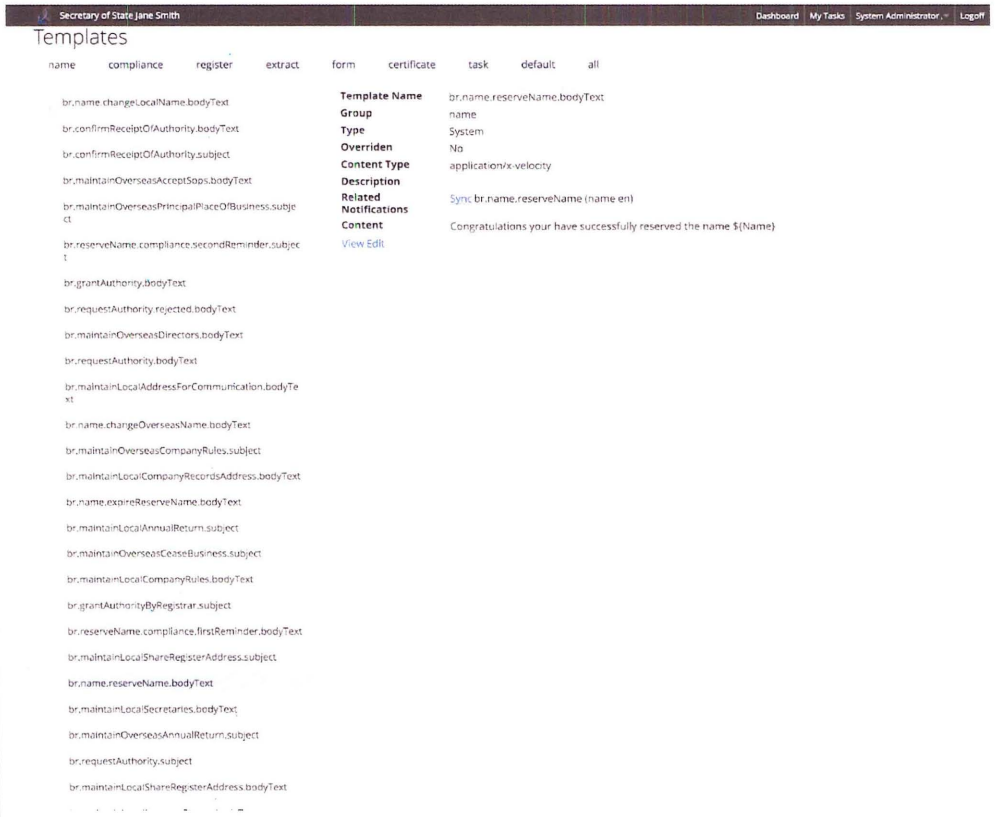


Figure 13. Notification Maintenance within Catalyst

Form design

Similarly, feedback or user behavior may indicate that users are not completing a task in the way the office expects or needs. The appropriate user within the client can configure changes to the mandatory fields or the addition or removal of sections. They can also edit the labels, help text and hint text associated with the data items on the view and edit screens, as illustrated in the following screenshot:

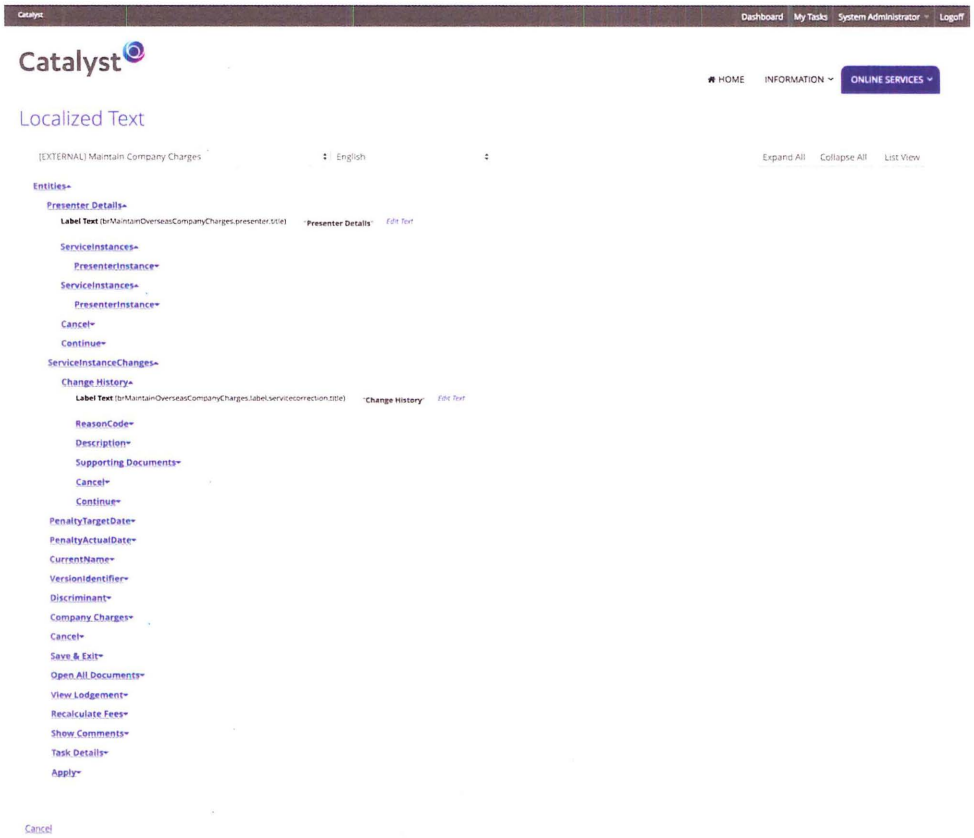


Figure 14. Catalyst maintenance of localized text by authorized internal user

Legislature added requirements

RTM #	Project Requirements	Yes	Customization Required	No	Alternate

It is not uncommon for the legislature in some jurisdictions to add or remove a requirement to the filings needed for the formation or renewal of a particular entity. Examples might include the addition of a requirement for an industry code at formation or the removal of an address detail for an officer.

Catalyst Registry allows the client to make such a change without the need for software to be developed. Configuration of the appropriate service will allow the collection of whatever new requirement is imposed or the removal of a field from a service through a change to the entity configuration, or through a change to the compliance engine. It will also allow the maintenance of rules around the service, including internal review and revision, as illustrated in the following screenshot:

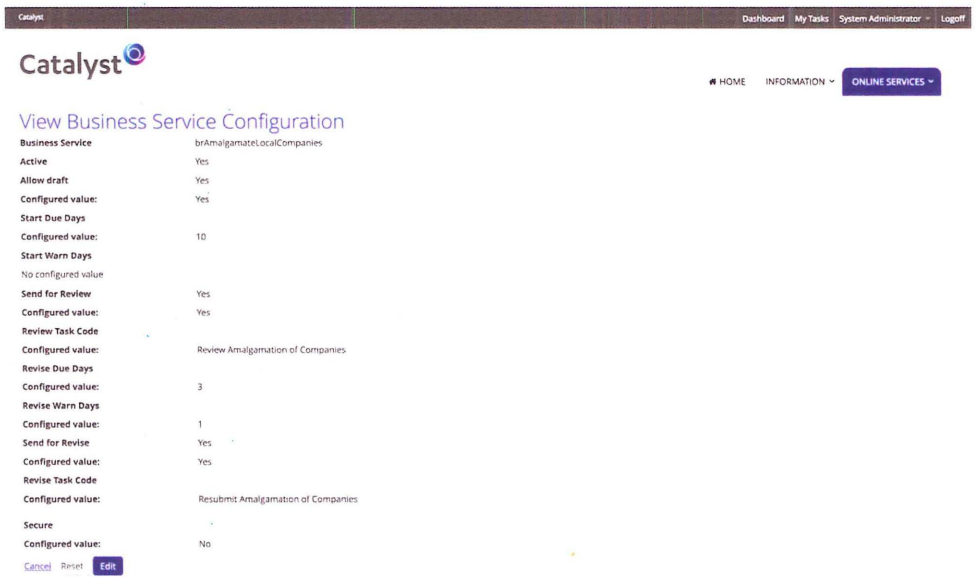


Figure 15. Business Service Maintenance illustrating the ability to set review and revision actions

PR-2	Bidder should describe the extent of the system's configurability.	Yes			

Bidder Response:

Introduction to Catalyst Configuration

RTM #	Project Requirements	Yes	Customization Required	No	Alternate

Catalyst The Registry Manager™ is a software platform that is configured to meet the individual needs of different registers in different jurisdictions. Catalyst is based on a set of core components that interact with each other to deliver the business functionality required to operate online registries such as business registries, secured transaction and occupational registries.

Using Catalyst, Foster Moore is able to quickly configure, deploy, test and deliver flexible registries, which meet the jurisdiction's specific needs. Catalyst is based on a set of core components that interact with each other to deliver the business functionality required to operate online registries

A consultant uses Catalyst to define the structure, content and processing rules for entities managed within the registry (e.g. corporations, charities and trusts). Catalyst uses this definition to deliver web-based screens to incorporate, maintain and control the entities and the associated processes. It also produces the secure registry database in which details of the defined entities will be stored.

A key benefit of this approach during the implementation project is that we are able to demonstrate a working solution to the client very early in the project. This aids the client in developing an understanding of the Catalyst product and its capabilities. It also helps Foster Moore in gathering and confirming requirements since, working collaboratively with the customer's team, we are able to quickly configure the system and demonstrate the resulting functionality. This approach also reduces the risk that the system does not meet customer requirements, since the system has been seen in an operational setting, not simply on paper and in wireframe designs.

This capability is unique to a true COTS product implementation, and should be considered as a significant opportunity for the State to ensure they obtain the system they require with the lowest possible risk in terms of cost, timeframe and quality. By making a configurable COTS solution, and one that can be demonstrated to be as such, a mandatory requirement of any RFP, Client can ensure they obtain the best possible opportunity for appositive outcome from the project.

Once implemented, Catalyst offers clients such as the State, significant opportunities to tailor the system to their evolving requirements, without the need for involving the vendor. Changes such as those outlined below can be made by the client, and with a much lower risk, cost and testing overhead than would be required with changes to a custom solution. By changing configuration options, the client can modify the functionality of the Catalyst register to suit changes in legislation, to drive efficiencies within the registry office and also to drive behaviors of external users (e.g. reducing fees for online transactions in order to drive uptake of online filings.)

Specific components which will provided within the system implementation include:

- Development of custom configuration files, including:
    - New entities and registry data types
    - Workflows across the system

RTM #	Project Requirements	Yes	Customization Required	No	Alternate

- Data structures within the registry systems
- Presentation layer with tailored layouts and screen components

- Development of custom UI/UX though use of CSS files etc. to ensure client branding and look and feel are incorporated across solution
- Custom data migration tools and routines to integrate legacy data into our new system
- Integration code and customized APIs to integrate system modules (including AD and Catalyst modules)
- Integration code to interface with external systems

Specifically, Catalyst supports the configuration of the following items:

1. Entities
2. Correspondence Templates
3. User Interface Styling (via CSS)
4. Business Calendar
5. Service Configuration. This typically involves the elements identified in the Product Catalogs, such as revise days, review days, draft allowed etc.
6. Task Definitions
7. Fee Definitions
8. Notifications and Templates
9. Labels and Help
10. Job Schedules
11. Catalyst Payments, including:
    a. Management of Accounts
    b. Payment Labels and Help
    c. Payment Notifications and Templates
    d. Job Schedules
12. Catalyst Security, including:
    a. Management of Users, Teams and Groups
    b. Management of Organizations
    c. Labels and Help
    d. Notifications

Customization using registry development platform

Foster Moore will provide a solution tailored to meet the unique needs of the client for the BSFS. Our customized solution will be based on the Catalyst registry development platform, making use of its 'industrial strength" modules which will be developed upon to create the final customized solution.

Specifically, Catalyst supports the configuration of the following items:

Configurable Item	Provided by Configuration Tool
1) Entities	-
2) Correspondence Templates	-
3) User Interface Styling (via CSS)	-
4) Business Calendar	Y
5) Service Configuration Typically the elements identified in the Product Catalogs, such as revise days, review days, draft allowed etc.	Y
6) Task Definitions	Y
7) Fee Definitions	Y
8) Notifications and Templates	Y
9) Labels and Help	Y
10) Job Schedules	Y
11) Catalyst Payments: • Management of Accounts • Payment Labels and Help • Payment Notifications and Templates • Job Schedules	Y

RTM #	Project Requirements	Yes	Customization Required	No	Alternate
	12) Catalyst Security: • Management of Users, Teams and Groups • Management of Organizations • Labels and Help • Notifications	Y			

Configuration Method

Configuration of Catalyst is performed using a combination of administration screens, and an Intellij plug-in and XML for the more complex configuration, and that with major impacts throughout the system. Business rules can be included in the configuration using a Catalyst-specific scripting language (rulescript) or by using Groovy script.

The following screenshot illustrates a sample administration screen provided by Catalyst:

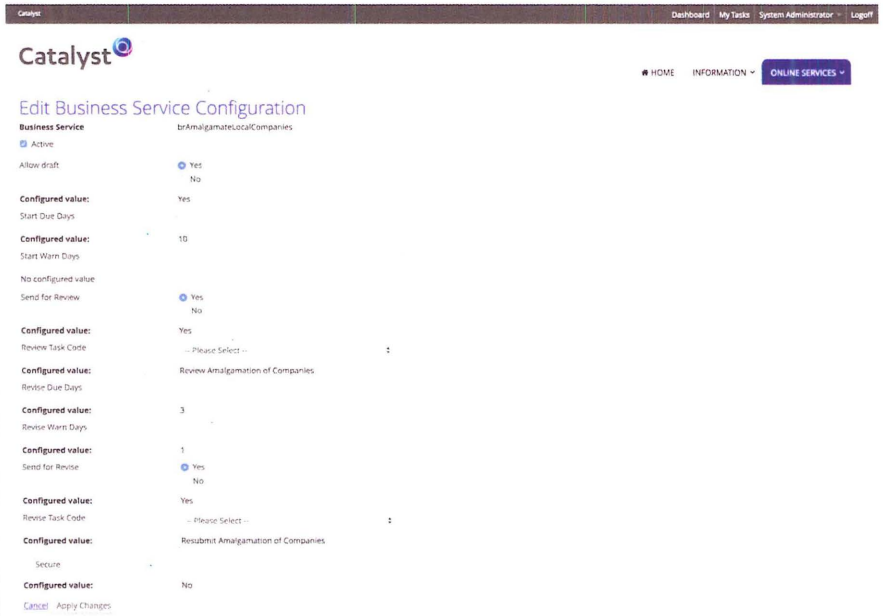


Figure 16. Sample Catalyst Configuration Screen

The following screenshot illustrates a sample business service administration screen provided by Catalyst:

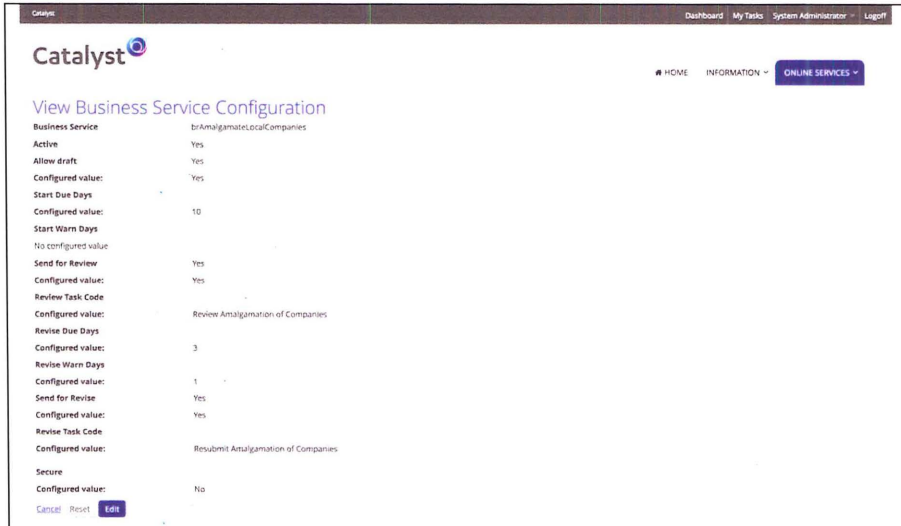


Figure 17. Sample Catalyst Configuration Screen showing configuration options including filing review and revision options

The configuration tool currently allows configuration of the following:

1) Business Calendar
2) Service Configuration
    a. Typically the elements identified in the Product Catalogs, such as revise days, review days, draft allowed etc.
3) Task Definitions
4) Fee Definitions
5) Notifications and Templates
6) Labels and Help
7) Job Schedules
8) Within Payments:
    a. Management of Accounts
    b. Payment Labels and Help
    c. Payment Notifications and Templates
    d. Job Schedules
9) Within Security:
    a. Management of Users, Teams and Groups
    b. Management of Organizations
    c. Labels and Help

RTM #	Project Requirements	Yes	Customization Required	No	Alternate
	d. Notifications The maintenance of a significantly increased amount of configuration data is being currently being implemented as part of the Catalyst release planned for early 2016. The scope of the configuration data that will be updatable through the UI is as still being finalized, as some of the configuration data requires a degree of training before changes can be implemented. This update will also support the ability to specify a date from which the configuration change will be effective. Due to the impact and risks associated with updating certain values, not all values will be presented as updatable via the configurator. These will remain configurable only via XML files. We anticipate that the values that can be configured will have eForm functionality ahead of the first production release for the State.				
	TECHNICAL REQUIREMENTS State of Nebraska standards require that all state government web applications that require authentication and authorization of users will use Nebraska Directory Services (NDS) to access web-based applications. NDS is based upon Microsoft Active Directory and can be accessed via native Active Directory methods or Secure LDAP (LDAPS). Multi-factor authentication is available.				

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate
GF-1	Describe how your system will integrate NDS authentication into the requirement to provide unique user identification for access and tracking user activity in your application. Include a description of options for supporting single authentication and multi-factor authentication processes supported by your system.	Yes			

Bidder Response:

User Authentication

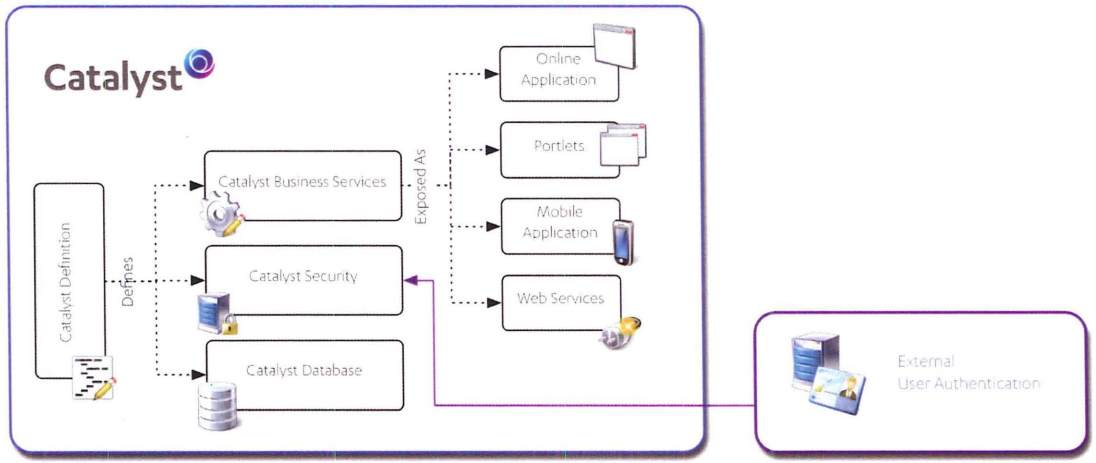
Catalyst can be integrated seamlessly with existing authentication systems such as LDAP, Active Directory, or all-of-government systems such as Ontario's GO-PKI or New Zealand's RealMe. Such an approach allows the client to leverage off any existing initiative they have to simplify user experience of government systems.

General Authentication

Prior to accessing entity data within the register, and performing maintenance activities against those entities, a user must be authenticated and authorized by the register. Authentication is used to prove they are who they say are and authorization confirms the access they have to data and functions within the register.

The authentication and authorization processes are logically separate and can be performed by different systems. Catalyst can be used to perform both functions, or the authentication can be performed by an external system, such as a shared national, statewide or provincial solution. In the case of external authentication, the user's account details are returned to Catalyst to allow authorization to be performed. Catalyst provides an interface that enables integration with external authentication and authorization modules, such as an LDAP server and regional, state and national identification and login services.

The following diagram illustrates this implementation approach, using the standard Catalyst online application with an external user authentication service, such as Active Directory:



RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate

Figure 18. User access via standard Catalyst forms including external User Authentication

External Users

Access for external users is controlled by Catalyst's Authority Model, including the ability to associate users with entities, and to maintain "organizations" which manage multiple entities, and which have multiple users.

The individual account is the record for a logical individual, and is linked to the user's security identity to allow them to be identified when they log in to Catalyst. The security identity comprises of the individual's record within the configured identification and authorization system (e.g. Catalyst security module, external LDAP server or national/regional identity service).

Within Catalyst, organizations can fulfill business roles against entities, just like individuals. Organizations are linked to existing individual user accounts within Catalyst. Catalyst allows an organization to be linked to many individuals, and also allows an individual to be linked to multiple organizations, as well as act on their own behalf. These organizations may be agencies, professional bodies or other service companies.

Internal Users

The access and activities of registry staff, or internal users, is controlled through a combination of team memberships and security roles. Teams are created and maintained to control the assignment of tasks and activities to staff within the office. Teams can be used to determine the assignment of tasks to work queues and also to manage notifications, alerts and escalations.

Role-based user permissions are used to control the functions users have access to, as well as the data they have access to. For example, some security roles will enable a user to maintain user accounts or to perform specialized functions such as Correct the Register.

Authorized users of the system (e.g. system administrators) can add and maintain user accounts, including the assignment of users to one or more teams. Team maintenance is also provided, allowing an authorized user to create and edit teams, including setting the team leader and assign task allocations to the team. All changes to teams, user group assignments and user group permissions are recorded in the Catalyst history tables.

User Groups in the LDAP Directory or Active Directory.

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate

Catalyst can make use of user groups defined within the LDAP Directory or Active Directory. Note that Foster Moore recommends the use of such a directory for internal users (registry staff) only, with external (public) users managed within the Catalyst Security Module or an external authentication service such as state, regional or federal system.

Auditing

Catalyst maintains audit logs of all updates that take place within the system. Catalyst creates audit trails covering business activities as well as system and security events. Catalyst's audit log is a standard facility that requires no customization or configuration to enable.

The Catalyst audit log captures all activities undertaken within the systems including data updates, task, job and process completion, system generated activity (such as correspondence generation) and user activity (both internal and external). Four essential properties are captured for every auditable event; what was done, when it was done, what was done to and who did it.

Catalyst stores details about all new, altered or deleted data. Catalyst also stores "before images" of all data before it is updated or deleted. This allows authorized users to view a complete change history of all data within the system.

Audit Log Detail

The data capture ensures that the following attributes are stored as a minimum:

- The user that triggered the event (in the event that the activity is a manual user-initiated process);
- The date and time that the activity commenced;
- The IP address that the activity came from
- The activity that was carried out – such activities must be defined according to a controlled structure, so that it is explicitly understood what the activity represents;
- The success or otherwise of the activity, if such a concept is applicable;
- The entity that the activity was based on (if applicable);
- The entity component that the activity was based on – for example, an entity address;
- Any specific business data that was directly associated with the activity – for example, a specific document that was uploaded, or a specific record that was changed.

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate
Evidential Acknowledgement Detail The system also records evidential acknowledgment for all prompts or warnings confirmed by a user during their activities. This becomes increasingly important as more and more functionality is assigned to external users. The system records a user's response to a message informing them that the action they are about to take is subject to law, and identifying the ramifications if they continue with the process in an illegal or inappropriate way. When such an activity is recorded, Catalyst captures the following: • The nature of the advice/warning; • Any relevant legislation that the user was advised of; • The date and time that the user acknowledged the advice/warning; • The user associated with the activity					
GF-2	System Uptime A. The proposed system must be fully functional with all components operating 99 percent of the time annually. Faults in availability attributed outside contractor's control will not be included in this calculation. B. During critical time periods, downtime should be avoided. Application Response Time A. Application response times during submission of user entered data, retrieval of images, and during data exchange to and from the portal should be sub second. During unprecedented high traffic volumes or system failures causing slow response time, the user must be informed through system notifications. Describe how you will monitor performance and problem resolution to meet the system uptime and application response time.	Yes			

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate

Bidder Response:

System Uptime

The Catalyst platform is designed and constructed to provide a high availability and reliable environment that supports a wide range of resilience and disaster recovery options. Solutions such as the New Zealand Companies register and the New Zealand Insolvency and Trustee Register have application availability requirements of 24x7 with 100% uptime except for "excused" (or planned) downtime. In Canada, Foster Moore supports its solutions 24x7 with quality metrics requiring 99.5% uptime of the solutions. We will work with the State to define an infrastructure design which provides the required levels of system uptime.

Catalyst leverages the standard features of the operating system and the RDBMS in order to support high availability. Depending on the client's installation this can include systems such as:

- Oracle RAC
- Multiple application and web servers
- MSSQL Failover Clusters
- Postgres Streaming Replication

In addition, Foster Moore recommends the use of a product such as F5 BipIP Layer 7 Network Load Balancers to provide high availability. Other possible products which could be used in Catalyst installations are

- F5 BigIP Load Balancer
- Cisco ACE
- Microsoft TMG (Formerly ISA Server)
- Linux LVS Virtual Servers or other software load balancers.

Catalyst does not require any high availability products which incur additional licensing by the client. Note however that the chosen RDBMS and Network Load Balancer solutions for the install may have licensing requirements.

Catalyst will work with database replication or clustering systems such as Oracle RAC or Postgres Streaming Replication for clustering/failover at the Database level. The Catalyst application does not directly cluster as cluster replication is traditionally a source of complexity and a barrier to scalability. The Catalyst approach is to use shared session storage in the data tier and a shared nothing approach in the application tier. In this way the Catalyst Application tier can be scaled horizontally, limited only by the capacity of the Database Layer.

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate

Application Response Times

Catalyst is designed using the modern best practice principles of solution architecture, following an n-tier architecture. This approach allows us to deploy an infrastructure platform that meets the performance and scalability requirements of each implementation through the use of appropriate hardware components. Catalyst can be scaled to virtually any size through the appropriate design of the infrastructure and appropriate hardware sizing. Through the implementation of an n-tier solution architecture, Catalyst will be configured to support the performance and scalability requirements of the solution

Through its modern best-practice design and architecture, Catalyst provides both horizontal and vertical scalability.

As an example of the data volumes that can be supported by Catalyst, the New Zealand Companies Register currently contains the following data items within the system:

- 1 million entities (Companies etc.)
- 4 million individuals (directors, shareholders etc.)
- 12 million addresses
- 14 million documents over 8TB of storage.
- 175,000 registered users

This same solution manages over 7000 user sessions per day, enabling approximately 300 new company registrations, 3100 modifications to existing companies and 2200 annual return filings each day.

As another example, the New Zealand Personal Property Security Register (PPSR), the secured transaction register used nationally, has the following metrics:

- Total of 21 Million Financing Statements
- 7.3 Million current Financing Statements
- 8.4 Million debtors
- Over 500,000 Financing Statements registered annually (approx. 20% online/browser, 80% B2B)
- Over 2.5 Million searches annually (66% B2B, 29% online/browser, 5% via text and external sites (e.g. Corporations)

Foster Moore solutions support up to 500 concurrent users, with some delivering up to 40,000 online public searches per day by unregistered users.

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate
Foster Moore expects that Catalyst will meet the identified response times on the basis of infrastructure configured as recommended. Response time performance will be measured from arrival within the Catalyst environment to departure from the environment in order to rule out performance issues with the wider AMBD environment (firewalls etc.) and with Internet bandwidth etc.					

The following table presents the sections of our RFP response that Foster Moore has marked as proprietary.

Each of these sessions within the RFP response document provides details as to why Foster Moore considers these to be proprietary.

GF-3

GF-4

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate
GF-5	**Maintenance** The contractor will have responsibility for maintaining functionality of the BSFS. The contractor must have a plan for updating, enhancing, and modifying the system in response to technological advances and the need for additional features to improve efficiency and ability to meet the public's and SoS's requirements. The contractor must resolve any performance issue. Normal and preventative maintenance shall be performed at a time that shall not adversely impact daily operations, with prior notification to SoS of the downtime. During critical time periods application problems and individual user downtime must be minimized, and critical problems that have no workaround must be resolved within an agreed time period with the SoS office. The contractor shall provide a list of all enhancements and changes to be made to the BSFS in a maintenance release prior to the release. The SoS office must approve of any work-around or fix. The contractor shall monitor availability of	Yes			

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate
	upgrades offered by their hardware and software vendors and make timely installation of such changes when technically appropriate, at no additional cost to SoS. When changes or additions are made to the database, contractor will provide updated field mapping and relationship documentation. Changes due to inevitable Federal legislation or State legislation beyond what is described in the RFP will be treated as enhancements. Explain in detail how you will comply with maintenance requirements to include: A. normal and preventative maintenance that will be performed at times that avoid adversely impacting daily operations B. upgrades and enhancements for your software C. upgrades for peripheral hardware (e.g., scanners, label printers)				

Bidder Response:

Foster Moore continues to develop and enhance the Catalyst product to meet the changing requirements and evolving thinking with the registry community. Customers are eligible to receive updated versions of the Catalyst product as part of their product maintenance agreement, with Foster Moore typically issuing updates to the Catalyst product one or two times per year.

Product management for existing products (such as Catalyst) includes the following planning functions:

1) Gathering market requirements (internal and external sales teams, customers, competitors, wider market)
2) Defining product requirements
3) Determine business-case and feasibility
4) Scoping and defining new product features at high level
5) Building product roadmaps, particularly Technology roadmaps
6) Working to a critical path and ensuring all products are produced on schedule
7) Ensuring products are within price margins and up to spec
8) Product Life Cycle considerations
9) Product differentiation
10) Detailed Product planning

The following diagram illustrates the product development process used at Foster Moore:

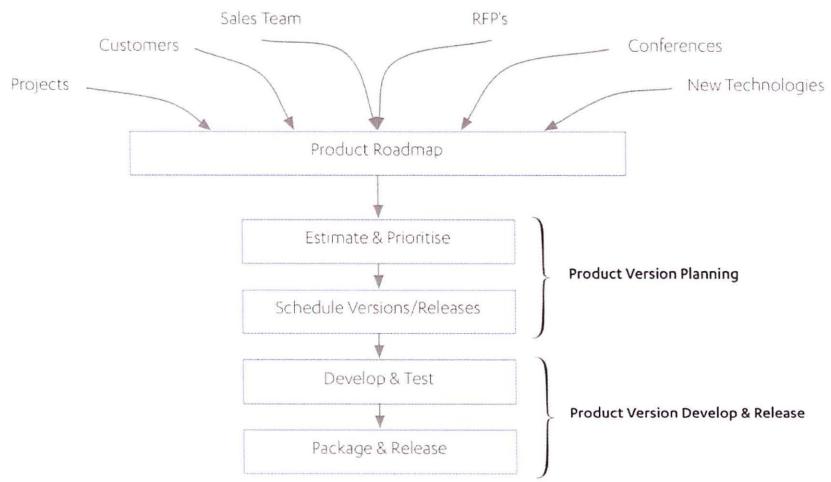


Figure 20. Catalyst Product Development Process

New releases of the Catalyst product are made available to clients once they have passed Foster Moore's testing and acceptance. Foster Moore recommends that clients keep up to date with the latest release wherever practical, as this ensures that the latest features and functions are available, as well as bug fixes.

Release documentation is generated and made available to clients as part of each release, and will include the following:

1) New Product Features;
2) Improvements and Enhancements;
3) Product Defects raised as a result of, and explicitly associated to Project Issues.

New releases are available from a secure file location accessible from the Internet by authorized users. Foster Moore notifies clients at a nominated email address of the release of product updates.

A major version release proceeds through a lifecycle of states, as follows:

Current Represents the latest version release available to clients, and includes any applicable minor or patch release numbers.

Supported One or more major version releases issued prior to the current one.

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate

Notice One or more major version releases that have been issued, and for which clients have been notified of Foster Moore's intention to retire.

Retired One or more major version releases that are deemed retired.

Major version releases that fall into the Supported state will remain in that state for a minimum of two years before notification of retirement will be issued, with the notice period being a minimum of 12 months.

Updates are supplied as part of product maintenance on the basis that they are applied by the customer themselves. Note that Foster Moore costs associated with assisting in the installation of upgrades and patches, as commissioned by the customer, are not covered by the annual support and maintenance fee and are charged on a time and materials basis.

Customers can elect whether or not they take new versions, with Foster Moore continuing to support versions up to two years old. In the event that customers experience issues that are resolved by subsequent versions, then they are required to install those versions to address the issue.

Catalyst product updates are applied as product patches. Where possible Foster Moore maintains backward compatibility to earlier versions of the product. In situations where backward compatibility is not possible, Foster Moore will endeavor to provide migration scripts and processes to support the transition to the new version. Foster Moore recommends that all updates are subject to extensive regression testing within the test environment prior to release to production.

Updates to the Catalyst configuration for the purpose of resolving identified issues, or delivering enhancements, will similarly be tested in the test environment prior to release to production.

Foster Moore's clients manage their own downtime and maintenance windows based on system usage and the urgency of the updates being applied. Typically, these can be made in periods of little or no system utilization and do not involve extended downtime.

The normal restart of the application itself runs to several minutes (2-3minutes) depending on:

- The resources assigned to the hosts (memory and CPU)
- The number of deployed components (for the payments solution it is likely that only Catalyst Payments and Security will be deployed which may reduce start up times)
- The deployment container (containers capable or parallel deployment start faster if CPU is available).

The time taken for a full restart will also depend on the time required to start the underlying database.

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate
Typical updates are largely automated, consisting of application and database update scripts. Effort to perform the actual upgrade is in the order of several minutes. As part of any upgrade however, Foster Moore recommends a regression testing process, and preferably one which is automated. This testing represents the most significant effort associated with any upgrade and will vary depending on the volume of testing and testing approach taken by the client. We proposed to keep unchanged the State's existing peripheral hardware (e.g., scanners, label printers).					
GF-6	Describe your provisions for HelpDesk support and for logging, tracking, and documenting problems and resolutions.	Yes			
Bidder Response: The Catalyst platform is designed and constructed to provide a high availability and reliable environment that supports a wide range of resilience and disaster recovery options. Solutions such as the New Zealand Companies register and the New Zealand Insolvency and Trustee Register have application availability requirements of 24x7 with 100% uptime except for "excused" (or planned) downtime. In Canada, Foster Moore supports its solutions 24x7 with quality metrics requiring 99.5% uptime of the solutions. The Foster Moore support team manages, tracks and resolves technical questions, and manages bug fixes and enhancements where necessary. Foster Moore operates an online service request logging system backed by a phone service for Critical and High priority Incidents. Foster Moore operates an ITIL-compliant service desk to deliver its product and solution support to customers. This service desk is split between New Zealand and North America to provide broad support hours to our global client. Our service desk team is rapidly expanding, and currently consists of ten staff.					

The following diagram illustrates the proposed support model, including responsibilities and handoff of calls from one service desk to another. In this instance, Foster Moore will be playing the role of level three product support desk:

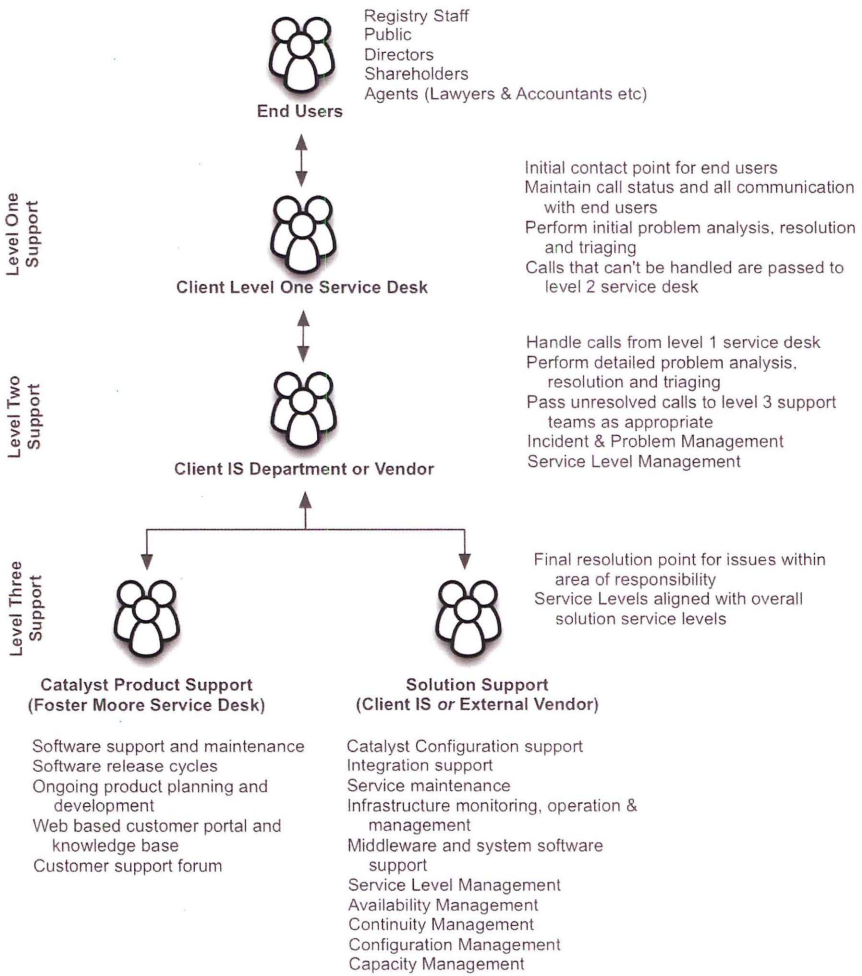


Figure 21. Proposed Support Process

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate

Clients are provided with a unique login and password to Foster Moore's service desk website. Logging a service request online allows our Support Services to most effectively track and manage client requests, from initial query through to resolution, and ensure your satisfaction.

The following table details the five Incident priority levels managed by Foster Moore, including their definition and maximum response times for each.

PRIORITY LEVEL	IMPACT	TARGET RESPONSE TIME (CORE HOURS UNLESS SPECIFIED OTHERWISE)	TARGET RESOLUTION TIME (CORE HOURS UNLESS SPECIFIED OTHERWISE)
Critical – Priority 1 (see Note 1)	The Incident affects the entire system	15 minutes (see Note 2) Non-Core 30 mins	Within 4 hours (see Note 3)
High – Priority 2 (see Note 1)	The Incident affects a crucial part of a system.	20 minutes (see Note 2) Non-Core 30 mins	Within 24 hours (see Note 3
Medium – Priority 3	The Incident affects a minor part of a system, but has some impact on its operation. This priority level is assigned when a non-central requirement of a system is affected.	30 minutes (see Note 2)	Within 48 hours (see Note 3)
Low – Priority 4	The Incident affects a minor part of a system, and has very little impact on its operation. This priority level is assigned when a non-central requirement of a system (and with lower importance) is affected.	4 hours (see Note 2)	Within 48 to 96 hours (see Note 4)
Cosmetic – Priority 5	The system works correctly, but the appearance does not match the expected one. For example: too much or too little spacing between contents, incorrect font sizes, etc. This is the lowest priority issue.	24 hours (see Note 2)	Within 5 business days (see Note 4)

Note 1: Priority 1 and 2 must also be logged by Telephone.

Note 2: The target response time is the time taken for Foster Moore Team to acknowledge the Incident request

Note 3: If Foster Moore considers that it is unable or unlikely to achieve the target resolution time for any particular Incident it will notify the customer accordingly and propose a plan and estimated timeframe for resolution of the Incident.

Note 4: Implementation time may be postponed until next Change or Release Window with agreement with the customer.

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate

When an urgent Incident (Level 1 or 2) is confirmed by phone, our Major Incident process is invoked and a dedicated resolution team , ensuring that urgent queries receive immediate attention.

Available Support

In supporting Catalyst and Catalyst installations for customer, Foster Moore distinguishes between support for the licensed Catalyst product, support for the customer's own configuration, enhancement work and support for the infrastructure on which the solution runs.

Catalyst Product Support

Foster Moore charges an initial license fee for the Catalyst product. Ongoing support and maintenance of the core Catalyst product is covered by the ongoing product support and maintenance fees paid by the client. This support for the Catalyst product itself is referred to as "product support".

> **Pricing basis:** Covered by ongoing support and maintenance, as outlined in the End User License Agreement (EULA), payments made by the client, payable annually and in advance. Refer to Appendix 5. Catalyst End User License Agreement (page 501) for the standard Catalyst EULA.

Application Support and Maintenance (ASM)

This covers the support and maintenance of the customer's specific configuration and custom integration points etc. This also covers the services associated with installing Catalyst product upgrades, and if enhancement work is required in order to enable the use of new product features.

If Foster Moore is delivering the Catalyst solution as a managed service (SaaS) then support and maintenance, of the customer-specific Catalyst configuration and integration components is provided as part of this service.

In the event that the client is operating and supporting the solution, then they are responsible for solution support. Foster Moore can optionally provide this level 2 or level 3 solution support service on a time and materials basis or a for a fixed fee for an agreed number of hours per month.

> **Pricing basis:** Based on an agreed number of hours per month.

RTM #	General Features, Maintenance, and Support	Yes	Customization Required	No	Alternate

Solution Enhancements (Optional)

Foster Moore can optionally assist with enhancements to the customer's solution, such as Catalyst configuration changes, new or modified integration configurations, template changes and other system enhancements. Under either of the above approaches, and if required, this work would be defined and agreed via a Statement of Work (SOW) and delivered for a fixed price.

Pricing basis: Based on agreed scope and subject to statements of work.

Infrastructure Support (Optional)

Infrastructure support refers to the support of the servers, data storage and networking components on which the solution is operated. This includes hardware, system software (e.g. operating systems) and database management systems.

If Foster Moore is hosting and operating the solution (for example under a hosted or SaaS model) then we perform extensive system monitoring as part of this service. This includes monitoring, maintenance and operation of the servers on which the solution is running as well as backup management, operating system updates and patch management. We also perform capacity management, performance management, service desk and knowledgebase access.

In the event that the client hosts the solution, then these items become their responsibility. Optionally, Foster Moore can provide level 2 and 3 support to also, again either fixed price for a set number of hours, or T & M.

Pricing basis: Based on level of infrastructure required and agreed service levels.

RTM #	Common System Processes/Features	Yes	Customization Required	No	Alternate
CS-1	General Features A. When Secretary of State staff receives a filing request, they determine the type of action needed, chose that option from a dropdown list, and proceed to enter the appropriate information based on that action. (See Appendix A - Entity Types - Actions Matrix for Corp Filings & Appendix G - Actions Matrix for UCC & EFS Filings). B. All fields are editable with a very few exceptions (e.g., system-generated account number) as noted in the Data Field appendices (Appendix B – Corp Data Fields & Appendix H - UCC & EFS Data Fields). C. Current filing date, time, and unique job number are generated when the filing is entered by staff. For Corp filings, EFS, Tax filings, and Judgments, the effective date and time are initially set to equal the filing date and time, and can be changed by staff; UCC filing date is generated when filing is entered by staff and effective default time is 5:00 p.m. but can be changed by staff to actual filing committal time as needed. D. Creates a unique job number which is made up of C, U, or E to indicate Corp or UCC/EFS application, last two digits of the year, two digit month, two digit day, and then a dash followed by four digits designating which job it was that day (e.g., job number C151013-0061 refers to the 61st job done in the Corp module on October 13, 2015). The bidder should describe and provide screen shots showing how their system is able to provide the features/functions listed above, emphasizing how the system will improve the current process.	Yes			

Bidder Response:

Paper-based forms, including lodgments and other transactions, can be managed by Catalyst's Document Receipting module. This module streamlines the intake of paper-initiated transactions into the online, workflow system, and ensures that paper-initiated transactions follow the same processes as online transactions.

While it is the intention of most jurisdictions that their clients lodge their regulatory forms and attachments online, the practical reality is that a large percentage of document lodgments will continue to be made via offline channels, e.g. front counters/in-person, post/mail.

In some Catalyst implementations, the volume of offline lodgments is anticipated to be relatively high. This could be for a number of different reasons. For example:

- Low level of access/take-up in respect to internet capability and services

- Customer preferences
- In situations where high overall volumes will mean that even a small percentage of offline lodgments will create significant workload

The Catalyst Document Receipting module enables internal Registry staff to meet these client expectations and needs and to minimize the workload on front-office Registry staff.

Furthermore, from a customer perspective, Document Receipting can significantly minimize the waiting time for walk-in customers at front counters. Customers simply lodge their paper applications, pay any associated fees and then receive a receipt as proof of lodgment & payment. More importantly, customers do not have to wait around at busy counters for their application to be processed in its entirety.

An external document scanning process, potentially incorporating optical character recognition (OCR) can be integrated into the receipting processing.

Document Receipting Module

Catalyst's Document Receipting module manages the lodgment and handling of paper-based forms received at the registry office. This module streamlines the intake of paper-initiated transactions into the online, workflow system, and ensures that paper-initiated transactions follow the same processes as online transactions. Like an online application notifications can be configured to be sent to the filer informing them of the progress of their application.

The document receipting module assigns a unique identifier to each paper document and, uses this identifier (attached to the paper document as a barcode) to link the paper document to the corporation or other entity.

Once the document has been lodged within the system the data needs to be loaded into the system. This can be done manually, or the document can be scanned and processed by an optical character recognition (OCR) system to automated conversion to electronic data (Third party OCR software would need to be used, and the interface and cost of software has not been included in cost/time effort).

The following steps outlines the typical process followed by the Catalyst Document Receipting Module:

1. **Lodge Documents**

   A customer has presented an offline lodgment containing one or many bundles of paper documents to be lodged. A bundle is a collection of documents related to a single filing/application. For example a formation application form and formation supporting documents. Typically, this may be in person (counter) or by post/mail.

2. **Check Documents and Payment**

   The Front Office will check the contents of the lodgment. For example, the following could be checked:

   - Presenter details

- Forms correctly completed
- All required documentation supplied

One or more bundles in the lodgment may be rejected straight back to the presenter prior to recording into the system and only those bundles in the lodgment that passed this preliminary check are accepted and captured into Document Receipting depending on the jurisdiction's receipting policy. Or alternatively all the bundles in the lodgment can be receipted and processed through to rejection after capturing the details and documents in the system.

3. Capture Offline Lodgment

Where the document does not contain a barcode the front office can attach a system-generated barcode to the document(s). The front office will enter the received documents(s) into the system. Documents are organized/sorted into bundles according to the Business Service they represent, e.g. register entity, updated entity, etc. A single lodgment may contain many bundles for submission to multiple registers. Each bundle in the lodgment is equivalent to a Catalyst Business Service and may have one or more associated paper documents to be captured.

If payment is required, the Front Office will collect payment for the offline lodgment and record the payment details.

The following screenshot illustrates a sample document lodgment screen:

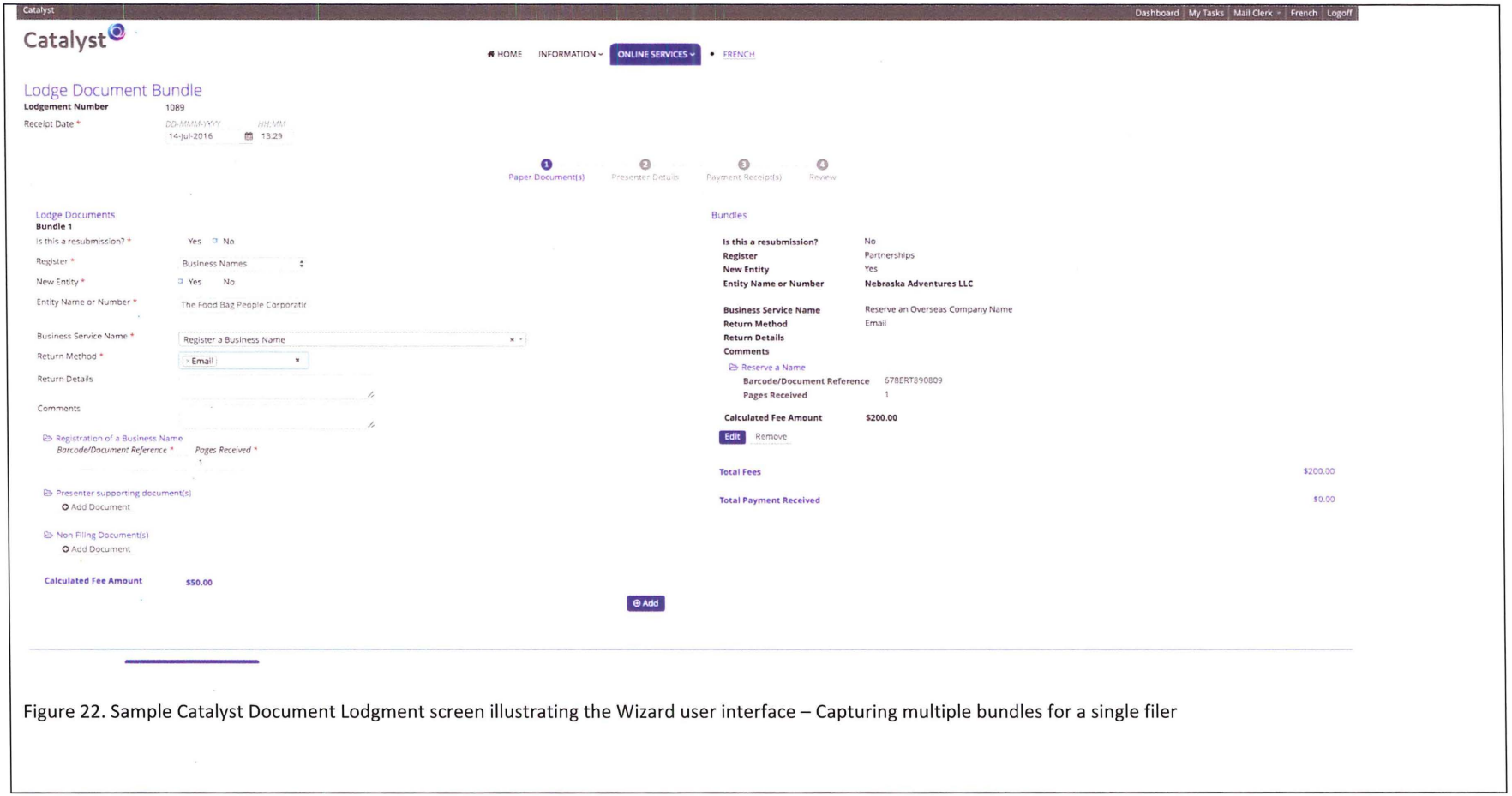


Figure 22. Sample Catalyst Document Lodgment screen illustrating the Wizard user interface – Capturing multiple bundles for a single filer

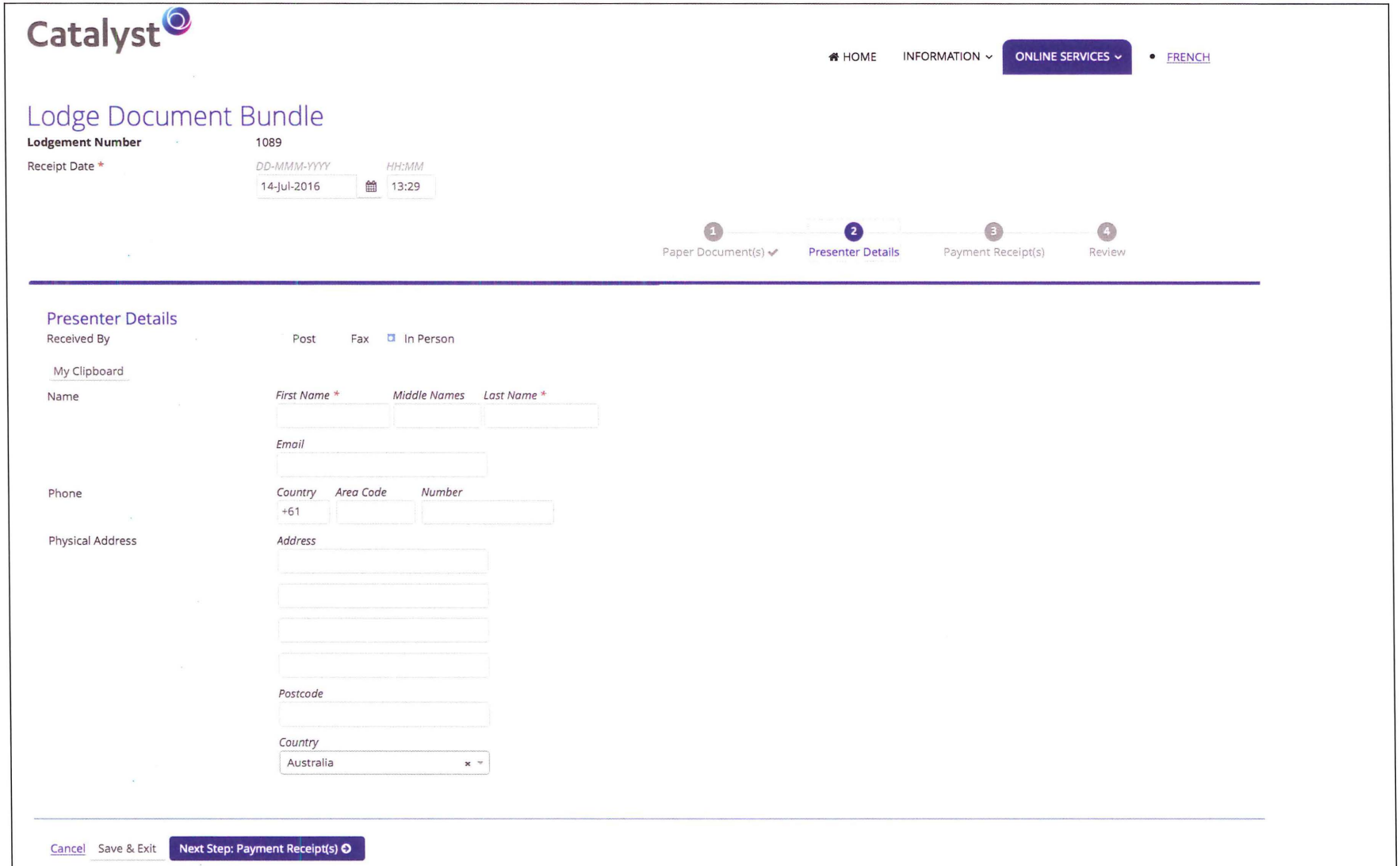


Figure 23. Capture presenter/filer details

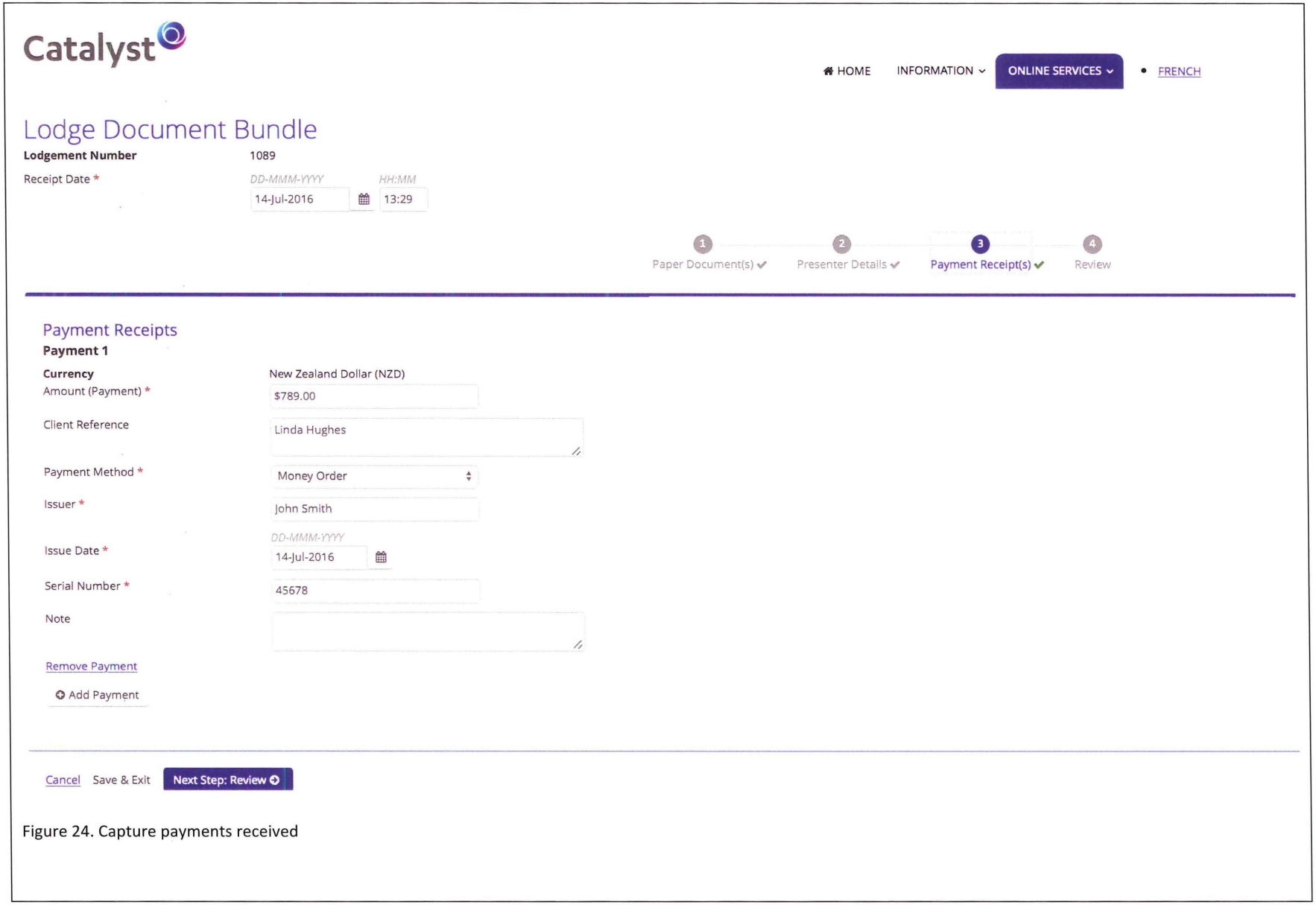


Figure 24. Capture payments received

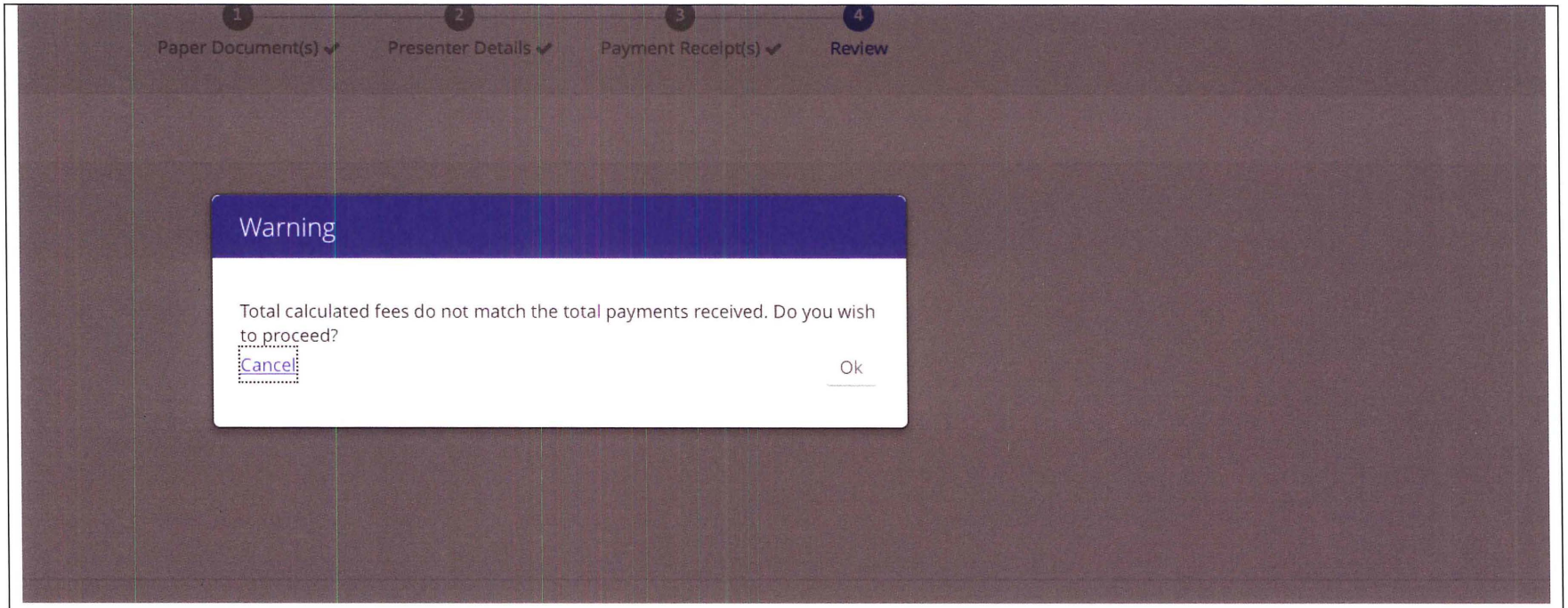


Figure 25. Warning displayed when sum of payments does not equal calculated fees

4. Generate Lodgment Receipt

For each offline lodgment received, the system always generates a Lodgment Receipt PDF document, irrespective of whether or not payment was collected. This receipt can be emailed to the presenter/customer or sent to a printer.

5. Scan Lodged Document

An internal staff member will scan each document using a preset scanner template/application that is configured to do the following steps:

- Generate the image with a filename that includes the Document Reference/Barcode.
- Email the document to a designated email address or place the image file into a pre-arranged network location, depending on the configuration.

Note: This description reflects a typical simple in-house scanning capability. More advanced options are available depending on the jurisdiction's scanning solution.

6. Link Scanned Document

Periodically Catalyst will look for scanned documents that have been placed in the pre-arranged network location or emailed to the designated email address (see Scan Lodged Document). Services are also available to manually upload and link scanned documents, correct barcode number and pages received. A history of any changes made to the lodgment is available to ensure a full audit trail of who did what when is available.

Manage Bundle

Lodgement Number	1089
Date Receipted	14-Jul-2016 13:29:00
Bundle Status	Pending
Is this a resubmission?	No
Register	Partnerships
New Entity	Yes
Entity Name or Number	Nebraska Adventures LLC
Business Service Name	Reserve an Overseas Company Name

Return Method *

× Email ×

Return Details

Comments

Reserve a Name

Barcode/Document Reference *

678ERT890809

Pages Received * 1

Upload Document

Presenter supporting document(s)

Add Document

Non Filing Document(s)

Add Document

Calculate Fees

Cancel

Apply

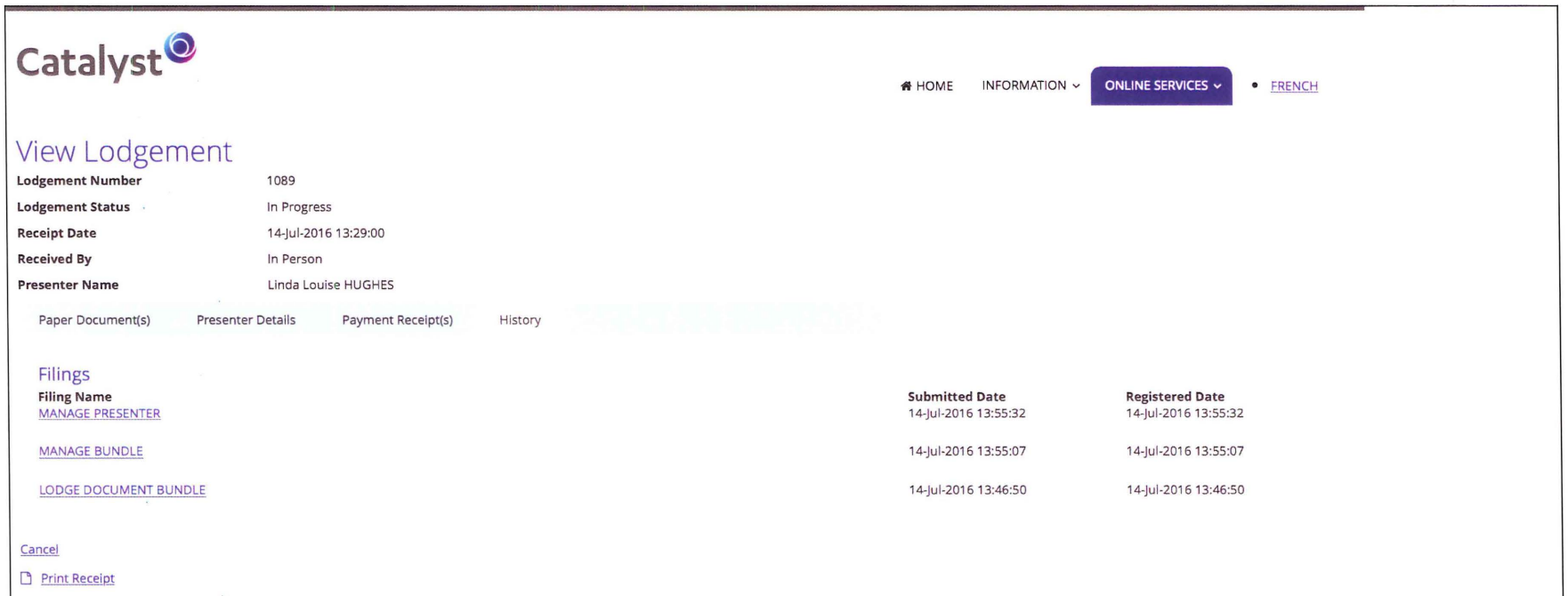


Figure 27. History of lodgment - selecting filing will show details of change

7. Create Business Service Instance and Work Queue Task

Catalyst will create a Business Service Instance and a corresponding work queue Data Entry Task for each bundle within a receipted lodgment. All scanned and linked documents will be associated with the service instance form.

8. Action Work Queue Task

Catalyst will allocate the data entry task to the team that is configured for each Business Service. The task can be picked up from the internal user work queue for data entry.

The back office can also manage workload by performing management actions such as:

- Re-allocate tasks

- Assign tasks
- Return Form (if incomplete)
- Resume for data entry
- Delete Form

The Back Office will review the attached documents and enter relevant data into the Business Service online form.

9. Process Business Service Instance

Where all required data has been entered and validated and documents received, the business service can be submitted to the register. Depending on the configuration of the business service the form may have to go for further review. Where the business service is sent for review the following options will be available depending on the jurisdictions process and business rules:

- Allocate or Assign
- Approve or Reject
- Return for Re-Submission

Note: Catalyst can be configured to support either of the following process scenarios:

- Single step data entry and review performed by the same person. This means even if the service has been configure to require review the review step will be bypassed if the person completing data entry and submitting the form can also approve the review task.
- Separate data entry and review steps performed by different people. This means if the service has been configure to require review a review task will always be created even if the person completing data entry and submitting the form can also approve the review task.

Foster Moore's recommendation is to move as much as possible toward an online self-service model, and this is the exact environment promoted by the Catalyst solution. This not only reduces the manual effort within the registry office, but also improves data quality and responsiveness within the register.

Foster Moore's document receipting module is included within the scope of our solution, however at this stage we have not specified or included in our proposal a document scanning and OCR solution. We anticipate reviewing the client's existing systems and solutions in this area with the intention of reusing as much as possible.

Alternative Solution

Where the number of paper based forms is expected to be relatively low it may be decided not to use the document receipting module. Catalyst allows an internal user to invoke a service available to an online user in the same manner as an online filer would do. The system would require the internal user to

enter the filer name and address before presenting them with the online form for data entry. The paper documents will need to be scanned and available for uploading when completing data entry. As per step 7 in the above payment receipting process a data entry task will be created if the internal user saves a draft version of the application. An example of the steps required by an internal user to manage the capture of paper based forms could be as follows:

1. **Scan all documents**

The internal user receives the documents for a single filing. All documents will need to be scanned and available for upload during data entry.

2. **Select Business Service Instance and Enter Presenter Details**

The internal user selects the appropriate service from the online menu options. The system detects the user is an internal user and requires upload of the paper version and entry of filer details such as name and address before the user is presented with the online form for data entry. The internal user will need to upload scanned documents and enter relevant data into the Business Service online form.

3. **Action Work Queue Task**

Catalyst will create a data entry task if the internal user elects to save a draft version of the form. The task can be picked up from the internal user work queue for data entry.

The back office can also manage workload by performing management actions such as:

- Re-allocate tasks
- Assign tasks
- Return Form (if incomplete)
- Resume for data entry
- Delete Form

4. **Process Business Service Instance**

Where all required data has been entered and documents uploaded, the business service can be submitted to the register.

5. **Enter Payment Details**

If fees are required the internal user will be taken to the payment screen to capture payment details. When all fees have been paid for, or waived the form can be submitted.

6. **Process Business Service Instance**

Depending on the configuration of the business service the form may have to go for further review. Where the business service is sent for review the following options will be available depending on the jurisdictions process and business rules:

- Allocate or Assign
- Approve or Reject
- Return for Re-Submission

Notifications can be configured to be sent to the filer informing them of the progress of their application.

3.3 Corporations / Business Entities

RTM #		Yes	Customization Required	No	Alternate
Corp-1	Name Search. Check for name availability is searched and performed within the system to ensure that the requested name for filing is not the same or deceptively similar to other SoS filings on record per statutes and policy guidelines. (Additional specifics will be provided upon contract award.) The search for Name Availability applies to the filing category of Formation Documents and to filings for New Name and Reinstatements after 1 year. The search for existing records is used to find the original filing entity for Amendments & Corrections; Mergers & Conversions, Dissolutions & Revocations, Reinstatements and Annual & Biennial filings handled individually (see Appendix A - Entity Types - Actions Matrix for Corp Filings). For each search, create an audit trail record containing a date and time stamp, staff member or system involved, with a link to the image (when appropriate). The following search criteria must be available in the system in order to look for existing records on file for the following categories. A. All Entity Types –	Yes			

	1. Name: Finds entities of all types whose ModifiedName or ForeignModifiedName match the name entered. a. Additional Search Options: i. Soundex ii. Wildcard Implied iii. Insert OR 2. Acct #: Finds entities of all types that match the account number entered. 3. Document #: Finds entities of all types that match the account number entered. B. Company – 1. Name: Finds entities of type(s) *other than* T, S, M, RN, VN, PN whose ModifiedName or ForeignModifiedName match the name entered. a. Additional Search Options: i. Soundex ii. Wildcard Implied iii. Search Previous Names Also: Search may be expanded to also include previous entity names such as those due to name changes or mergers. iv. Insert OR v. Search Cardex: Search may be conducted against cardex data instead of Domestic/Foreign entity names. Note that this is the only search type that allows searching the cardex data. 2. Acct #: Finds entities of type(s) *other than* T, S, M, RN, VN, PN whose account number match the number entered. 3. Document #: Finds all entities of type T, S, M, RN, VN, PN that match the document number entered. 4. Officer Name: Finds entities of type(s) *other than* T, S, M, RN, VN, PN by match on the Officer's last name. The name being searched may be an exact match, a wildcard match, a soundex exact match or soundex wildcard match. a. Additional Search Options: i. Soundex ii. Wildcard Implied iii. Limit to Term: Search may be limited to only those officers whose term spanned a given start and end date. iv. Insert OR C. Registered Name –				

	1. Name: Finds all entities of type RN whose ModifiedName matches the name entered. a. Additional Search Options: i. Soundex ii. Wildcard Implied iii. Insert OR 2. Acct #: Finds all entities of type RN that match the account number entered. 3. Document #: Finds all entities of type RN that match the document number entered. D. Reserved Name – 1. Name: Finds all entities of type VN whose ModifiedName matches the name entered. a. Additional Search Options: i. Soundex ii. Wildcard Implied iii. Insert OR 2. Acct #: Finds all entities of type VN that match the account number entered. 3. Document #: Finds all entities of type VN that match the document number entered. E. Trademark, Service Mark – 1. Name: Finds all entities of type M or S whose ModifiedName matches the name entered. a. Additional Search Options i. Soundex ii. Wildcard Implied iii. Insert OR 2. Acct #: Finds all entities of type M or S that match the account number entered. 3. Document #: Finds all entities of type M or S that match the document number entered. 4. Keywords: Finds all entities of type M or S that match the keyword entered. a. Additional Search Options i. Wildcard Implied ii. Insert OR F. Trade Name – 1. Name: Finds all entities of type T or PN whose ModifiedName matches the name entered.				

	a. Additional Search Options i. Soundex ii. Wildcard Implied iii. Insert OR 2. Acct #: Finds all entities of type T or PN that matches the account number entered. 3. Document #: Finds all entities of type T or PN that match the document number entered. G. Duplicate Name Check – This search is system generated using the following: Count the number of words in the entity name being created. If there is more than one word then drop the last word. This should get rid of most ending noise words like "Inc.", 'Co", "LLC", etc. Generate a Soundex value of the entity name. The Soundex value is padded to 15 characters. Note that this is a *very* non-standard implementation of the Soundex algorithm. Display any matching entity names to user. User will determine if entity name is a duplicate or not via visual inspection of all names returned. H. Check Name Availability – 1. Name: Finds active entities of type(s) other than M and S or entities deemed inactive within the past 365 days of type(s) other than VN and RN whose modified name matches the name entered. a. Additional Search Options – i. Soundex ii. Wildcard Implied iii. Any Combination of Words: Finds all entities that contain at least one of the words entered. Entities are displayed sorted based upon the number of words found from the search criteria. Note that this option is not allowed in conjunction with the Soundex nor Wildcard Implied options. I. Global Change of Registered Agent – 1. Registered Agent Name: Finds active entities using agent name entered a. Additional Search Options i. Soundex ii. Wildcard				

	2. Find Registered Agent a. Individual - Finds all individual Registered Agents with the specified name. b. Entity – Searches the Corp database and finds all active Corp Entities associated with the specified name. The list of entities is displayed and indicates which entities can NOT be chosen (See Appendix K – Reports and Additional Information, document "Authorized Registered Agents by Entity Type"). The user then "Chooses" an entity, a new search is performed against the RA table that finds all registered agents listings for that entity. The user then selects the agent to display. c. Other - Finds all Registered Agents with the specified name. (Note: This option searches for RAs what are flagged as neither an entity nor an individual.) J. Charge Account – 1. Soundex 2. Wildcard K. Job History Search – 1. Job # - Finds jobs that match the specified job number. a. Wildcard Implied b. Insert OR 2. Filer/Client Name – Finds jobs that match the specified Filer/Client name. a. Wildcard Implied b. Insert OR 3. Billing Acct ID – Finds jobs that match the specified Billing Acct ID. 4. Entity Acct # - Finds jobs that match the specified Entity Account Number. 5. Document # - Finds jobs that match the specified Document Number. L. Filer/Client Maintenance – This form lists every filer entered into the FilerClient table. This table holds these filers who conduct frequent business with their name & address information and is maintained for quick selection and entry into the job window. 1. Name – This will locate the first occurrence of the entered name within the list. 2. AcctID – This will locate the first occurrence of the entered Acct ID within the list. Note that the current Corp application does not utilize Billing Acct Numbers, but is included and applies to the new BSFS.				

	Additional Search Options Descriptions A. "Insert OR" option: Allows a Boolean "or" search. Entities containing any word or phrase separated by the "or" indicator will be returned. Note that both the Soundex and Wildcard options may be applied to this type of search. B. Soundex: Searches entities based on the Soundex value of the entity's name. This type of search will typically result in vastly more results than a non-Soundex search. C. Wildcard: Appends a wildcard character to the end of any entered search criteria. This is a "begins with" search vs. an exact match search and typically feels more natural to the user. Note that the manual use of wildcard characters (* and %) is also allowed. In most cases, the user may manually enter a wildcard character and the search will respond accordingly. Additional Algorithm Descriptions A. Soundex algorithm: 1. Remove all spaces from search criteria. 2. If no wildcard character was manually entered then create a standard Soundex value padded to 15 characters by adding trailing "0" as needed. 3. If user manually entered wildcard characters then: a. Split the name at each wildcard character. b. Convert the first part of the name using the standard Soundex algorithm. c. Append the wildcard character. d. Prepend a "throw-away" character (i.e. "L" or "R") to the beginning of the next name part and convert using the standard Soundex algorithm. Append this value starting at the second character to the values above. e. Repeat steps 3 & 4 for each remaining wildcard character and name part. f. Pad the final value to 15 characters by adding trailing "0" as needed. B. Modified Name algorithm: Note that this algorithm is not the same as the modified name algorithm used within the UCC application, for neither UCC nor EFS.				

	1. Replace all colons, semicolons, commas, periods, hyphens, slashes, and ampersands with a space. 2. Remove all other punctuation i.e. characters that are neither A thru Z nor 0 thru 9. 3. Remove "THE" as a word from the beginning, middle or end of the name. 4. Remove "AND" as a word from the middle or end of the name. Leave this word if located at the beginning of the name. 5. Remove multiple spaces. The system must provide an API for the external calling of the search modules from Nebraska.gov. The bidder should describe provide screen shots showing and provide examples of how their system's name search process(es) facilitate(s) determinations regarding business and trade name availability and for retrieval of existing records, emphasizing how the proposed system will improve the current workflow process.				

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

All Entity Types

Catalyst includes an embedded search engine, using either the database or ElasticSearch, that allows users to search for and retrieve entity records based on a range of criteria. This will allow internal and external users to retrieve and view the status of entities within the register.

Catalyst searches can be configured to operate across multiple registers, resulting in a unified search. Clearly results returned will depend on the attributes searched (i.e. entity types will only be returned if the search is executed against attributes that apply to them).

System administrators configure the range of search options available to different groups of users within the registry.

Catalyst supports the identification of Entities by all user groups via an efficient, accurate and comprehensive search tool. The tool facilitates the identification of an Entity based on either a full or partial string being provided by the user. Live searching is the default behavior of the Simple Search function. Advanced searching provides a variety of additional search criteria, e.g. entity type, entity status, incorporation date range, address keywords.

Once a search is complete, the user is able to select an entity from the search results list, view its details and, if authorized, maintain the entity's details

The details presented to the user will depend on their access privileges:

- External users with no authority over the entity, including anonymous users, will receive a limited amount of information about an Entity, based on what is considered 'public information'.
- External users with authority over the entity (i.e. who hold a particular business role) will obtain full external data associated with their entity
- Internal users will receive a much richer set of information about an Entity, including associated documents in the Entity's document repository, file notes, and other information that is not available to the public.

Catalyst search includes the following features:

- Advanced searching that enables filtering by a range of configured attributes e.g. entity status, entity type, business classification etc.
- Name reservation searching will enable current name reservations to be reviewed.
- Role searching is also available. For example, a user may search on individuals acting as directors in one or more corporations
- To protect a person's security, registry staff may suppress residential address from the public searches
- The maximum number of results returned by a search is a configurable parameter; Clients have to refine their criteria to obtain a smaller result set
- Sort options are available on the search results list to re-order the results differently from the default sorting based on entity name
- Users can print the search results and entity details as well as save them as a PDF or CSV
- Searching within Catalyst can use either the database management system or the Catalyst Search Index. The Catalyst search index is based on ElasticSearch, and allows for more powerful queues including phrase queries, wildcard queries, proximity queries, range queries, etc. By default, the Catalyst Search Index returns results by ranking with the best match being returned first.

Access to Catalyst search services are available via a number of channels. Access via mobile is provided through standard browsers that will scale to display Catalyst in the appropriate format. Standard Catalyst business services can be exposed as SOAP web services through the configuration.

Business Entities

Catalyst supports the searching of business entities (such as Company, Registered Names and Reserved Names) via its online browser-based web app. Searching can also be performed by external systems using web services exposed by Catalyst.

The following screenshots illustrate sample search, search result and entity details screens from Catalyst:

Figure 28. Simple Company Search

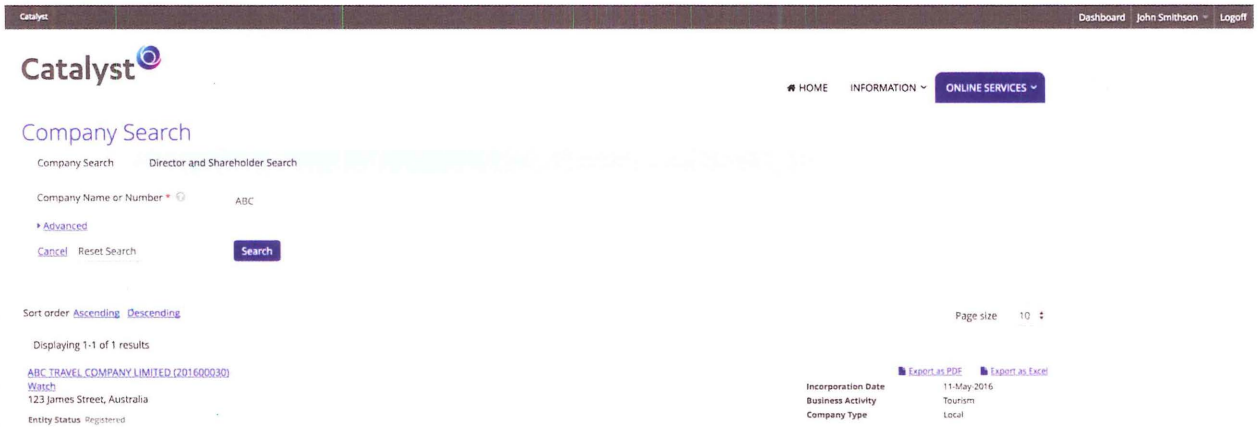


Figure 29. Search Results

The following screenshots show the entity details screen for an entity within the corporate register:

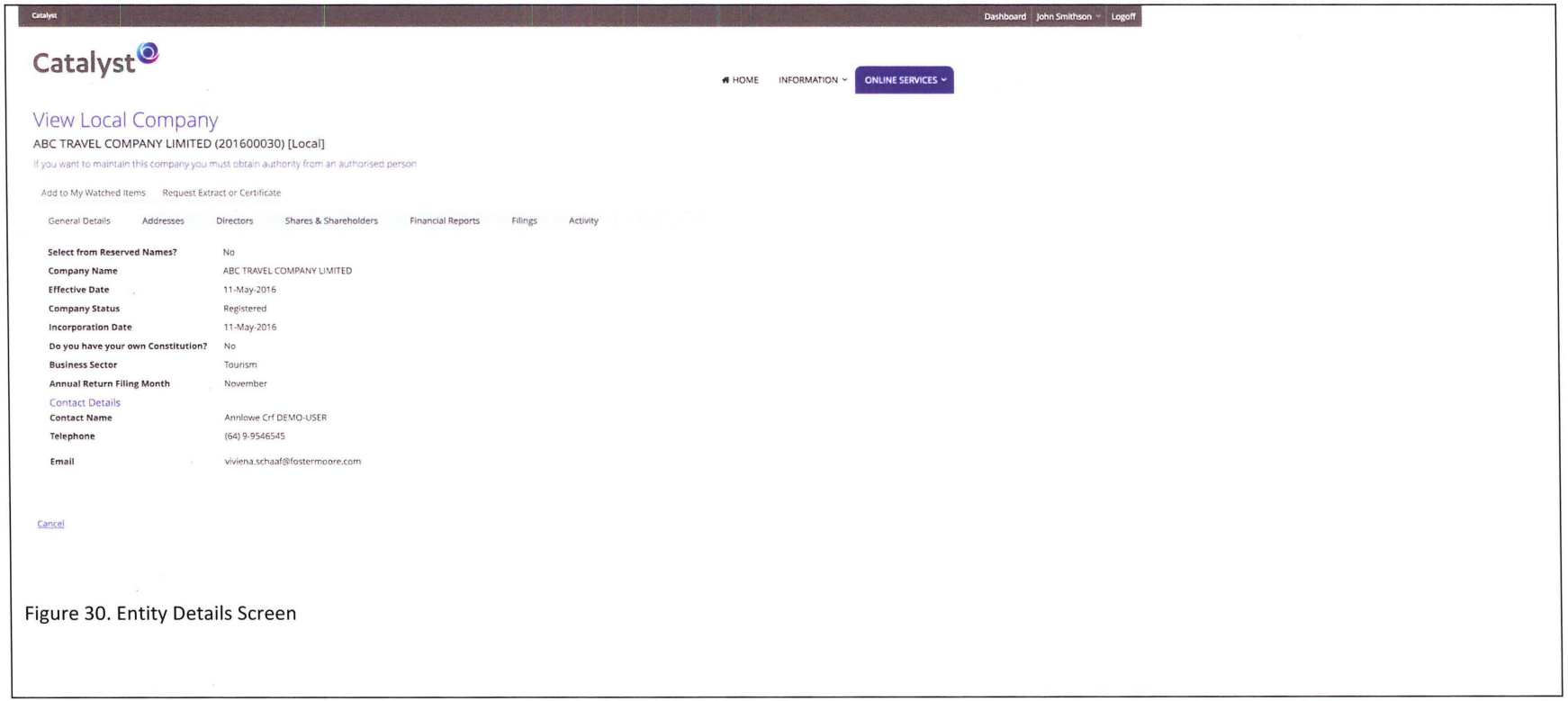


Figure 30. Entity Details Screen

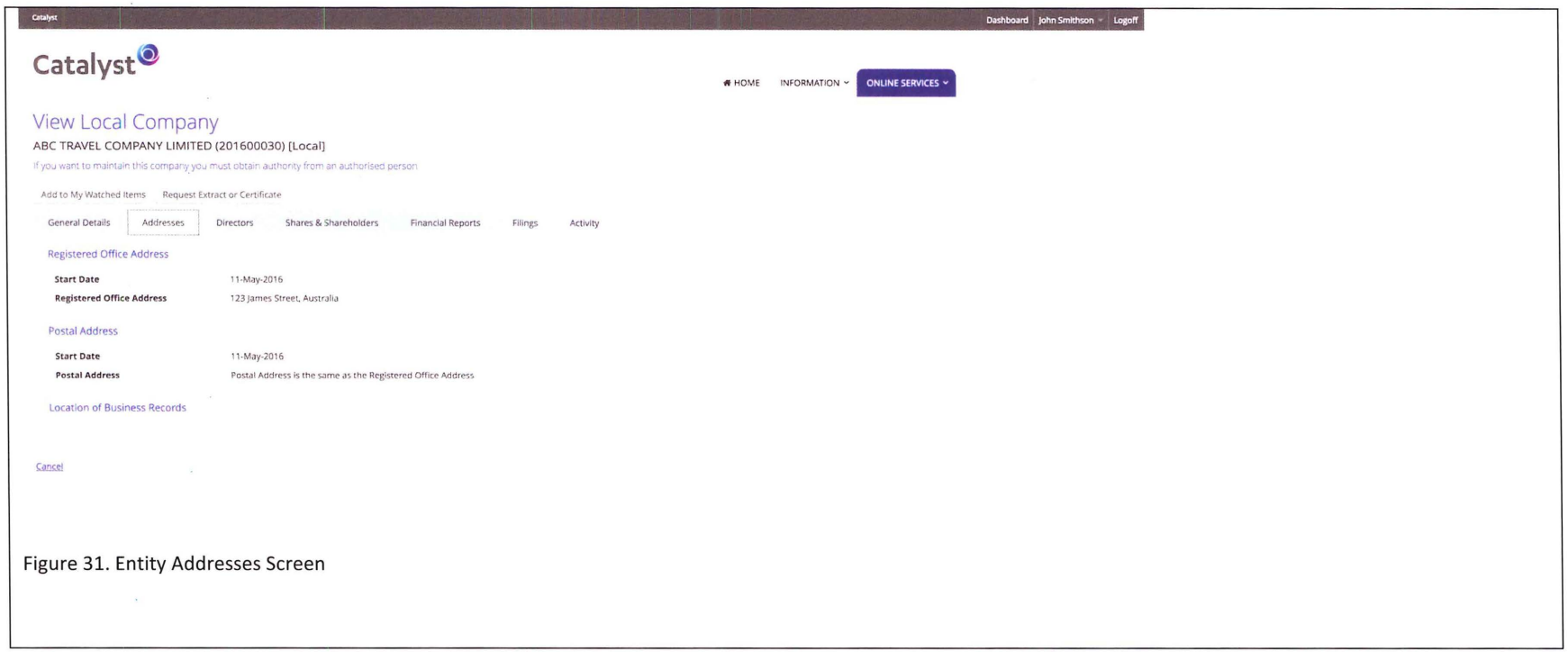


Figure 31. Entity Addresses Screen

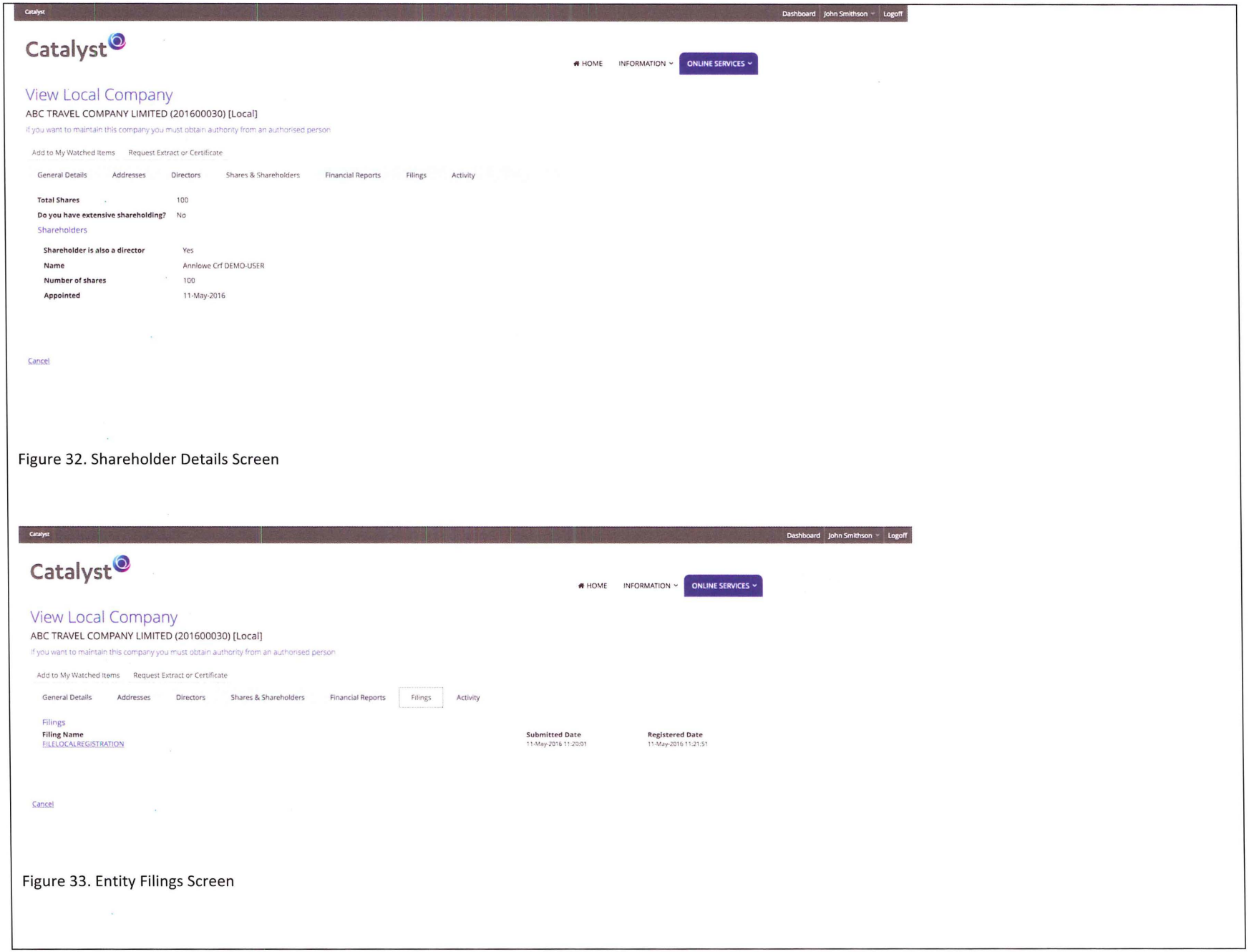


Figure 32. Shareholder Details Screen

Figure 33. Entity Filings Screen

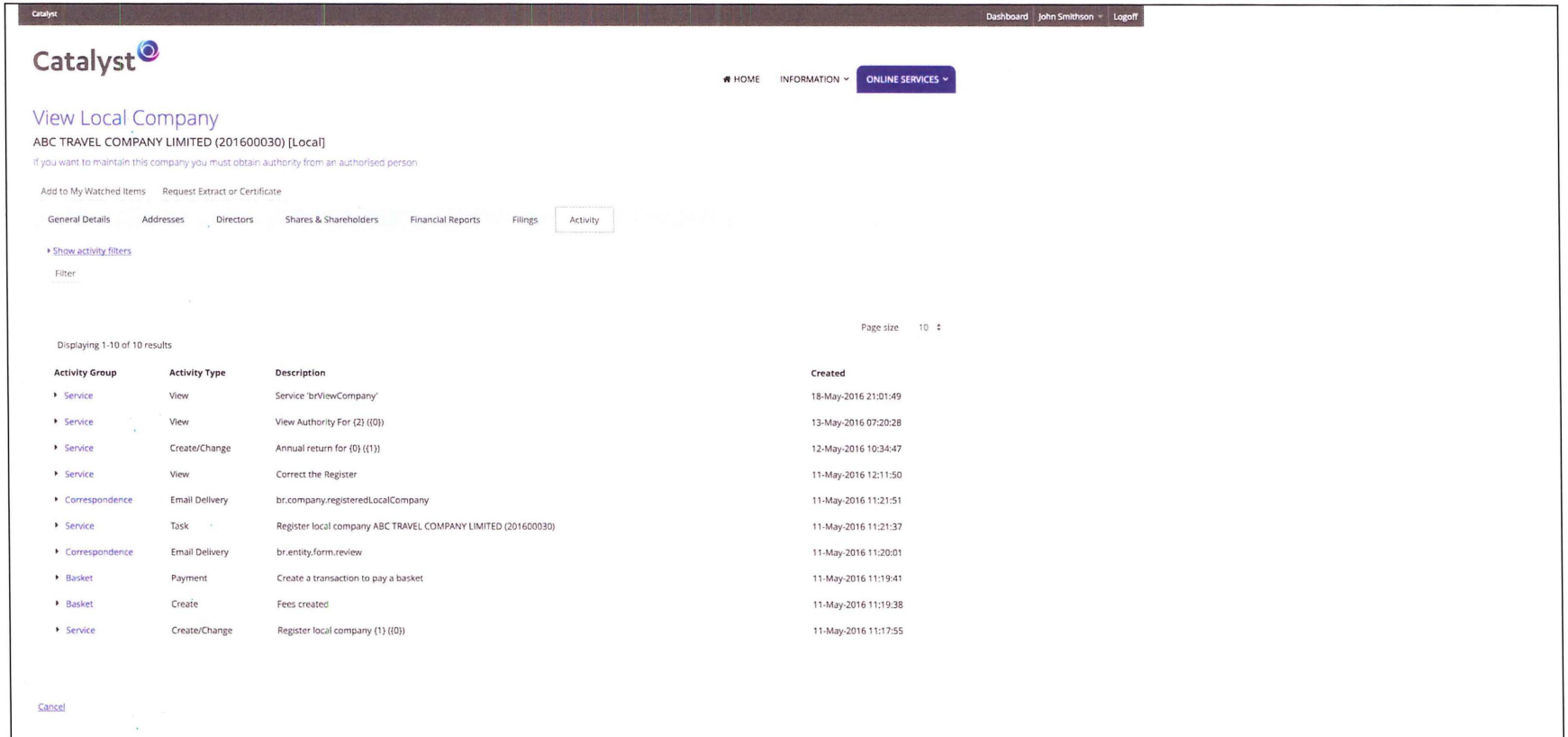


Figure 34. Entity Activity Screen

Trademarks

Catalyst provides searching of Trademarks, Service Marks ajd Trade Names.

- Search Trademarks, allows searching and storage of criteria and results for future reference and a requirement of Trademark examination
- Search Statistics, displays detailed information on searches submitted by external or internal users including criteria, number of hits and search timings
- Searches and Preliminary Advice, allows creation and maintenance of Search and Preliminary Advices including uploading and viewing documents and images
- Create SPA Batches, creates skeleton Search and Preliminary Advices for further detailing at a later date

- Update TM Protected words and devices, allows search and update functions on protected marks and devices, including mark types, classes and descriptive details
- Update and View Trademark Case law, records references to laws pertaining to Trademarks
- Update and View Trademark Rulings, records references to legal rulings pertaining to Trademarks

Name Validation

Catalyst provides configurable name availability checking and name compliance checking (e.g. banned words, abbreviations etc.) during incorporation, or as part of a dedicated name reservation process.

The following function covers the validation of a proposed name. This function will be invoked when reserving a name, registering a new entity or changing an entity name. The following rules apply when registering name: -

1. Name structure and character content;
2. Name availability;
3. Prohibited/restricted name check.

The standard functionality of each of these is explained below:

1. Name Structure

Catalyst can be configured to ensure the name structure is compliant with the registers legislative requirements. For example the following rules could be applied:

- Corporation name must end in 'Corporation', 'Incorporated', 'Company', or 'Limited'. The abbreviated formal of these words are also acceptable e.g. 'Corp', 'Inc', 'Co', 'Ltd'
- The proposed corporation name cannot be solely one of the words detailed above.

2. Name Availability Check

The following validation is applied to the proposed name with respect to existing entity names and Reserved Names:

- The proposed name must not be identical or almost identical to the name of an existing current business entity on the register;
- The proposed name must not be identical or almost identical to any non-expired Reserved Name

- The proposed name must not be identical or almost identical to a proposed name of an application that has been submitted and is awaiting review by an internal user;

3. Identical Name Check

The Business Registry performs the following to ensure that existing names are not identical:

- The proposed name is converted to uppercase.
- All double blanks are removed.
- All special characters: ' ~ # ! " ' $ % ^ * ( ) \ / + - . , : ; < = > ? @ { } [ ] | are removed.
- All single spaces between any single characters are removed (e.g. A B C Travel Limited should become ABC Travel Limited).
- The following words are replaced with the given substitutions:
  - CORPORATION - CORP
  - INCORPORATED - INC
  - LIMITED – LTD

The Business Registry performs the following to ensure that existing names are not almost identical:

- The proposed name is converted in accordance with the steps above.
- The following words are replaced with the given substitutions:
  - AND - &
  - BROTHERS – BROS
  - CO - COY
  - COMPANY – COY
  - PROPRIETARY or PROPRIETORY - PTY
- For any text strings where the length is greater than 1 all trailing 'S' characters are removed (e.g. HEARTS becomes HEART).
- The text string 'ie' is replaced with 'y'.

4. Prohibited/Restricted Name Check

The Business Registry performs the following to ensure that prohibited or restricted names are not almost used:

- In the event that the name contains a prohibited word, the system determines a Soft Error and the proposed name cannot be submitted;
- In the event that the name contains a restricted word, the system determines a Warning and the user is advised of the fact.

Miscellaneous

- Global Change of Registered Agent –
    - Catalyst can provide a register of registered agents. This allows a registered agent to update their details and cascade these changes to all entities they represent.
- Charge Account –
    - The Catalyst Payments module supports the creation of a deposit, billing account and externally managed accounts. A ***Deposit account*** is a pre-paid account where funds are pre-allocated and made available for payments. Sufficient funds must be added to the account in order for the user to pay for a service using their deposit account. A ***Billing account*** is a post-paid account where funds are not pre-allocated but the client is invoiced at the end of the billing period, An ***Externally Managed Account*** provides users with a real time payment option using a third party payment gateway. Unlike the deposit and billing account, which are created and maintained by internal users, an externally managed account is created and maintained be an external user. The options available will depend on the third party payment gateway.
- Job History Search –
    - Catalyst provides an integrated task management system that supports the allocation of tasks to teams and assignment of tasks to users The internal user work queue provides internal users with the ability to keep track of in progress tasks. Catalyst also provides Services that enable internal users to search for and view tasks that are in progress or have been completed.
- Filer/Client Maintenance –
    - The Catalyst Security module manages the identification, authentication and maintenance of internal and external users. External users such as filers are able to register and maintain their personal details

Search Configuration Options

Searches within Catalyst can be configured as follows:

- Provide search criteria as required, this could include but is not limited to the following search options:
    - Exact name match
    - Name start with specific string
    - Name is similar
    - Name contains specific keywords
    - Logical search (keywords or phrases connected by logical operators AND, OR and NOT)
- Configure rules for returning terminated, cancelled or revoked entities in response to searches
- Configure data available for a fee in the public searches

- Allow the user to select one or more entities from the results and view details based on their permissions
- Products can be certified or un-certified, with certified ones incurring an additional fee
- All certificates and certified products will bear the signature of the Registrar and include a certification statement
- Certificates and reports may be printed, emailed or saved as PDF files

Identical name rules are applied to the search string before performing the search:

- All double blanks are removed.
- All special characters: ' ~ # ! " ' $ % ^ * ( ) \ / + - . , : ; < = > ? @ { } [ ] | are removed.
- All single spaces between any single characters are removed (e.g. A B C Travel Limited should become ABC Travel Limited).
- The following words are replaced with the given substitutions:
  - CORPORATION - CORP
  - INCORPORATED – INC
  - LIMITED – LTD

These Identical name rules would be enhanced to include the words in the NAME AVAILABILITY list

Corp-2	Name Availability Screening Name availability is a screening process that is completed on a daily basis for any written requests received from consumers to check if a name may be available for filing prior to filing the document. Also name availability is used in current workflow. The name availability process must be upgraded to a basic electronic process to enter information into a template worksheet, which is then stored and retrievable by name(s) checked, date checked, and system generated document number, and can be purged per retention schedule. See Appendix N - Name Availability Screening The bidder should describe and provide screen shots showing how their system handles and checks for name availability screening, emphasizing how it improves the current workflow process.	Yes		
Bidder Response:				

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

The standard functionality of each of these is explained below:

1. **Name Structure**

Catalyst can be configured to ensure the name structure is compliant with the registers legislative requirements. For example the following rules could be applied:

- Corporation name must end in 'Corporation', 'Incorporated', 'Company', or 'Limited'. The abbreviated formal of these words are also acceptable e.g. 'Corp', 'Inc', 'Co', 'Ltd'
- The proposed corporation name cannot be solely one of the words detailed above.

2. **Name Availability Check**

The following validation is applied to the proposed name with respect to existing entity names and Reserved Names:

- The proposed name must not be identical or almost identical to the name of an existing current business entity on the register;
- The proposed name must not be identical or almost identical to any non-expired Reserved Name
- The proposed name must not be identical or almost identical to a proposed name of an application that has been submitted and is awaiting review by an internal user;

3. **Identical Name Check**

The Business Registry performs the following to ensure that existing names are not identical:

- The proposed name is converted to uppercase.
- All double blanks are removed.
- All special characters: ' ~ # ! " ' $ % ^ * ( ) \ / + - . , : ; < = > ? @ { } [ ] | are removed.
- All single spaces between any single characters are removed (e.g. A B C Travel Limited should become ABC Travel Limited).
- The following words are replaced with the given substitutions:
    - CORPORATION - CORP

- INCORPORATED - INC
- LIMITED – LTD

The Business Registry performs the following to ensure that existing names are not almost identical:

- The proposed name is converted in accordance with the steps above.
- The following words are replaced with the given substitutions:
  - AND - &
  - BROTHERS – BROS
  - CO - COY
  - COMPANY – COY
  - PROPRIETARY or PROPRIETORY - PTY
- For any text strings where the length is greater than 1 all trailing 'S' characters are removed (e.g. HEARTS becomes HEART).
- The text string 'ie' is replaced with 'y'.

4. Prohibited/Restricted Name Check

The Business Registry performs the following to ensure that prohibited or restricted names are not almost used:

- In the event that the name contains a prohibited word, the system determines a Soft Error and the proposed name cannot be submitted;
- In the event that the name contains a restricted word, the system determines a Warning and the user is advised of the fact.

Corp-3	Registered Agent (RA) The software must provide the ability to capture RA information in one place for each unique Registered Agent. RAs might have more than one valid office address. The software must provide RA address, email and phone contact. If the RA is known and already exists, prevent creation of a new RA record. If the RA doesn't exist in the system, a record will need to be created. If the RA doesn't provide a number, search for the RA in the database before creating a new RA record. See search instructions described in RTM Corp-1 #9 B. Staff needs the ability to update, merge, and purge RA data and the ability to search, including by wildcard, RA data by name, address, email, and id number. (See Appendix J – Ancillary Databases and Derived Reports Item #8)	Yes		

	The bidder should describe and provide screen shots showing how their system handles and processes RA information, emphasizing how it improves the current workflow process.			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst provides functionality to appoint and maintain registered agents for an entity. When appointing a new agent options are provided to select an existing registered agent or, where the registered agent does not exist, create a new registered agent. Where the user elects to enter a new registered agent system validation is invoked to ensure the registered agent details do not already exist. Where the user elects to appoint a registered agent that already exists the user will be able to search for the registered agent and select the appropriate registered agent from the list of agents returned.

Catalyst can also provide a separate register of Registered Agents. This provides self-service access for agents themselves, allowing them to create and maintain their own registrations.

Functions within the RA register include:

- Registration and maintenance
- Voluntary termination
- Search and view of registered agents
- Correction of registered agent details
- Cancelation of registration by internal user
- Application review and approval processing
- Authority management

The following screenshots illustrate the registration of a new Registered Agent, within Catalyst:

Register a Commercial Registered Agent

Online pending application expires in 10 business days on 07/26/2016 @ 3:15 AM, if not submitted earlier

Applicant Type: Entity

Name *

Street Address

Country: United States

Address *

City *

State/Province: Montana

Zip/Postal Code *

Mailing Address

Mailing Address is the same as the Street Address

Country: United States

Address *

City *

State/Province: Montana

Zip/Postal Code *

Email Address *

Information regarding alternate means of accepting service of process

* I confirm that the address appearing above reflects a place of business of the person in the state of to which service of process and other notice and documents being served on or sent to entities represented by it may be delivered

* I, hereby swear and affirm, under penalty of law, that the facts contained in this application are true

Cancel Save & Exit

Submit

Figure 35. Register a new Registered Agent					
Corp-4	Formation Documents Filings received in-house: refer to the Current Workflow A; in addition, the following are specific details for Formation Documents. A. If accepted then staff checks existing Registered Agent table, if no RA record exists, a new record is created. B. Perform If-Then rules depending on action type (Refer to Appendix B – Corp Data Fields). C. If declined see workflow. Filings received via Document eDelivery – refer to Current Workflow B). The bidder should describe and provide screen shots showing how their system handles and processes Formation Documents, emphasizing how it improves the current workflow process.	Yes			

Bidder Response

Catalyst users register and maintain business entity data via specific online business services that handle the submission and processing of prescribed forms. For example, the online system allows registered users to apply for incorporation, amendment or dissolution. The registered filer is sent email notifications of the status and outcome of their submissions, with the reason(s) for rejection stated in the notification, if an application has been rejected.

Where required, registry staff users will be able to review and approve or reject submitted applications. Privileged internal users are able to correct registry data, with provision of the reason for change. Any change in data is audited, with the system recording 'who did what when'.

Public users may search on companies on the online register and obtain emailed copies of the certificate of registration and company extracts.

The following describes the framework, standard rules and system behavior developed in Catalyst to support the registration and maintenance of business entities, such as corporations or companies. Product configuration is used to define business services to handle registration of specific entity types within the registry.

A registered, logged in user may submit an application or change via an online function (e.g. application for incorporation). Each function will have its own set of rules for data capture, payment, review and system updates.

Online Data Capture and Validation

The user enters the data required for an application, depending on the entity type, e.g. company name and addresses, director details, shareholding details, contact details, etc.

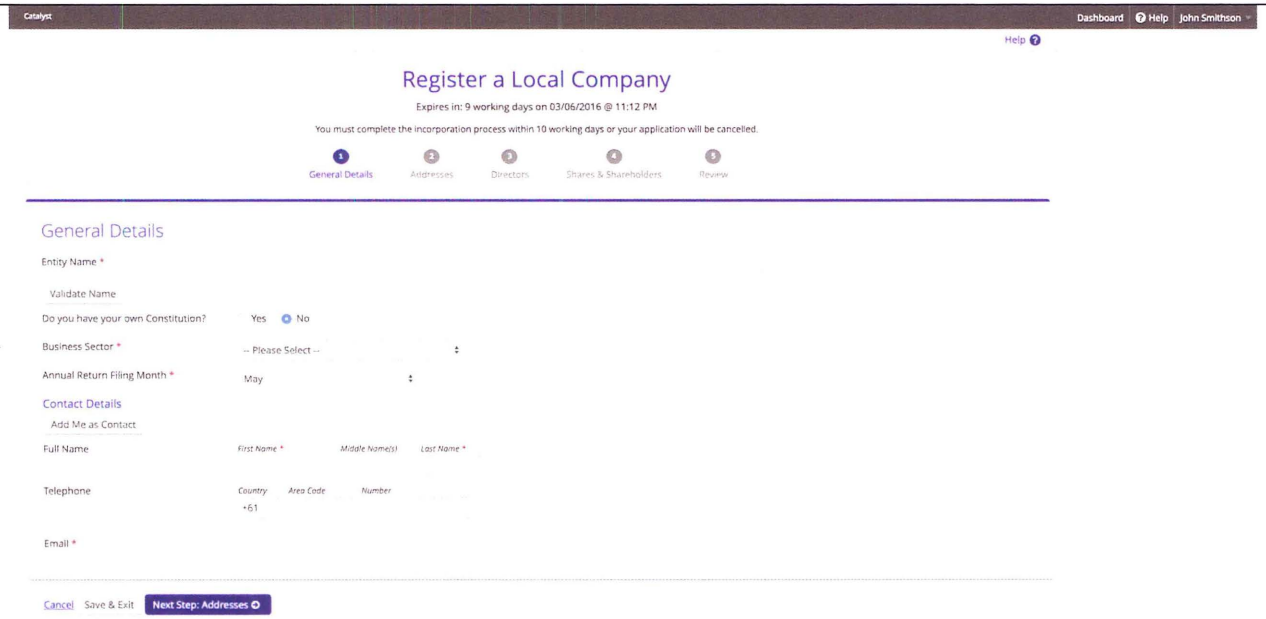


Figure 36. Company Incorporation

Business rules can be applied to control capture of fields based on conditional logic. For example if the filer selects a particular option or value, additional fields and/or mandatory document uploads can be shown to ensure information required to support the value/option selected is received.

The data contained in an application undergoes automated validation **before** a user can submit it:

- General data validation – focuses on checking for sufficient levels of data quality such as the presence of data in mandatory fields, correct data types, valid value ranges, appropriate selection from lists, address validation etc.).
- Business validation – focuses on checking that the application as a whole contains the correct elements to satisfy the needs of its associated legislation, and/or any downstream processing that will be undertaken against the application. This will be specific to each register. An example of this sort of validation is to ensure that the entity on the register has an address in a particular state. For example, if the principal office address is not in the required state, then the filer would be required to provide details of their Registered Agent, whose address must be in the required state, or add another address that is in the required state. Alternatively, the online form can be configured to enforce the address is in a particular state and/or country. This can be achieved by setting the state and/or country code to the required value and

setting these fields to read only. Another example of this is name validation checks or ensuring the minimum number of officers have been added.

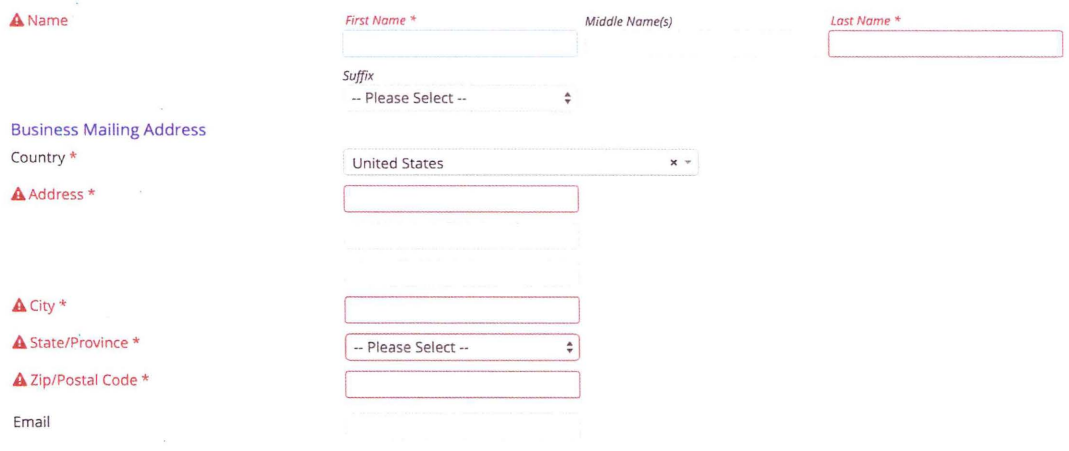


Figure 37. Mandatory validation rules

Third party validation (customization required) – focuses on checking certain application data with third party agencies.

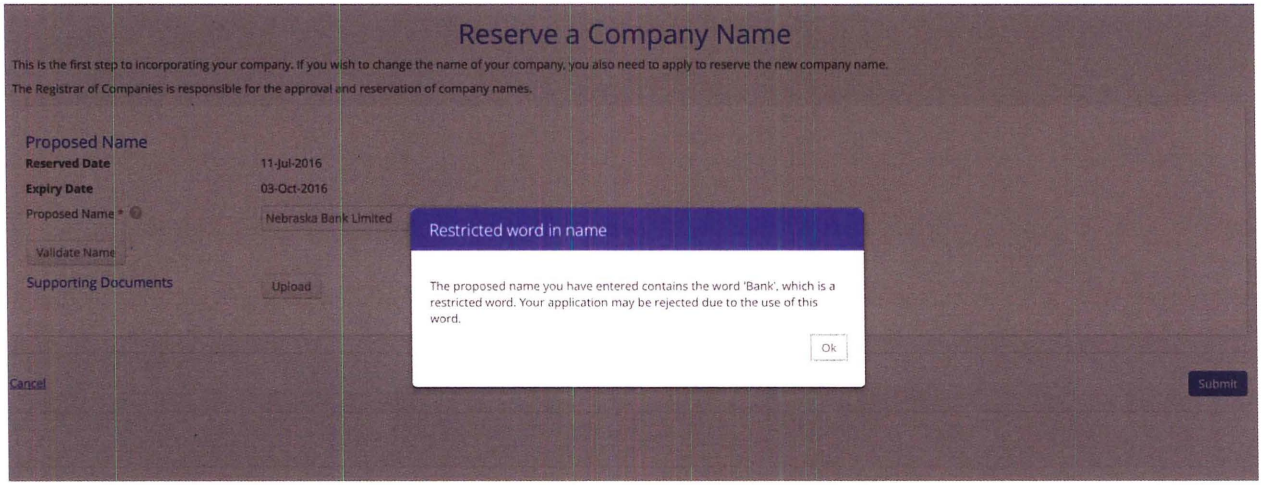


Figure 38. Use of restricted name warning on submission

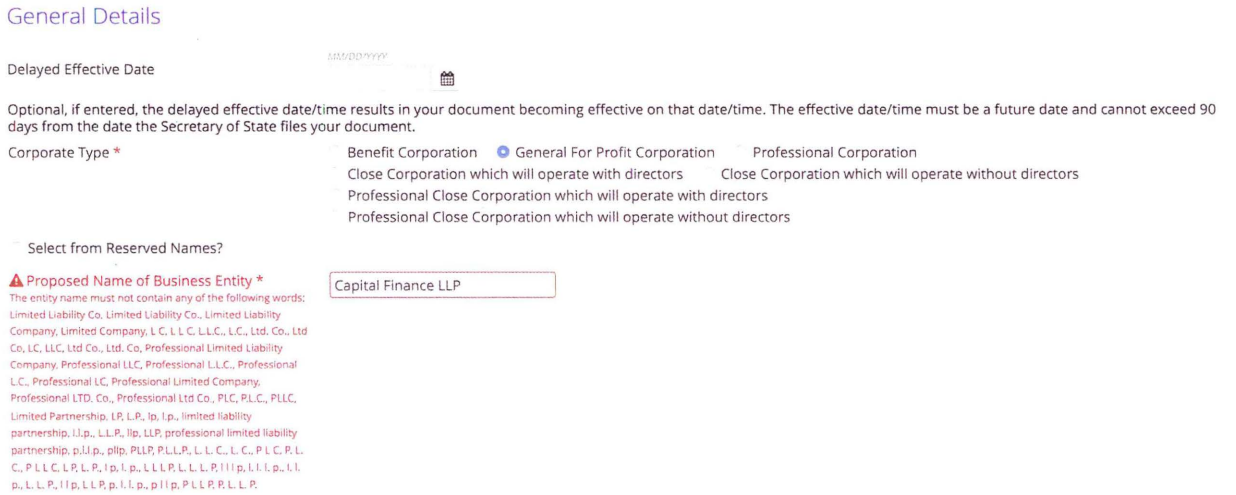


Figure 39. Name validation rules

Online Submission Workflow

The following attributes are pre-defined for each function and determine its online submission workflow:

- Wizard Approach – where a function requires intensive data entry, e.g. application for registration of a company, the various steps in the process are presented via a series of screens. A progress bar is shown at the top of the page and the user navigated to subsequent screens until data entry has been completed and the application is ready for submission. A final 'Review' page will be shown to allow a user to view the application details entered so far. The user may navigate to a specific section of the application to edit or correct data or submit the application where all details are complete.
- Saving of Incomplete Data – selected applications may be saved by the user and data entry resumed in another web session. The user must correct any invalid data, e.g. invalid date format before saving an incomplete application. Previously entered data may still be changed or expanded, on resuming of data entry in a subsequent web session.
- Completion Period – specific functions must be completed within a set number of working days. The period can be configured to any value required. For example, existing implementations vary from 2 working days for a function that requires minimum data entry (e.g. application to change a company name) to 10 working days for an extensive form (e.g. application for registration of a company).
- Payment of Fee – where the submission incurs a fee, the user must complete the payment online before the transaction is accepted by the system. Examples of some of the payment options that could be made available to external users are listed below:
  - Credit Card Payment – This would require integration with a third party payment gateway.
  - Billing Accounts (Direct Debit) – pre-approved users will be automatically invoiced monthly by the Register. Non-payment may result in de-activation of the account.
  - Pre-paid account – an account balance is maintained per user account. This account balance is incremented online by an internal user, based on a payment receipt (transacted either at an authorized office, e.g. Registry Office, Ministry of Finance, or bank branches). There must be sufficient funds in the account to cover filing of a notice.

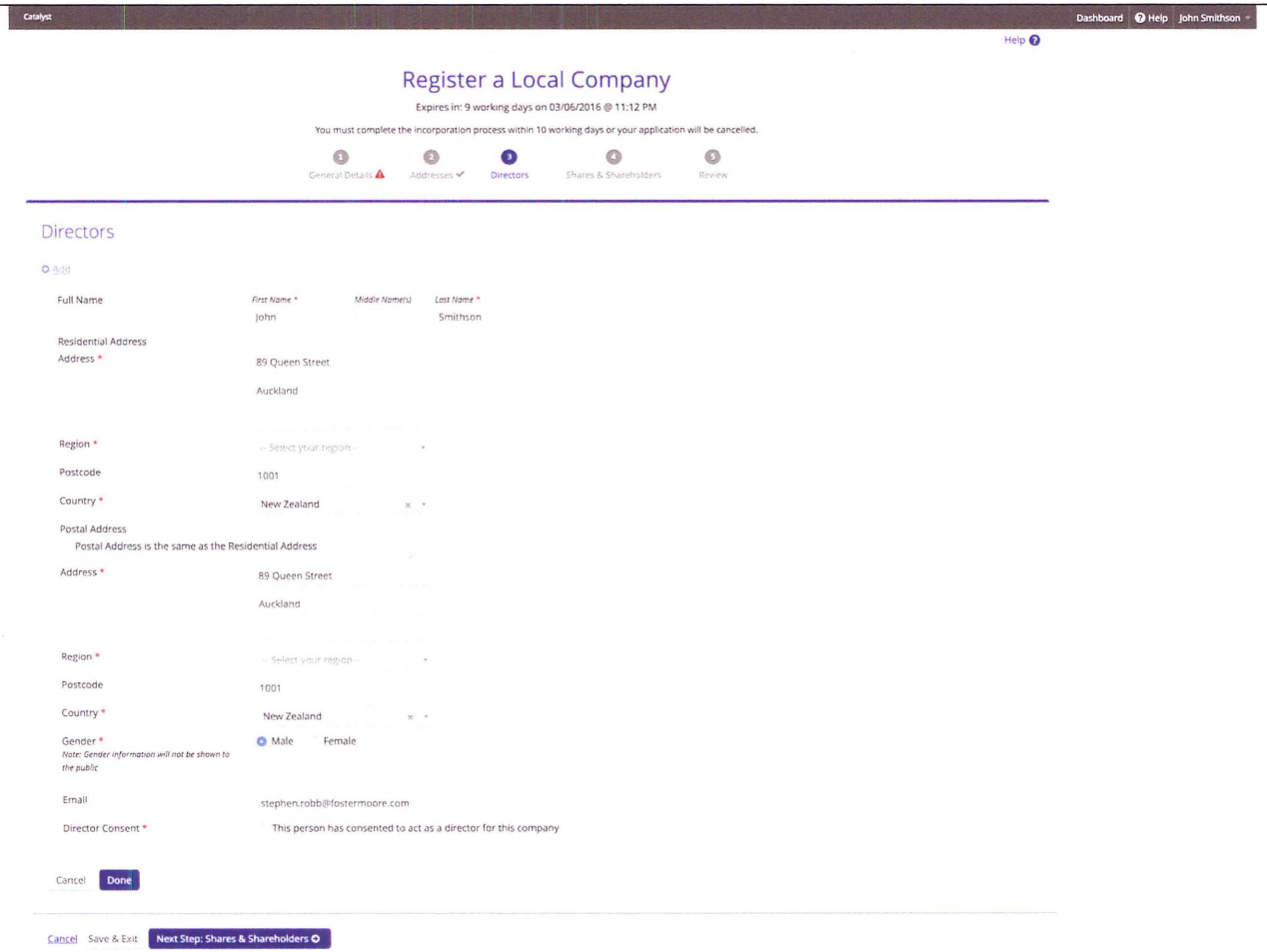


Figure 40. Partially completed Company Registration

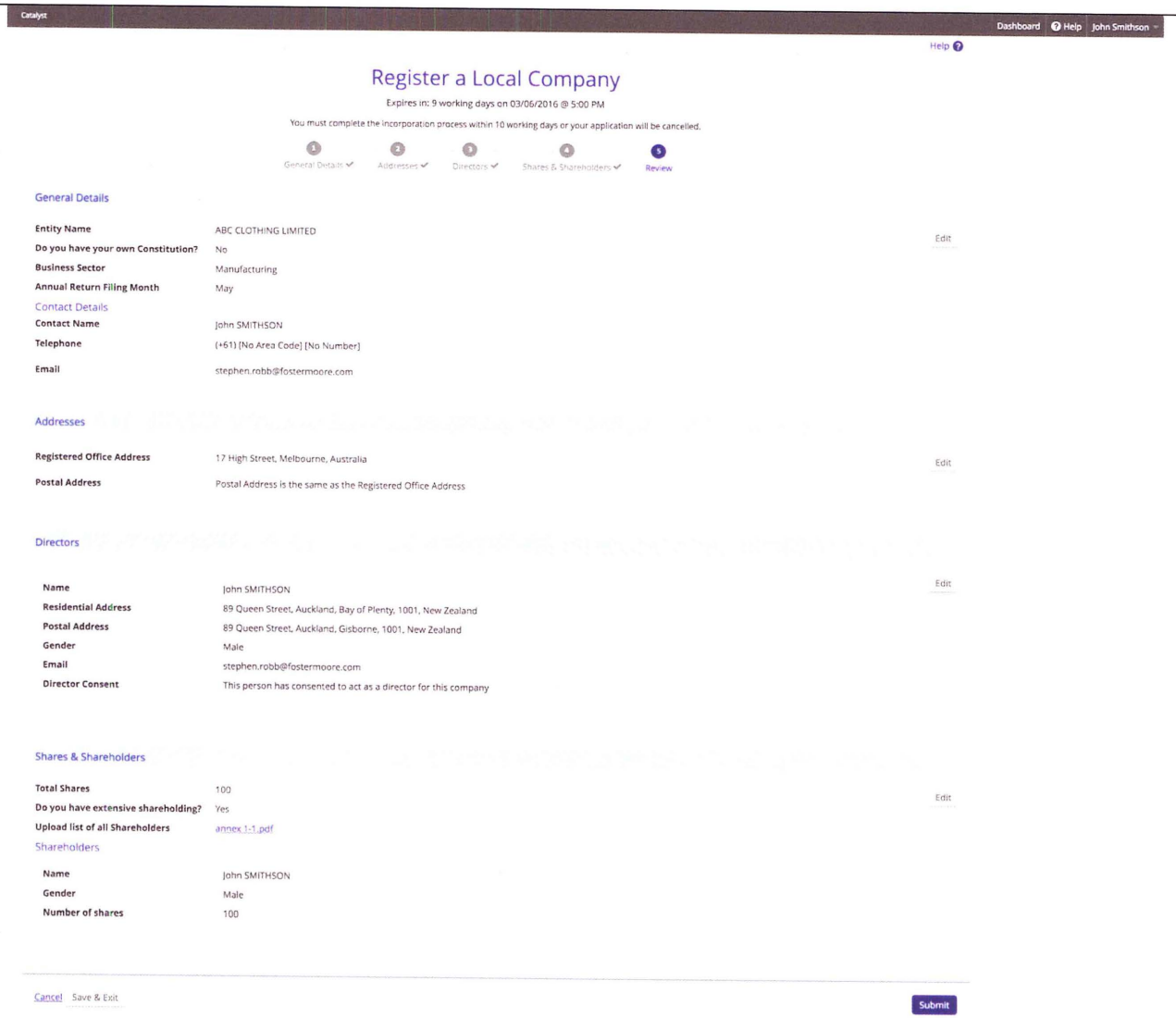


Figure 41. Draft review screen

Confirmation of Receipt of Application

C

catalyst-prd <catalyst@prd.rcd.client.fostermoore.com>
Monday, 23 May 2016 at 3:22 PM
To: Stephen Robb

Our Ref: 201600039

Dear Sir/Madam,

Application : Register a Local Company
Company Name : ABC CLOTHING LIMITED (201600039)

Your application to Register a Local Company that you submitted on 22-May-2016 23:22 has been sent for review.

We will notify you of the outcome following our internal review.

Kindly advise your client accordingly.

With kindest regards.

For and on behalf of Register Cluster Demo

Signatory
Registry Department

Delivery Id: 157

Figure 42. Confirmation Email

Registered Agent Validation

When forming a new entity or amending details about an existing entity registered agent details may need to be captured. The Catalyst SOS template provides standard functionality to appoint a new registered agent or edit the existing appointed registered agent. When appointing a new registered agent, for example during formation of an entity, options are provided to the user completing the formation application to select an existing registered agent or to create a new registered agent. Should the user elect to enter a new registered agent system validation is invoked to ensure the user is not entering details about an existing registered agent.

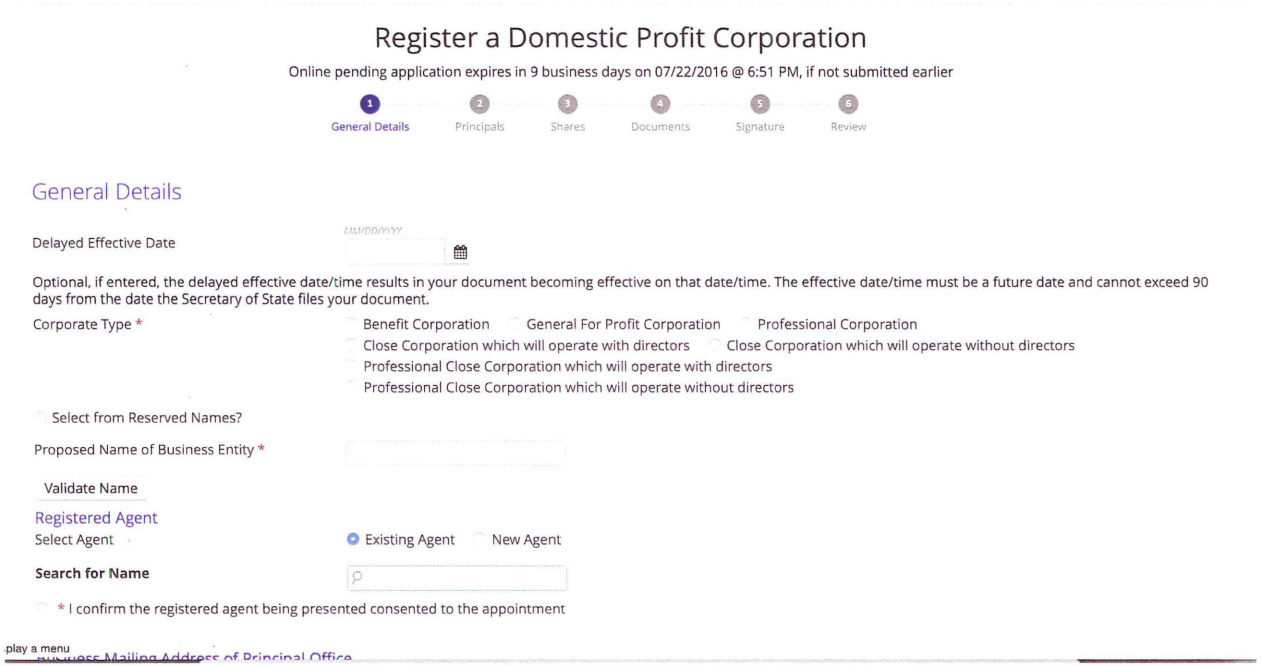


Figure 43. Formation service showing section to select registered agent.

Internal Review

The use of validation within the business service to ensure that high quality, error free data is captured is implemented where possible, however there are occasions where validation is not possible, or legislation requires manual approval, or it is good business practice to ensure that the register is being maintained correctly. In these instances, the Catalyst Workflow framework can include steps and configurable rules around how the review process is managed by register staff through the generation and management of a **review task**. This covers the allocation of the review task to the appropriate team, and the allocation of any authorisation to ensure that only suitably authorised personnel can approve such review tasks.

The review task that is generated is configurable in a number of ways, with the following options able to be specified in order to implement a flexible business process to manage business service submissions: -

- Allocation/Assignment: -

- Who the review task is initially allocated to;
- Who can be assigned to review the task;
- Who the task can be reallocated to.

- Correction/Revision: -
  - Whether the submission can be returned to the presenter for revision/correction;
  - Whether the internal review process allows the original details on the submission to be updated by internal staff;
  - Who can delete the application (the instance of a business service).
- Outcome: -
  - What task outcome options are allowed for each task;
  - What task outcome options are provided to teams/users.
- Notification: -
  - Who is notified whenever any action on the review task is completed;
  - What notification and information they receive, this includes attachments that need to be included with a notification such as certificates.

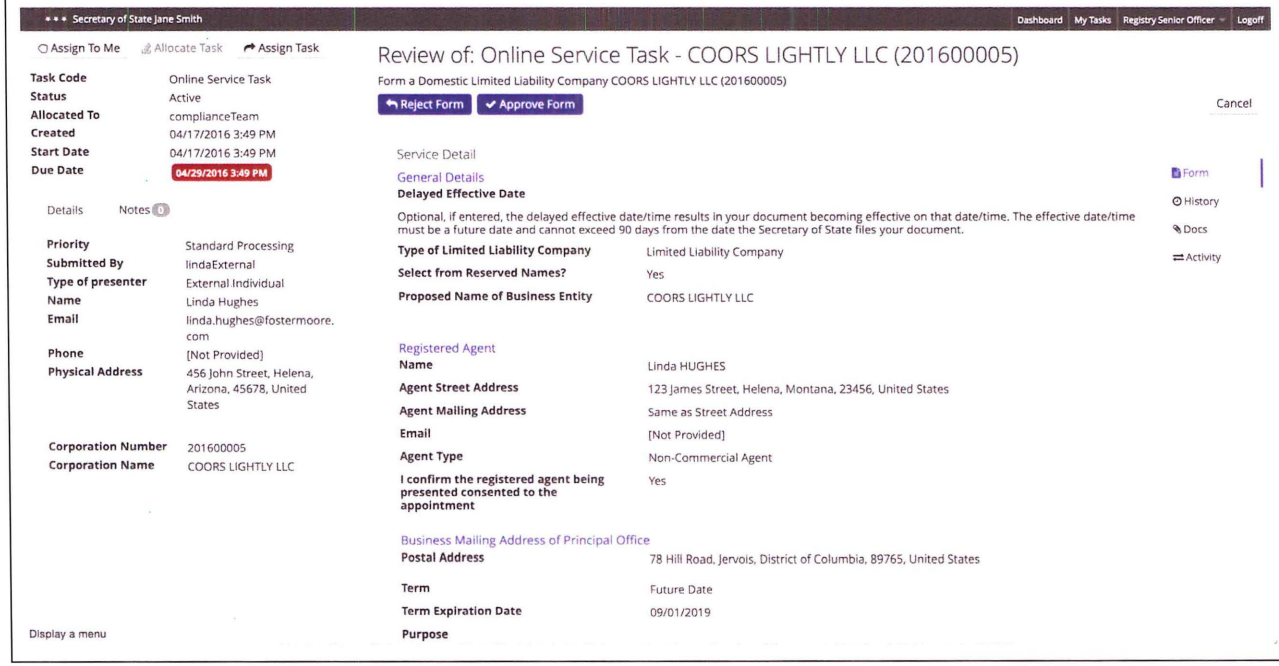


Figure 44. Review Task.

A configurable list of reasons can be maintained for the different review task options available to the reviewer. For example a list of rejection reasons can be configured for a formation application review task. If the reviewer elects to reject the application they will be able to select one or more reasons from the list of configured rejection reasons. A free format text field can also be made available to enter a reject reason that is not listed. The selected reasons will then be included in the rejection notification that will be sent to the filer.

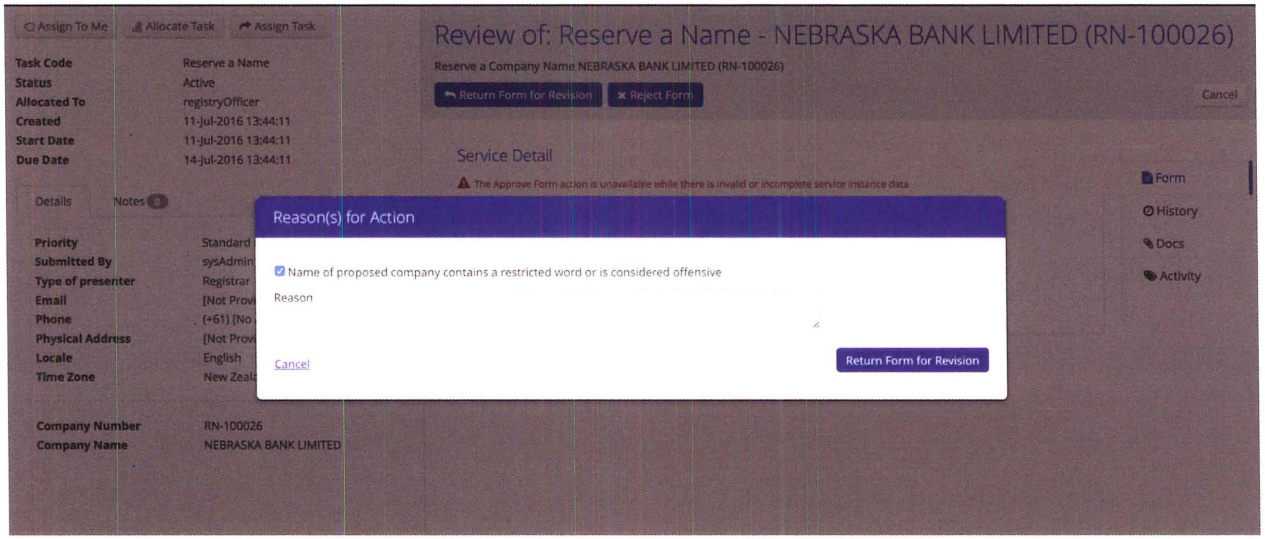


Figure 45. Selection of return reason during internal review.

NEBRASKA BANK LIMITED

C

catalyst-uat-rcd <catalyst@uat.rcd.client.fostermoore.com>
Monday, 11 July 2016 1:34 pm
To: Linda Hughes

Our Ref: RN-100025

Dear Sir/Madam,

Application : Reserve a Company Name
Company Name : NEBRASKA BANK LIMITED (RN-100025)

Your application to Reserve a Company Name for the above name has been declined on 11-Jul-2016 13:34 for the following reason(s):

- Name of proposed company contains a restricted word or is considered offensive

Please update your application and re-submit it within 3 business days.

Figure 46. Notification email sent to filer when application is returned during internal review.

Document Receipting

While it is the intention of most jurisdictions that their customers lodge their regulatory forms online, the practical reality is that a large percentage of filings may continue to be made via offline channels, for example mailed in or presented at a front counter. In some Catalyst implementations, the volume of offline lodgments is anticipated to be relatively high.

The Catalyst Document Receipting module is a solution that enables internal Registry staff to meet these customer expectations and needs, and to minimize the workload on registry staff tasked with processing offline lodgments by separating out document receipting, scanning of documents and data entry.

The document receipting module supports the following processes:

- Capture of lodgment details. In Catalyst a lodgment is a collection of applications/filings received from a single filer. The following information will need to be captured for each lodgment
    - Details of each application/filing;
    - Filer name and contact details ;
    - Details of all payments received for the lodgment;
- Linking of scanned documents to a lodgment;

- Maintaining and correcting a lodgment;
- Running reconciliation report for a particular day.

The document receipting process adopted by each jurisdiction will depend on the hardware they wish to use to support document receipting, for example if they are using barcode scanners and the capabilities of their document scanners.

The following describes a process to handle the receipt of filings in a typical implementation of the Catalyst Document Receipting module.

Capture Lodgment Details

The receipting team receive a lodgment from a filer containing one or more applications/filings and may also receive one or more payments. The receipting team will enter minimal information about the filing such as entity name, type of filing, barcodes or document numbers associated to any documents received, the filers name and contact details and any details about the payments received for the submission. Typically the document barcode number is captured using a barcode scanner. When all required information has been captured and validated the user can submit the lodgment. If the system detects the payments received does not match the calculated fees a warning will be shown, however the user will be able to continue with the submission if they choose to.

Scan & Link Documents to Lodgment

The scanning of the documents associated to a lodgment is handled outside of Catalyst. Typically documents for multiple jurisdictions will be scanned together and can be emailed to a designated email address or sent to a predefined network location. A Catalyst background process runs at a configurable frequency (e.g. every 5 minutes, hourly, or daily depending on the jurisdiction's requirements) to link the scanned document to the document record created when the lodgment details were captured.

Capture Application/Filing Details

When all documents recorded for a lodgment filing have been linked to the filing a data entry task is created for each filing. The data entry task will be available from the internal users work queue. A record of the fees associated to the filing and the payment(s) received for the filing will be associated to the filing. The data entry team enters the required information for each filing based on the scanned paper filing. The same online form that is presented to online users will be used by the data entry team to capture the application details. The fields that are shown and the validation applied may differ based on user group, this means the online form can be configured to cater for multiple user groups. For example, a formation application may require an online external filer to enter an email address for the entity contact, but if an internal user is submitting the formation application on behalf of a filer the email address might be optional. The data entry team can return the filing to the filer if the information provided is deficient. If all required information has been entered and validated and all supporting documents received and linked to the application the internal user will be able to submit the application. Refer to previous sections that outline form data capture and validation.

If the filing requires review by another team a review task will be created for the review team and will be available for the internal users work queue. Please refer to previous sections that outline the internal review of a filing.

Document Receipting Reports

A number of reports are available from the document receipting module to assist in day end reconciliation of payments received. A summary of the reports are as follows:

- The **Daily Reconciliation Report by User** provides the receipting staff member with details of payments receipted for a particular period. The report can be run for a single day and can be filtered by a particular registry staff member
- The **Receipts by Payment Type** report provides the receipting staff member with details of payments receipted for a particular period.
- The **Payments Received Report** provides the receipting staff member with a list of payments receipted for a particular period, by default this is set to beginning of current day and the current date and time. Payments are grouped by payment method.

Document Receipting Supporting Services

A number of services are available to registry staff with the appropriate permissions to search, view, update and correct information relating to filings receipted via the document receipting module.

Corp-5	Amendment & Correction Filings For filings received in-house refer to the Current Workflow A; in addition, the following are specific details for Amendment & Correction Filings. A. Search for existing entity – Refer to Corp 1 for search options 2 – 6. B. Verify status is active. If status is inactive or suspended, allow staff to determine whether to continue. C. Check for existing Registered Agent data and update as needed. D. Perform If-Then rules depending on action type (Refer to Appendix B – Corp Data Fields). E. If declined, see workflow. Filings received via Document eDelivery – refer to Current Workflow B). The bidder should describe and provide screen shots showing how their system handles and processes Amendment & Correction Filings, emphasizing how it improves the current workflow process.	Yes			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

A registered, logged in user may submit an application or change via an online function (e.g. application for incorporation). Each function will have its own set of rules for data capture, payment, review and system updates.

The user enters the data required for an application, depending on the entity type, e.g. company name and addresses, director details, shareholding details, contact details, etc.

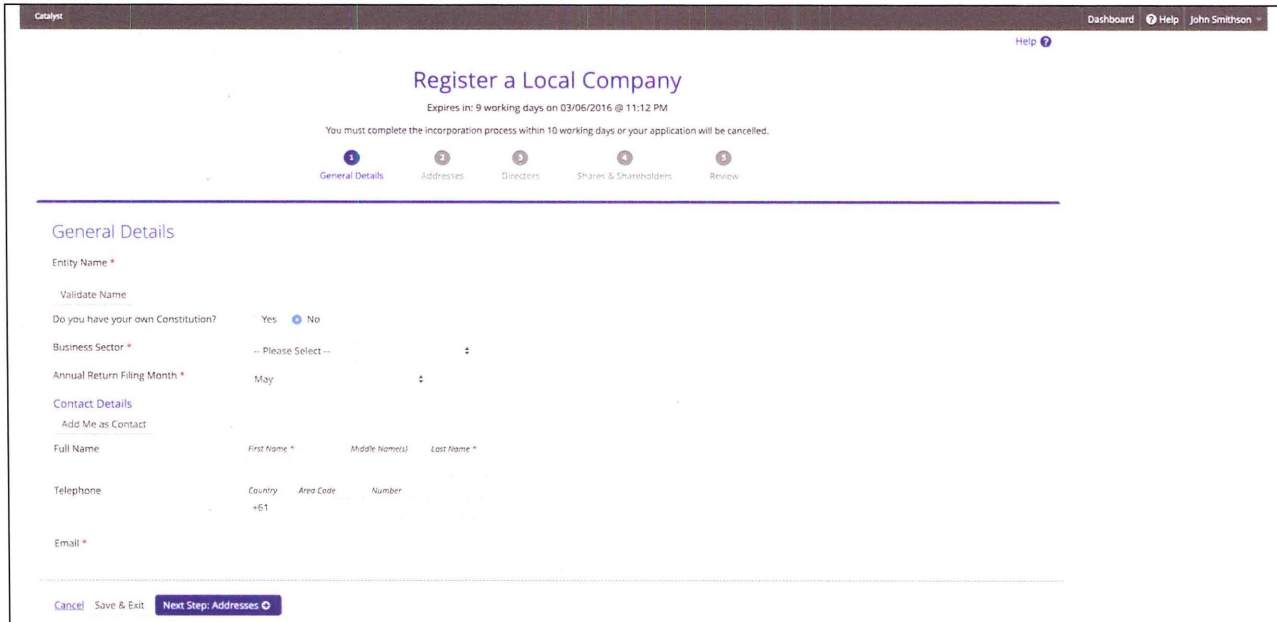


Figure 47. Company Incorporation

The data contained in an application undergoes automated validation **before** a user can submit it:

- General data validation – focuses on checking for sufficient levels of data quality such as the presence of data in mandatory fields, correct data types, valid value ranges, appropriate selection from lists, address validation etc.)
- Business validation – focuses on checking that the application as a whole contains the correct elements to satisfy the needs of its associated legislation, and/or any downstream processing that will be undertaken against the application. This will be specific to each register.
- Third party validation (customization required) – focuses on checking certain application data with third party agencies. The required third party validation will be specific to each register. Sample third-party validation:

    - Check with Inland Revenue Department that the supplied Director IRD number is valid;
    - Check with National Enforcement Unit that the supplied Director is not a Banned Person;
    - Check with Insolvency and Trustee Service that Directors/Shareholders are not currently bankrupt;

Corp-6	Renewal Filings For filings received in-house refer to the Current Workflow A; in addition, the following are specific details for Renewal Filings. A. Search for existing entity – Refer to Corp 1 for search options 2 – 6. B. Verify status is active. If status is inactive or suspended, allow staff to determine whether to continue. C. Perform If-Then rules depending on action type (Refer to Appendix B – Corp Data Fields). D. If declined, see workflow. Filings received via Document eDelivery – refer to Current Workflow B). The bidder should describe and provide screen shots showing how their system handles and processes Renewal Filings, emphasizing how it improves the current workflow process.	Yes			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst workflows are constructed to control the business processes that take place within the registry. This may include the registration or incorporation of new entities, entity administration and completion of regular compliance functions online, such as annual filing notices and entity renewals. The Catalyst Compliance module can be configured to send courtesy and overdue email reminders for renewals, and where necessary automated removal of entities that fail to comply with the legislative requirements such as filing their renewal filings.

These compliance functions enforce legislative requirements such as Annual Declarations or the handling of liquidations etc. Compliance is controlled by a series of events; an alert will fire at a pre-determined time and trigger an event. Compliance records are created as a result of the submission of an application, for example the registration of an entity.

Availability of a Catalyst Business Service, including a service to support renewal filings, can be controlled based on due dates, entity status, user roles etc. When restricting the availability of a business service Catalyst can either not show the menu item or show the menu item and display a message to the user advising them the service is not currently available. Depending on the user accessing the service they may able to choose to continue with the submission of the service. As with any maintenance service current entity data is prepopulated in the form.

An external user wishing to submit a renewal filing must have authority to maintain the entity. The Catalyst Authority Management module controls a user's access to entities within the system, the data they can view for those entities, and the functions they can perform against them. This topic will be discussed in further detail in a later section. If the external user does not have authority over the service they will be able to request authority from an authorized user or registry staff. IF the user already has authority over the entity, the entity will be available in their My Items list, saving them from having to search for the entity using the standard search services. Once the authorized user has selected the user will be able to select the appropriate renewal service if the service is currently available, for example the entity status supports availability of filing and the current date is within the allowable filing time frame.

The following screenshot illustrates a renewal for a professional:

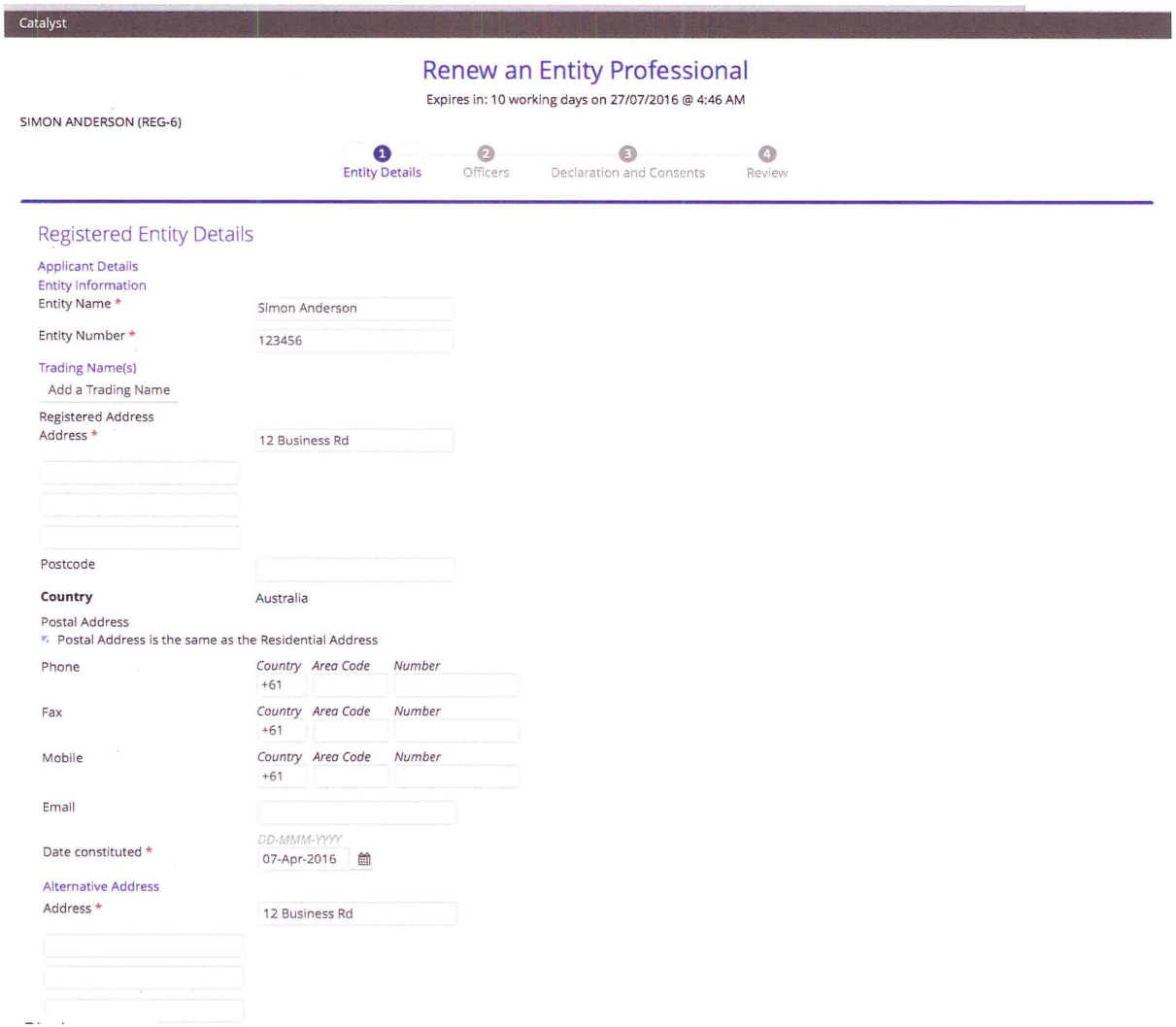


Figure 48. Service to renew a professional entity

When all renewal data has been captured and validated the user can submit the service, and where necessary pay filing fees. If the renewal requires review a Review task will be created for the appropriate team. If the renewal filing is deficient the filing can be returned to the filer for revision or rejected. A notification will be sent to the filer advising them of the outcome of the review process.

Following review of the renewal filing, or submission if no review required, the renewal filing will be recorded. Where necessary expiry dates will be updated and compliance routines set up for the next compliance period. Notifications sent to the filer and other interested parties can include information about their obligations and details of when future renewal filings are required.

Catalyst provides a configurable feature to suppress the display of addresses of Directors, Shareholders and other officers of an Entity where displayed in search results, certificates, reports etc.

Corp-7	Merger & Conversion Filings For filings received in-house refer to the Current Workflow A; in addition, the following are specific details for Merger & Conversion Filings A. Search for existing entity – Refer to Corp 1 for search options 2 – 6. B. Verify status is active. If status is inactive or suspended, allow staff to determine whether to continue. C. Check for existing Registered Agent data and update as needed. D. Perform If-Then rules depending on action type (Refer to Appendix B – Corp Data Fields). E. If declined, see workflow. Filings received via Document eDelivery – refer to Current Workflow B). The bidder should describe and provide screen shots showing how their system handles and processes Merger & Conversion Filings, emphasizing how it improves the current workflow process.	Yes			
Bidder Response: *The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate*					

the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Standard Catalyst workflow can be used to support an amalgamation filing, the workflow can be configured to control if a fee is required and if internal review is required. Where the filling is received in-house the Catalyst Document Receipting module can be used to handle the processing of the filing be internal users. The Catalyst Authority Management module ensures only authorized users can file a Merger & Conversion Filing.

Catalyst supports the merger of two or more entities into a single entity. The Catalyst merger service is performed in the context of the surviving entity and allows for the identification of one or more non-surviving entities. The non-surviving entities can be selected from a quick search feature if the entity exists on the register, or where the entity does not exist on the register the entity details will need to be entered manually. The status of the non-surviving entities that exist on the register will be updated to indicate they have been amalgamated and removed from the register. A 'filing' will be generated for the surviving entity and each non-surviving entity showing the change of status. Refer to Maintain Register Details section for further details regarding entity filings.

Another type of business service supported by Catalyst is the merge out type service that handles the merger of one or more entities into a foreign entity that is not qualified to transact business in the client jurisdiction. To be able to record this type of merger on the register, the user must first select a non-surviving domestic or foreign entity (usually this entity must be active and in good standing). The non-surviving entities will be merged out of existence via an entity status update. A 'filing' will be generated for each non-surviving entity showing the change of status. Refer to Maintain Register Details section for further details regarding entity filings.

The concept of 'Consolidation' type services is also available, allowing the creation of a new entity and selection of the non-surviving entities that have consolidated to form the new entity.

The merger or consolidation notification and distinct filing extracts will be emailed to the filer and to the non-surviving entities.

Catalyst conversion filings supports the conversion of an entity from one entity type to another type.

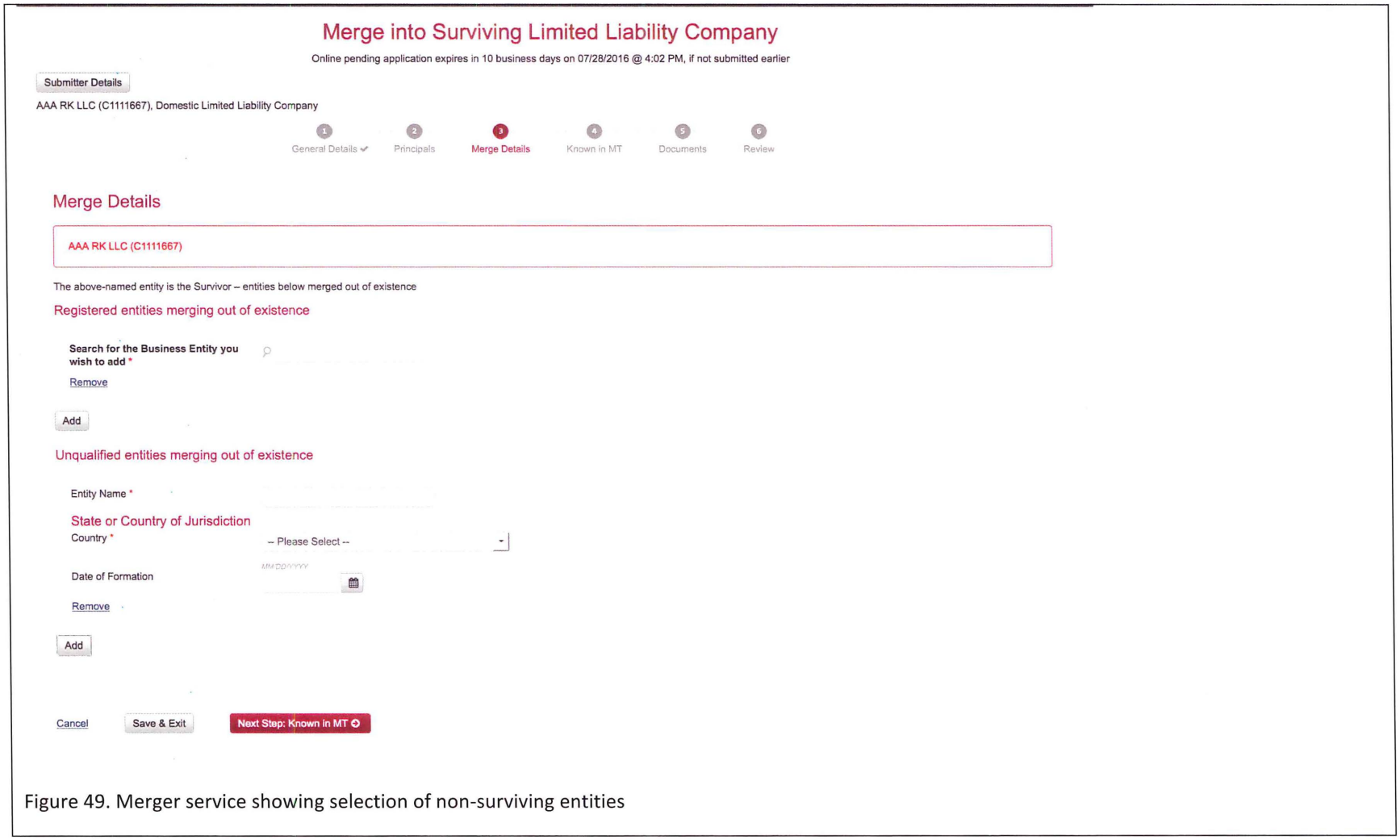


Figure 49. Merger service showing selection of non-surviving entities

Corp-8	Dissolution & Revocation Filings For filings received in-house refer to the Current Workflow A; in addition, the following are specific details for Dissolution & Revocation Filings. A. Search for existing entity – Refer to Corp 1 for search options 2 – 6. B. Verify status is active. If status is inactive or suspended, allow staff to determine whether to continue. C. Perform If-Then rules depending on action type (Refer to Appendix B – Corp Data Fields). D. If declined, see workflow. Filings received via Document eDelivery – refer to Current Workflow B). The bidder should describe and provide screen shots showing how their system handles and processes Dissolution & Revocation Filings, emphasizing how it improves the current workflow process.	Yes			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst services and functions supports voluntary and involuntary dissolution/removal or cancellation. Business services can be made available to users to request dissolution or removal from the register. Depending on legislative requirements dissolution may not be immediate as am objection period may apply.

Compliance routines can be set up to automatically remove entities due to non-compliance, for example failure to file annual returns. Reminder notifications and notices of intent to dissolve will usually be sent to interested parties before removing an entity from the register.

Entities may also be removed automatically due to mergers or amalgamations, for further details on amalgamations refer to Manage Amalgamations.

Catalyst allows suspension of the removal process, where an objection is received and the registrar determines the objection is valid and the entity should not be removed unless and until the basis of the objection no longer applies.

Any information provided by the solution regarding a dissolved entity will henceforth state that it is dissolved. On receiving a Statement of Intent to Dissolve, Catalyst will issue:

- a Certificate of Intent to Dissolve
- a notice to be sent to each known creditor and
- a notice for publication

A tax clearance certificate is normally required before proceeding with dissolution, and Catalyst allows upload and verification on receipt of this certificate.

Where Articles of Dissolution have been submitted and approved (whether or not preceded by a Statement of Intent to Dissolve), Catalyst will generate a Certificate of Dissolution. The company ceases to exist as from the date of the certificate.

Any information provided by the solution regarding a dissolved company will henceforth state that it is dissolved.

Catalyst also allows for the restoration of an entity after it has been removed from the register.

Corp-9	Reinstatement Filings For filings received in-house refer to the Current Workflow A; in addition, the following are specific details for Reinstatement Filings. A. Search for existing entity – Refer to Corp 1 for search options 2 – 6. B. Verify status is inactive. If status is active or suspended, allow staff to determine whether to continue. C. Perform If-Then rules depending on action type (Refer to Appendix B – Corp Data Fields). D. If declined, see workflow. Filings received via Document eDelivery – refer to Current Workflow B). The bidder should describe and provide screen shots showing how their system handles and processes Reinstatement Filings, emphasizing how it improves the current workflow process.	Yes			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst can be configured to enable reinstatement (restoration) of previously deregistered entities. For example, users can apply to restore a company removed from the registry for failure to file its annual return that may have been removed through the automated compliance process.

Catalyst can be configured to capture specific data items as part of the restoration process, including specific supporting documents. The required data for restoration will be defined through the prescribed restoration form and will be configured within the Catalyst restoration business service e.g. grounds for restoration, applicant details etc.

An authorized internal user can restore a deregistered entity. The Registrar will usually have the capability afforded through the appropriate back office functions to directly restore an entity. All changes made against an entity are audited with the appropriate reason for change.

Restoration of an entity will subject the entity name to the same checks applied at time of initial registration. This can include checking the name against rules based on name structure, uniqueness and restricted words. The name checks can be extended to search against other Catalyst registers as required.

Corp-10	Annual & Biennial Report Filings - handled individually For filings received in-house refer to the Current Workflow; in addition, the following are specific details for Annual & Biennial Filings. A. Search for existing entity – Refer to Corp 1 for search options 2 – 6. B. Verify status is active. If status is inactive or suspended, allow staff to determine whether to continue. C. Perform If-Then rules depending on action type (Refer to Appendix B – Corp Data Fields). D. If declined, see workflow. The bidder should describe and provide screen shots showing how their system handles and processes individual Annual & Biennial Report filings, emphasizing how it improves the current workflow process.	Yes			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst workflows are constructed to control the business processes that take place within the registry. This may include the registration or incorporation of new entities, entity administration and completion of regular compliance functions online, such as annual filing notices. Catalyst can send courtesy and overdue email reminders for renewals, including automated removal of practitioners who fail to renew their registration.

These compliance functions enforce legislative requirements such as Annual Declarations or the handling of liquidations etc. Compliance is controlled by a series of events; an alert will fire at a pre-determined time and trigger an event. Compliance records are created as a result of the submission of an application, for example the registration of an entity.

Catalyst provides a configurable feature to suppress the display of addresses of Directors, Shareholders and other officers of an Entity where displayed in search results, certificates, reports etc.

The following screenshot illustrates an annual return for a registered corporation:

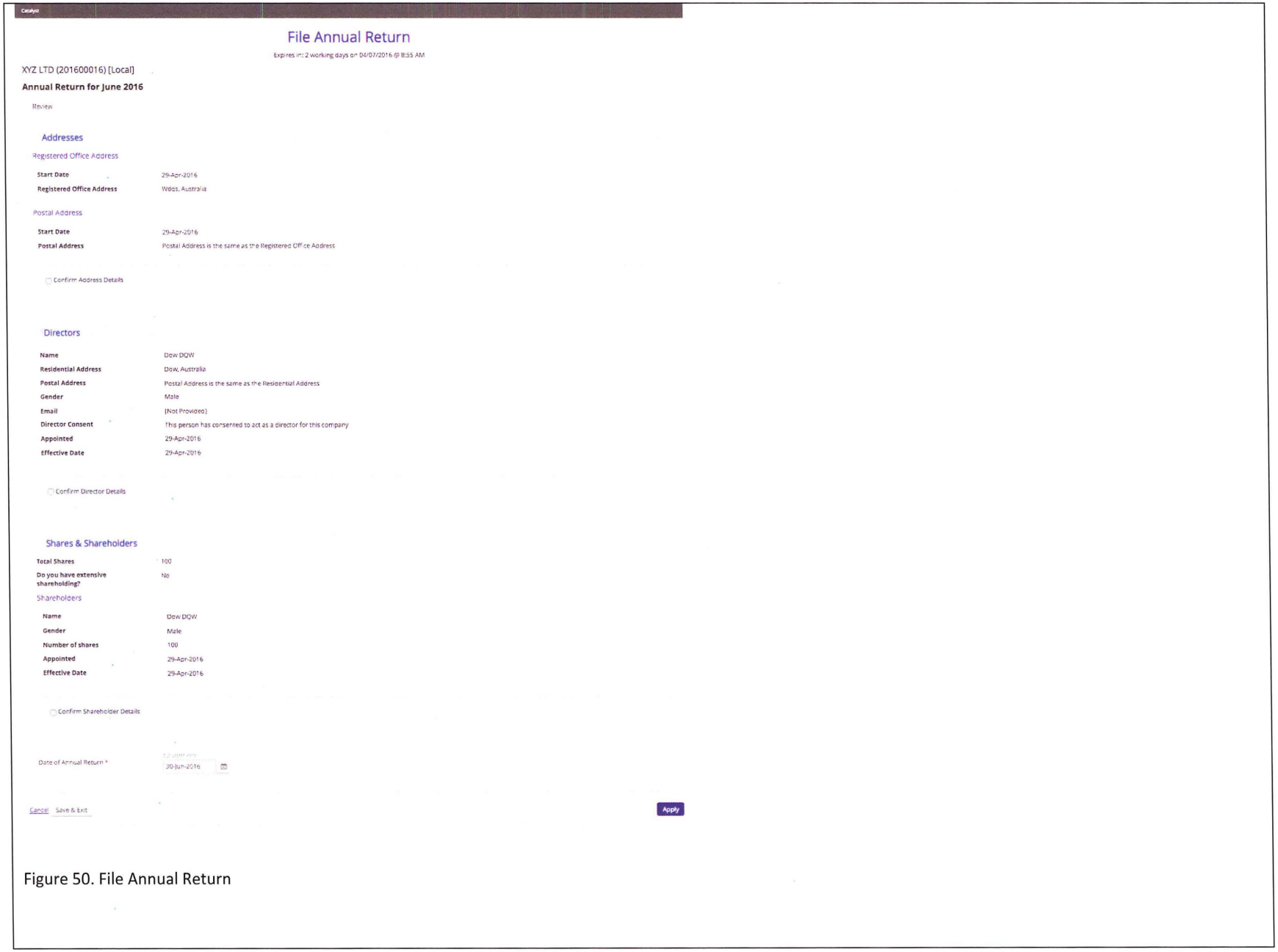


Figure 50. File Annual Return

Corp-11	Annual & Biennial Report Filings – mass processing These filings are required reports that must be filed periodically by entities. All can be found in Appendix A - Entity Types - Actions Matrix for Corp Filings labeled as Annual & Biennial Filings. Statutory Requirements for Annual and Biennial filings can be found in Appendix C – Statutes and Rules & Regulations. Current process A. Review filings. Review of the filing will include system reading of a barcode or entry of account number to check that the company is Active and that there has been no Annual or Biennial filing previously within the year. B. If the filing is Rejected, go to process described in H. C. For Accepted filings that are Annual and Biennial filings only, continue with the process described in E. This is a streamlined function. D. For Accepted filings that are Annual and Biennial filings that also include additional filings not categorized as Annual and Biennial filings, continue with the process described in F. E. Accept and file This streamlined process provides some shortcut to allow volume processing of Annual and Biennial filings. For this process, 100 filings will comprise a batch. The system will automatically close a batch when 100 filings have been processed and open a new batch, unless this is a closing at the end of the day which would include closing the batch. 1. Enter required information for filing. (Refer to Appendix A - Entity Types - Actions Matrix for Corp Filings and Appendix B – Corp Data Fields). Standard relationship editing is expected on all data fields. These relationship edits will be validated with the State after bid award. i.e. address, city, state, zip a. This is a re-check by another staff member of the review process completed above. Verify status is active and that there isn't an Annual or Biennial filing already within the year. If status is inactive or suspended or there is an Annual or Biennial filing already on file, system should not allow filing. If not continuing, refer to Decline and reject section H. b. The system has to accommodate multiple Annual or Biennial filings for one Job. If payment doesn't match fee for multiple	Yes			

	filings in the Job, the entire Job will be rejected. If not continuing, refer to Decline and reject section H. c. Capture required data needed (i.e., entity type, stock amount, # of pages) to calculate fee and verify that check amount matches fee and indicate if post filing updates are required. d. Endorse check with the account number of the first filing in the Job. e. When the Job is committed then print label. f. Post filing updates are completed at a later date using the scanned images. See G. below. 2. Receipt fees (Refer to Appendix F - Accounting Codes and Filing Fees) 3. Add filing stamp (assign document number and barcode label). 4. Address scanning options 5. If filing comes from Nebraska.gov a. Perform If-Then rules (Appendix B – Corp Data Fields) as filer enters information b. If filing is successful, i. Data is automatically uploaded into system ii. Upload approved documents in image library with online file stamp per daily schedule iii. Payment amount and type are recorded. c. Create audit trail records containing a date and time stamp, staff member or system involved. F. Multiple action filings Process other filing action(s) submitted for Other filing type(s) and process the Annual or Biennial filing as a Job. Other filings will be processed as described in the sections above and the Annual or Biennial filing will be processed as described in E.a.i., E.a.iii., E.a.v., E.a.vi., E.b., and E.c., indicating whether post filing updates are required. Print the label and receipt fees Create audit trail records containing a date and time stamp, staff member or system involved.				

	G. Post filing updates using images Every biennial report that indicates that a post filing update is required will run through a process where based on the document filing stamp date and time an image will be brought up for a staff member to process and update the field information in the system. See Appendix B - Corp Data Fields. The staff member will uncheck the update box removing it from the update list. Create audit trail records containing a date and time stamp, staff member or system involved. The process repeats for the next update in the queue. H. Rejection Process Provide a dropdown of all the rejection reasons and the ability to manually add an additional rejection or explanation. Allow selection of multiple reasons. Create rejection notice as indicated in RTM CB-3 The bidder should describe and provide screen shots showing how their system handles mass processing of Annual and Biennial Report filings. The processes above describe the current flow; the bidder may suggest other more efficient workflow processes for consideration.				

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst can deliver this functionality using one or more of several different approaches. Foster Moore expects to work with the State during the project to confirm and refine the requirements, and to jointly agree the final solution.

In the first instance, the preference is always to have the filer themselves complete the activity within the register using Catalyst's self-service functionality, including the ability to integrate external systems with Catalyst via web services for their annual & biennial report filings.

In addition, Catalyst's document receipting does separate out the capture of lodgment and payment details, scanning and data capture. It can also check the status of the entity and only make available services, based on business rules. Catalyst could also prevent submission of the filing if the entity is inactive or suspended or there is an Annual or Biennial filing already on file, therefore the only option available to the data entry/review team would be to reject the filing.

Corp-12	Automated System-Generated Functions The bidder should describe and provide screen shots showing how their system handles and processes automated system-generated functions, emphasizing improvement over the current process. These scheduled functions are based upon data in filed records. For system generated actions, refer to the If-Then tab in Appendix B – Corp Data Fields for these action codes – CA, EL, NA, NP, NRV, RD. For system generated notices, refer to Appendix C – Statutes and Rules & Regulations for LLPA, BR, TR, RE, & PC. If a letter needs to be printed, templates are found in Appendix D - Certificates, Letters, and Templates printed per RTM CB-3.	Yes			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst workflows are constructed to control the business processes that take place within the registry. This may include the registration or incorporation of new entities, entity administration and completion of regular compliance functions online, such as annual filing notices. Catalyst can send courtesy and overdue email reminders for renewals, including automated removal of entities who fail to renew their registration or comply with legislative requirements such as filing of annual reports.

These compliance functions enforce legislative requirements such as Annual Declarations or the handling of liquidations etc. Compliance is controlled by a series of events; an alert will fire at a pre-determined time and trigger an event. For example the sending a notification to interested parties or updating entity details.

Compliance records are created as a result of the submission of an application, for example the registration of an entity. Compliance records may get update or created if the entity is maintained or entity details are corrected. Compliance events may also result in the creation of compliance records, ensuring the ongoing monitioring of the entity on the register.

The following screenshot illustrates an annual return for a registered corporation:

Figure 51. File Annual Return

In addition, Catalyst includes a communication module that handles setting up of communication templates and automatic or manual generation of outgoing correspondence.

Communication templates are created and maintained within Catalyst. Variables can be referenced within the templates and can be sourced from registry data and system values. Template configuration includes document formatting, text content, pre-populated data fields and the application of logos and fonts etc.

Communication may be sent automatically to a number of recipients from various points in the system (e.g. registration acceptance or rejection notices, certifications or renewal notices).

Attachments may also be added to the correspondence (e.g. PDF containing the latest entity details or PDF containing search results).

3.4 UCC

RTM #		Yes	Customization Required	No	Alternate
UCC-1	**Name Search** The criteria below apply to the filing types Originals, Amendments, Corrections, Terminations and any other subsequent actions (See Appendix C – Statutes and Rules and Regulations; NAC Title 436 – Administrative Rules for Article 9, Chapter 5; Appendix G – Lien Types - Actions Matrix for UCC & EFS Filings; and see also Appendix H – UCC & EFS Lien Data Fields). For each search, create an audit trail record containing a date and time stamp, staff member or system involved, with a link to the image (when appropriate). The following search criteria must be available in the system in order to look for existing records on file for the following categories. A. ModName Calculation 1. Individuals	Yes			

	a. Individual debtors must be explicitly identified as individuals. b. The ability to indicate alternative designation, (lessee, consignee, bailee, buyer, licensee, registered owner). c. The individual name may contain first, middle and last elements. d. Convert each element of the name (first, middle, last) to uppercase. e. Remove punctuation, accent marks and spaces. Only characters A-Z and digits 0-9 are valid. f. Concatenate the last, first and middle names with the "|" character as a separator. For example, "John A. Smith" would be stored as "Smith|John|A" 2. Organizations a. Organization debtors must be explicitly identified as an organization. b. Ability to indicate alternative designation (lessor, consignor, bailor, seller, licensor, owner) c. Convert the name to uppercase. d. Replace "&" with "AND". e. Remove punctuation and accent marks. Only characters A-Z and digits 0-9 are valid. Note: Any character not in the list of valid characters is replaced with a space (" ") character. f. Remove multiple consecutive spaces which may have been left as a result of the previous step. g. Remove ending noise words as defined in 503.1.5. h. Remove any occurrence of "THE" at the beginning of the name. i. Remove all remaining spaces. B. Standard Search (UCC/Agriculture) 1. Must designate debtor as Organization or Individual 2. Create a search value using the "modname" algorithm. 3. Search the Debtor table for matches of the ModName column. 4. No SSN or FEIN numbers should appear on the search results. 5. Must be able to indicate whether the search is to be certified.				

	6. When searching for liens the system must return all debtors associated to each lien and indicate multiple debtors on liens by a common indicator. 7. The search report will show all debtors/secured parties associated with each lien in either All or Unlapsed status. C. Non-Standard Wildcard Search (Tax / Judgment) 1. Must designate debtor as Organization or Individual 2. Create a search value using the "modname" algorithm. 3. Insert a wildcard character at the end of Last, First and Middle names in the calculated search value. From example above, the search value would be "Smith%|John%|A%". 4. Search Debtor table using a LIKE search of the ModName column. The % character acts as a wildcard and will find all "modname(s)" matching the pattern. 5. No SSN or FEIN numbers should appear on the search results. D. Find Records – Internal Search only For a "UCC" search, the following rules apply. For a search for individuals, a value must be specified in both "Last Name" textboxes else the "Find" button is disabled. 1. There are five lien classes; "UCC", "Agriculture", "Judgment", "Tax" and "EFS". The "UCC" liens searched include the "Agriculture class". The "Tax" liens searched include all lien classes other than "UCC" (i.e. "Judgments", "Tax"). This search will not return any liens from the "EFS" class. 2. All individual data elements (Last, First, Middle and Organization names) are converted to their ModName equivalent before searching. 3. When the Soundex option is selected, the Soundex value is calculated from the corresponding ModName value. 4. UCC Liens: Default options specified; Wildcard = no, Soundex = no a. Debtor name i. Individual: This search appends a wildcard if certain conditions are met even if the "Wildcard" checkbox is not checked. ii. LastName ***never*** has a wildcard appended.				

	iii. FirstName has a wildcard character appended ***only if*** the FirstName is 0 or 1 character long. iv. MiddleName has a wildcard character appended ***only if*** the MiddleName is 0 or 1 character long. b. Organization i. OrganizationName is never searched by wildcard. 5. Tax Liens: Default options specified; Wildcard = yes, Soundex = yes a. Debtor name v. Individual: vi. LastName always has a wildcard appended. vii. FirstName always has a wildcard appended. viii. MiddleName always has a wildcard appended. a) Organization 1) OrganizationName always has a wildcard appended. 6. Debtor Name Search for debtors matching the specified name. The searcher may choose to return All, Unlapsed, or Inactive liens (record where the lapsed day exceeds 365 days but still in the UCC Module) associated with the debtor(s) returned. 7. Additional Search Options a. Limit to liens filed within a specified Date Range. This filter applies to both UCC and Tax liens. b. Limit to liens filed by a debtor who resides in a specified City. This filter applies to both UCC and Tax liens. c. Limit to liens filed by a particular Secured Party. This filter applies to **both** UCC and Tax liens. d. Wildcard: For individuals, a wildcard is added to the end of Last, First and Middle names. For organizations, a wildcard is added to the end of the Organization name. e. Soundex: Performs the search using the Soundex encoding of the ModName of the individual or organization. f. Soundex + Wildcard: If both options are selected then a wildcard character is appended to the Soundex value of an Organization ModName. For individuals, the Last, First & Middle "ModName (s)" are individually converted to a Soundex value and a wildcard				

	character is the appended to the end of each. The First and Middle name Soundex values then have their initial alpha character removed to keep in line with the standard Soundex encoding algorithm. The individual Soundex values are then concatenated together and any consecutive digits on either side of the wildcard characters are removed to keep in line with the standard Soundex algorithm. g. Any combination of All, Unlapsed, or Inactive lien status may be selected. 8. Secured Party Name a. The Secured Party search functions similarly to the Debtor Name search of UCC Liens described above with the following differences: b. Searches are conducted against the SecuredParty table vs. Debtor table. c. All lien classes (except "EFS") are searched. d. The lien classes are all searched in the same manner. There is no special handling for "Tax" or other lien classes. 9. Original Document # Searches the "LienMaster" table for a matching original document number. The search is an exact match on the specified document number. 10. Document # Searches the "UCCActions" table for liens having an exact match to the specified document number. A second search is then conducted to retrieve detail data from the "LienMaster", Debtor and Secured Party tables for each lien returned in the first search. 11. Additional Search Options Any combination of All, Unlapsed, or Inactive lien status may be selected. 12. Find Old Terminations – Internal Search only Find Old Termination – This internal search looks for original document numbers and actions relating to it from the "UCCActionsArchived" table. The filing data stored in this table is from UCC filings that were				

	from a previous system and isn't incorporated or easily searchable in the current system. E. Job History Search Job # – Finds jobs that match the specified job number. 1. Wildcard Implied 2. Insert OR F. Filer/Client Name (Individual/Organization) Finds jobs that match the specified Individual / Organization. 1. Wildcard Implied 2. Insert OR G. Billing Acct ID – Finds jobs that match the specified Billing Acct ID H. Original Document # – Finds jobs that match the specified Document Number. I. Filer/Client Maintenance – This form lists every filer entered into the FilerClient table. This table holds these filers who conduct frequent business and their name & address information is maintained for quick selection and entry into the job window. 1. Name – This will locate the first occurrence of the entered name within the list. 2. AcctID – This will locate the first occurrence of the entered Acct ID within the list. Note that the Corporation application does not utilize Billing Acct Numbers so this type of search doesn't apply. The system must provide an API for the external calling of the search modules from Nebraska.gov. Create a search value using the "modname" algorithm per Appendix C - Statutes and Rules and Regulations, Administrative Rules for Article 9, Title 436, Chapter 5. Language contained within these Rules for 505.2.5 and 505.2.8 no longer applies to search reports and is in the process of being removed so programming for these will not be needed. Must designate debtor as Individual or Organization. The system must have an override function to change the 'through date and time'.				

	NAC Title 436 will add the ability to search a particular debtor address which we currently do not have in programming; add criteria to programming for UCC filings, including Statutory Ag Liens as NAC Title 436 will be updated to accommodate this rule. **NAC Title 436 Search Logic** For additional search criteria see Appendix C- Statutes and Rules & Regulations and Appendix K – Reports and Additional Information – Search Logic Spreadsheet. Soundex This is the standard Soundex encoding algorithm as described here: https://en.wikipedia.org/wiki/Soundex. The UCC encoded value is carried out to 8 characters vs. the standard 4 characters. The system calculates and stores the Soundex encoding of the ModName value. Additional Search Options Descriptions A. "Insert OR" option: Allows a Boolean "or" search. Names containing any word or phrase separated by the "or" indicator will be returned. Note that both the Soundex and Wildcard options may be applied to this type of search. B. Soundex: Searches names based on the Soundex value of the debtor's or secured party's name. This type of search will typically result in vastly more results than a non-Soundex search. C. Wildcard: Appends a wildcard character to the end of any entered search criteria. This is a "begins with" search vs. an exact match search and typically feels more natural to the user. Note that the manual use of wildcard characters (* and %) is also allowed. In most cases, the user may manually enter a wildcard character and the search will respond accordingly. The bidder should describe and provide screen shots showing their system's name search processes, and its use for retrieval of existing records, emphasizing how the proposed system will improve the current process.				
Bidder Response:					

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Any user may search the Secured Transactions (UCC) register. Public users have limited access to security interest data while internal users and registered users associated with the security interest (secured parties and their agents) will have full access to data. The following search types are available:

1. Search by Security Interest Number
2. Search by Debtor – name or identification number
3. Search by Serial Number

The following screenshot illustrates an existing UCC/EFS search screen with multiple search criteria available:

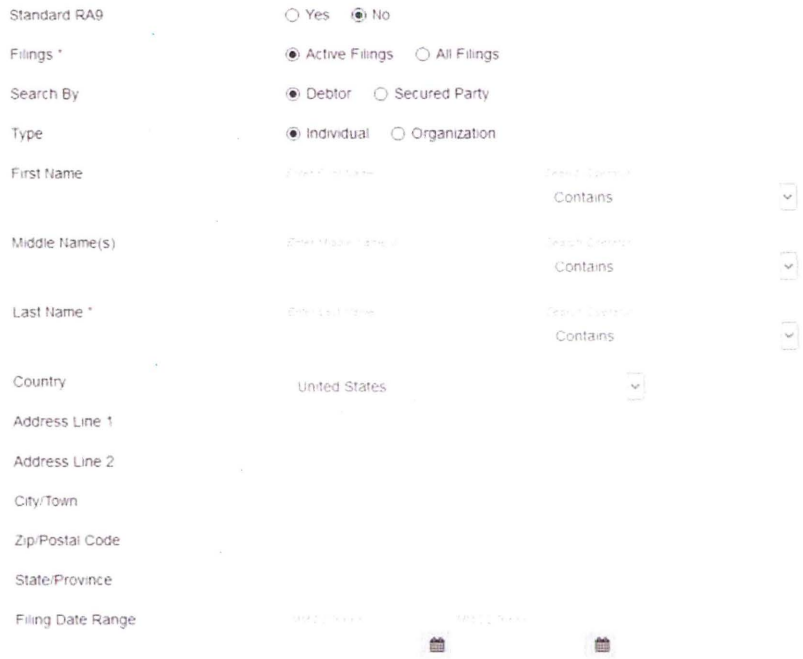


Figure 52. Example UCC/EFS Search Criteria

Registered and casual users may search the Register online, and the system can be configured to charge a fee for each search submitted. Public searches include registered security interests only, excluding discharged and expired security interests.

Catalyst displays details of a selected search result, with options to print or email the details. Depending on the presentation approach, the system displays the original registration notice of the security interest or the current security interest version, with amalgamated changes from subsequent notices.

The following screenshots provide examples of public search and detail screens available from the Catalyst secured transaction register solution that will be configured to deliver the UCC functionality:

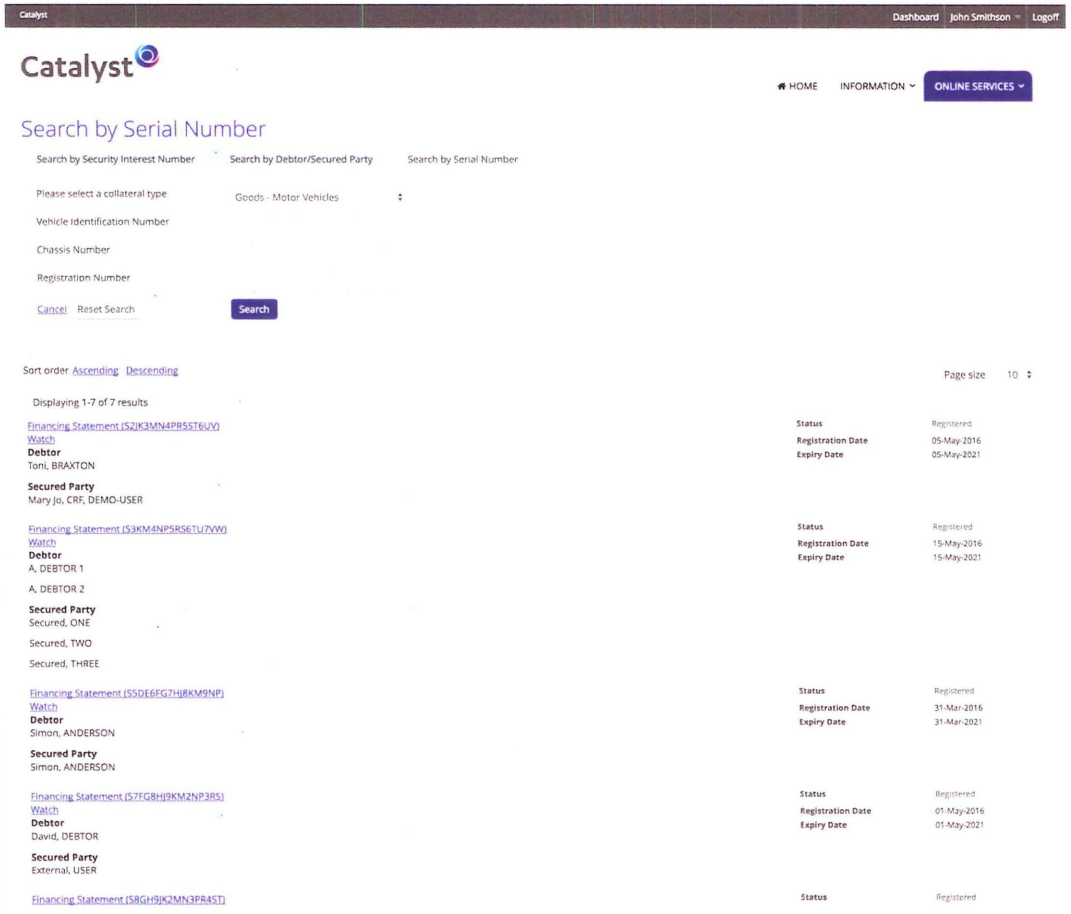
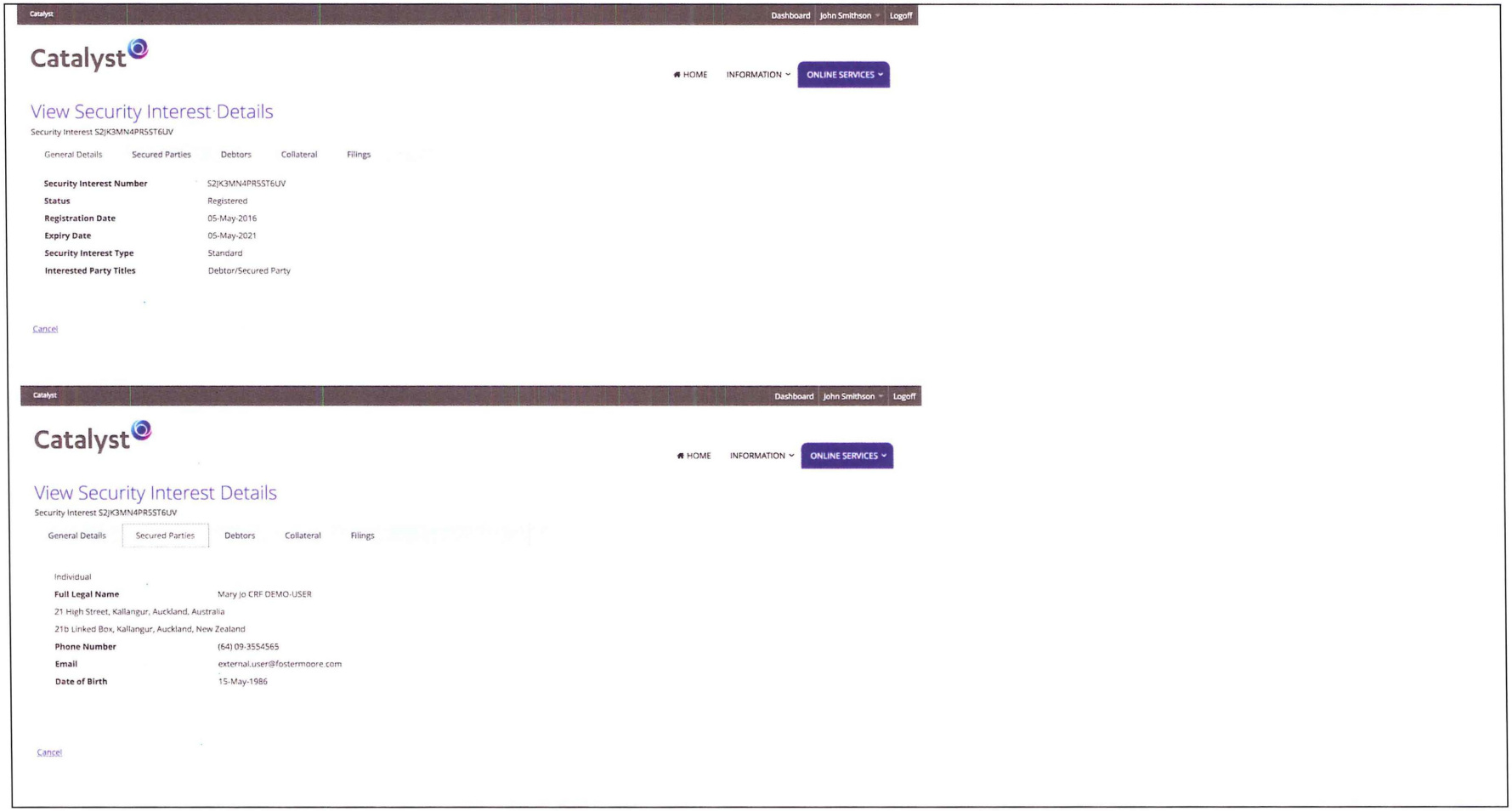
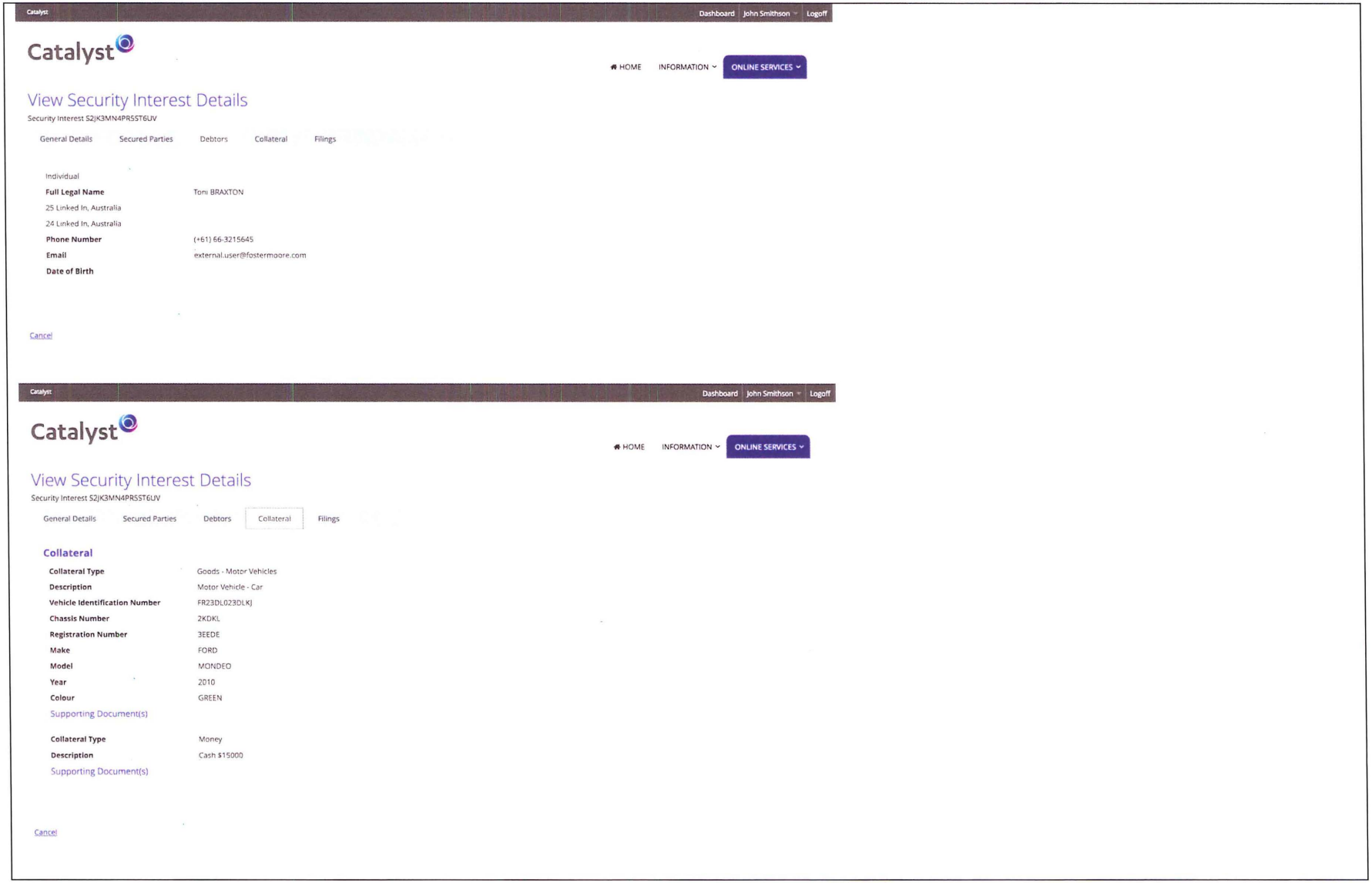


Figure 53. Search Security Interest


Catalyst
Dashboard
John Smithson
Logoff
Catalyst
HOME
INFORMATION
ONLINE SERVICES
View Security Interest Details
Security Interest S2JK3MN4PR5ST6UV
General Details
Secured Parties
Debtors
Collateral
Filings
Security Interest Number S2JK3MN4PR5ST6UV
Status Registered
Registration Date 05-May-2016
Expiry Date 05-May-2021
Security Interest Type Standard
Interested Party Titles Debtor/Secured Party
Cancel
Catalyst
Dashboard
John Smithson
Logoff
Catalyst
HOME
INFORMATION
ONLINE SERVICES
View Security Interest Details
Security Interest S2JK3MN4PR5ST6UV
General Details
Secured Parties
Debtors
Collateral
Filings
Individual
Full Legal Name Mary Jo CRF DEMO-USER
21 High Street, Kallangur, Auckland, Australia
21b Linked Box, Kallangur, Auckland, New Zealand
Phone Number (64) 09-3554565
Email external.user@fostermoore.com
Date of Birth 15-May-1986
Cancel


Catalyst
Dashboard
John Smithson
Logoff
Catalyst
HOME
INFORMATION
ONLINE SERVICES
View Security Interest Details
Security Interest S2JK3MN4PRSST6UV
General Details
Secured Parties
Debtors
Collateral
Filings
Individual
Full Legal Name
Toni BRAXTON
25 Linked In, Australia
24 Linked In, Australia
Phone Number
(+61) 66-3215645
Email
external.user@fostermoore.com
Date of Birth
Cancel
Catalyst
Dashboard
John Smithson
Logoff
Catalyst
HOME
INFORMATION
ONLINE SERVICES
View Security Interest Details
Security Interest S2JK3MN4PRSST6UV
General Details
Secured Parties
Debtors
Collateral
Filings
Collateral
Collateral Type
Goods - Motor Vehicles
Description
Motor Vehicle - Car
Vehicle Identification Number
FR23DL023DLKJ
Chassis Number
2KDKL
Registration Number
3EEDE
Make
FORD
Model
MONDEO
Year
2010
Colour
GREEN
Supporting Document(s)
Collateral Type
Money
Description
Cash $15000
Supporting Document(s)
Cancel

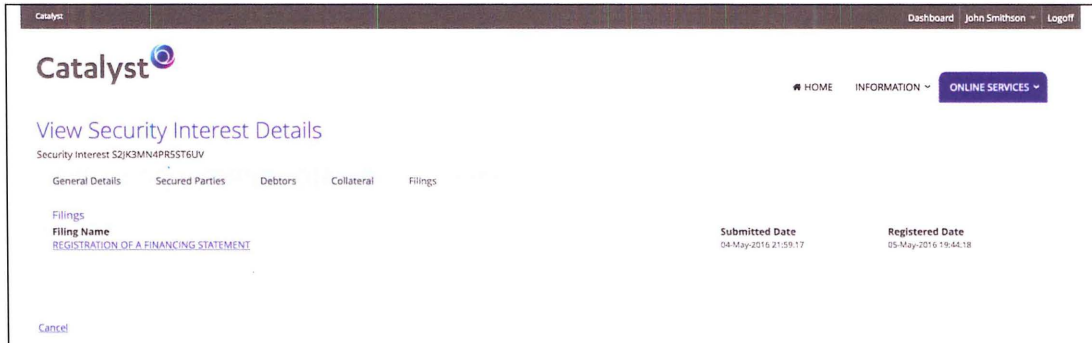


Figure 54. Display Financing Statement Details Screens

All of our systems are used by members of the public with no formal training and with a wide range of technical competence. These systems operate on a range of device types with a range of browsers and over a wide range of network connection environments with varying levels of performance, as well as a range of browsers and devices, from PC's to smartphone and tablets.

Catalyst uses responsive practices for most of its screens, meaning we keep the overall layout fluid and adaptive for different screen widths.

Furthermore, many of the screen elements within the layout adapt in order to improve the user experience on different devices. For example, the main navigation and top admin bars adapt and behave differently on devices with screen width below 600px.

Search Configuration

Please refer to the response to CORP-1 above for more details of Catalyst's search capabilities, including configuration. These same search capabilities will be leveraged for the UCC/EFS searching, specific to those entity types.

UCC-2	**Original Filings** Original Filings are filed with the Secretary of State. All lien types and action codes can be found in Appendix G - Lien Types - Actions Matrix for UCC & EFS Filings labeled as Originals and Appendix H – UCC & EFS Lien Data Fields. Statutory Requirements for Originals can be found in Appendix C – Statutes and Rules & Regulations. Click to see Filing Compliance Chart for jurisdictional requirements. Review and Enter Filing Data A. Accept and file 1. Enter required information for filing. a. Check for a Debtor and Secured Party data b. Status becomes active 2. Receipt fees (Refer to Appendix F – Accounting Codes and Filing Fees) 3. Commit job 4. Calculate maturity date for original filings (including leap year updates) and assign status and action type for filings 5. File Stamp filing (see RTM CB-2) 6. Generate letter (Acknowledgement of Filing) and return copy if included with acknowledgement receipt to filer. See RTM CB-3 7. Send for scanning B. Decline and reject Return document with system-generated rejection letter and fees, if collected. Provide a dropdown of all the rejection reasons and the ability to manually add an additional rejection or explanation. Allow selection of multiple reasons. Create rejection notice as indicated in RTM CB-3 C. Allow ability to correct Original filing and create audit trail. The bidder should describe and provide screen shots showing how their system handles Original filing processes.	Yes			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Introduction

The Catalyst UCC Register is built in accordance with the standardized filing information and search results requirements as defined by the revised Article 9 (RA9) of the Uniform Commercial Code. A Catalyst UCC Register provides an online, browser-based solution for the registration and maintenance of UCC, EFS and Lien filings. The register will support the following types of filings:

- **Initial Filings** – Allows users to submit registration filings of an initial financing statement or notice of lien, capturing all data relevant to debtors, secured parties, and collateral. The system generates a unique identification number that all subsequent filings reference to systematically tie the filing chain together. For RA9 Standard filings, the initial filing ties together all data from forms UCC1, UCC1Ad, and UCC1AP.
- **Amendment Filings** – Allows users to amend initial financing statements and liens, encompassing filings such as terminations, continuations, party changes (debtors/secured parties), assignments, and collateral changes. For RA9 standard filings, amendments tie together all data from forms UCC3, UCC3Ad, and UCC3AP.
- **Information Statement Filings** – Allows users to submit an information statement to be recorded on the register for an initial financing statement or amendment. This filing ties to the RA9 Standard filing for the UCC5 form and allows users to notify the state of an issue present within the filing chain.
- **Search Requests** – Allows both internal and public users to process search requests against the UCC system of record. Internal users can conduct their own searches via debtor, secured party, or filing number and also process any paper based search requests they receive via the RA9 Standard filing for UCC11. The public can also conduct their own searches and order certified or non-certified search reports and copies to be paid for online and delivered to their online account. For public searches, each client can define the level of information that is provided free versus what information will incur fees in order to access. For all searches, both the Standard RA9 and Non-Standard searches can be performed.

Internal Registry users have access to the business services above and are granted special permissions to perform administrative functions. External users also have access to these business services, and when required, the services submitted will be reviewed and approved by Internal Registry users.

In addition to the standard filings supported above, a Catalyst UCC Registry supports those filings by implementing the following features:

- **Wrongful Filings –** Various system validations and flags are implemented throughout the registry to identify wrongful filings and prevent them from being displayed to the public.
- **Partial Acceptance** – Allows internal users to enter partial filing information that is deemed correct and complete, while notifying the filer that other information presented on their paper form was not entered into the registry.

- **Good Through Date** – Feature that notifies the public during online searches of the current date through which the office has processed all UCC filings. The Good Through Date applies to filings receipted via paper forms and also for online filings that are submitted to the back office for review.
- **Correct the Register** – Options available to internal staff to allow for the correction of filing information.
- **Search Services** – Services are available to search by file number, debtor or secured party.
- **My Clipboard** – Feature that allows filers to quickly enter Secured Party data by adding frequently used information to a clipboard for reuse.

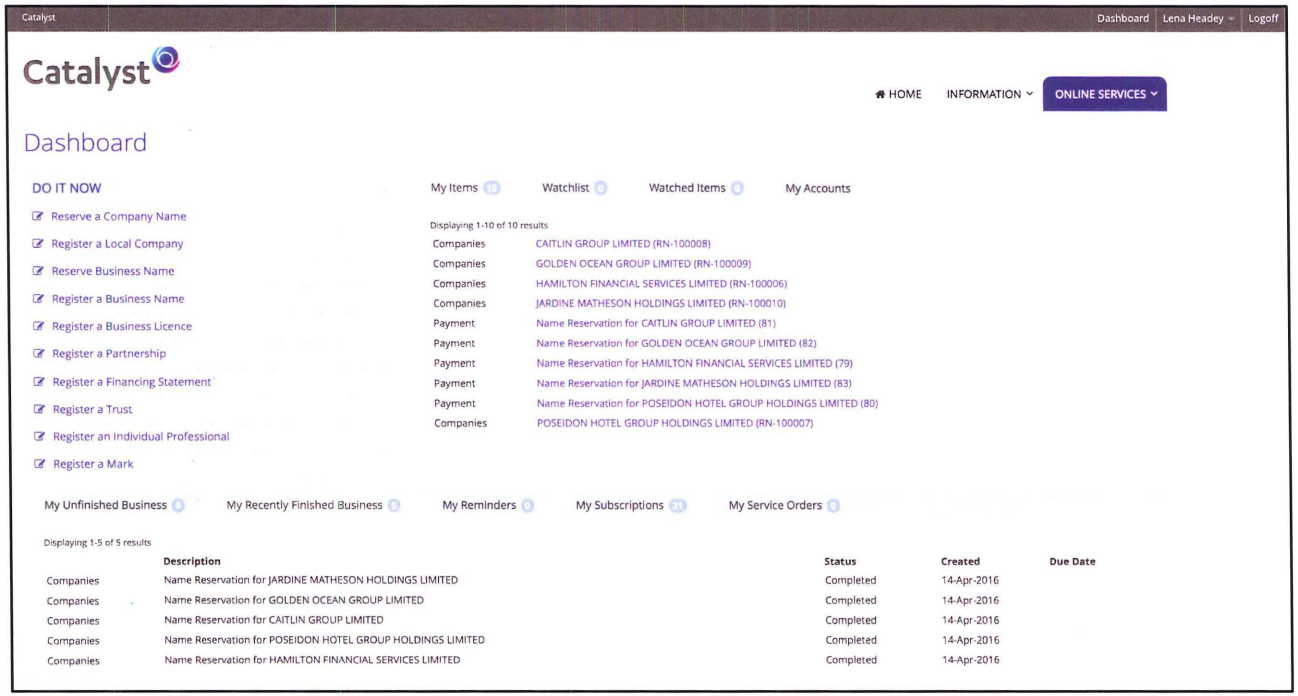


Figure 55. Catalyst Online Home Page

Original Filing Process

The first stage of the original filing process is for the user to select the correct service, for example File a UCC Financing Statement or File a Notice of Lien.

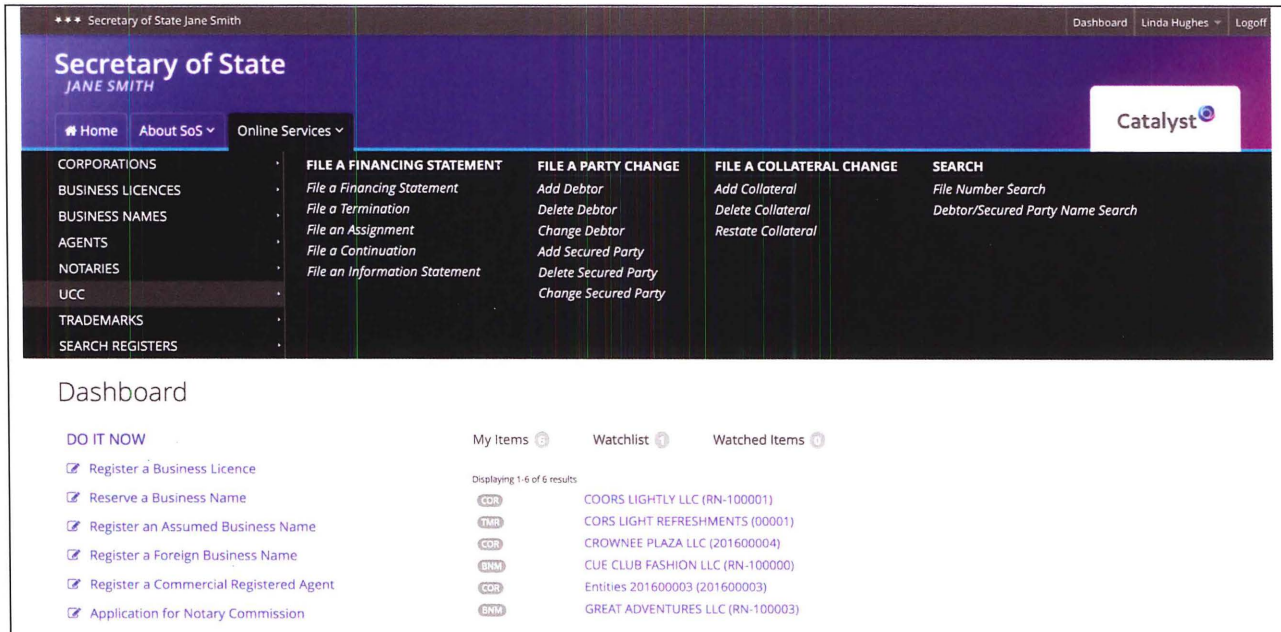


Figure 56. Catalyst Home Page and UCC Filing Options

The appropriate online form is presented and walks the user through the process of entering all required and optional data fields. For the Initial Financing Statement depicted below (Standard RA9 UCC1, UCC1AD, UCC1AP), the system prompts for the data across various tabs for General Details, Secured Parties, Debtors and Collateral. The following screenshots illustrate the standard process for registering a financing statement within Catalyst.

General Details

The first tab, General Details, allows the user to enter alternate lien information and any other reference or miscellaneous data, combining optional detail from the forms to be stated at the beginning of the filing. The Alternate Lien Type selection drives the lapse date calculation when an option is selected. When an option is not selected, the system calculates the standard lapse date out to five years. All lapse dates are set as configurable options to allow jurisdictions to apply their own rules that may differ from RA9. When progressing from tab to tab within the wizard based form layout, the system will notify users when a tab has been fully and correctly filled out or when missing or erroneous data has been entered.

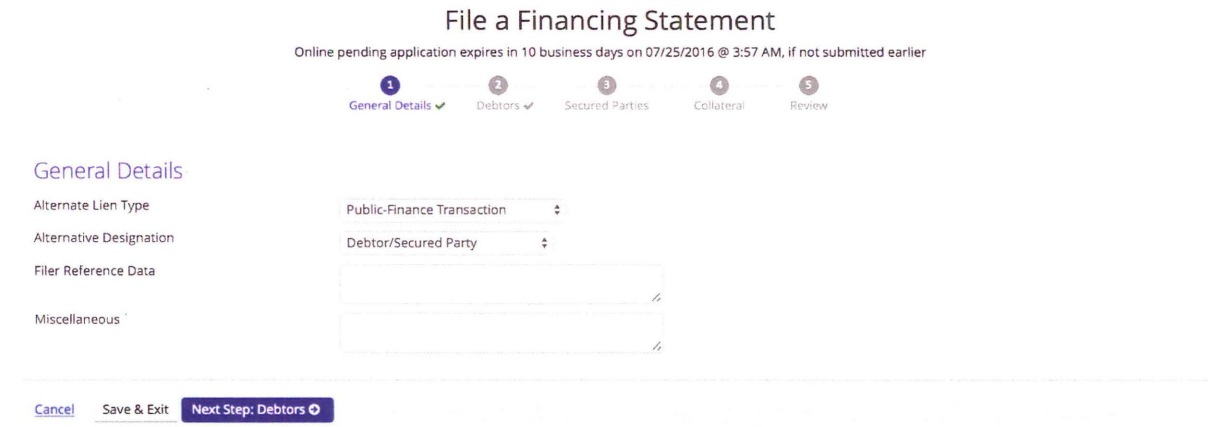


Figure 57. Financing Statement Registration - General Details Data Entry

Debtor Details

Following the entry of General Details, the standard Add Debtor tab requires the user to enter at least one debtor before filing the financing statement. One or more debtors can be added, as either organizations or individuals, allowing for the coverage of the IACA standard additional party forms. The last name and postal address information fields are standard required fields, which can be easily configured as required, optional, or hidden as per the client's business rules. Users also have the ability to edit debtor information, or remove a debtor completely to correct any input errors before completing the registration of the financing statement.

Additionally, the above mentioned fields have been created in Catalyst as part of a standard debtor component. This component is reusable across filing types (Initial, Amendments, etc..) and lien types (UCC, EFS, etc..) allowing for data entry consistency, as well as quick configuration and testing. The base component can be further configured per lien type, if business rules differ.

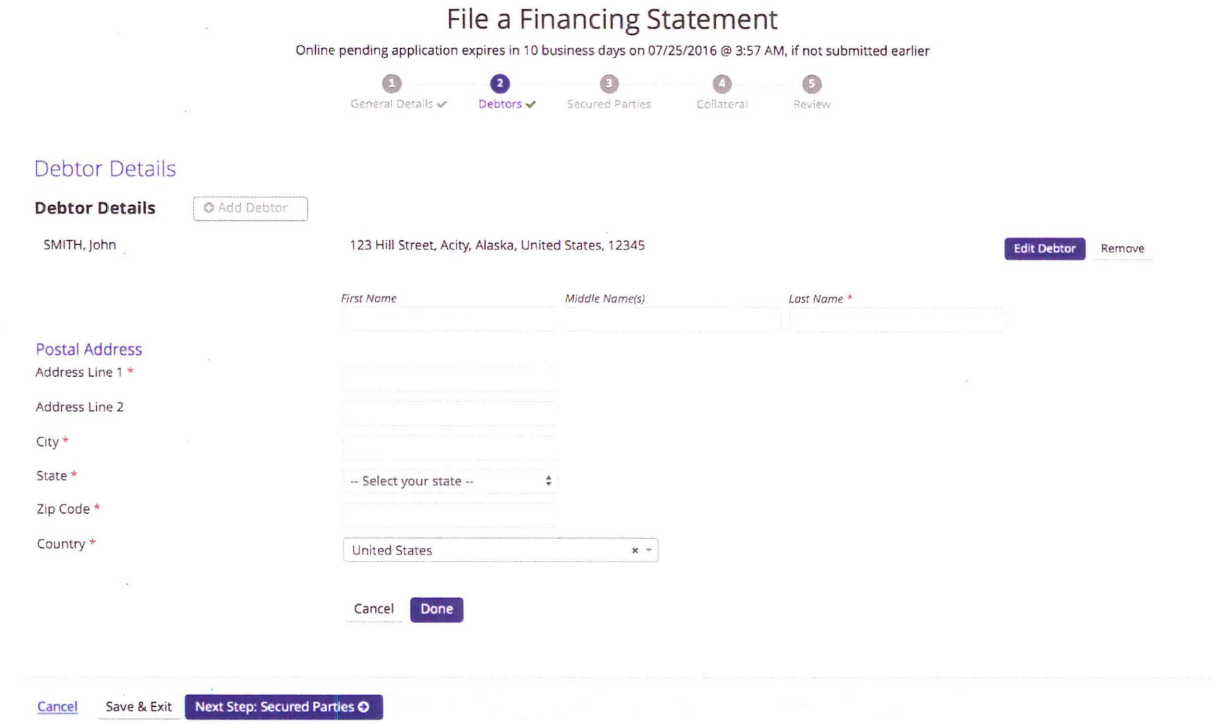


Figure 58. Financing Statement Registration – Debtor Details Data Entry

Secured Party Details

Following the entry of Debtor information, the standard Add Secured Party tab requires the user to enter at least one secured party before filing the financing statement. One or more secured parties can be added, as either organizations or individuals, allowing for the coverage of the IACA standard additional party forms. The last name, postal address information, and assignor fields are standard required fields, which can be easily configured as required, optional, or hidden as per the client's business rules. Users also have the ability to edit secured party information, or remove a secured party completely to correct any input errors before completing the registration of the financing statement.

Additionally, as with the debtor component, the above mentioned fields have been created in Catalyst as part of a standard secured party component. This component is reusable across filing types (Initial, Amendments, etc..) and lien types (UCC, EFS, etc..) allowing for data entry consistency, as well as quick configuration and testing. The base component can be further configured per lien type, if business rules differ.

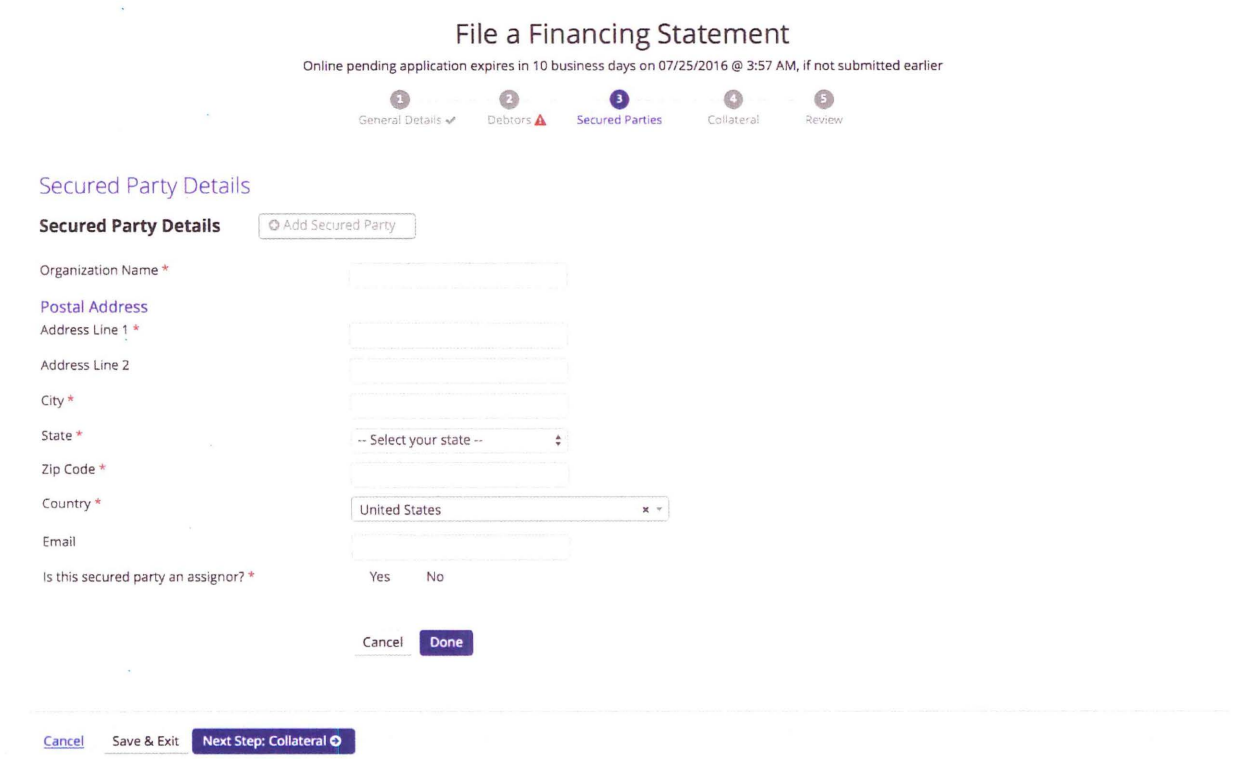


Figure 59. File a Financing Statement - Secured Party Data Entry

Collateral Details

In addition to Debtor and Secured Party details, users are also required to enter Collateral information. Collateral is entered in a text field with an optional Supporting Document upload for additional details or collateral information that does not fit within a text field. Optionally, clients can also present users with the ability to enter the Real Estate Collateral details present within the UCC1Ad form. Clients can also configure their own list of terms to watch for in

the Collateral text field to indicate the filing may potentially be a wrongful filing.

If performing an EFS filing, the standard collateral fields will differ to allow for the collection of collateral in the form of farm products/services/equipment, years, and counties. The list of products allowed for selected for entry will be configured per the client's business rules.

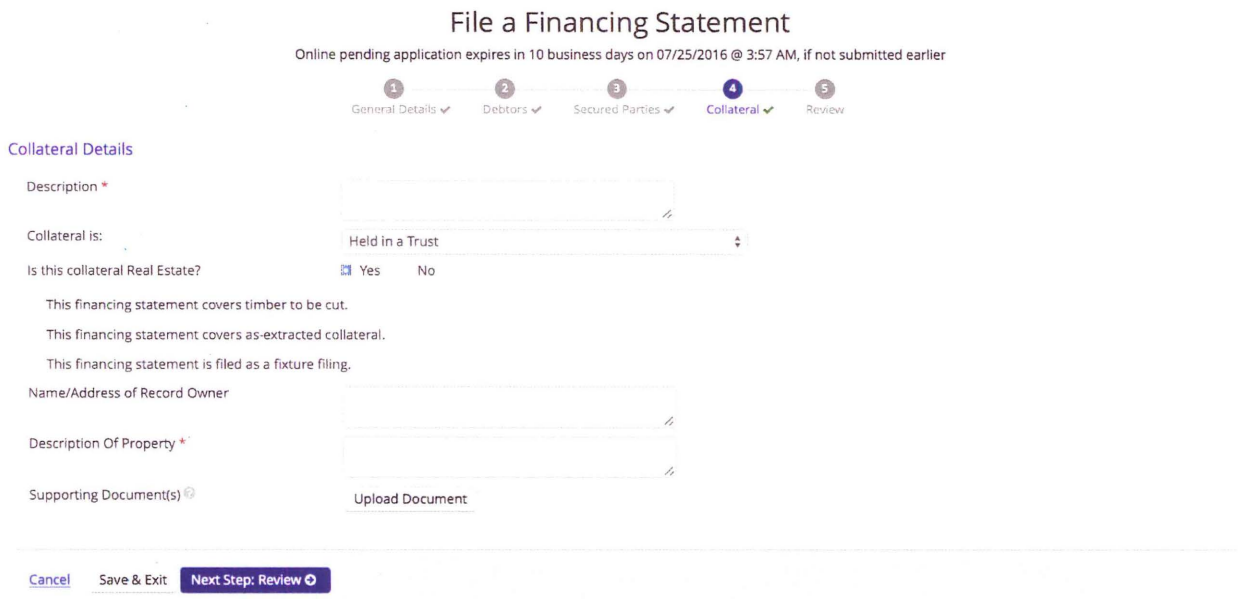


Figure 60. Register a Financing Statement- Collateral Data Entry

Filing Review

Once all required and optional data has been entered and validated, the user is presented with a complete set of the entered details for review and correction prior to fee payment and submission. For data validation, information is confirmed against the various standard and configured business rules within Catalyst. Features can also be enabled to support common jurisdictional requirements, for example: A rule can be set to determine when a Debtor and Secured Party are the same, indicating a potential wrongful filing. Configured rules can prevent external users from submitting filings that fit the scenario and provide a warning message to internal users.

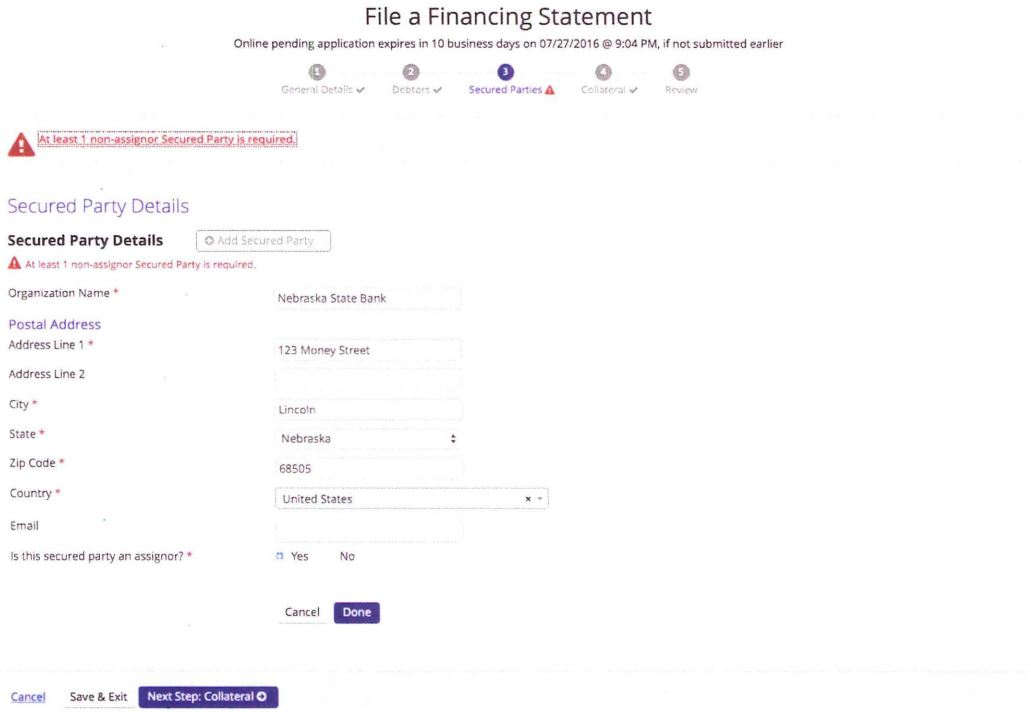


Figure 61. Invalid Data Entry Preventing Submission

Filing Payment

Once the user has reviewed the filing, they are presented with a screen which allows them to pay the fee associated within the filing. Various fee structures can be implemented, for example charging an additional fee for each Debtor and Secured Party over one.

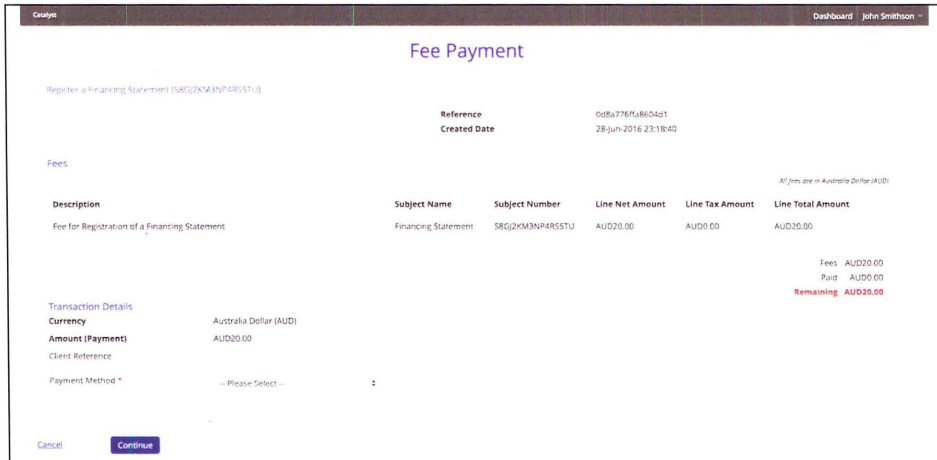


Figure 62. Financing Statement Registration – Fee Payment

Internal Staff Review

As per any Catalyst standard functionality, online business services can be configured to be routed to an internal team for review. Conditions can also be set that will route a filing to internal staff only when specific circumstances occur within the filing, for example uploading a Supporting Document for Collateral. Notifications will be configured for each task outcome, for example Reject, Return or Approve.

Registry Updates

On submission, or approval, of the initial financing statement the system generated fields are populated, which includes the system calculated lapse (maturity) date. The system defaults to a standard lapse date calculation which is as following number of years from the following date:

- Public-Finance Transaction or Manufactured Home: 30 years
- Transmitting Utility: does not lapse
- All other types: 5 years

The exact logic used for the lapse date and time will be configured per the client's business rules.

Once the initial financing statement is accepted, Catalyst will generate a set of configured correspondence to return to the filer. The standard set of correspondence includes a letter or certificate, as well as a filing form with a filing burn / stamp. The format of the correspondence, data elements to include, and the format of the filing burn / stamp, will be configured per the client's requirements as templates. Once correspondence templates are

configured per business needed, they will be reusable across all lien types and registers as needed within Catalyst to promote data and format consistency to the public. The correspondence templates can be further configured per lien type or register, to handle the differences between them.

Note: Lien paper filings received by the registry office can be managed using the Catalyst Document Receipting Module in the same way as Corporation filings would be managed, see the Corporations section for additional details.

Lien Search

Once the above process has been followed to complete a lien filing, a liens search can be performed which executes IACA standard search functionality, and allows both internal and public users to process search requests against the UCC system of record.

A standard RA9 search includes a search by Debtor, returning only active filings (lapsed + 1 year), with the Last Name to search. In addition, the searches can be returned and ordered as Certified or Non-certified, depending on the business rules to be followed.

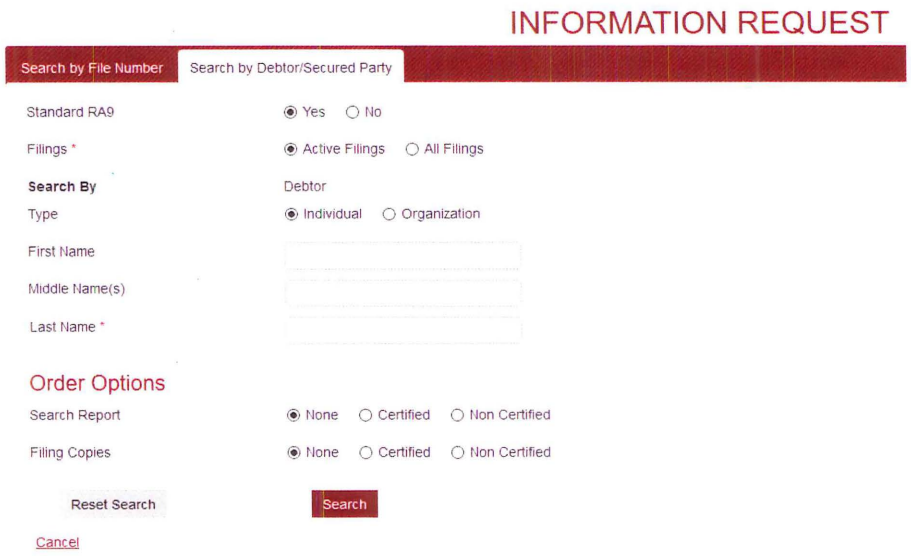


Figure 63. Lien Search – Standard RA9

A nonstandard search typically differs per client, depending on their business rules and what is allowed to be accessed by the public. Below is a view of a nonstandard search in Catalyst, which expands on the standard view to include different search operations (such as a Contains search), and the inclusion of address fields and date ranges. These fields will be hidden and / or configured per the client's needs.

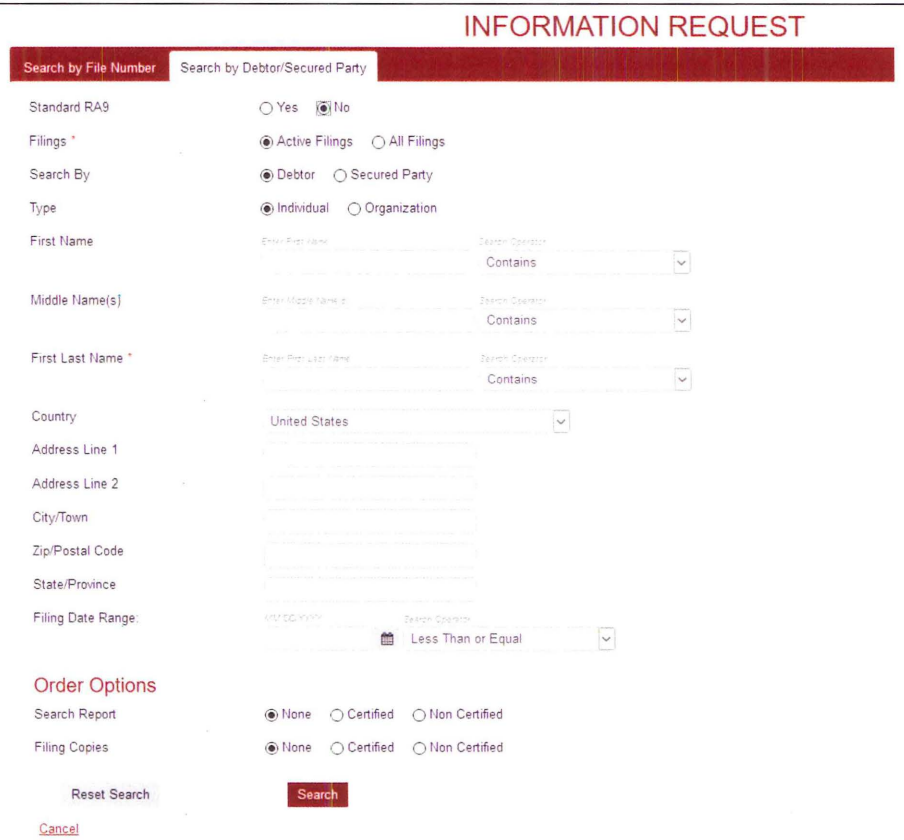


Figure 64. Lien Search – Nonstandard

Once the searches above are performed, the certified or non-certified search reports and copies will be paid for online and delivered to the online user's account. For public searches, each client can define the level of information that is provided free versus what information will incur fees in order to access.

Note: Searches received by paper (UCC11 forms) can be managed using the Catalyst Document Receipting Module in the same way as Corporation filings would be managed, see the Corporations section for additional details. Once the paper filing is receipted, the search flow in Catalyst will proceed with a similar flow that an online user would see, with typical exception of the internal user having access to some fields that the public would not see.

UCC-3	**Amendment Filings** Amendments, Continuations, Assignments, and various actions with fees are filed to update Original Filings by document number. All can be found in Appendix G – Lien Types - Actions Matrix for UCC & EFS Filings labeled as Amendments. See also Appendix H – UCC & EFS Lien Data Fields. Statutory Requirements for Amendments can be found in Appendix C – Statutes and Rules & Regulations. Click to see Filing Compliance Chart for jurisdictional requirements. Review and Enter Filing Data A. Accept and file 1. Enter original document number by using the eyeball icon to search and retrieve original filing for update. 2. Enter required information for filing. a. Check for a Debtor and Secured Party data or collateral change. b. If status is inactive Reject c. If status is lapsed then accept filing for amendment, continuation, assignment, or termination. 3. Receipt fees or charge account for filing (Refer to Appendix F – UCC & EFS Accounting Codes and Filing Fees). 4. Commit job 5. Calculation of maturity date for original filings (including leap year updates) and assignment of status and action type for filings 6. File Stamp filing (see RTM CB-2) 7. Generate letter (Acknowledgement of Filing) and return copy if included with acknowledgement receipt to filer. (see RTM CB-3) 8. Send for scanning B. Decline and reject Return document with rejected system generated letter and fees if collected. Provide a dropdown of all the rejection reasons and the ability to manually add an additional rejection or explanation. Allow selection of multiple reasons. Create rejection notice as indicated in RTM CB-3 C. Generate letter (Acknowledgement of Filing). (see RTM CB-3) D. Allow ability to correct Amendment filing and create audit trail.	Yes			

	The bidder should describe and provide screen shots showing how their system handles Amendments, Continuations, and Assignments.				

Bidder Response:

A user makes amendments to a security interest using the online Catalyst screens. These screens perform the configured data validation to ensure the accuracy and quality of data entered. As part of the amendment process, Catalyst can be configured to collect fees from the filer.

Catalyst is configured to require the review processes required by each client to support amendments.

On rejection of an application, an internal user specifies at least one rejection reason (dynamically presented as a list on the Review screen, depending on the form, along with a free-form text box in which other non-standard rejection reasons may be given). The filer receives an email notification of the rejection, with the reason(s) for rejection stated within the email.

Catalyst provides two options for presenting and amending security interest data on the register, and there are two options available

- Add-Only - with this approach, security interest details entered on the primary registration notice remain intact until its expiry. Notices are added and associated with the primary registration. For any amendment notice, the original state of the security interest will be presented for update. The changes are recorded separately for that particular amendment, without affecting the prior state of the security interest.
- Living Security Interest Document – with this option, the system continually maintains a current view of the security interest, based on amalgamated changes from the primary registration notice to the latest filing. A history of the applied changes, with the ability to view the state of the security interest in relation to a registered notice, will be available.

As amendments are filed online, they are placed in the work queue for processing (including review) by authorised users. The following screenshot illustrates an internal user's dashboard, including their work queue of pending tasks to complete. From this screen they select tasks to complete and undertake daily activities within the register, including those outlined below.

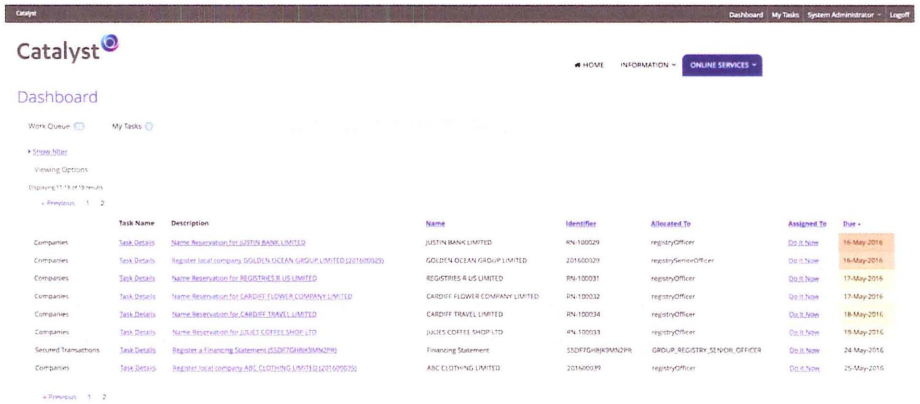


Figure 65. Internal User's Dashboard including Work Queue

Once the update is completed and approved, the system will apply the changes to the register and send the configured correspondence to the interested parties.

UCC-4	**Corrections** Filing Office Statements and Information Statements are filed to correct and update Original Filings or Amendments by document number. See Appendix G – Lien Types - Actions Matrix for UCC & EFS Filings labeled as Correction. Also Appendix H – UCC & EFS Lien Data Fields. Statutory Requirements for Correction can be found in Appendix C – Statutes and Rules & Regulations. Click to see Filing Compliance Chart for jurisdictional requirements. Review and Enter Filing Data A. Accept and file 1. Enter original document number by using the eyeball icon to search and retrieve original filing for update. 2. Enter required information for filing. a. Check for a Debtor and Secured Party data b. If status is inactive Reject c. Commit job 3. Calculation of maturity date for original filings (including leap year updates) and assignment of status and action type for filings 4. File Stamp filing (see RTM CB-2) 5. Generate letter including explanation of correction and Acknowledgement of Filing. See RTM CB-3 6. Allow ability to correct Correction filing and create audit trail. 7. Send for scanning The bidder should describe and provide screen shots showing how their system handles Corrections.	Yes			
Bidder Response: A user makes amendments to a security interest using the online Catalyst screens. These screens perform the configured data validation to ensure the accuracy and quality of data entered. As part of the amendment process, Catalyst can be configured to collect fees from the filer. Catalyst is configured to require the review processes required by each client to support amendments.					

On rejection of an application, an internal user specifies at least one rejection reason (dynamically presented as a list on the Review screen, depending on the form, along with a free-form text box in which other non-standard rejection reasons may be given). The filer receives an email notification of the rejection, with the reason(s) for rejection stated within the email.

Catalyst provides two options for presenting and amending security interest data on the register, and there are two options available

- Add-Only - with this approach, security interest details entered on the primary registration notice remain intact until its expiry. Notices are added and associated with the primary registration. For any amendment notice, the original state of the security interest will be presented for update. The changes are recorded separately for that particular amendment, without affecting the prior state of the security interest.
- Living Security Interest Document – with this option, the system continually maintains a current view of the security interest, based on amalgamated changes from the primary registration notice to the latest filing. A history of the applied changes, with the ability to view the state of the security interest in relation to a registered notice, will be available.

As amendments are filed online, they are placed in the work queue for processing (including review) by authorised users. The following screenshot illustrates an internal user's dashboard, including their work queue of pending tasks to complete. From this screen they select tasks to complete and undertake daily activities within the register, including those outlined below.

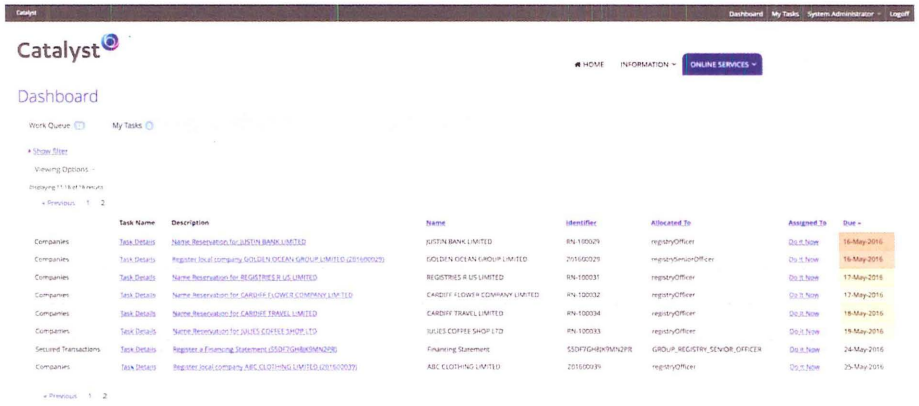


Figure 66. Internal User's Dashboard including Work Queue

Once the update is completed and approved, the system will apply the changes to the register and send the configured correspondence to the interested parties.

UCC-5	**Terminations** Terminations are filed to update Original Filings by document number. All can be found in Appendix G - Lien Types - Actions Matrix for UCC & EFS Filings labeled as Terminations, see also Appendix H UCC & EFS Lien Data Fields. Statutory Requirements for Terminations can be found in Appendix C – Statutes and Rules & Regulations. Click to see Filing Compliance Chart for jurisdictional requirements. Review and Enter Filing Data A. Accept and file 1. Enter original document number by using the eyeball icon to search and retrieve original filing for update. 2. Enter required information for filing. a. Check for a Debtor and Secured Party data b. If status is inactive then Reject. Do not Reject a tax lien if status is inactive, must be able to change status to active prior to termination. 3. Receipt fees or charge account for filing for only Release of Federal Tax Lien and Certificate of Release of Judgment Lien. 4. Commit job 5. File Stamp filing (see RTM CB-2) 6. Allow ability to correct Termination filing and create audit trail. 7. Generate letter (Acknowledgement of Filing). See RTM CB-3 The bidder should describe and provide screen shots showing how their system handles Terminations, including description of how it improves the current process of retention and purging.	Yes			
Bidder Response: Catalyst supports termination filings using the same general workflow and process as amendments (see UCC-3 above). This is common in Catalyst to promote consistency with how different filings are processed. In addition, Catalyst supports the ability to configure business rules per filing type, such as only charging a fee (or a reduced fee) for a Judgement Lien. If a filing is in an unexpected status, Correct the Register functionality can be used to update the status (or any fling field) from inactive to active, prior to committing the termination filing.					
UCC-6	**Bogus or Fraudulent Filing Process and Procedures**	Yes			

	(See Appendix C – Statutes and Rules & Regulations, Nebraska Uniform Commercial Code, See Appendix D – Certificates, Forms, & Templates, UCC Forms, Manual Use, "Bogus Filer Affidavit", "Letter to Debtor", "Notice of Termination to Secured Party", "Bogus Filers Tracking Sheet", & "Filing Office Statement") A. receive filing and monies, B. staff will identify if filing is bogus or fraudulent, C. record filing, D. add to tracking sheet, E. send appropriate correspondences and affidavits to debtor, along with form to file termination (UCC-1) F. send certified letter to secured party stating a termination was filed, if debtor signs affidavit and files termination G. If no termination filed filing remains on record H. If termination is filed secured party can pursue court action; if court favors for the secured party a filing office statement is filed and we delete termination from record, if court finds in favor of debtor a court order is filed to make filing inactive. The bidder should describe and provide screen shots showing how their system records, tracks and handles fraudulent filings, emphasizing to what extent this process can be automated.				

Bidder Response:

A Catalyst service can be configured to generate the necessary correspondence needed to send upon identification of a Wrongful filing. The need of a tracking sheet will not be necessary, as this can be tracked though standard Catalyst automated workflows.

Once a filing has been determined to be Wrongful, the filing can be flagged as Wrongful, which will automatically hide the filing from view. This keeps the filing in the system, allowing internal users (with the appreciate privileges) to search for and retrieve any details as needed for a past Wrongful filing.

In addition, automatic system checks are performed in Catalyst to help with upfront wrongful filing detection, such as checking to see if the Debtor and Secured Party have the same name, and looking for a set of restricted words that may be present in a collateral description.

UCC-7	**Termination Report for posting on the website**. (See Appendix J – Ancillary Databases and Derived Reports Item #4) A. List all UCC Termination Filings for prior month the beginning of the following month. B. Is superseded monthly. The bidder should describe and provide screen shots showing their system's termination report process, emphasizing how it improves the current process.	Yes			
Bidder Response: Catalyst will be configured to provide a report of terminated fillings and make this available for reporting on the website.					
UCC-8	**County Tax Filings, Payments, and Reports** Prepare daily filings for Federal and State Liens and Judgments filed for the day to send electronically to the respective counties. A. Arrange filings in numerical order under county of filing by numerical number. B. Use coversheet template to send all filings electronically to each respective county that has a filing(s) for the day. C. Enter county number, Register of Deeds, and number of pages on the coversheet template. D. By 3:00 p.m. daily send filings electronically to respective counties with receipt confirmation. Prepare County Tax Credit Statements on a monthly basis. Bidder should describe and show screen shots demonstrating how their system produces and displays Monthly County Tax Credit Statement. A. Preparation of monthly payment statements for Federal and State Liens and Judgments filed for the prior month are sent to the individual or multiple counties to verify their report.	Yes			

	B. Provide monthly payment statements to SoS accountant needed to send payment of funds due to each county for their portion of the fees collected for the monthly filings via E1. (See Appendix J – Ancillary Databases and Derived Reports Item #3) Bidder should describe and show screen shots demonstrating how their system produces, delivers, and displays the tax filings per county and county tax credit statement.				
Bidder Response: Catalyst will be configured to deliver this functionality using online dashboards and reports. County users will access a view of their daily and monthly filings and enable to them to access the filings directly from the online system. This will reduce manual effort, printing and postage costs and manual data entry effort at the county offices. Another option, if the state was unable to give logins to the system, would be to setup jobs which e-mail out the reports, removing the need for the user to login.					
UCC-9	**Charge Accounts and Payments** The system must accommodate: A. Automated Clearing House (ACH) for: 1. IRS 2. Department of Justice B. Inter Branch Transfer (IBT) for: 1. Revenue 2. Labor 3. Motor Vehicle 4. Various other state agencies The bidder should describe how their system is able to set up charge accounts, apply credit, send statements, receive funds, apply and track payments for ACH and IBT accounts for government or state agencies to utilize when filing State and Federal Liens and Judgments.	Yes			

Bidder Response:

Billing Accounts

Catalyst includes a flexible fee schedule that manages the collection and processing of fees for registry services.

Catalyst calculates and allocates fees based on pre-defined business rules and includes support for flat fees, sliding-scale fees and late fees. Catalyst also manages the generation of invoices and the processing of receipts.

Catalyst provides for collection and processing of fees in the following methods:

- Credit Card Payment – integration with a third party payment allows credit card transactions.
- Pre-paid account – an account balance is maintained per user account. This account balance is incremented online by an internal user, based on a payment receipt (transacted either at an authorized office, e.g. Registry Office, Ministry of Finance, or bank branches). There must be sufficient funds in the account to cover filing of a notice.
- Billing account - post-paid account where funds are not pre-allocated. Pre-approved users will be automatically invoiced monthly by the Register. Non-payment may result in de-activation of the account.
- Cash, Checks, Bank Draft, Other – these payment methods are available to internal users only entering paper applications on behalf of the customer

The Registrar (or an authorized internal user) may waive the partial or full penalty fee. This will be done on a case-by-case basis.

Fees and penalties are configured within the workflow and are charged on submission of a business service. Where the application and related payments are not concluded within the configured timeframe, then compliance routines can trigger the termination, cancellation or revocation of entities.

Catalyst generates daily revenue summary worksheets used for reconciliation purposes. Sample reports as follows:

- Revenue summary by payment type on payments that are collected via the various branch offices, for transactions processed by internal staff.
- Revenue summary for external payments that are made by public users.

All transactions within Catalyst are linked to the original register event to which they relate, and to a customer account, based on the logged in user who initiated the transaction. This is handled by Catalyst's payments module.

Catalyst enables clients to have billing (post-paid) and deposit (pre-paid).

Catalyst records financial transactions (e.g. payments, adjustments, top-ups) against the client's financial account. Each payment is also linked to an applicable business service that generated the financial transaction (e.g. incorporation fee payment).

Catalyst generates a Financial Account Statement for each deposit and billing account based on a pre-determined schedule (usually monthly), display transaction details (ID, type, date, amount, etc.) and account details (e.g. opening balance, total number of transactions, total amount of fees paid, total amount of adjustments and closing balance).

For pre-paid accounts, an account balance is maintained per user account. This account balance is incremented online by an internal user, based on a payment receipt (transacted either at an authorized office, e.g. Registry Office, Ministry of Finance, or bank branches). There must be sufficient funds in the account to cover filing of a notice. For post-paid, or billing accounts, pre-approved users will be automatically invoiced monthly by the Register. Non-payment may result in de-activation of the account.

Clients may have multiple pre-paid and/or billing accounts which they can view and maintain (limited data only) online.

Catalyst payments module allows an authorized administrator to manage the accounts, including the ability to suspend and unsuspend (reactivate) customer accounts for a range of reasons.

Inter Branch Transfer

Catalyst supports recording and tracking of Inter Branch Transfer payments through the configuration of payment types. Once the payment types are configured with the necessary required and/or optional info (such as a reference #), they will appear throughout the application for access in reports and searches, allowing users to track and report on Inter Branch Transfer payments.

UCC-10	**Electronic Filer Agreement Process For Online Filing** Banks, law firms, large filing volume firms or other companies may register to become electronic filers. Currently we do not allow individuals to register for electronic filing. Filers submit agreement to our office for staff review and approval. Once approved agreement is sent to Nebraska.gov to set up charge account and then they notify customer of account approval and provide password. (See Appendix D, UCC Forms or EFS Forms folder, "Electronic Filing Services Agreement"). Bidder should describe how their system provides an Electronic Filer Agreement Process For Online Filing.	Yes			
Bidder Response: Catalyst supports access by external bulk filers as outlined above. While the paper-based agreement process may be left in place, the establishment of the accounts is managed within Catalyst. These "agents, such as accountants and lawyers, may have clients who have granted them permission to manage their entities on their behalf. Catalyst provides a range of management tools to simplify and improve the efficiency of these agents managing entities for large volumes of customers.					
UCC-11	**Redaction** Documents stored in the image library may have PPI information. In that case documents must be stored in both original format and redacted format. Only redacted images and documents without PPI information are made available to the public. Staff members need ability to review all pages of UCC Filings as this information may be contained in free form on additional pages or under collateral. Bidder should describe their system's ability to redact Personal Protected Information (PPI) such as: social security numbers, federal tax identification numbers or federal employer identification numbers (FTIN/FEIN), or financial account numbers on filings to prevent fraudulent usage of personal information.	Yes			

Bidder Response:

Our assumption is that OnBase is already doing the redaction, and will continue to do so, allowing OnBase to redact any sensitive information.

The system currently transfers the images via ftp along with a reference file that associates each image with a filing. The images are then processed by a scheduled job by Onbase that imports them into Onbase. The batch job will be modified to interact with Catalyst via a web service to update the records to link the Onbase image to a filing.

The Online system also retrieves images via a web service call provided by the Secretary of State. This web service is provided by the Secretary of State and performs the OnBase interaction.

Refer to our response to CB-1 for more details on how this interface operates.

TECHNICAL REQUIREMENTS – EFS Processes/Features

The EFS System must record, store, and retrieve information related to Effective Financing Statements (EFS) recorded by the Secretary of State. (Appendix G - Lien Types - Action Matrix for UCC & EFS Filings and Appendix H – UCC & EFS Lien Data Fields)

The filing categories of Original Documents; Amendments & Continuations; and Terminations (see Appendix G - Lien Types - Actions Matrix for UCC & EFS Filings) will follow this general workflow.

Current Workflow – This Workflow provides an overview of the daily processing of EFS filings and applies to EFS-1 through EFS-6 below.

A. For filings received by mail (filings received via Document eDelivery are handled without staff involvement)
   1. Open mail
      a. Endorse check, verify money received and/or charge account number as indicated on filing.
   2. Review document for statutory and rules & regulations requirements then determine if i, ii, or iii:
      b. If necessary route for supervisor review and determine next steps
      c. Accept and file
         i. Enter required information for lien type. (Refer to Appendix G - Lien Types - Actions Matrix for UCC & EFS Filings and Appendix H – UCC & EFS Lien Data Fields) Fund and object codes need to be applied to the fees at the time they are entered into filing system with the capability to split into 2 or more funds for the deposit. (Refer to Appendix F – Accounting Codes and Filing Fees)
         ii. Enter the filer client information provided or search name in the filer client table to populate the filer information with the option of entering the account number in the job window. System has ability to add additional certifications, copies, attachments, searches, miscellaneous fees, buyer registration fees, or make corrections, edit, or delete any fees as needed. (Refer to Appendix D – Certificates, Forms, and Templates. Start with OPEN ME FIRST document for explanation of folder contents and usage.)
         iii. Receipt fees by check, cash, coin, or charge account number.
         iv. Commit job which will generate, save, and print acknowledgment(s) by default, with the option to not print.
         v. File Stamp filing (see RTM CB-2)
         vi. Send for scanning
         vii. Return acknowledgement to filer along with copy, if provided
         viii. The system will assign a unique batch number to each staff member. Jobs are recorded in batches from a job window. Batches are totaled and reconciled for deposit.

         or
      d. Decline and reject
         i. Create rejection letter via Word template within the system.
         ii. Return document with letter and fees.

B. For filings received via Document eDelivery on the SoS website– there is currently no staff review; however, we are adding administrative online review capabilities via Nebraska.gov for EFS Amendments or other filings as needed that need staff review prior to filing.

C. For all changes or correspondence (e.g., filings, letters, staff or system-generated updates, automated interface updates), create audit trail records containing a date and time stamp, staff member or system involved, with a link to the image (when appropriate).

D. Balance Receipts and Reconcile each Batch at End of Day

E. Review of Filed Records (normally performed day of deposit; however, may be done at any time.)
   1. Delete a record or job after a filing has been committed prior to posting the batch.
   2. Delete a record after the batch has been posted.
   3. Discard a filing number at the time of filing, or after committal, but prior to posting the batch.

F. The following day, batches are totaled and prepared for deposit, then sent to the accountant for PFC deposit. See RTM CB-5.

RTM #			Customization Required	No	Alternate
EFS-1	These criteria apply to the filing types Originals, Amendments & Continuations, Terminations and any other subsequent actions. (See Appendix C – Statutes and Rules & Regulations, EFS, Appendix G – Lien Types - Actions Matrix for UCC & EFS Filings, and Appendix H – UCC & EFS Lien Data Fields). For each search, create an audit trail record containing a date and time stamp, staff member or system involved, with a link to the image (when appropriate). The following search criteria must be available in the system in order to look for existing records on file for the following categories. A. ModName Calculation 1. Individuals a. Individual debtors must be explicitly identified as individuals. b. The individual name may contain first, middle and last elements. c. Convert each element of the name (first, middle, last) to uppercase. d. Remove punctuation, accent marks and spaces. Only characters A-Z and digits 0-9 are valid. e. Concatenate the last, first and middle names with the "|" character as a separator. For example, "John A. Smith" would be stored as "Smith|John|A" 2. Organizations a. Organization debtors must be explicitly identified as an organization. b. Convert the name to uppercase. c. Replace "&" with "AND". d. Remove punctuation and accent marks. Only characters A-Z and digits 0-9 are valid. Note: Any character not in the list of valid characters is replaced with a space (" ") character. e. Remove multiple consecutive spaces which may have been left as a result of the previous step.	Yes			

	f. Remove ending noise words as defined in NAC Title 436, Chapter 5. g. Remove any occurrence of "THE" at the beginning of the name. h. Remove all remaining spaces. B. Non-Standard Wildcard + Soundex Search (EFS) 1. Must designate debtor as Organization or Individual 2. Create a search value using the "modname" algorithm. 3. Insert a wildcard character at the end of the First and Middle names **(but not the Last name)** in the calculated search value. From example above, the search new value would be "Smith|John%|A%". 4. Create a "soundex" value from the search value while keeping the wildcard characters intact. From the example above, the soundex value for the search value "Smith|John%|A%" would be "S5325%45%". 5. Search *EFSDebtor* table using a LIKE search of the DebtorNameSoundex column. 6. When searching for liens the system must return all debtors associated to each lien and indicate multiple debtors on liens by a common indicator. 7. The search report will show all debtors/secured parties associated with each lien. 8. Only active records are searched. C. EFS Search – Internal Search Only For an "EFS" search, the following rules apply. 1. For a search for individuals, a value must be specified in the "Last Name" textbox else the "Find" button is disabled. 2. All individual data elements (Last, First, Middle and Organization names) are converted to their ModName equivalent before searching. 3. When the Soundex option is selected, the Soundex value is calculated from the corresponding ModName value. 4. **EFS Liens: Default options specified; Wildcard = yes, Soundex = yes** a. **Debtor name** **i. Individual** a) LastName **only** has a wildcard appended if the FirstName and MiddleName values are both blank. b) FirstName **always** has a wildcard appended.				

	c) MiddleName **always** has a wildcard appended **ii. Organization** a) OrganizationName always has a wildcard appended. 5. **Debtor Name – Internal Search only** Search for EFS debtors matching the specified name. The searcher may choose to return Active (record where lapsed date has not yet occurred), Lapsed (record where lapsed date has occurred in the prior 365 days) or Inactive (record where lapsed date occurred over 365 days) liens associated with the debtor(s) returned. 6. **Additional Search Options – Internal Search only** a. Limit to liens filed within a specific Date Range. b. Limit to liens filed by a debtor who resides in a specific City. c. Limit to liens filed by a particular Secured Party. i. Wildcard: For individuals, a wildcard is added to the end of the First Name and Middle names and the Last name if the First and Middle names are blank. For organizations, a wildcard is added to the end of the Organization name. ii. Soundex: Performs the search using the Soundex encoding of the ModName of the individual or organization. iii. Soundex + Wildcard: If both options are selected then a wildcard character is appended to the Soundex value of an Organization ModName. For individuals, the Last, First & Middle ModNames are individually converted to a Soundex value and a wildcard character is the appended to the end of each. The First and Middle name Soundex values then have their initial alpha character removed to keep in line with the standard Soundex encoding algorithm. The individual Soundex values are then concatenated together and any consecutive digits on either side of the wildcard characters are removed to keep in line with the standard Soundex algorithm. iv. Any combination of Active, Lapsed or Inactive lien status may be selected. 7. **Debtor UIN – Internal Search only – Internal Search only** Searches "EFSDebtor" table for debtors having an exact match of the Debtor UIN specified.				

	8. **Additional Search Options – Internal Search only** a. Limit to liens filed within a specified Date Range. b. Limit to liens filed by a debtor who resides in a specified City. c. Limit to liens filed by a particular Secured d. Party. e. Any combination of Active, Lapsed or Inactive lien status may be selected. 9. **Secured Party Name – Internal Search only** a. The Secured Party search functions similarly to the Debtor Name search of UCC Liens described above with the following differences: b. Searches are conducted against the SecuredParty table vs. Debtor table. c. All lien classes (except "UCC") are searched. d. The lien classes are all searched in the same manner. There is no special handling for "Tax" or other lien classes. 10. **Original Document # – Internal Search only** Searches the "EFSLienMaster" table for a matching original document number. The search is an exact match on the specified document number 11. **Document # – Internal Search only** Searches the "EFSActions" table for liens having an exact match to the specified document number. A second search is then conducted to retrieve detail data from the LienMaster, Debtor and Secured Party tables for each lien returned in the first search. 12. **Find Old Term – Internal Search only** Find Old Terminations – This internal search looks for original document numbers and actions relating to it from the "EFSActionsArchived" table. The filing data stored in this table is from EFS filings that were terminated from a previous system and isn't incorporated or easily searchable in the current system. 13. **Job History Search – Internal Search only** a. Job # - Finds jobs that match the specified job number. i. Wildcard Implied ii. Insert OR b. Filer/Client Name (Individual/Organization) – Finds jobs that match the specified Individual / Organization.				

	i. Wildcard Implied ii. Insert OR c. Billing Acct ID – Finds jobs that match the specified Billing Acct ID. d. Original Document # - Finds jobs that match the specified Document Number. 14. **Filer/Client Maintenance - Internal Search only –** This form lists every filer entered into the FilerClient table. This table holds filers who conduct frequent business and their name & address information are maintained for quick selection and entry into the job window. a. Name – This will locate the first occurrence of the entered name within the list. b. AcctID – This will locate the first occurrence of the entered Acct ID within the list. Note that the Corporation application does not utilize Billing Acct Numbers so this type of search doesn't apply. Search Logic For additional search criteria see Appendix K – Reports and Additional Information – Search Logic Spreadsheet. Soundex This is the standard Soundex encoding algorithm as described here: https://en.wikipedia.org/wiki/Soundex. The EFS encoded value is carried out to 8 characters vs. the standard 4 characters. The system calculates and stores the Soundex encoding of the ModName value. The system must be able to provide a unique search report identification number which identifies the search report done internally or online. The search request declaimer page must provide the previous day at 5:00 PM as the 'through date and time' along with disclaimer and filing officers name. The system must have an override function to change the 'through date and time'. Annual process – The system must allow elimination of anything that does not have exact match of first and last name. The remaining names will be displayed and included in the search results.				

	Effective Financing Statements- (See Appendix H – UCC & EFS Lien Data Fields) The system must provide an API for the external calling of the search modules from Nebraska.gov. The search in EFS replaces "&" by "and", as defined per Administrative Rules for Article 9, Title 436, Chapter 5, 503.1.3. Only Active filings and imaged documents will be retrieved. The user must indicate whether the debtor is an Individual or Organization. The bidder should describe and provide screen shots showing their system's name search processes, and retrieval of existing records, emphasizing how the proposed system will improve the current process.				

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Any user may search the Secured Transactions (UCC/EFS) register. Public users have limited access to security interest data while internal users and registered users associated with the security interest (secured parties and their agents) will have full access to data. The following search types are available:

1. Search by Security Interest Number
2. Search by Debtor – name or identification number
3. Search by Serial Number

The following screenshot illustrates an existing UCC/EFS search screen with multiple search criteria available:

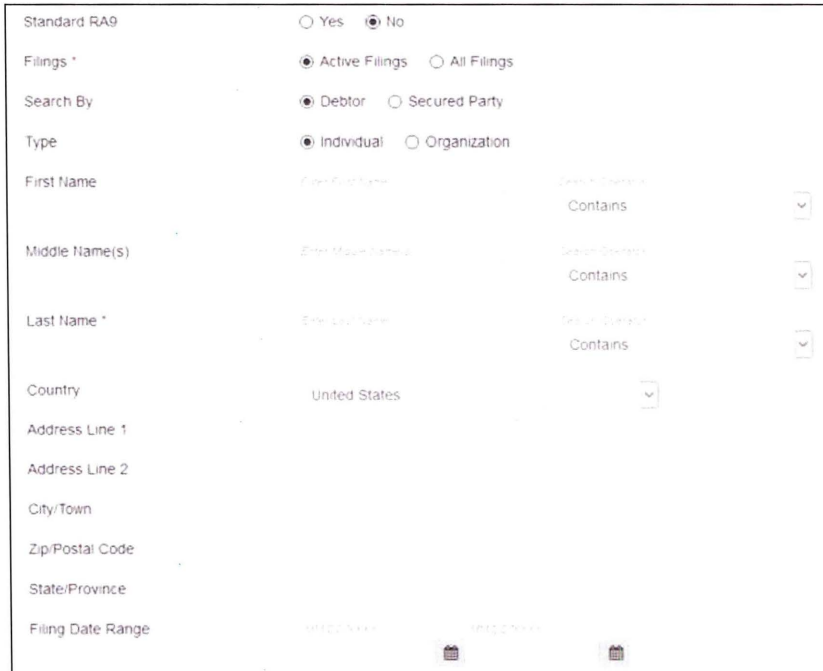


Figure 67. Example UCC/EFS Search Criteria

Registered and casual users may search the Register online, and the system can be configured to charge a fee for each search submitted. Public searches include registered security interests only, excluding discharged and expired security interests.

Catalyst displays details of a selected search result, with options to print or email the details. Depending on the presentation approach, the system displays the original registration notice of the security interest or the current security interest version, with amalgamated changes from subsequent notices.

The following screenshots provide examples of public search and detail screens available from the Catalyst secured transaction register solution that will be configured to deliver the UCC/EFS functionality:

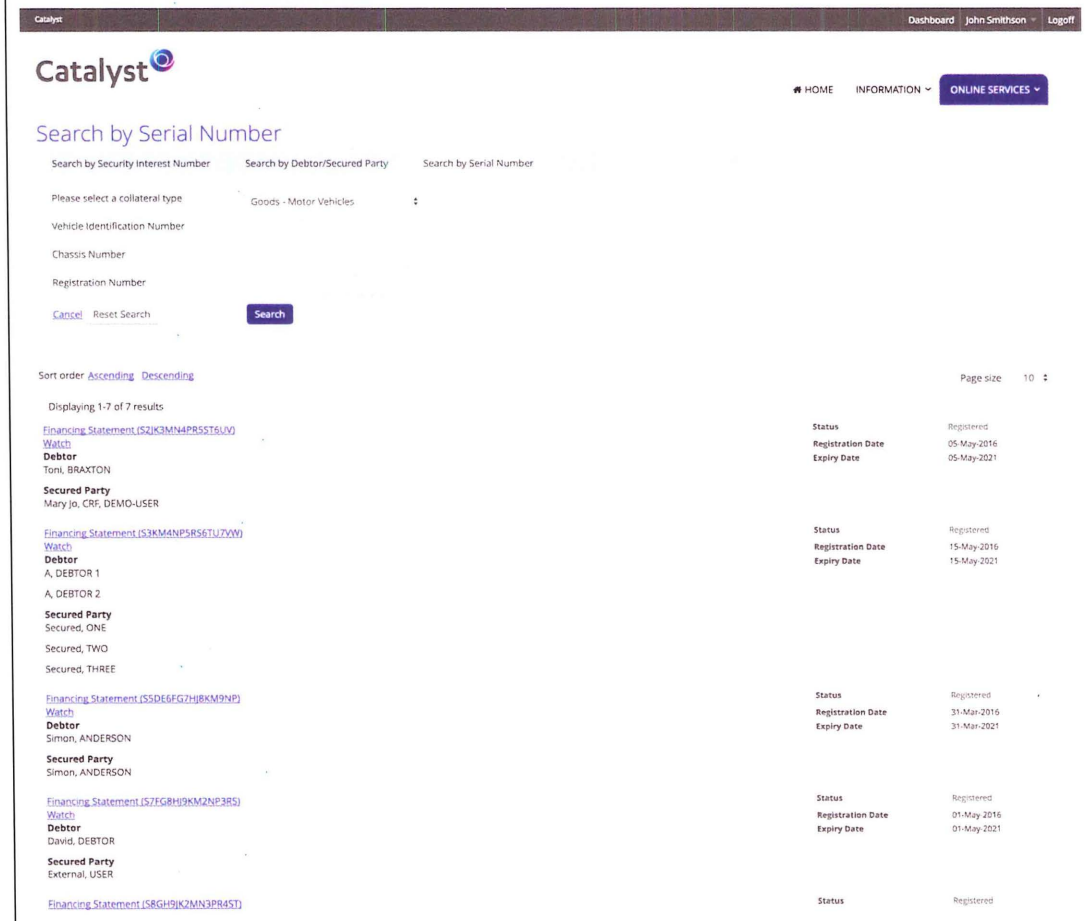
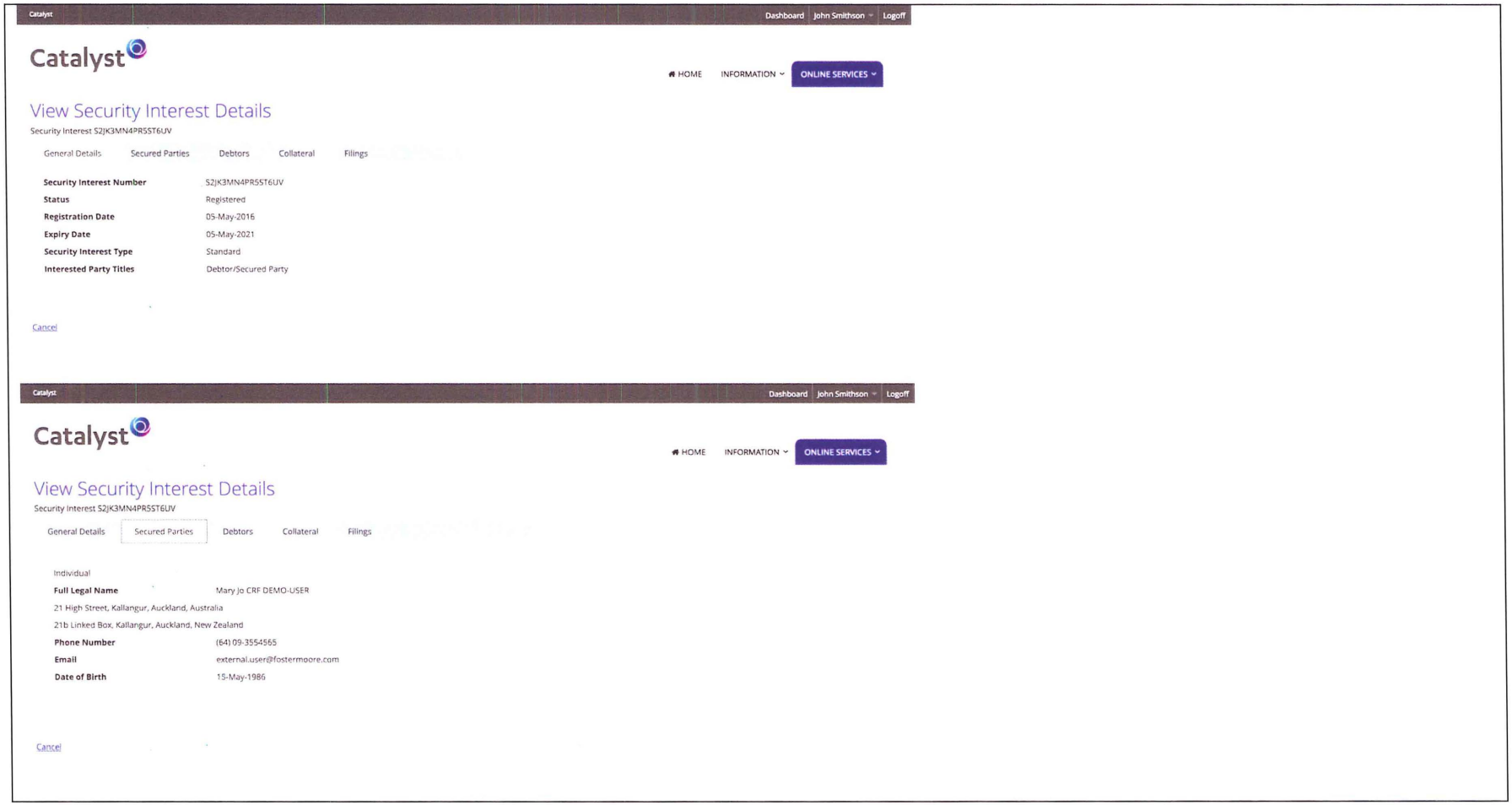
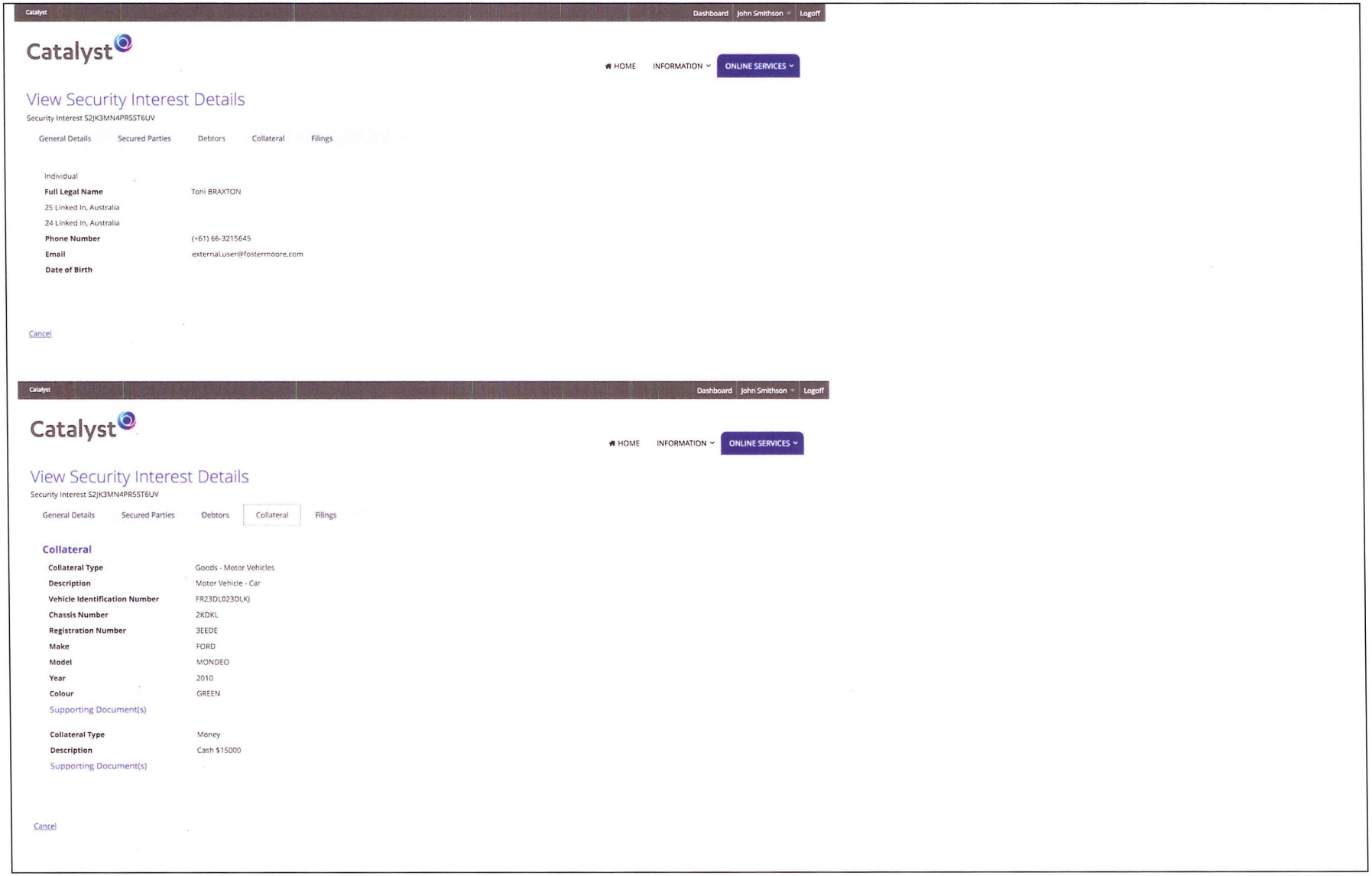


Figure 68. Search Security Interest


Catalyst
Dashboard
John Smithson
Logoff
Catalyst
HOME
INFORMATION
ONLINE SERVICES
View Security Interest Details
Security Interest S2JK3MN4PR5ST6UV
General Details
Secured Parties
Debtors
Collateral
Filings
Security Interest Number
S2JK3MN4PR5ST6UV
Status
Registered
Registration Date
05-May-2016
Expiry Date
05-May-2021
Security Interest Type
Standard
Interested Party Titles
Debtor/Secured Party
Cancel
Catalyst
Dashboard
John Smithson
Logoff
Catalyst
HOME
INFORMATION
ONLINE SERVICES
View Security Interest Details
Security Interest S2JK3MN4PR5ST6UV
General Details
Secured Parties
Debtors
Collateral
Filings
Individual
Full Legal Name
Mary Jo CRF DEMO-USER
21 High Street, Kallangur, Auckland, Australia
21b Linked Box, Kallangur, Auckland, New Zealand
Phone Number
(64) 09-3554565
Email
external.user@fostermoore.com
Date of Birth
15-May-1986
Cancel


Catalyst
Dashboard
John Smithson
Logoff
Catalyst
HOME
INFORMATION
ONLINE SERVICES
View Security Interest Details
Security Interest S2JK3MN4PR5ST6UV
General Details
Secured Parties
Debtors
Collateral
Filings
Individual
Full Legal Name
Toni BRAXTON
25 Linked In, Australia
24 Linked In, Australia
Phone Number
(+61) 66-3215645
Email
external.user@fostermoore.com
Date of Birth
Cancel
Catalyst
Dashboard
John Smithson
Logoff
Catalyst
HOME
INFORMATION
ONLINE SERVICES
View Security Interest Details
Security Interest S2JK3MN4PR5ST6UV
General Details
Secured Parties
Debtors
Collateral
Filings
Collateral
Collateral Type
Goods - Motor Vehicles
Description
Motor Vehicle - Car
Vehicle Identification Number
FR23DL023DLKJ
Chassis Number
2KDKL
Registration Number
3EEDE
Make
FORD
Model
MONDEO
Year
2010
Colour
GREEN
Supporting Document(s)
Collateral Type
Money
Description
Cash $15000
Supporting Document(s)
Cancel

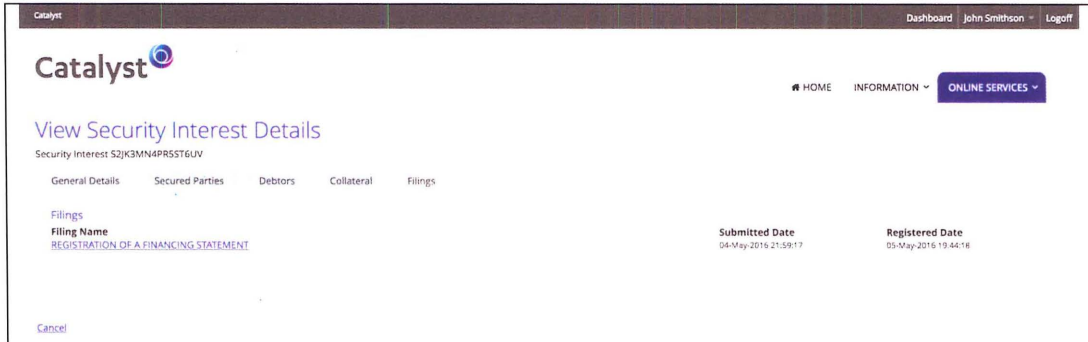


Figure 69. Display Financing Statement Details Screens

All of our systems are used by members of the public with no formal training and with a wide range of technical competence. These systems operate on a range of device types with a range of browsers and over a wide range of network connection environments with varying levels of performance, as well as a range of browsers and devices, from PC's to smartphone and tablets.

Catalyst uses responsive practices for most of its screens, meaning we keep the overall layout fluid and adaptive for different screen widths.

Furthermore, many of the screen elements within the layout adapt in order to improve the user experience on different devices. For example, the main navigation and top admin bars adapt and behave differently on devices with screen width below 600px.

Fundamental to our decisions about screen design is taking into consideration our user pool for particular activities. We need to tradeoff the usability for the majority of our users, including high volume users, using desktop-based browsers, versus a relatively small number of users performing functions on a mobile device. For example, it is perfectly possible to register a company on a mobile device, even though the screens have been designed to suit a larger sized screen.

Catalyst makes the following lists of data available to authorized users:

- List My Unfinished Business - Lists all pending security interests created by the logged on user. On selection of a pending security interest, the user may resume data entry. This use case also lists recently registered security interests for a number of working days.
- Registered Security Interest Report - Allows a secured party to run a statistical report on their registered security interests, given a reporting month.
- Security Interest List - Allows a user to list security interests that are registered and/or due to expire, for a given reporting period. The report may be displayed online or emailed to the user.

- List Change Demands - Displays a list of change demands for a specified security interest. The list includes pending, withdrawn, held, rejected or accepted change demands.
- Catalyst maintains an exhaustive document history off all changes made to a security during its life. This allows an authorized user to view the details of the security at any point in the past, from the initial entry, through all changes and modifications, to the current version.

Please refer to the response to CORP-1 above for more details of Catalyst's search capabilities, including configuration. These same search capabilities will be leveraged for the UCC/EFS searching, specific to those entity types.

EFS-2	**Unique Identifier Number** Current process The unique identifier number (UIN) is a ten digit number derived from a combination of letters taken from the individual or organization name, coupled with the last four digits of the debtor's social security number or federal tax identification number. (See Appendix K – Reports and Additional Information, "Unique Identifier Number" and "Federal Register Notice for UIN") The current system generates and returns the UIN, which is created from data entered for paper filings and in online filings for all EFS and subsequent actions. Nebraska.gov passes information to the system which generates and returns a UIN back to Nebraska.gov. The UIN is accessible on our website and is also used to generate and/or look up a UIN for paper filers. The UIN is captured for use in the filing, and is also printable for customers if they so choose. A UIN has been generated for all existing debtors in the system. The system stores new UINs for debtors in the system upon filing, and the UIN appears on EFS search results and on the Master Lien list. Bidder should describe and show their process for creating the unique identifier number (UIN), showing how information is communicated via API between SoS and the portal.	Yes			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to

view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst supports the configuration of unique identifiers for various items throughout the application, including the ability to create UINs for EFS Debtors. The configuration of the unique number includes items such as: elements that go into deriving the number (date, sequence, etc..), length, starting number, reset date, or padding. This allows for detailed customization to meet specific business rules, as well as handle migrated data in which Catalyst may need to continue from a starting point.

In addition, Catalyst is designed to interface with external systems through API calls, which will be configured to call Nebraska.gov as needed to communicate identifiers (refer to CB-5 for a more detailed description of how Catalyst provides web services for external system access).

EFS-3	**Original Filings** Original Filings are filed with the Secretary of State. All lien types and action codes can be found in Appendix G - Lien Types - Actions Matrix UCC & EFS labeled as Originals. See Appendix H – UCC & EFS Lien Data Fields, and Appendix C – Statutes and Rules & Regulations. Statutory Requirements for Originals can be found in Appendix C – Statutes and Rules & Regulations. Review and Enter Filing Data A. Accept and file 1. Enter required information for filing. (Refer to Appendix G a. Check for a Debtor and Secured Party data b. Status becomes active 2. Receipt fees (Refer to Appendix F – Accounting Codes and Filing Fees) 3. Commit job 4. Calculation of maturity date for original filings (including leap year updates) and assignment of status and action type for filings 5. File Stamp filing (see RTM CB-2) 6. Generate letter including explanation of correction and Acknowledgement of Filing. See RTM CB-3 7. Send for scanning B. Decline and reject Return document with rejected system generated letter and fees if collected. Provide a dropdown of all the rejection reasons and the ability to manually add an additional rejection or an explanation. Allow selection of multiple reasons. Create rejection notice as indicated in RTM CB-3 C. Allow ability to correct Original filing and create audit trail. The bidder should describe and provide screen shots showing how their system handles Original filings and emphasizing how the proposed system will improve the current process.	Yes			

Bidder Response

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Introduction

The Catalyst Secured Transactions (ST or UCC/EFS) Register is a public real-time, web-based register of security interests, available 24 x 7. At the minimum, the following online functions will be provided on implementation of the register:

- Register an initial notice of security interest
- Register an amended notice
- Register an extension notice
- Register a termination notice
- Register a notice of objection
- Search by registration number, debtor or serial number

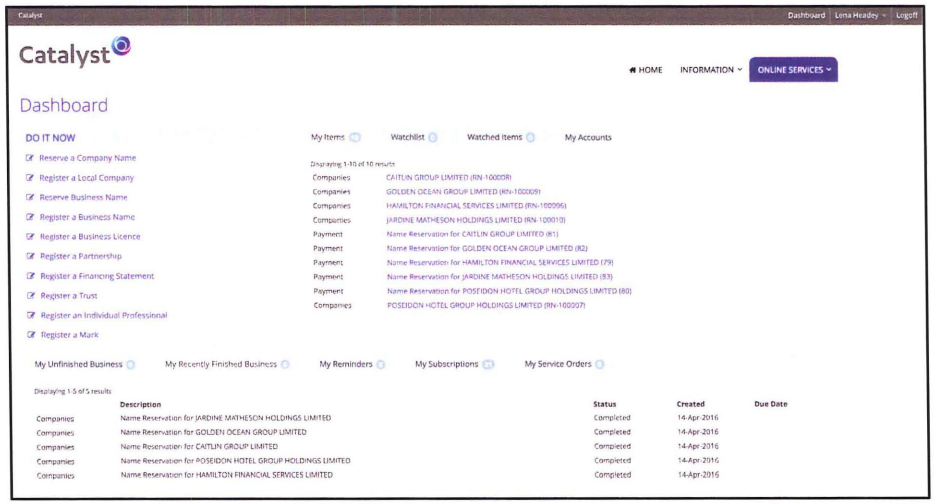


Figure 70. Catalyst Online Home Page

Security Interest

Within the Register, the core entity is the security interest. A security interest is a type of property right that is given to one party by another party as collateral for the performance of an obligation. Security interests are most commonly used in situations in which debtors have borrowed money from lenders (secured parties). The secured party and debtor are the main parties to a security interest.

Secured Parties

The secured party, which may be a person or organization, registers the security interest and maintains its details on the Register. A registered user, acting on behalf of the secured party as an agent, may also file security interests. Multiple secured parties may be associated with a security interest.

On registration of a security interest, the registering user and all related secured parties would be able to subsequently maintain the security interest details. Secured parties, who did not file the security interest themselves, are issued activation codes via email, which they should reference when registering or logging in to the web site, to establish the link between their user account and secured party record.

Debtors

Multiple debtors may be specified on a security interest. A debtor may be an individual, registered company or another entity. Depending on the debtor type, the system captures the debtor's name and extra information such as a personal identification number or registered company number.

Collateral

Multiple collateral items may be included on a Security Interest. Collateral types will be selected from pre-defined jurisdiction set. Depending on the collateral type selected, the system captures a generic collateral type description or a more detailed collection of data such as motor vehicle identification number or manufacturer's serial number.

Security Interest Maintenance

Only registered external users may maintain security interests details on the register, either as secured parties or agents acting on their behalf. These users may be individuals who have their own personal accounts or organizations with multiple users defined within their structure, e.g. banks, finance companies.

A registered security interest can be amended, extended or terminated by its secured party or agent. Specific forms to register notices of security interests (primary registration and maintenance) attract a filing fee, as per jurisdiction requirements.

Catalyst maintains an exhaustive document history off all changes made to a security during its life. This allows an authorized user to view the details of the security at any point in the past, from the initial entry, through all changes and modifications, to the current version.

Email Notifications

Confirmation of a registration of a security notice is sent via email to the registering user and all members of a secured party group. Each email contains an attachment of the verification statement of the complete details of the registered notice.

Notice of Lien

A Notice of Lien is registered to secure priority of government claims such as taxes and other legally protected claims, e.g. wages and employee benefits. Registration and maintenance of this type of notice adopt exactly the same framework and business rules as for a Security Interest. However, only authorized users are able to file notices of lien, e.g. users from government tax department, liquidators, etc. These users must be explicitly granted the appropriate privilege by the Registrar, as all notices of lien are filed free of charge.

Watch lists provide the ability for users of the register to monitor their own interests easily. A user is able to add security interests that they have an interest in to a personalized list and receive notifications based on "triggers" or "events" such as changes of debtors and of the interest's details. The frequency and method of the delivery of the notification of the change may be determined from a set of options by the user. This service also serves to protect the owner of a record against unauthorized changes to their data as they are notified when changes are made.

Filing of Notices

The following notices can be filed on the Register:

- Registration of a Security Interest – defines the details of the security interest and establishes its publicity and priority on the register;
- Amendment of a Security Interest – records changes, addition or removal of details on the security interest, e.g. add a collateral type, change debtor address
- Extension of a Security Interest – a security interest typically expires five years from its primary registration date, or an earlier manually specified date. This notice extends the expiry date of a security interest to maintain its priority on the register.
- Termination of a Security Interest – removes the effectiveness of the security interest on its termination date
- Registration of a Notice of Lien
- Amendment of a Notice of Lien
- Extension of a Notice of Lien

- Termination of a Notice of Lien
- Correction of the Register – provides the Registrar to correct data errors, with a mandatory reason for correction provided. The notice will be available for public viewing.
- Notice of Disposal of Assets – allows the secured party to register their proposed disposal of an asset on non-payment of debt.
- Subordinate a Security Interest – establishes subordination of one or more inferior security interests to a superior security interest, in terms of priority.
- Un-subordinate a Security Interest – removes the subordination relationship between one or more security interests.
- Transfer a Security Interest – allows the selective or global transfer of security interests from one secured party to another.
- Lodge a Change Demand – allows a debtor or interested party to lodge specific changes to a security interest; Secured parties are informed of the lodgment. The change demands are automatically applied to the register, after a certain period, barring any objection from the secured parties.
- Withdraw a Change Demand – allows a debtor or interested party to withdraw a previously lodged pending change demand.
- System Acceptance of Change Demands - System automatically accepts a pending change demand after a specific period from lodgment.

The following screenshots illustrate the standard process for registering a security interest within Catalyst. The first stage of the process involves the online entry of general details, secured parties, debtors and collateral information related to the security interest. All data items are validated based on configured rules within Catalyst.

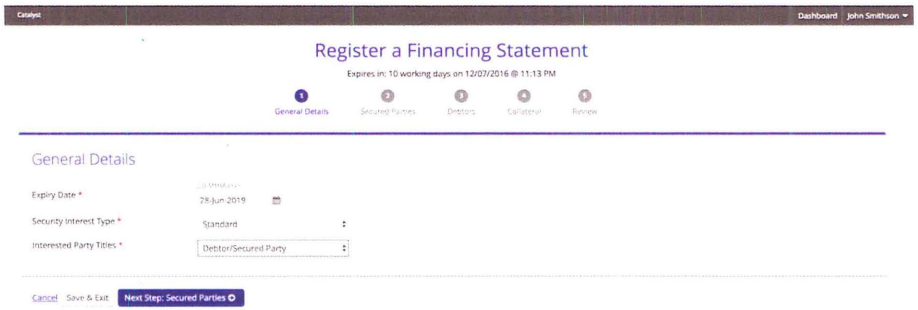


Figure 71. Financing Statement Registration - General Details

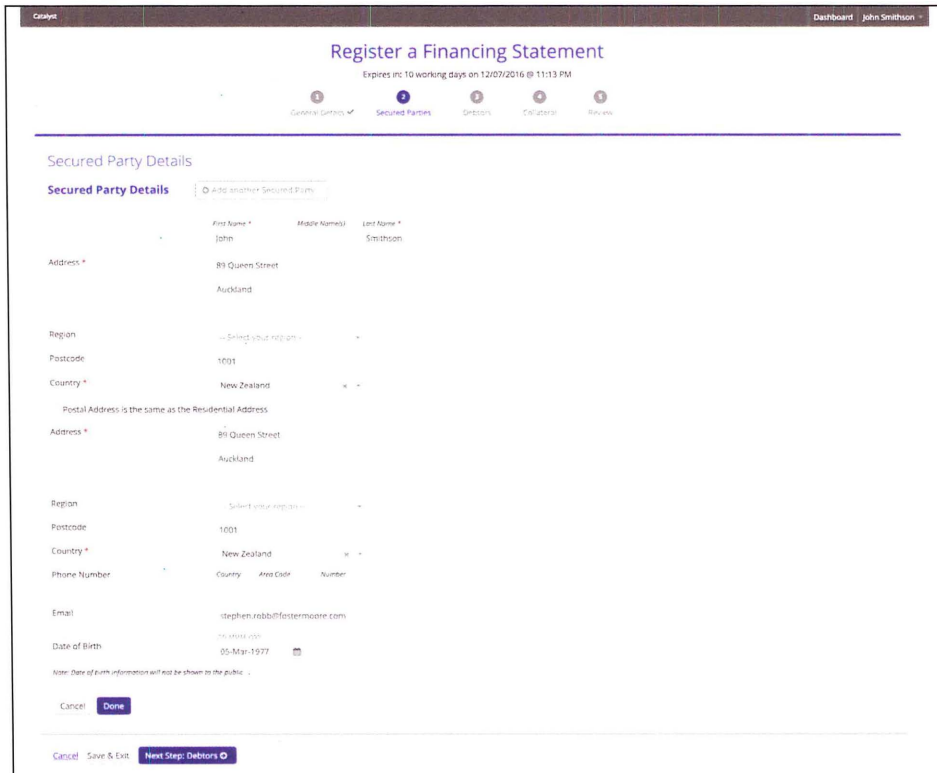


Figure 72. Financing Statement Registration – Secured Parties data entry

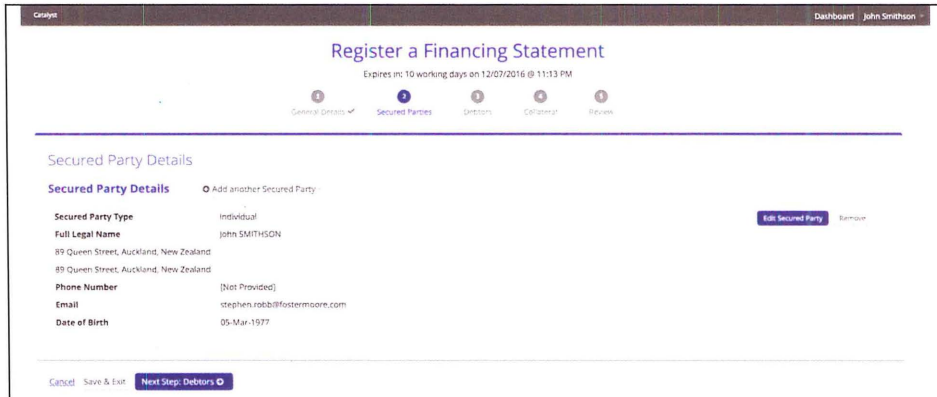


Figure 73. Financing Statement Registration – Secured Parties confirmation

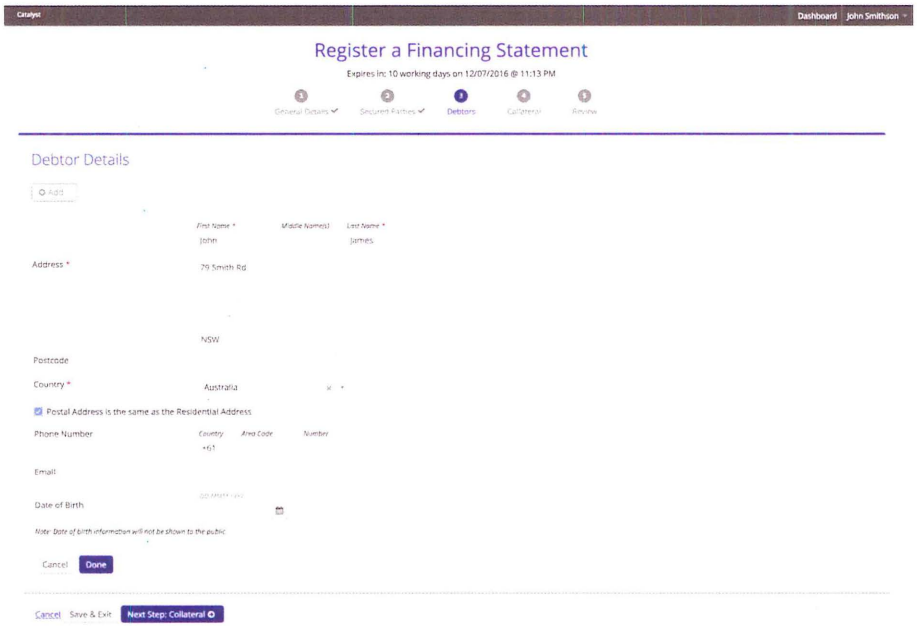


Figure 74. Financing Statement Registration - Debtors

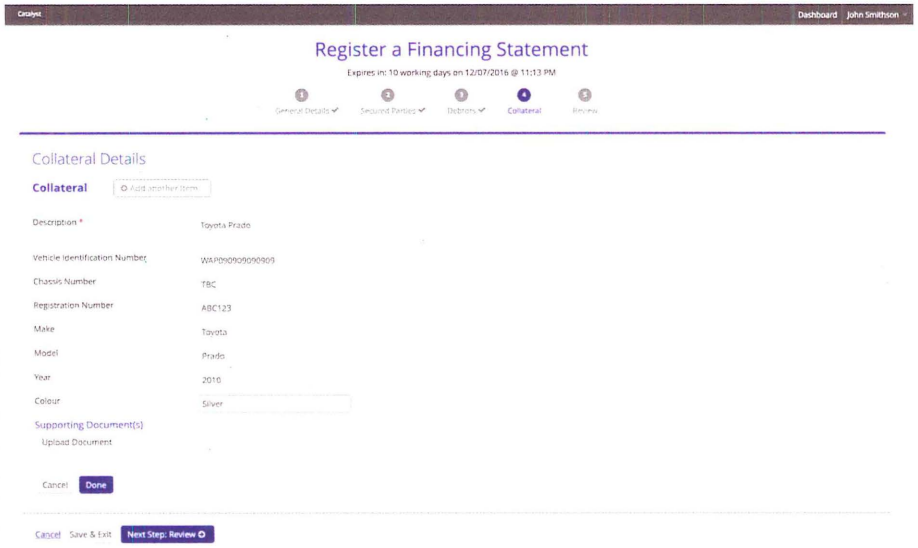


Figure 75. Financing Statement Registration – Collateral, illustrating a motor vehicle asset used as security

Finally, once the data has been entered, the user is presented with a complete set of the entered details for review and correction prior to fee payment and submission.

Figure 76. Financing Statement Registration - Review

Once the user has reviewed the filing, they are presented with a screen which allows them to pay the fee associated within the filing.

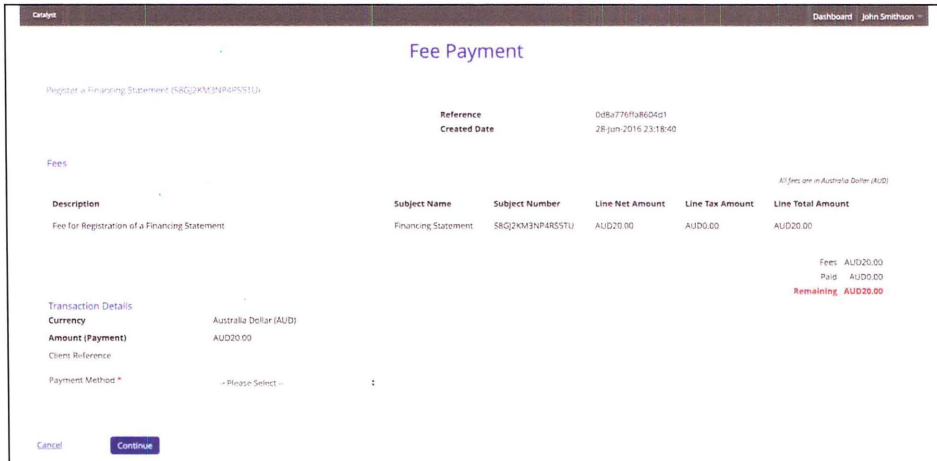


Figure 77. Financing Statement Registration – Fee Payment

EFS-4	**Amendment Filings** Amendments & Continuations with fees are filed to update Original Filings by document number. All can be found in Appendix G - Lien Types - Actions Matrix for UCC & EFS labeled as Amendments. See Appendix H – UCC & EFS Lien Data Fields and Statutory Requirements for Amendments can be found in Appendix C – Statutes and Rules & Regulations. Review and Enter Filing Data A. Accept and file 1. Enter original document number by using the eyeball icon to search and retrieve original filing for update. 2. If the filing is lapsed or inactive then reject, if not, continue to step c. 3. Enter required information for filing. a. Check for a Debtor and Secured Party data or collateral change b. If status is lapsed or inactive Reject 4. Receipt fees or charge account for filing (Refer to Appendix F – Accounting Codes and Filing Fees) 5. Commit job	Yes			

	6. Calculation of maturity date for original filings (including leap year updates) and assignment of status and action type for filings 7. File Stamp filing (see RTM CB-2) 8. Send for scanning or A. Decline and reject Return document with rejected system generated letter and fees if collected. Provide a dropdown of all the rejection reasons and the ability to manually add additional rejections or explanations. Allow selection of multiple reasons. Create rejection notice as indicated in RTM CB-3 B. Generate letter (Acknowledgement of Filing). See RTM CB-3 C. Allow ability to correct Amendment filing and create audit trail. The bidder should describe and provide screen shots showing how their system handles Amendment & Continuation filings. Bidder should also describe and provide screen shots showing how their system will handle these filings once online submission becomes available through the SoS website.				

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

A user makes amendments to a security interest using the online Catalyst screens. These screens perform the configured data validation to ensure the accuracy and quality of data entered. As part of the amendment process, Catalyst can be configured to collect fees from the filer.

Catalyst is configured to require the review processes required by each client to support amendments.

On rejection of an application, an internal user specifies at least one rejection reason (dynamically presented as a list on the Review screen, depending on the form, along with a free-form text box in which other non-standard rejection reasons may be given). The filer receives an email notification of the rejection, with the reason(s) for rejection stated within the email.

Catalyst provides two options for presenting and amending security interest data on the register, and there are two options available

- Add-Only - with this approach, security interest details entered on the primary registration notice remain intact until its expiry. Notices are added and associated with the primary registration. For any amendment notice, the original state of the security interest will be presented for update. The changes are recorded separately for that particular amendment, without affecting the prior state of the security interest.
- Living Security Interest Document – with this option, the system continually maintains a current view of the security interest, based on amalgamated changes from the primary registration notice to the latest filing. A history of the applied changes, with the ability to view the state of the security interest in relation to a registered notice, will be available.

As amendments are filed online, they are placed in the work queue for processing (including review) by authorised users. The following screenshot illustrates an internal user's dashboard, including their work queue of pending tasks to complete. From this screen they select tasks to complete and undertake daily activities within the register, including those outlined below.

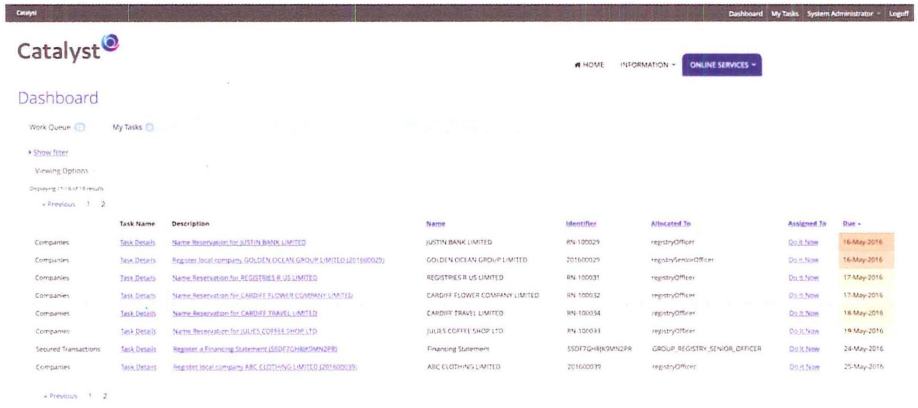


Figure 78. Internal User's Dashboard including Work Queue

Once the update is completed and approved, the system will apply the changes to the register and send the configured correspondence to the interested parties.

EFS-5	**Terminations** Terminations are filed to update Original Filings by document number. All can be found in Appendix G – Lien Types – Actions Matrix for UCC & EFS Filings labeled as Terminations. Also see Appendix H – UCC & EFS Data Fields. Statutory Requirements for Terminations can be found in Appendix C – Statutes and Rules & Regulations. Review and Enter Filing Data A. Accept and file 1. Enter original document by using the eyeball icon to search and retrieve original filing for update. 2. If status is lapsed or inactive Reject, if status is active continue to step c. 3. Enter required information for filing. a. Check for a Debtor and Secured Party data 4. Change lien status to inactive. 5. Commit job 6. File Stamp filing (see RTM CB-2) 7. Generate letter (Acknowledgement of Filing). See RTM CB-3 8. Send for scanning The bidder should describe and provide screen shots showing how their system handles Terminations, including description of how it improves the current process of retention and purging.	Yes			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst supports termination filings using the same general workflow and process as amendments (see UCC-3 above). This is common in Catalyst to promote consistency with how different filings are processed. In addition, Catalyst supports the ability to configure business rules per filing type, such as only charging a fee (or a reduced fee) for a Judgement Lien. If a filing is in an unexpected status, Correct the Register functionality can be used to update the status (or any fling field) from inactive to active, prior to committing the termination filing.

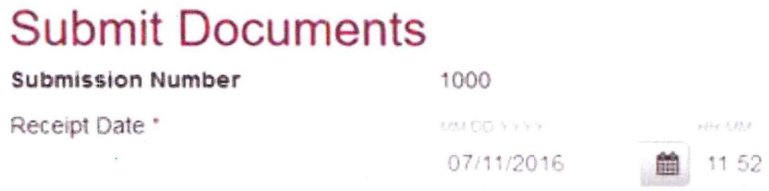
EFS-6	Filing Committal Times (See Appendix H - UCC & EFS Lien Data Fields) The bidder should describe and provide screen shots showing how their system will set default committal times and allow staff to manually change committal times as necessary per requirements.	Yes			

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst has the ability to configure receipt times based on business rules and method of arrival. For instance, an online filing usually receives a committal date / time which is set to the date / time the filing was submitted online by the external user. Whereas an internal filing may receive a date / time of the current date at 8:00 am for all filings received by paper.

If that time needs to be changed, it can be done by an internal user who is receiving the filing:



EFS-7	**Master Lien List** Legislation has recently been passed that modifies the Master Lien List process. The following describes the current processes involved, including the modifications due to that legislation. This process must be integrated within the BSFS. A. Buyers Registration process takes place and is to be completed from within the BSFS and placing existing buyer information into EFS-4 application template and letter and send in desired electronic or other format to potential buyers. Registration process will be communicated to prior	Yes			

	registered buyers or those whom have requested a new registration), but new registrations can be received anytime throughout the year, outside typical registration timeframe (Mid November through December 31). Once application and fees are received by our office, approval or denial determination must be made through staff review. If not all needed information is received, send request for additional information or fees. If approved by staff, Buyer account identification (ID) number must be assigned by system for each buyer. Once ID is assigned, manual data entry is made by staff including: name, address, contact information including email, commodity(s) name and number, statutory Ag liens, and updates requested with commodity code and name as noted on registration to be provided/published to buyer. The system provides a drop down list of reports buyers can register to receive by individual commodity number, the statutory Ag number, and an updates report by commodity number, and name auto fills. Alternatively the buyer can choose a report of all commodities. Updates can only be selected from the drop down list and provided if buyers subscribe to a commodity(s) or to statutory Ag liens. B. Receipt annual fees (registration and list(s)) into BSFS, reconcile, and deposit fees through daily jobs like other fees processed in BSFS. System must track commodities and media type(s)/file format(s). Media type(s)/file format(s) existing in the system for all buyers is wiped clean when renewal registrations are sent each year for buyers to register for the upcoming year. This is to be completed in a mass system action to clear all registrants' media/file type information. New media/file types and format designations are manually entered into BSFS by staff once annual registration and fee is receipted from buyer. Existing buyer names and account numbers would not be deleted when clearing media/file type and format. ID should be kept with original Buyer as assigned and assign additional numbers sequentially by the system for new buyers as registered. C. A static backup of monthly data in the BSFS must be made at the end of each month after 5:00 p.m. close of business day which is used to compile and organize data from current month into usable information for the Master Lien List, which consists of the Master Lien List and an Updates List.				

	A. The Master Lien List and Updates shall be compiled and organized on a monthly basis and will include EFS filings and Statutory Ag Liens recorded in our BSFS. The Lists will be organized by: farm product, arranged within each product, in alphabetical order according to individual debtor or organization name, in numerical order by UIN, by county, by crop year, for Unlapsed and not yet terminated Statutory Ag Liens, and EFS filings that are Active records existing in the BSFS by 5:00 p.m. the end of each month. B. For Updates, the backup from prior month end shall be used to compare necessary data to current month end data to produce Updates. Updates contain EFS Liens and UCC Statutory Agricultural Liens for all new, lapsed or terminated filing records, the updates list includes debtor information, secured party information, and commodity information that has been added, modified, or deleted on liens from the previous Master Lien List distributed/published. Full data is compiled, but data is also parceled per individual commodities. C. Once data is compiled, organized, and the information is created, it will then be saved and published on our website. The information shall be published in searchable format lists: according to farm product and arranged within each farm product alphabetically by debtor, and by farm product arranged numerically, by the debtor's UIN, and any current USDA plan, statutes, and rules & regulations as required. D. The Master Lien List and Updates shall be provided and published via a secure sign-on through our website where registered buyers may access the files to view and use as needed, print, and/or download to their systems in multiple file types and/or formats (XML, CSV, and Excel) as determined best to meet the buyers' needs. Lists and Updates will no longer be provided on cd, microfiche, or paper, and they will not be mailed via USPS mail, but will be accessed electronically upon publication. E. See Appendix M – Master Lien List for more details and summary overview and report formats; Appendix C – Statutes and Rules & Regulations (Sections: UCC/EFS and EFS); See Appendix J – Ancillary Databases and Derived Reports Item #1 and #2; and Appendix K – Reports and Additional Information.				

	The bidder should describe and provide screen shots showing how their system will backup, organize, compile, create updates, and publish lists that are searchable and may be downloaded by the registered buyer.				

Bidder Response:

The following response provides a high level view of the functionality provided by Catalyst to meet the requirement. Catalyst is a highly configurable product which is tailored to suit the functional and process requirements of each client, specifically designed to move registers to fully online operations. The best way to view the available support for the requirement, and workflow/process improvements, is via a live demonstration of Catalyst. This enables us to demonstrate the product (preconfigured for Nebraska SOS) and also discuss the available options for efficiency improvement. Foster Moore would welcome the opportunity to demonstrate Catalyst to the State as part of this procurement process.

Catalyst provides the ability for a buyer to subscribe to a master list, which involves the user following a registration process which will require the user to provide data according to the secretary of state business rules. The registration can be setup for internal review, using standard Catalyst workflow functionality. Once approved an ID will be assigned, as well as the method of delivery and commodity choices.

Catalyst provides multiple delivery options, would could include a subscription based service that renews automatically, a one-time subscription in which the buyer would need to re-register, or an option for buyers to have 24-7 "real-time" access to commodity search results, as long as they have an active subscription for access. The search results will adhere to a good through date, ensuring that the user knows what days are actually covered by the returned search results.

A monthly backup or organization of data is not necessary, since the data is organized and stored as filings are received. This allows for the option of the real-time search results, as mentioned above. The search results can be filtered, ordered, and organized per the secretary of state's business rules.

Depending on the delivery method, the user will leverage Catalyst's secure web based access to search on the commodity, or access and download data related to their master list subscription. Catalyst supports data delivery in standard formats, including exporting to XML, CSV, and Excel.

3.5 Common Database Processes/Features

Common Database Processes/Features The system must support a database that stores pertinent information related to Corp, UCC, EFS, and other filings.					
CB-1	Describe how your system can interface with the existing OnBase image library and the State's third-party web portal to accept and store documents that are either scanned directly into the image library or imported into the library via the online web portal for later retrieval by the filing office and the public. Describe how your system can interface with the existing OnBase image library and the State's third-party web portal and the database to retrieve filed documents and information and insert new filing information into the database and image library.	Yes			

Bidder Response:

Catalyst includes an integrated record and document management system that is used for the storage and retrieval of documents. All documents are associated with a single entity, and are stored and retrieved by Catalyst.

Documents in the document management system can be retrieved by any configured metadata item, including document identifier, entity identifier and author. Catalyst presents an entity-centric view of all data from within the register, including documents held in the document management system, in the entity view.

It is also possible to configure an external document management system in place of Catalyst's internal solution (e.g. Documentum, FileNet), allowing organizations to integrate Catalyst into their existing Enterprise Content Management environment.

When configured in place of the internal Catalyst service, an external document management system becomes responsible for document storage, indexing, retrieval and media management etc.

At the time a document is first stored within the system, Catalyst's document service interface delivers the document to the external document management system and receives a unique document key in return.

When Catalyst subsequently wishes to retrieve the document, it supplies that same unique document key to the document system and requests either the document details (metadata) such as the document name, document size and document mime-type, and/or the full document.

File information is accessed via the use of the Document Repository Manager (DRM) shared service. This service has a default implementation that stores documents to the file system and stores meta-information into a database. The DRM interface is designed so that a different document management system can be implemented by writing an adapter between the system and DRM interface.

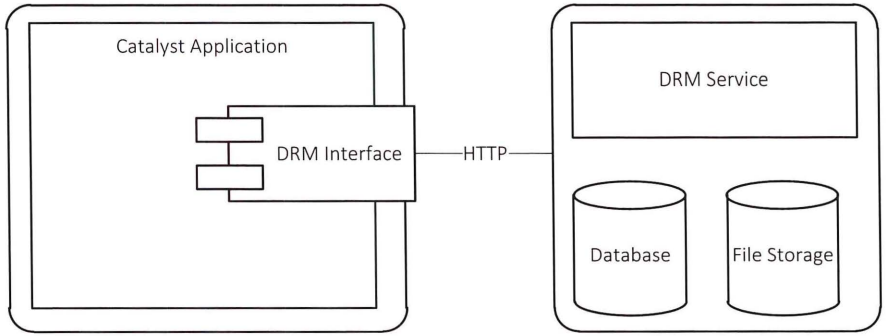


Figure 79. DRM Interface

The following diagram illustrates the document management interface implemented by Catalyst:

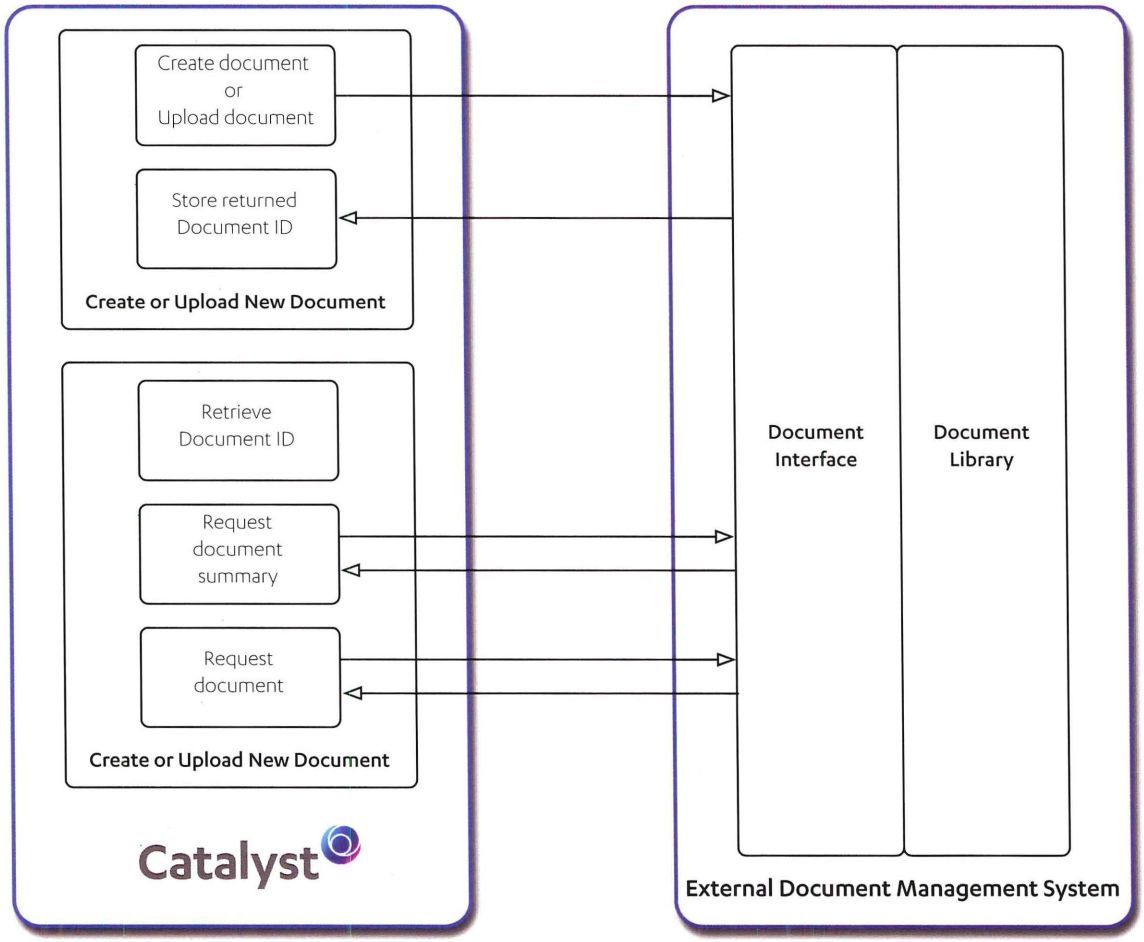
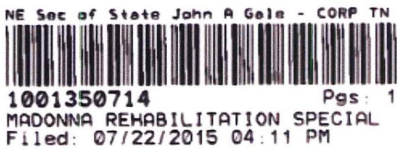


Figure 80. Catalyst Document Management Interface

The document management system will be responsible for managing the documents; where they are stored, for how long, migration of the documents from one storage media to another (hierarchical storage management) and eventual document destruction. In the event that Catalyst requests a file that is not immediately available, the document system will be responsible for initiating retrieval and notifying Catalyst accordingly.

For smaller implementations, Catalyst can also store its documents directly in the file system if required. In this case, the files will be stored in a directory structure depending upon their document id not in one directory.

CB-2	**Filing Stamps and Indexing** The current system creates filing stamp labels in several different (but similar) formats. The system must provide an option to reprint an existing file stamp/label. The proposed system should simplify this process, providing one consistent stamp/label across the board for Corp, UCC, EFS, and other document type file stamps. Current formats are specified below: The filing stamp currently follows the format below for Corp filings added to the system internally (by staff): NE Sec of State AAAA – CORP BBBB CCCCCCCCCC DDDDDDDDDD Pages:EEEE FFFFFFFFFFF Filed: mm/dd/yyyy hh:mm:ss AM/PM) Where AAAA = Current Secretary of State's Name BBBB = Action Comp Code from Appendix A - Entity Types/Actions Matrix. CCCCCCCCCC = The barcode reflects the filing type 'Corp' and the filing document number and only used for internal filings. The barcode is generated as a 3 of 9 barcode. DDDDDDDDDD = Filing document number. Internal filing number is assigned with a continuous 10DDDDDDDD number and is different from the online continuous filing number 90DDDDDDDD. EEEE = Total number of pages FFFFFFFFFFF = Company Name Internal:  The filing stamp currently follows the format below for Corp filings accepted into the system from Document eDelivery:	Yes			

	NE Sec of State John A. Gale CORP - CRTO 9000168586 - Page 1 of 1 NATURALLYCITY, LLC Filed: 08/13/2015 01:34:41 PM Online: The filing stamp currently follows the format below for UCC filings added to the system internally (by staff): NE Sec of State AAAA – UCC BBBB CCCCCCCCCC DDDDDDDDDD Pages:EEEE FFFFFFFFFFF Filed: mm/dd/yyyy hh:mm:ss AM/PM) Where AAAA = Current Secretary of State's Name BBBB = Action Comp Code from Appendix G - Lien Types - Actions Matrix. CCCCCCCCCC = The barcode reflects the filing type 'UCC' and the filing document number and only used for internal filings. The barcode is generated as a 3 of 9 barcode. DDDDDDDDDD = Filing document number EEEE = Total number of pages FFFFFFFFFFF = Company Name Internal: NE Sec of State John A Gale - UCC B1 9915760275-8 Pgs: 1 TROUBA SUZANNE Filed: 09/03/2015 05:00 PM NE Sec. of State-UCC 9815867273-0 Filed: 09/09/2015 12:08 p.m. CHARLES P TOMAN Online: Pg: 1 of 1 The filing stamp currently follows the format below for EFS filings added to the system internally (by staff):				

	NE Sec of State AAAA – UCC BBBB CCCCCCCCCC DDDDDDDDDD Pages:EEEE FFFFFFFFFFF Filed: mm/dd/yyyy hh:mm:ss AM/PM) Where AAAA = Current Secretary of State's Name BBBB = Action Comp Code from Appendix G - Lien Types/Actions Matrix. CCCCCCCCCC = The barcode reflects the filing type 'UCC' and the filing document number and only used for internal filings. The barcode is generated as a 3 of 9 barcode. DDDDDDDDDD = Filing document number EEEE = Total number of pages FFFFFFFFFFF = Company Name Internal: NE Sec of State John A Gale - UCC E03 9915760224-1 Pgs: 1 MARI EDWARD E. Filed: 09/01/2015 11:15 AM Online: NE Sec. of State-EFS 9815063498-4 Filed: 09/09/2015 01:04 pm MEINECKE MICHAEL J Pg: 1 of 1 In order to be able to scan other miscellaneous documents a file stamp with barcode must be created and placed on the document. Additional filing stamp follows the format below and is manually entered into the system (by staff): NE Sec of State AAAA – BBB–CCC DDDD-DDDDD Pages:EEEE FFFFFFFFFFFFFFFFFFFFFFFFFFFF Filed: (mm/dd/yyyy hh:mm:ss AM/PM)				

	Where AAAA = Current Secretary of State's Name BBB = Action Code CCC = Doc Type DDDD-DDDDD = The barcode reflects the filing document number and only used for internal filings. The barcode is generated as a 3 of 9 barcode. EEEE = Total number of pages FFFFFFFFFFFFFFFFFFFFFFFFFFFFF = Applicant's Last Name, First Name, Middle Name Filed: mm/dd/yyyy hh:mm:ss AM/PM) E.g: NE Sec of State John A Gale - NOT - NEW 2007-03-0116 LAST NAME, FIRST NAME, MIDDLE NAME Pgs. 4 Filed: 03/11/2010 Internal Example: The bidder should describe and provide screen shots showing how their system will function and provide examples of how they are going to apply an index, file stamp, store, and retrieve filings in OnBase image library, emphasizing how the proposed system will improve the current process.				
Bidder Response: Catalyst will generate the requested document on the fly, including the "stamp". Document reprints will include the stamp details.					

CB-3	**Letters and Templates** The system must: A. Generate an appropriate letter (Acknowledgement of Filing and/or receipt or rejection), then store, retain, make searchable, and purge according to retention schedule. See Appendix D – Certificates, Forms, and Templates. (Provide option to send by email. Start with OPEN ME FIRST document for explanation of folder contents and usage.) B. Create an audit trail record by company name, account number, filer/client containing debtor name, secured party and lien number, type of letter, date, time, and staff member, with a link back to the letter as long as it exists. The proposed system must provide the options to the filer of sending the letter and required documents by email, fax, paper, or bulk mailing. When creating acknowledgements, templates, or system notifications spell check functionality and case sensitivity should be available for use. The bidder should describe and provide screen shots showing how the system will generate, send, store, and purge letters and create an audit trail, emphasizing how the proposed system will improve the current process.	Yes			

Bidder Response:

Letters and Correspondence

Catalyst includes a communication module that handles setting up of communication templates and automatic or manual generation of outgoing correspondence.

Communication templates are created and maintained within Catalyst. Variables can be referenced within the templates and can be sourced from registry data and system values. Template configuration includes document formatting, text content, pre-populated data fields and the application of logos and fonts etc.

Communication may be sent automatically to a number of recipients from various points in the system (e.g. registration acceptance or rejection notices, certifications or renewal notices).

Attachments may also be added to the correspondence (e.g. PDF containing the latest entity details or PDF containing search results).

Communications may be sent out in a variety of formats. Regardless of the format, Catalyst ensures that these are handled in a timely manner. The standardization and automation of many correspondence-related outputs and tasks assists in the efficient management of communication.

All outgoing correspondence items will be based on correspondence templates. The templates will define the basic layout and content of each correspondence item.

The following features are supported:

1. Templates are created and maintained by appropriately privileged internal users;
2. Appropriately privileged internal users are able to define and maintain which templates are used to support which steps in a business process workflow, and which templates are available for the generation of ad hoc correspondence items;

Communication templates are created and edited within Catalyst, and support the inclusion of Catalyst data fields. When the template is used to generate a correspondence item, these data items will automatically be populated with the current data from the register. These substitution variables encompass all the attributes of the Entity and also include standard business variables such as current date, time, office addresses and signatures, etc.

Appropriately privileged users can create official communications that are recorded against the entities held on the register. These documents may be internal file notes (e.g. to record details of telephone conversations) or documents that are sent out to various external parties, including directors and shareholders. Documents may be created automatically or manually. Where communications are sent out, it will be by one or more of the following means:

- Email
- Post
- SMS

All correspondence items created within Catalyst will be recorded and logged in individual Documents within the Document Repository.

The following screenshot illustrates a view of the correspondence delivery log:

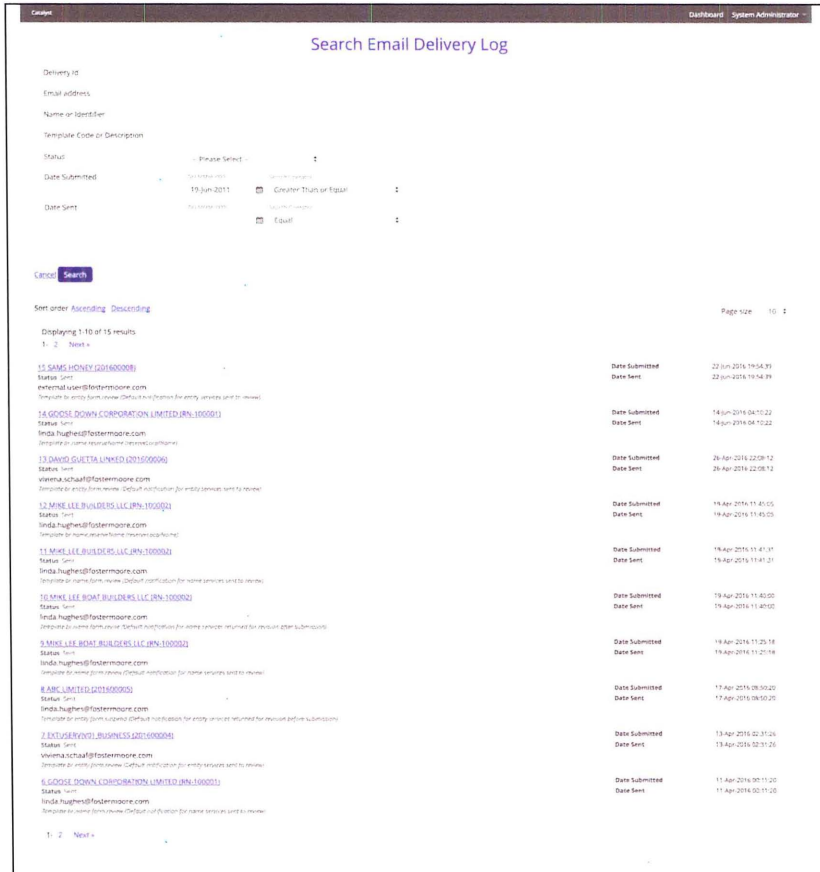


Figure 81. Correspondence Delivery Log

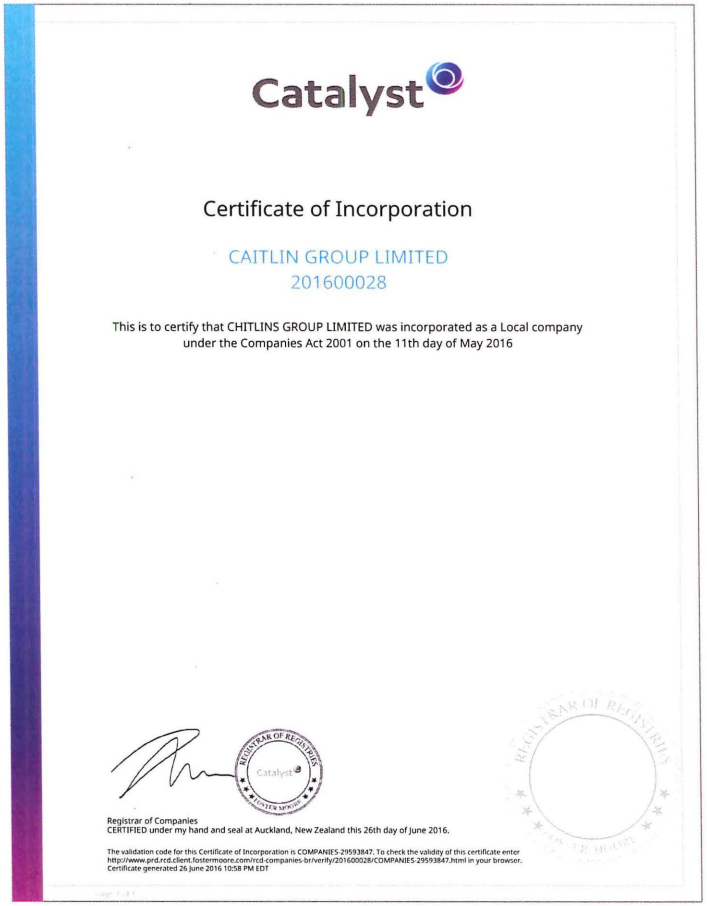
Spell checking is provided by the browser, and can be in any language available and configured within the browser and/or computer's operating system.

Certificates

Catalyst can be configured to create certificates at key points in an entity's lifecycle, such as at time of incorporation. Such certificates are created based on a configurable template and are distributed based on configurable communication rules (e.g. email), as well as being available for download at any time.

Certificates can be configured to include watermarks, stamp/crests, signatures, verification codes, QR codes and other security features. QR codes will allow for verification on the validity of the certificate by any persons who are viewing the certificate. The embedded URL can take the user to the view entity details screen.

The following image is a sample a Certificate of Incorporation created by Catalyst:



Catalyst

Certificate of Incorporation

CAITLIN GROUP LIMITED
201600028

This is to certify that CHITLINS GROUP LIMITED was incorporated as a Local company under the Companies Act 2001 on the 11th day of May 2016

Registrar of Companies
CERTIFIED under my hand and seal at Auckland, New Zealand this 26th day of June 2016.

The validation code for this Certificate of Incorporation is COMPANIES-29593847. To check the validity of this certificate enter http://www.prd.rcd.client.fostermoore.com/rcd-companies-br/verify/201600028/COMPANIES-29593847.html in your browser.
Certificate generated 26 June 2016 10:58 PM EDT

Figure 82. Sample Certificate of Incorporation

Audi Trail

Introduction

Catalyst maintains audit logs of all activities that take place within the system. Catalyst creates audit trails covering business activities as well as system and security events. Catalyst's audit log is a standard facility that requires no customization or configuration to enable. Catalyst stores details about all new, altered or deleted data. Catalyst also stores "before images" of all data before it is updated or deleted. This allows authorized users to view a complete change history of all data within the system.

Catalyst provides three distinct product features which facilitate the monitoring and auditing of activity within a register:

1. **Audit logging** - Catalyst maintains audit logs of all activities that take place within the system. Catalyst creates audit trails covering business activities as well as system and security events. Catalyst's audit log is a standard facility that requires no customization or configuration to enable.
2. **Versioning & Snapshots** - Catalyst stores details about all new, altered or deleted data. Catalyst also stores "before images" of all data before it is updated or deleted. This allows authorized users to view a complete change history of all data within the system.
3. **Business Service Activity Counters** - Catalyst uses business service counters to record the activities that take place across the entire register, and provides reports of the activity counters by activity type. Business activity counters capture and report on activity across the system and are not entity-centric; providing a system-wide view of activity across the entire register.

Audit Logging

Catalyst maintains audit logs of all updates that take place within the system. Catalyst creates audit trails covering business activities as well as system and security events. Catalyst's audit log is a standard facility that requires no customization or configuration to enable.

The Catalyst audit log captures all activities undertaken within the systems including data updates, task, job and process completion, system generated activity (such as correspondence generation) and user activity (both internal and external). Four essential properties are captured for every auditable event; what was done, when it was done, what was done to and who did it.

Catalyst stores details about all new, altered or deleted data. Catalyst also stores "before images" of all data before it is updated or deleted. This allows authorized users to view a complete change history of all data within the system.

Audit Log Detail

The data capture ensures that the following attributes are stored as a minimum:

- The user that triggered the event (in the event that the activity is a manual user-initiated process);

- The date and time that the activity commenced;
- The IP address that the activity came from
- The activity that was carried out – such activities must be defined according to a controlled structure, so that it is explicitly understood what the activity represents;
- The success or otherwise of the activity, if such a concept is applicable;
- The entity that the activity was based on (if applicable);
- The entity component that the activity was based on – for example, an entity address;
- Any specific business data that was directly associated with the activity – for example, a specific document that was uploaded, or a specific record that was changed.

Evidential Acknowledgement Detail

The system also records evidential acknowledgment for all prompts or warnings confirmed by a user during their activities. This becomes increasingly important as more and more functionality is assigned to external users. The system records a user's response to a message informing them that the action they are about to take is subject to law, and identifying the ramifications if they continue with the process in an illegal or inappropriate way.

When such an activity is recorded, Catalyst captures the following:

- The nature of the advice/warning;
- Any relevant legislation that the user was advised of;
- The date and time that the user acknowledged the advice/warning;
- The user associated with the activity

The following table presents Catalyst's audit capabilities:

Log Type	Catalyst Compliance
System Operation	The Catalyst audit log records system start and stop events. Data within the Catalyst audit log is available for viewing only, and only to authorized users.
Security	The Catalyst audit log records the identified security events including successful and unsuccessful login attempts, session timeouts, configuration changes, user account maintenance, access control changes and authorization decisions. Note that authorization decisions made outside of Catalyst (i.e. in an existing the Secretary of State system) will not be visible to Catalyst and therefore not logged it the Catalyst audit log.
User Operations	Manually initiated user operations are logged in the Catalyst audit log. The following data is captured:

	• Timestamp • User ID • Name of incoming request (Activity) • Session ID (to link events) • Name of sub-system (Catalyst business service)
Application Activity	Application initiated activity is logged in the Catalyst audit log. The following data is captured: • User ID • Time & Date (not duration) • Action / event data including the entity and entity component (e.g. address) and the specific data associated with the activity. Before and after data is also retained within Catalyst. • The success or otherwise of the activity • Result status • Any error messages

Versioning & Snapshots

The Catalyst data layer employs versioning, whereby a history of all new, altered or deleted data is retained. This is achieved through a unique Catalyst-specific versioning process that avoids the two major pitfalls associated with historical data, namely the proliferation of duplicated data, and the process intensive cost of deriving data from timestamps.

The Catalyst versioning system is incorporated into the filing history service. Catalyst is typically configured to generate one or more 'filings' to represent the business activity associated with the Business Service. These are used to satisfy legislative requirements which mandate the retention of the all historic activity related to an entity, and the details of an entity at the date of filing. Filings are stored and displayed in the filing history for each entity. Subsequently, the filing history can show the history of an entity on the register and provide a snapshot of the entity at a particular point of time.

The following screenshot illustrates a sample filing history screen, with the ability to create a PDF of the changes related to the filing:

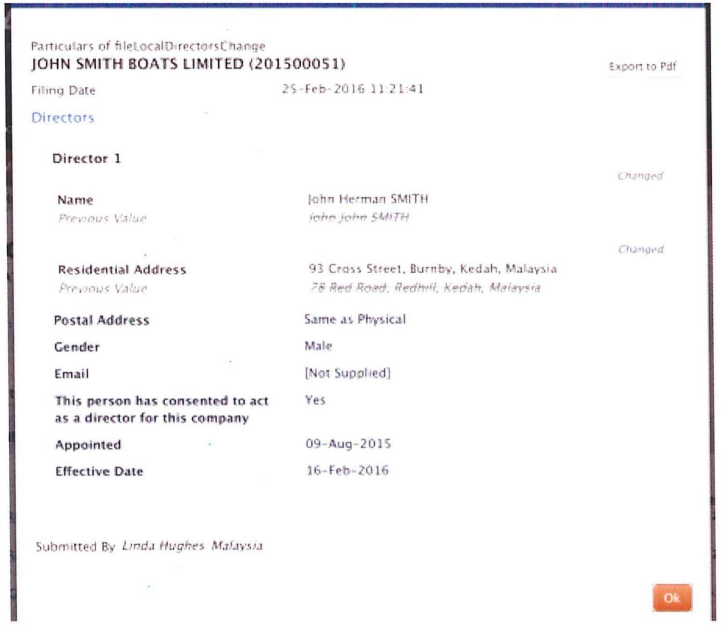


Figure 83. Filing History Screen

Business Service Activity Counters

Catalyst business service counters record the activities that take place across the entire register. Catalyst provides reports of the activity counters by activity type, and allow the user to drill down to view the details of the activity and view specific information.

Unlike the audit logs and versioning, business activity counters capture and report on activity across the system and are not entity-centric; they provide a system-wide view of activity across the entire register.

The data captured by the counters includes the following:

- The user that triggered the event (in the event that the activity is a manual user-initiated process);
- The date and time that the activity commenced;
- The IP address that the activity came from

- The activity that was carried out
- The entity that the activity was based on (if applicable);

CB-4	**Searches and Copy Requests** Searches and Copies (Regular or Certified), Certificates of Good Standing. Refer to RTM Corp-1 for Corporation search information. Refer to UCC-1 and Appendix C - Statutes and Rules & Regulations for UCC search information and EFS-1 for EFS search information. The system must allow fees to be collected and/or charges to be invoiced for all request types per page and/or per certificate and/or per name and trackable in the Accounts Receivable for Corp, UCC, and EFS. Certificates, Certified Copies, and Certified Search Report of records need to include the State seal/or use State seal preprinted paper when generating. These must pull information and/or images from the system and prefill templates. The image must be able to print on either letter or legal size paper as needed. UCC Certified Search and Copies reports are pulled from the templates and the staff manually adds the gold seal. Provide option to send by email. See Appendix D – Certificates, Forms, and Templates. (Start with OPEN ME FIRST document for explanation of folder contents and usage.) The bidder should describe and provide screen shots showing how the system will handle Searches and Copy Requests.				

Bidder Response:

Generate documents such as Certificate of Incorporation, Certificate of Good Standing, Certificate of Amalgamation and company extracts.

Users will search for and locate a specific business entity, lien through a party / filing search (Standard RA9 or non-standard), or the specific entity, as illustrated below. They can then select to view, or have emailed to them, copies (certified or non-certified) a certificate, company extract, or other configured document, such as a certificate of good standing.

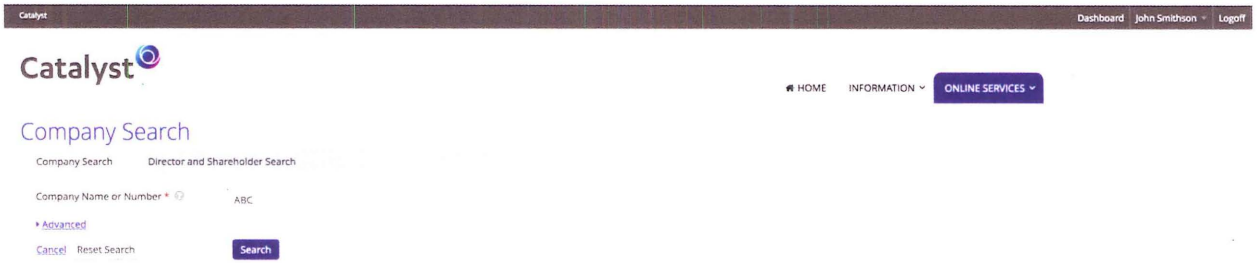


Figure 84. Simple Company Search

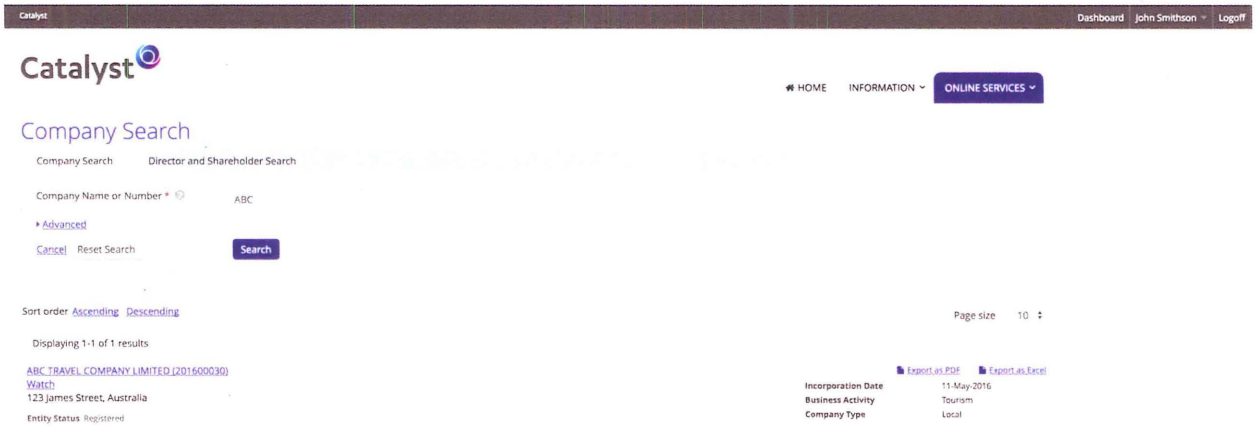


Figure 85. Search Results

The following screenshots show the entity details screen for an entity within the corporate register:

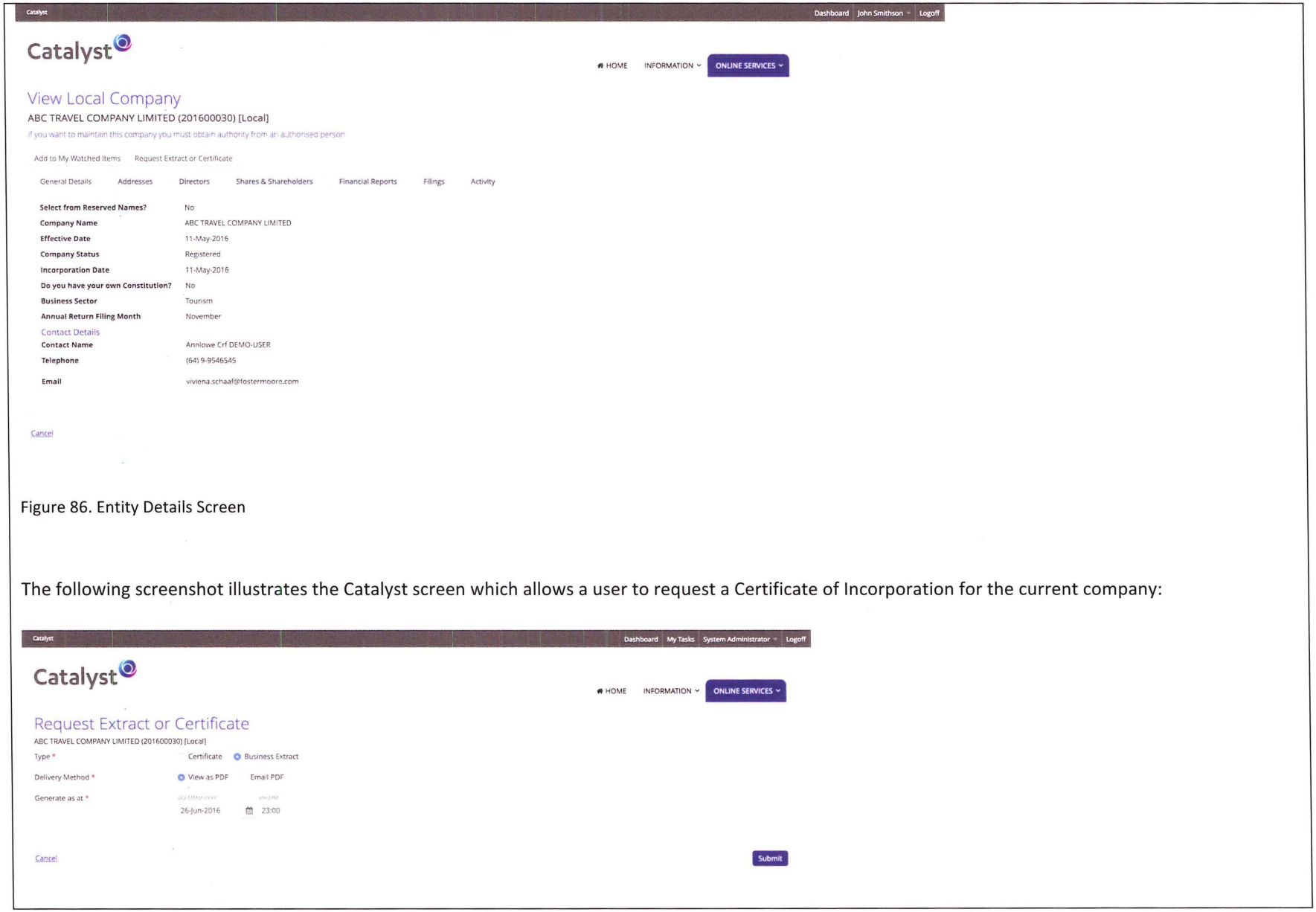


Figure 86. Entity Details Screen

The following screenshot illustrates the Catalyst screen which allows a user to request a Certificate of Incorporation for the current company:

Figure 87. Company Summary Screen

Note that with an online register such as that delivered by Catalyst in place, it is reasonable to expect the demand for documents of record will reduce. Those parties who would typically request a certified copy of a document can now make an online real-time search themselves against the register and view and optionally retrieve a copy immediately.

The also that the above example was for the request of a company extract or certificate. Lien copies or certificates would follow a similar flow to promote consistency. The user would search for a locate the appropriate lien(s), and then choose to request copies (certified or non-certified) or a search report (certified or non-certified).

CB-5	**External Access** Access by external third party vendors for searches and filings must come through an API to use the contractor software to perform searches and to return results, and to process incoming online filings rather than granting them access to tables and files. External search and copy requests as well as online filings via the SoS website are currently handled through Nebraska.gov. <u>Corporate & Business Search</u> Searches are provided to obtain information on the status of all entities, trade names, trademarks, and service marks registered in the State of Nebraska. Certificates of Good Standing and images of filed documents may also be available for purchase. <u>Corporate Document eDelivery</u> This service allows users to electronically submit document(s) for filing with the Secretary of State. Customer accounts must be set up on ACH billing in order to complete the transfer of funds due to the Secretary of State. <u>Corporate Certificates of Good Standing</u> This service allows users to request an electronic certificate of good standing for business entities registered with the Secretary of State. These certificates include a verification ID number for electronic validation. These documents are instantly available and can be viewed in a web browser or printed. <u>Corporate Record Searches – Special Requests</u> Specify criteria for a search of the Nebraska Secretary of State Corporate Database and receive a file of all matching records. Information includes: Entity type (nonprofit, LLC, etc.), company name, officer name and principle office address (no phone numbers). *Note: The total number of matches and cost is provided prior to submitting order.*	Yes			

	Corporate Records Batch Subscribers can sign up to receive official corporation record data from the Secretary of State Business office on a weekly, bi-weekly, or monthly basis. This is a full set of data in a fixed record length format containing multiple files that would be used in external databases. File delivery is accomplished via FTP. Corporate Searches and Document Images Images of filed business documents are available through the online Corporate Image searches. Examples of documents available include: tax reports, name changes, annual filings, etc. These documents are instant-access and can be viewed in the web browser, or printed. UCC Image Batch Subscribers can sign up to receive PDF images of UCC documents filed with the Nebraska Secretary of State on a monthly basis. File delivery is accomplished via FTP. UCC Records Batch Subscribers can sign up to receive official UCC record data from the Secretary of State Business office on a weekly, bi-weekly, or monthly basis. This is a full set of data in a fixed record length format containing multiple files that would be used in external databases. File delivery is accomplished via FTP. UCC/EFS Filings This service allows you to electronically file UCC and EFS Originals, Assignments, Amendments, Continuations and Terminations with the Secretary of State. Subscribers must complete the UCC Electronic Filing Agreement with the Secretary of State to access this service. UCC/EFS Searches and Document Images				

	This service provides online access to the Nebraska Secretary of State Uniform Commercial Code and Effective Financing Statement records. Subscribers can search by original document number or debtor name only. Special request searches by secured party or debtor location are also available. UCC/EFS Special Requests Specify criteria for a search by Secured Party, or location, of the Nebraska Secretary of State UCC Database and receive a file of all matching records. Information includes: Lien number, date of filing, debtor name, and address. Bidder should describe how their system's API handles and processes the above searches, requests, and online filings via Nebraska.gov and how additional filings can be added via the portal.				

Bidder Response:

Catalyst provides external access for third parties via its online web application (using a web browser), which includes the ability to do searches, sign up for recurring subscriptions (such as data exports), and access subscription deliveries. It also provides access for external users' existing systems via its exposed business services (web services). Finally, Catalyst provides an Authority Management system which supports delegated authority which allows control over access to entities, including management within external organizations.

External Web Access

External users are typically members of the public who interact with the online filing system for the purposes of maintaining entities and interests they have as an individual. External users may also be agents, such as accountants and lawyers, whose clients have granted them permission to manage their entities on their behalf. Catalyst provides a range of management tools to simplify and improve the efficiency of these agents managing entities for large volumes of customers.

The following screenshot illustrates an external (public) user's homepage, or dashboard, with links to their companies and to unfinished business requiring their attention.

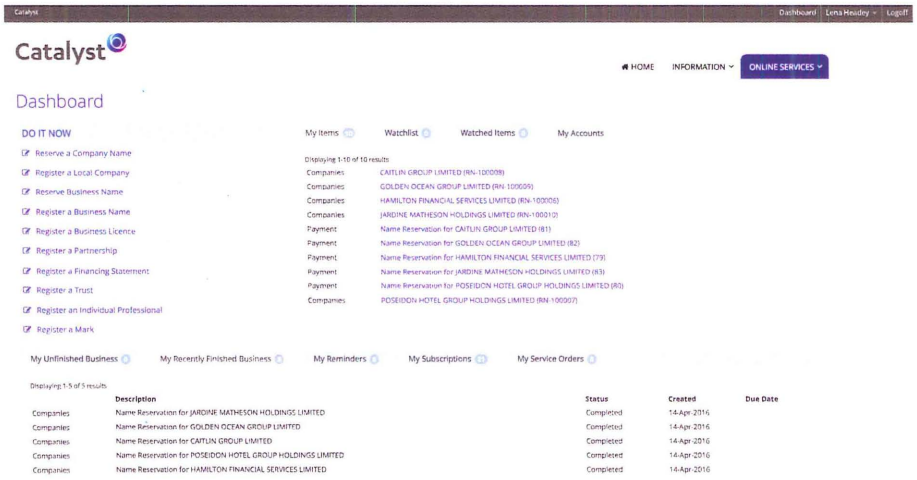


Figure 88. Catalyst – External User Homepage

Web Service Access

When Catalyst is configured, it automatically constructs a series of business services based on the configured entities and business rules. These business services are then used to create an online browser-based application, as well as being available to be consumed by external systems via a web services interface.

All data is validated using the same rules as employed in the online application. These web services are delivered thorough product configuration, based on the configuration of the entities managed within the register.

The following diagram illustrates a standard Catalyst configuration, including the creation of an online application and web services based on the Catalyst configuration:

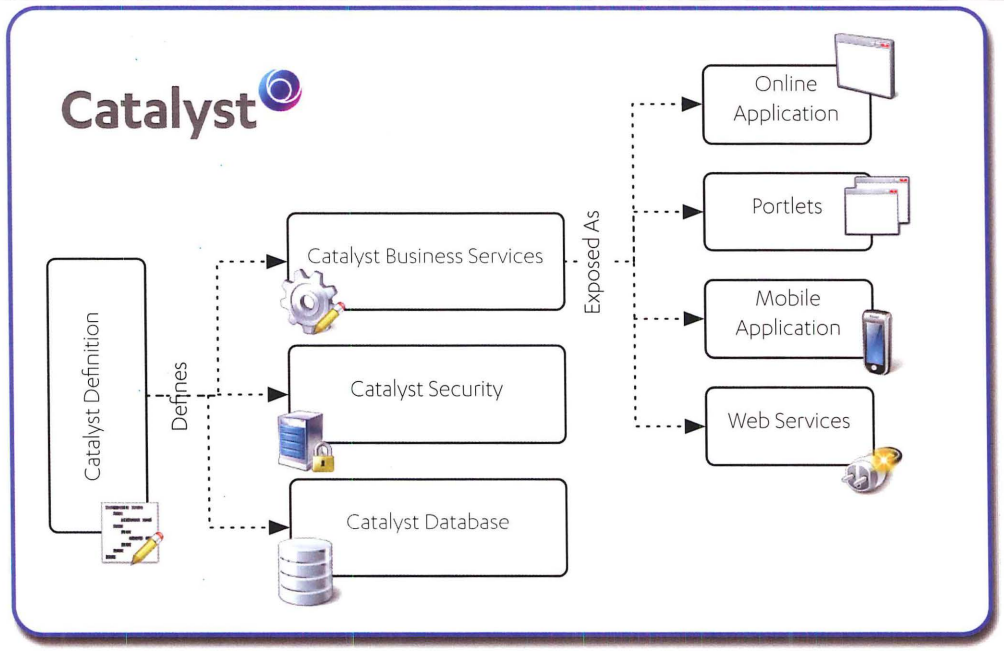


Figure 89. Standard Catalyst Configuration

These services are available over a range of communication protocols including Restful Web Services (HTTPS) and Soap (XML) as well as custom interfaces using other protocols such as AS2. A range of authentication options are available, including HMAC and SSL certificates.

The SOAP services provided by Catalyst can also be configured to use standard Web service security mechanisms such as XML Digital Signature and XML encryption. We can also support WSDL and other standard soap bindings.

As an option, an Enterprise Service Bus (ESB) can be used to interface with the Catalyst web services. An ESB can be used for:

1) End point mapping
2) Additional security layers (e.g. extra security layers such as username/password)
3) Payload mapping to support alternative web service definitions to Catalyst's standard web services
4) Web service orchestration

As an extension, Foster Moore can wrap these services in customized interfaces to support the requirements of a particular external system (for example, to implement a flat file interface for data import, or to support an EDI style message in place of a web service call).

In addition, custom interfaces can be developed to suit particular purposes. These are also developed in such a way as to enforce the configured business rules.

Catalyst can be configured to deliver any available services and functions as web services. The following list provides examples of web services existing customers currently expose via web services via Catalyst:

1) Company history
2) Company details
3) Company searches
4) Director searches
5) Shareholder searches
6) Company changes
7) Banned directors
8) UCC/EFS searches

Authority Management

Introduction

A key concept within Catalyst is that of authority management. Authority management controls a user's access to entities within the system, the data they can view for those entities, and the functions they can perform against them. This access can cover the functions that are required to be performed by external parties such as agents, lawyers and accountants.

Authority management is based around providing services to three distinct types of users:

- Anonymous users. Users of the system who have not logged in to the system.
- Authorized External users. Logged in members of the public who already have authority over an entity.
- Unauthorized users – Logged in members of the public who do not have authority over an entity

External users of the register often need access to data for entities with which their user account has no pre-existing direct association. Catalyst provides control over this through its authority management functions, including delegated authority. Catalyst allows an external user to request authority over an entity. It also allows a user who already has authority over an entity to grant authority to a user who does not. The registrar (an internal user) may also grant and revoke authority to external users based on requests from authorized and unauthorized users.

In some cases, Catalyst will automatically grant an authority against an entity as part a business function (for example when an entity is successfully registered). In other circumstances, authority over an entity can be granted explicitly to a user by an internal user, or by another external user with existing

authority over the entity (an "authorized user"). In the same manner, an authorized user or an internal user may revoke a user's authority on a business entity.

The registrar has the option to suspend external authority management in the event of disputes over an entity. Where an entity has been suspended from authority management, authorized external users will no longer be able to maintain entity details. Suspending authority management does not revoke existing authority, ensuring that once the suspension is lifted all authorized users will once again be able to maintain the entity.

In many cases a register generates an industry in the associated register community, allowing a range of different parties to offer services associated with the maintenance of the register. A typical example of such is the establishment of agencies that perform administrative duties, such as filing, on behalf of business entities.

Catalyst supports agencies through the establishment of organizations within the authority model. Each organization has one or more individuals associated with it, and through a business role, will be linked with one or more entities within the register. This model allows those individuals linked to an organization (known as organization users) to access and maintain the entities over which the organization has authority. As with access for an individual with authority over an entity, the data and functions available to organizational users is determined by the business role granted to the organization.

The following diagram illustrates the relationship between an individual and an entity, either directly or acting as an agent via an organization. It also illustrates how internal users are granted access to system functionality which enables them to maintain the register. The external user's relationship is defined via a designated business role, and that role determines their access to data and functions:

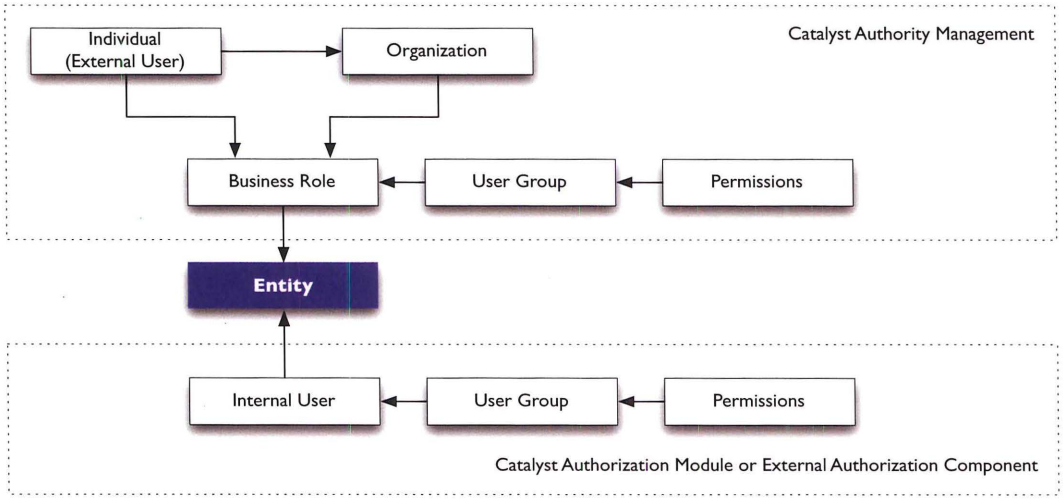


Figure 90. Catalyst Authority Management

Authority management defines the processes and activities that are required in order for an external user to obtain authority to administer a legal entity.

Catalyst allows individuals with several different responsibilities to administer the legal entities within a register.

- An individual can completely administer the legal entity as per the appropriate legislation; an example of such a business role is a company director.
- An individual can administer the entity on behalf of the entity owners. An example of this is an agent who can perform most functions however they are not able to delegate or revoke authority to another agent (authorized person). Note that the individual may hold this business as an individual, or via membership to an organization that has been granted this role (i.e. as an organizational user).
- Non-authoritative business role - Individual plays a business role against the entity but cannot administer or manage the entity. An example of such a role is a shareholder within a corporations register.

Business Roles / Associations

The business role an individual or an organization plays against an entity is a very important concept within Catalyst's authority model. The business roles that will be available within a register depend on the type of register being delivered.

Individual records are associated with the entities by way of the business role that the individual fulfills for the entity. Note other entities and organizations can play a business role against an entity also, however the for the purposes of this discussion, we cover only the business role association in respect to individuals.

Organizations (Agencies etc.)

Within Catalyst, organizations can fulfill business roles against entities, just like individuals.

Organizations are linked to existing individual user accounts within Catalyst. Catalyst allows an organization to be linked to many individuals, and also allows an individual to be linked to multiple organizations, as well as act on their own behalf. These organizations may be agencies, professional bodies or other service companies.

Irrespective of the number of organizations an individual is linked to, they always log in to their own individual account. Their dashboard presents the perspectives from which they can interact with the system; this is a list of the organizations they are linked to, as well as their individual account. When the user selects to work from the perspective of their individual account, they have access to entities based on the authorities they have been granted personally. When they work from the perspective of an organization, they have access to the entities over which that organization has authority.

The following screenshot illustrates the creation of a new organization, in this instance performed by an internal user:

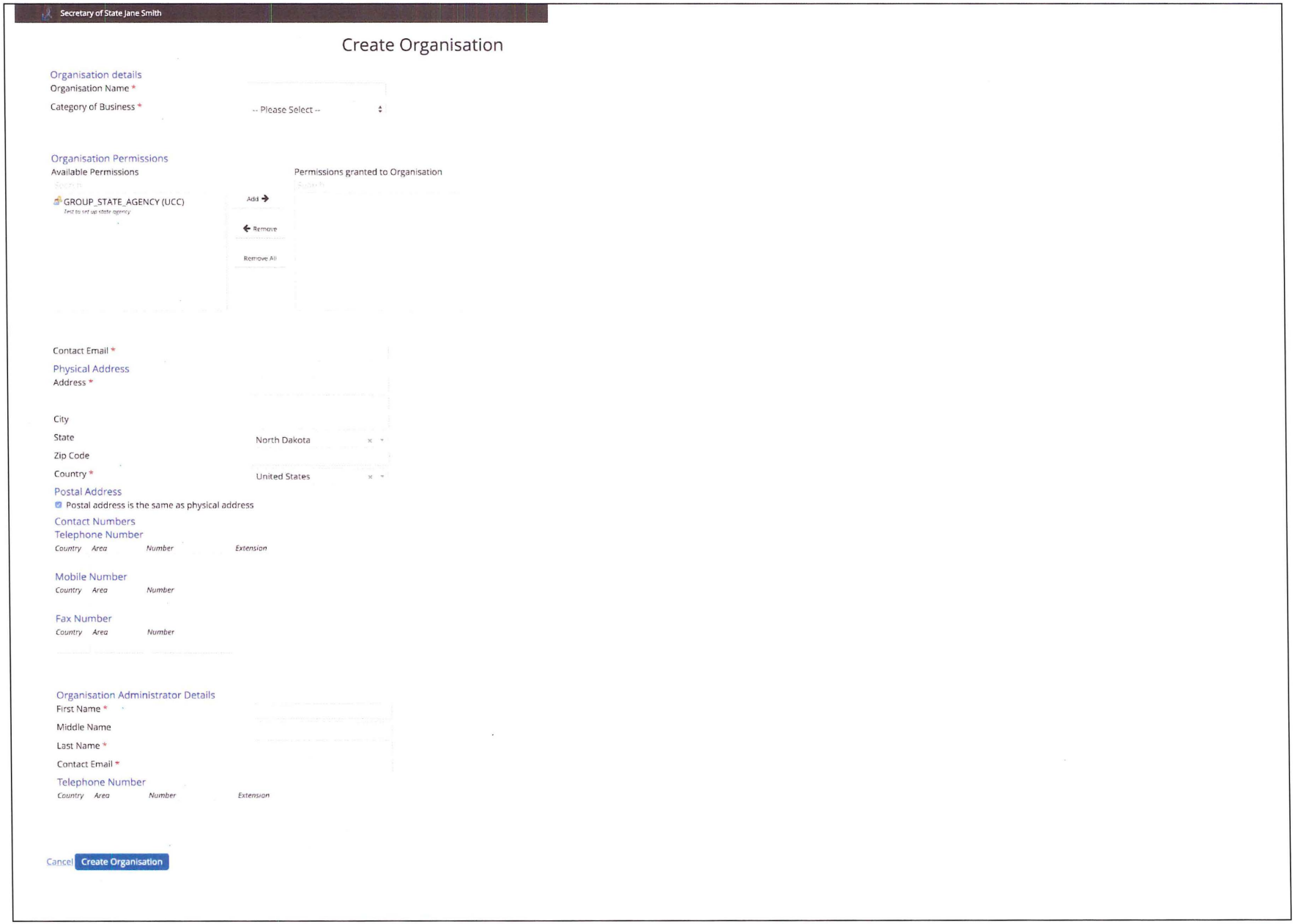

Secretary of State Jane Smith
Create Organisation
Organisation details
Organisation Name *
Category of Business *
-- Please Select --
Organisation Permissions
Available Permissions
Permissions granted to Organisation
GROUP_STATE_AGENCY (UCC)
Test to set up state agency
Add
Remove
Remove All
Contact Email *
Physical Address
Address *
City
State
North Dakota
Zip Code
Country *
United States
Postal Address
Postal address is the same as physical address
Contact Numbers
Telephone Number
Country Area Number Extension
Mobile Number
Country Area Number
Fax Number
Country Area Number
Organisation Administrator Details
First Name *
Middle Name
Last Name *
Contact Email *
Telephone Number
Country Area Number Extension
Cancel
Create Organisation

Figure 91. Creation of a new organization

CB-6	Document Imaging The bidder will use the State's existing image library (Hyland OnBase). The system must associate document id numbers with the filed document handle number stored in OnBase in order to display, retrieve, print, fax, and email selected document images. Scanning Original documents must be kept for one year after being filed and scanned and must be easily retrievable. The bidder should propose when and how the documents should be scanned, redacted, and tagged for this manual filing/retrieval. Redaction must be applied, in part or whole, to personal protected information (PPI) as defined by policy. The OnBase image library will store images of both the Original document and the redacted version. The SoS internal users will have access to the image of the Original or redacted document. Retrieving Images Criteria for the system include: A. viewing or retrieving images through the bidder application or Nebraska.gov without signing into OnBase image library for an entity, debtor, or document number. B. ability to print, fax, or email all or selected page(s) from a selected image. Must be able to print on appropriate size paper. C. ability to print, fax, or email single or multiple document images for an entity without having to open or view the image(s). Must be able to print on appropriate size paper. Bidder will describe how their system's API handles and processes document imaging, scanning, and retrieval, emphasizing how it improves the current process.	Yes			

Bidder Response:

Catalyst includes an integrated record and document management system that is used for the storage and retrieval of documents. All documents are associated with a single entity, and are stored and retrieved by Catalyst.

Documents in the document management system can be retrieved by any configured metadata item, including document identifier, entity identifier and author. Catalyst presents an entity-centric view of all data from within the register, including documents held in the document management system, in the entity view.

It is also possible to configure an external document management system in place of Catalyst's internal solution (e.g. Documentum, FileNet), allowing organizations to integrate Catalyst into their existing Enterprise Content Management environment.

When configured in place of the internal Catalyst service, an external document management system becomes responsible for document storage, indexing, retrieval and media management etc.

At the time a document is first stored within the system, Catalyst's document service interface delivers the document to the external document management system and receives a unique document key in return.

When Catalyst subsequently wishes to retrieve the document, it supplies that same unique document key to the document system and requests either the document details (metadata) such as the document name, document size and document mime-type, and/or the full document.

File information is accessed via the use of the Document Repository Manager (DRM) shared service. This service has a default implementation that stores documents to the file system and stores meta-information into a database. The DRM interface is designed so that a different document management system can be implemented by writing an adapter between the system and DRM interface.

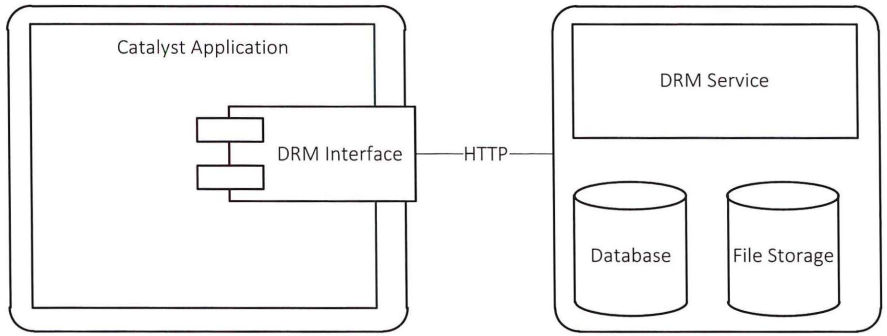


Figure 92. DRM Interface

The following diagram illustrates the document management interface implemented by Catalyst:

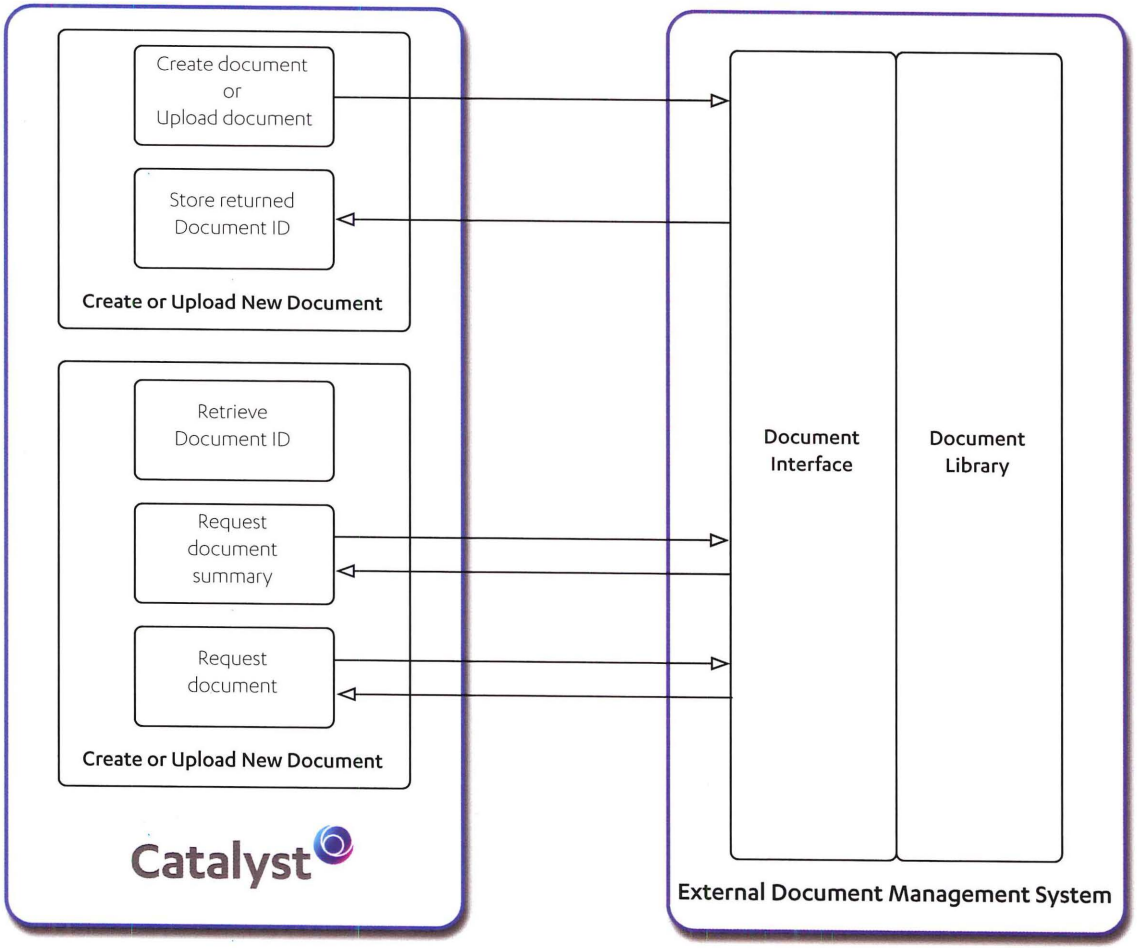


Figure 93. Catalyst Document Management Interface

The document management system will be responsible for managing the documents; where they are stored, for how long, migration of the documents from one storage media to another (hierarchical storage management) and eventual document destruction. In the event that Catalyst requests a file that is not immediately available, the document system will be responsible for initiating retrieval and notifying Catalyst accordingly.

For smaller implementations, Catalyst can also store its documents directly in the file system if required. In this case, the files will be stored in a directory structure depending upon their document id not in one directory.

RTM #	REPORTING/QUERY REQUIREMENTS	Yes	Customization Required	No	Alternate
Rept-1	Bidder should provide samples of the following reports and other standard reports that are available in your system. A. Reports by entity type based on active, inactive and lapsed which will included the number filed B. Reports by entity type and/or action based upon a specified date range C. Accounts receivable reports for example daily deposit reports by staff person, audit reports D. Reports by filing type and/or action based upon a specified date range E. UCC AR Reports F. Management reports of staff user processes on a daily, monthly and annual basis. Statistical / Entity reports G. Online and internal filings separate and combined status report H. Daily report of monies processed for invoice receipt types listed below. 1. Cash, Credit Memos, Checks, ACH, IBTs 2. Transaction Report for payments received by type, funds, and amount. Annually Commercially Audited company financials Business Plan Data center comprehensive annual certification	Yes			

	Quarterly Management Report - progress reports on projects under way, and various marketing efforts. Statistical reports must be provided on Portal traffic and hit counts Business plan assessment to include number of hours spent on revenue-generating vs. non-revenue generating projects (work by project) and anticipated projects over the next quarter (same breakdown) Financials outlining volume and revenue details for each service Disaster recovery test results Results of external and internal scans on the entire infrastructure Monthly Monthly Uptime report Monthly Response time report Project priority report Bi-weekly Project status reports Daily Scanning Error report that identifies any documents within a range that don't have images scanned and page differences of what was entered in the system for document vs what was scanned. UCC Batch Proof Accounts Receivable Report – All monies received for daily jobs or AR from billing invoices for a daily total received. Currently missing on the report is total number of filings by action, and total monies received.				

	See Appendix K – Reports and Additional Information for examples of existing reports with additional pertinent information needed to distribute reports to appropriate parties, in requested format, per specified schedule. Reports provided by the bidder's system should be substantially the same as the examples. The BSFS should file stamp and export reports into OnBase for storage and retrieval or store and retrieve them within the filing system. The bidder should describe and provide screen shots showing how your system generates, stores, and retrieves reports/queries by entity type and/or action for a specified date range. At a minimum, bidder should acknowledge that you are able to develop reports as requested and provide ad hoc report capability.				

Bidder Response:

Catalyst delivers operational and management reports covering activities with the registries. This includes the ability for users to review caseloads and financial information related to the operation of the registries.

Reports include those related to the data within the register, as well as the performance of staff in meeting work service levels (such as processing volumes and task wait times etc.).

Reports are available online as interactive web pages and as printed reports. The online interactive reports allow a user to search, filter and drill down on the data to suit their purpose.

Real-time reporting screens allow for the creation, review and manipulation of standard and ad-hoc reports by authorized users. A standard query and reporting interface is provided, and can be used by most users with little or no training.

Catalyst allows a user to view, print and save the reports they create. Generated reports can then be printed or exported in a range of formats including PDF, text and Excel (CSV). Reports can be archived and retrieved within the embedded document management system.

Catalyst also can be configured to make a register's data available to external systems for the purposes of report creation. Catalyst data is accessed from the database, with access controlled at the database level. This approach allows report writers to continue to use familiar tools to create and maintain reports whilst accessing data from the Catalyst registers.

Dashboards

Catalyst provides online dashboards and online query facilities that provide real-time access to information for users of the register, internal users and external users.

The following screenshot illustrates an external (public) user's homepage, or dashboard, with links to their companies and to unfinished business requiring their attention.

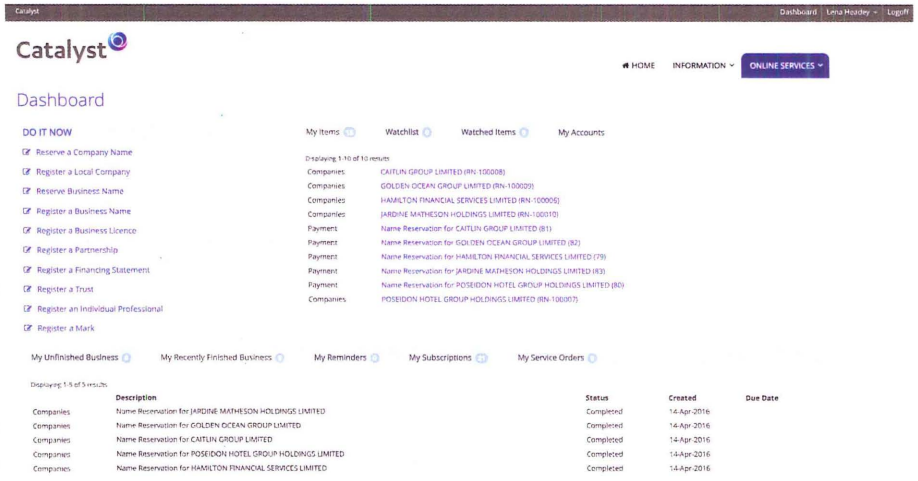


Figure 94. Catalyst – External User Homepage

Catalyst provides an integrated task management system that supports the assignment of tasks and activities to teams and team members. A fully interactive task list provides each user with a view of outstanding tasks, allowing them to select, update and complete tasks online. Services are available to bulk assign, allocate or approve tasks are available to internal users with the appropriate permission. This allows for the work to be quickly allocated to the appropriate user or team.

Registry staff can create and send correspondence on demand based on a range of templates. Staff select a correspondence template as the basis for a document, and may edit the correspondence body prior to its delivery by email or printing.

The following screenshot illustrates an internal user's dashboard, including their work queue of pending tasks to complete.

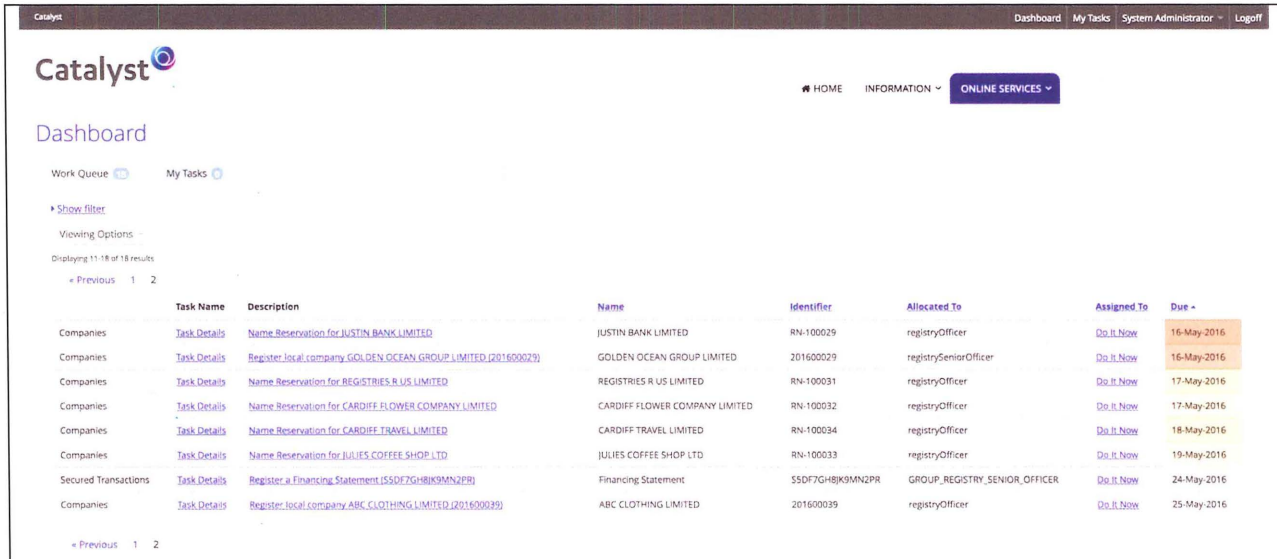


Figure 95. Internal User's Dashboard including Work Queue

Catalyst provides a unified dashboard across all registers delivered from the platform, so that as additional registers are added (e.g. Trademarks, Servicemarks and UCC etc.), users have a launching point for services available to users across all registers to which they have access.

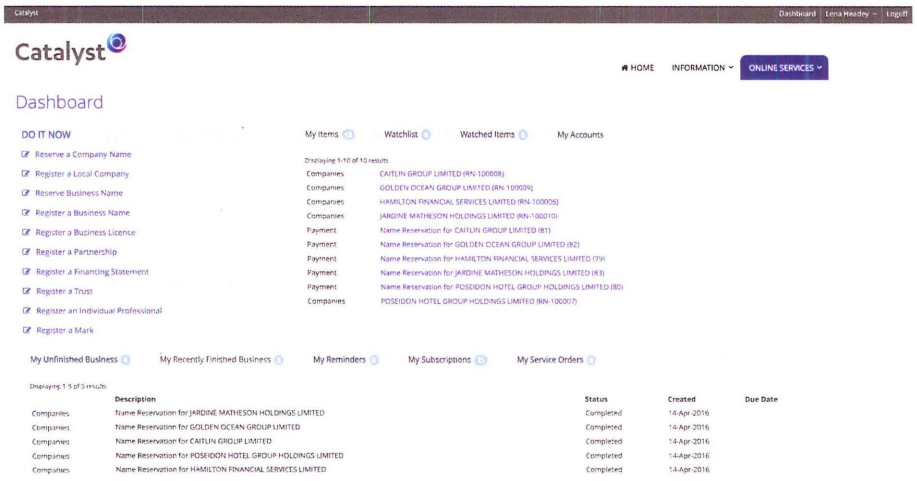


Figure 96. Catalyst Enterprise Dashboard

Pre-Defined Reports

Catalyst provides a number of pre-defined reports to certain authorized users. The following reports are available within each register:

1. User Activity Calendar (By Services) – This report shows a count of each business service that was instantiated for a given period. Options are available to see activity for the current day or a given week, month or year. The report data is provided in a calendar format. The internal user is able to drill down to view more detailed information about the services that were instantiated.
2. User Activity (By Services) - This report, like the above report, shows a count of each business service that was instantiated between two dates. A start and end date must be entered and a period selected. The periods available for selection are Day, Month and Year. The report data can be exported to HTML or CSV.
3. User Activity Calendar (By Service Group) – Similar to the User Activity Calendar (By Services), however the services are grouped together. For example all Register or Incorporation type services can be grouped into a Register Corporation service group.
4. User Activity (By Service Group) – Similar to the User Activity (By Services), however the services are grouped together.
5. User Activity Summary (By Service Group) - This report lists each service group, showing a count of the services instantiated for the given periods:
    - Current Day
    - Previous Day
    - Current Week
    - Previous Week

- Current Month
- Previous Month
- Current Year
- Previous Year

Clicking on the Service Group will provide the user with details of each Business Service within the service group.

6. Service Transition Calendar - This report shows a count of the number of services that was transition from one state to another. For example, the number of services that transition into completed or into review for a given day, week, month or year.
7. Payment Calendar (By Services) – This report shows the sum of fees received per business service for a given period. The report data is provided in a calendar format. The internal user is able to drill down to view more detailed information about the services.
8. Payment Calendar (By Service Group) – This report, like the above report, shows the sum of fees received per business service between two dates. A start and end date must be entered and a period selected. The periods available for selection are Day, Month and Year. The report data can be exported to HTML or CSV.
9. Payment Summary (By Service Group) – This report lists each service group showing a summary of the fees created for different terms as follows:
    - Current Day
    - Previous Day
    - Current Week
    - Previous Week
    - Current Month
    - Previous Month
    - Current Year
    - Previous Year

Clicking on the Service Group will provide the user with details of each Business Service within the selected service group and the associated fees.

The Catalyst Document Receipting Module provides standard reports to assist in day end reconciliation and provide information on payments received during a given time period. The following reports are available:

1. **Daily Reconciliation Report by User** – this report provides the receipting staff member with details of payments receipted for a particular period. The report can be run for a single day and can be filtered by a particular registry staff member.
2. **Receipts by Payment Type** – this report provides the receipting staff member with a summary of payments receipted for a particular period. Payments are grouped by payment method and then grouped into those that will be deposited and those that will not.
3. **Payments Received Report** – This report provides the receipting staff member with a list of payments receipted for a particular period, by default this is set to the beginning of the current day and the current date and time. Payments are grouped by payment method and details of each payment are shown

All reports provided by Catalyst will be pre-defined in terms of the input parameters, data displayed and presentation layout. Reports can be run by a user on demand, and the user will be able to select the destination of reports – to screen, printer or to a file system location (saved as a PDF).

Not all reports will be available to all users. The list of reports displayed for execution by each user will depend on the user group to which they belong. If they belong to more than one user group with different reporting availability, the user will have a combined list of all the reports available to the groups.

Rept-2	The bidder should provide samples of reports that identify: • EFS and UCC Terminations with Possible Incorrect Status • EFS and UCC Continuations with Possible Bad Maturity Dates See Appendix J - Ancillary Databases and Derived Reports	Yes			
Bidder Response: Catalyst is focused on ensuring the integrity of data and, as a result, Foster Moore is confident that reports such as those identified above, being related to data integrity errors, would no longer be necessary for data entered directly into Catalyst (via its web application or business/web services). For legacy data migrated into Catalyst as part of the data migration exercise, data errors would be identified and corrected as part of the migration process. Catalyst supports data integrity through its data model and data security features. All changes to data within the Catalyst register are made via the defined business services, and these business services enforce the configured legislative requirements. Catalyst is designed and built from the ground up as a registry manager, monitoring and enforcing the legislative requirements of the local jurisdiction in which it is deployed.					

	SOFTWARE DESIGN REQUIREMENTS				
SD-1	Describe how your proposed software adheres to all standards, policies, guidelines, and bulletins issued by NITC and the OCIO relative to participation in the use of the State's central computing and telecommunications facilities. Describe your understanding of the NITC standards and acknowledge your willingness to follow these standards.	Yes			
Bidder Response:					

Integral to confidentiality of data is the security of the application (the register) and the database used to store the data.

Foster Moore has adopted a "continuous improvement" approach toward the security management of the registers we support. We regularly undertake security audits and implement the changes recommended by these; performing hardening activities by continually testing our systems against policies such as those published by VISA. Foster Moore's primary goal in managing information security is to guarantee the **confidentiality** (as required), **integrity** and **auditability** of the data. This ensures that we are constantly reviewing and validating the security measures we have in place around the systems, at the software, network and physical levels.

As an example, our Catalyst implementation in Ontario, Canada complies with the following provincial standards:

- GO-ITS 25.12 - Security Standard - Security Requirements for the Use of Cryptography - Oct. 2008
- GO-ITS 25.13 - Security Standard - Security Requirements for Internet Accessible Web Applications - Oct. 2007
- GO-ITS 25.15 - Security Standard - Password Management and Use - Oct. 2007

Confidentiality

Catalyst solutions provide secure environments, and the Catalyst application itself is secure.

Catalyst employs a role-based security model that controls access to the system by registered users. This restricts access to data and functionality based on user accounts and users' membership to defined roles. Catalyst caters for internal users (staff who work in the registry office) and external users (members of the public with a declared interest in one or more entities), and controls their access accordingly.

Using its role-based security model, Catalyst is able to control which users are able to view and modify certain data items within the register.

For internal users (registry staff), teams can be used to determine the assignment of tasks to work queues and also to manage notifications, alerts and escalations.

For external users, data access control can also be configured to take into account defined relationships between the user and the entity (e.g. a director of a company). This enables delegated authority as well as secure and controlled access by third party organizations acting as agents.

For external users connecting over a WAN, the Foster Moore solution operates over a TCP/IP based network using industry standard protocols such as HTTP and HTTPS. For internal users working on a LAN, the Foster Moore solution operates over a TCP/IP based network using industry standard protocols such as HTTP and HTTPS. The solution supports remote access through standards-based products such as VPNs

Documents generated by Catalyst encrypted and locked to provide clients with comfort that the documents were genuinely generated from the Registry.

Catalyst performs session management through a session identifier that is generated using JDK PRNG UUID. No information is stored in the session identifier. The session identifier is stored as a session cookie that is cleared when the user exits the browser.

Foster Moore has extensive experience in online payment processing, with virtually all registry solutions we design and build including some form of credit card payments. In all Catalyst implementation (including this one) payments are handled by an external gateway, meaning our solution does not store data related to the credit card. Our solution meets the appropriate requirements of the PCI-DSS and PA-DSS standards for such a system.

Data Integrity

Catalyst supports data integrity through its data model and data security features. All changes to data within the Catalyst register are made via the defined business services, and these business services enforce the configured legislative requirements. Catalyst is designed and built from the ground up as a registry manager, monitoring and enforcing the legislative requirements of the local jurisdiction in which it is deployed.

Through the data that is stored in a versioned state, the user will have the ability to request an extract for each entity at any point in time (post Catalyst implementation). This some feature can also be used to generate a certificate for an entity at a point in time.

Database

Catalyst utilizes standard industry technology including ACID compliant databases such as Oracle or Microsoft SQL Server, JTA (Java Transactions API) to ensure integrity of the stored registry data in the result of abnormal failure of any process. It should be noted that HTTP is not a transactional transport layer and any submitted web service request or web page request that reaches the server may complete even if the user choses to cancel the request or close the browser without waiting for the response.

Transactions

Incomplete transactions at shutdown will be rolled back by the underlying participants in the transaction (the database instances).

All requests to the Catalyst applications are managed statelessly and atomically. A request may spawn a single transaction which will complete during that request. As a result, if an in flight payment process starts on one server, it may finish on another server.

In order to ensure that there is no impact to end users it is advisable to use an application load balancer to move new requests off the instance which is about to be patched prior to stopping it. Foster Moore can discuss with MBIE the best solution for achieving this.

Auditability

Catalyst maintains audit logs of all activities that take place within the system, and creates audit trails covering business activities as well as system and security events. Catalyst's audit log is a standard facility that requires no customization or configuration to enable.

The Catalyst audit log captures all activities undertaken within the systems including data updates, task, job and process completion, system generated activity (such as correspondence generation) and user activity (both internal and external). Four essential properties are captured for every auditable event; what was done, when was it done, what it was done to and who did it.

The system also records evidential acknowledgment for all prompts or warnings confirmed by a user during their activities. This becomes increasingly important as more and more functionality is assigned to external users. The system records a user's response to a message informing them that the action they are about to take is subject to law, and identifying the ramifications if they continue with the process in an illegal or inappropriate way.

Our solution also features log centralization, and centralized configuration management and monitoring.

Data in Motion

For external users connecting over a WAN, the Foster Moore solution operates over a TCP/IP based network using industry standard protocols such as HTTP and HTTPS. For internal users working on a LAN, the Foster Moore solution operates over a TCP/IP based network using industry standard protocols such as HTTP and HTTPS. The solution supports remote access through standards-based products such as VPNs

All authentication requests are forced through secure channels in Catalyst. In addition, for some of our customers Foster Moore has deployed platforms with 100% of traffic going through the secure channel.

In addition, our partner Nebraska Interactive and their NIC affiliates have a long history of providing all equipment and services necessary to manage the state's e-government portal. Nebraska Interactive will continue to provide the acquisition and maintenance of hardware and software as well as any telecommunication connections between Nebraska Interactive's servers and the state's servers to support agency e-government applications. We carefully work with the NITC and the OCIO to ensure we are in compliance and will continue to be so if awarded the contract.

SD-2	Describe your change management processes and how the State will be included in these processes.	Yes			

Bidder Response:

Technical Process

Foster Moore's change management process covers pre-production and production environments. Our responsibilities include:

- Adhering to relevant client Change Policy, process and procedures,
- Raising Requests for Change (with associated back out plan) for approval by the client or delegated authority,
- Performing an impact analysis and risk assessment for each change,

- Co-ordinating the activities of any external service providers so that the change is completed efficiently, effectively and successfully,
- Recording changes against relevant Configuration Items in the CMDB (if applicable);
- Interacting with the Release Management Service and Configuration Management Service for the client,
- Attending the Change Advisory Board (CAB) and the emergency CAB in whatever capacity is required for the change (if applicable),
- Reporting on the success (or otherwise) of the change implementation,
- Closing the change once all activities have been completed,
- Contributing to the production of the monthly Forward Schedule of Change,
- Maintaining documentation of Change Management processes and operational procedures.

We also maintain an internal change management process for our development and test environments.

Change Control within CAM Projects

All Catalyst projects are delivered through adherence to the Catalyst Adoption Methodology (CAM). Within CAM there are a number of defined phases with specific project deliverables that are agreed and signed by both the client and FM.

In regard to project change there are two key deliverables that are used to determine whether the requirement raised is deemed to be a change.

Within the project Engagement phase, FM will produce a 'Project Charter Document'. One of the key goals for this document is to define the overall project scope i.e. how many entity types, which specific business services will be built for the legislative forms, what interfaces are supported, what payment methods are supported etc.

Within the project Adoption phase, FM will produce a detailed Business Catalog specification for each entity type / register being built. These Business Catalogs are compiled after the initial Catalyst configuration has been prepared, presented and reviewed at the adoption workshop with the client. The Business Catalogs are to be read and agreed in conjunction with the standard Product Catalogs for the Catalyst application.

The goal of the Adoption workshop is to present the client with an initial version of the Catalyst application and to establish all the outstanding business rules that have not been covered. The Catalyst consultant will capture all final requirements and present the Business Catalogs for client sign off.

Change requests may therefore be raised at one of two levels:

- Against the signed Project Charter, because a new service or interface is required that has not been included and is therefore deemed to be outside of the agreed scope.
- At the detailed level against the signed Business Catalog that is being built for each entity type. If changes or new / amended business rules are raised by the client, then these will be reviewed to determine whether they constitute a material change to the project work required. This will depend upon how much of the work has progressed and the impact on the delivery estimates / project plan.

For each change request that is raised FM will analyze the requirement and present a project change for executive review and sign off; this will include the relevant details along with cost and time implications.

One of the goals of the Catalyst Adoption Methodology is to ensure that there are no surprises and that the client understands the product and the project process. The final detailed business requirements are only established when there is a working Catalyst application built (that includes all the core services to be delivered) for client review and elaboration. If changes are raised that impact the core Catalyst product i.e. a new feature, then these will also be reviewed by the Catalyst Product manager. If it is agreed that the change should be added to the product itself, then an assessment will be provided as to when this will be developed and released by the product team, but there will be no cost impact to the client.					
SD-3	Describe your understanding of the State of Nebraska Records Retention Schedules standards and describe how those standards are, or can be, incorporated into the software. (See Appendix L – Retention Schedules.)	Yes			
Bidder Response: Nebraska Interactive is very familiar with the state of Nebraska Records Retention Schedule Standards as we have been complying since our inception as the Network Manager. If we are awarded the contract, we will continue to comply with these standards.					

	CUSTOMER PAYMENT AND ACCOUNTING PROCESSING REQUIREMENTS				
CPP-1	Recording Payments The system must have the ability to record payments as credit cards, debit cards, cash, credit memos, checks, ACH, or IBTs and tie them to filings, searches and copy actions. The bidder should describe and provide screen shots showing how the system handles payments by various methods and links them to the actions associated with those payments.	Yes			
Bidder Response: Catalyst includes a flexible fee schedule that manages the collection and processing of fees for registry services.					

Catalyst calculates and allocates fees based on pre-defined business rules and includes support for flat fees, sliding-scale fees and late fees. Catalyst also manages the generation of invoices and the processing of receipts.

Catalyst provides for collection and processing of fees in the following methods:

- Credit Card Payment – integration with a third party payment allows credit card transactions.
- Pre-paid account – an account balance is maintained per user account. This account balance is incremented online by an internal user, based on a payment receipt (transacted either at an authorized office, e.g. Registry Office, Ministry of Finance, or bank branches). There must be sufficient funds in the account to cover filing of a notice.
- Billing account - post-paid account where funds are not pre-allocated. Pre-approved users will be automatically invoiced monthly by the Register. Non-payment may result in de-activation of the account.
- Cash, Checks, Bank Draft, Other – these payment methods are available to internal users only entering paper applications on behalf of the customer

The Registrar (or an authorized internal user) may waive the partial or full penalty fee. This will be done on a case-by-case basis.

Fees and penalties are configured within the workflow and are charged on submission of a business service. Where the application and related payments are not concluded within the configured timeframe, then compliance routines can trigger the termination, cancellation or revocation of entities.

Catalyst generates daily revenue summary worksheets used for reconciliation purposes. Sample reports as follows:

- Revenue summary by payment type on payments that are collected via the various branch offices, for transactions processed by internal staff.
- Revenue summary for external payments that are made by public users.

All transactions within Catalyst are linked to the original register event to which they relate, and to a customer account, based on the logged in user who initiated the transaction. This is handled by Catalyst's payments module.

For a payment transaction, Catalyst records details such as the client account number, associated document (if any), payment type, amount, receipt date, reference number and any comment entered. Depending on the payment type, Catalyst also records additional data such as credit card type, authorization code, bank name for a credit card payment or check number, issuer and issue date for a check payment, and other details as applicable.

Catalyst allows users to fund their transactions, either directly, by loading their pre-paid account, or paying their billing account, using a credit card, debit card or electronic funds transfer. Catalyst allows external users to record payments received from clients against a pre-paid or billing account, via any of the payment options available in Catalyst.

The system automatically updates the payment status on a successful completion of a payment, e.g. credit card or debit card payment type. Under certain conditions, an authorized internal user maintains the payment status at the time of processing the payment.

Catalyst supports the ability for a customer to pay for a transaction at the time of the activity. This payment can be by pre-paid account, billing account, direct debit, cash, check, bank draft or credit card payment.

Internal users may process received paper documents using all forms of payment types.

Fees for transactions performed within Catalyst can be paid for by external users using pre-paid account, billing account, direct debit, cash, check, bank draft or credit card payment. Payments can then be made against this account on multiple occasions.

Transactions within a session are assembled in a shopping cart, allowing the user to pay for multiple documents or submissions with a single payment. Note that no submissions will be finalized until such time as payment is made. Alternatively, customers with pre-paid or billing accounts can perform multiple transactions and then pay for them with a single payment to their account.

Catalyst records payment at the point of receipt for online transactions paid for by credit card. Receipt of checks or cash for manually submitted applications can also be handled by Catalyst.

Catalyst provides the ability to record a dishonored check against a payment, capturing details such as amount, issuer, date received, reason for the check being dishonored, etc. Catalyst also captures any repayment made against the dishonored check, capturing details such as invoice number, repayment amount, waivers (as applicable). Catalyst provides the internal user the ability to create a compliance task associated with the dishonored check.

Catalyst workflow is configured with the fees for all business services processed by the system.

Transaction Exports

Catalyst has an interface that enables integration with external financial management systems, providing for the exchange of accounts receivable and credit note (refund) data between the systems. Catalyst produces a detailed transaction extract for sending to the external finance systems.

The Catalyst payments module can be configured with the client's accounting system's codes used for each of the identified transaction types created within the system. These codes can then be included in the data transferred to the accounting system via the payment system interface.

The following illustrates a sample export file of transaction data for sending to an external accounting system.

	A	B	C	D	E	F	G	H	I	J	K	L	
1	Payment ID	Payment Statu	Payment Submitte	Payment Optior	Payment Amount Excl GS	GST Amount	Under/Overpaymer	Payment Total Amou	Total No of Fee	Cheque No	User Name	Client Numbe	Client Nan
2	328882	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		alex pang	I200519991	Alex PANG
3	328901	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Abdullah Khan	I200519990	Abdullah KI
4	328862	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Ido Drent	I200503898	Ido DRENT
5	328861	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Stephen Whitton	I200519988	Stephen W
6	328843	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Brody Radford	I200493604	Brody RAD
7	328842	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Marc O'Brien	I200519891	Marc O'BRI
8	328841	Paid	1-Dec-10	DirectDebit	8.89	1.33	0	10.22	1		Geoff ABBOTT	09226	ABBOTT GF
9	328782	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Ruo Du	I200498768	Ruo DU
10	328802	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Michael Knowles	I200288008	Michael KN
11	328821	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Joelene Takai	I200519909	Joelene TAI
12	328801	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Neil Pollock	I200220884	Neil POLLO
13	328781	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Tony CHEN	I200016183	Tony CHEN
14	328742	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Adriana Watson	I200325524	Adriana WA
15	328761	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Mayur Bhuta	I200391967	Mayur BHU
16	328741	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Nick Allison	I200489272	Nick ALLISI
17	328710	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Ruth Marsh	I200519743	Ruth MARS
18	328709	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Gavin Summerfield	I200031602	Gavin SUMI
19	328708	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Dereck Gray	I200500878	Dereck GRA
20	328721	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Colin Pattrick	I200449166	Colin PATTF
21	328600	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Rob Khan	0132625	RGK ACCOI
22	328599	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Young Won	I200514314	Young WOI
23	328598	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Gavin Summerfield	I200031602	Gavin SUMI
24	328668	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Barry Jackson	I200519758	Barry JACK
25	328707	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Mehrdad Arghand	I200519756	Mehrdad AI
26	328667	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Ivy O'LEARY	08517	IVY J O'LEA
27	328706	Paid	1-Dec-10	DirectDebit	0.89	0.13	0	1.02	1		Chris MENZIES	01379	AWS LEGAL
28	328666	Paid	1-Dec-10	CreditCard	0.89	0.13	0	1.02	1		Wayne Barnard	I200519725	Wayne BAR
29	328635	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Andrew Baoumgren	I200519726	Andrew BA
30	328705	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Fiona O'Neill	I200483891	Fiona O'NE
31	328704	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Andrew Payne	I200519733	Andrew PA
32	328597	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Melissa Burt	I200519735	Melissa BUI
33	328634	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Hayden Mills	I200519769	Hayden MII
34	328596	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Janet OSMOND	0133050	CANTABMA
35	328703	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Sajid Ali	I200147830	Sajid ALI
36	328702	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		John Langslow	I200485317	John LANG
37	328665	Paid	1-Dec-10	CreditCard	0.89	0.13	0	1.02	1		Tracey Vitnell	I200332148	Tracey VITI
38	328633	Paid	1-Dec-10	CreditCard	0.89	0.13	0	1.02	1		Tracey Vitnell	I200332148	Tracey VITI
39	328632	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Satend Chand	I200151058	Satend CHA
40	328701	Paid	1-Dec-10	CreditCard	0.89	0.13	0	1.02	1		Tracey Vitnell	I200332148	Tracey VITI
41	328664	Paid	1-Dec-10	DirectDebit	8.89	1.33	0	10.22	1		Shirllay SUN	097811	LESLIE HIL
42	328631	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Lee-Anne Roycroft	I200482441	Lee-anne R
43	328663	Paid	1-Dec-10	CreditCard	8.89	1.33	0	10.22	1		Stephanie Dunsmore	I200519748	Stephanie I
44	328683	Paid	1-Dec-10	CreditCard	133.33	20	0	153.33	1		Jacqui Davies	I200504694	Jacqui DAV

Figure 97. Fee Data Export

CPP-2	Payment Security Online security consistent with online payment card industry standards, specifically, the Payment Card Industry's Data Security Standards ("PCI DSS") is required. The bidder should describe and provide screen shots showing the system's online security for acceptance of payment by credit/debit card.	Yes			
Bidder Response:					

Foster Moore has extensive experience in online payment processing, with virtually all registry solutions we design and build including some form of credit card payments. In all Catalyst implementation (including this one) payments are handled by an external gateway, meaning our solution does not store data related to the credit card. Our solution meets the appropriate requirements of the PCI-DSS and PA-DSS standards for such a system.

Payment Card Industry Data Security Standard (PCI-DSS)

The Payment Card Industry Data Security Standard (PCI-DSS) standard consists of twelve significant requirements, including multiple sub-requirements, which contain numerous directives which businesses such as Foster Moore can measure their own payment card security policies, procedures and guidelines.

The following table presents a summary of the high level objectives of the standard, the associated requirement within the standard and the approach used by Foster Moore to meet the requirement of the standard within our solutions:

Control Objectives	PCI DSS Requirements	Foster Moore Approach to Compliance
Build and Maintain a Secure Network	1. Install and maintain a firewall configuration to protect cardholder data	Infrastructure design includes firewalls as standard practice
	2. Do not use vendor-supplied defaults for system passwords and other security parameters	Defaults for passwords and other security parameters are changed to secure settings
Protect Cardholder Data	3. Protect stored cardholder data	Data is secured within the system at the database and the application level
	4. Encrypt transmission of cardholder data across open, public networks	Data is encrypted using standard protocols such as https
Maintain a Vulnerability Management Program	5. Use and regularly update anti-virus software on all systems commonly affected by malware	Installation of anti-virus and other security software as appropriate on all registry infrastructure. End users are responsible for their own systems. Catalyst can be configured to send documents for virus checking upon document upload.

	6. Develop and maintain secure systems and applications	Foster Moore designs, develops and maintains all registry solution to follow security best practice and to address known threats. This includes the top ten threats as identified by OWASP. Foster Moore has a detailed analysis of our mitigation for the OWASP vulnerabilities, and we can make this available upon request.
Implement Strong Access Control Measures	7. Restrict access to cardholder data by business need-to-know	Systems are designed and built to restrict access to all data, including cardholder data, on a need-to-know basis. This is controlled by the user's access levels and their role within the system (using role-based security).
	8. Assign a unique ID to each person with computer access	All users accessing Foster Moore systems require a unique login. While some actions can be performed by anonymous users, these are typically very high level, such as public searching. Certainly any actions that involve back-office users and/or access to payment details, require the user to be logged in.
	9. Restrict physical access to cardholder data	Foster Moore solutions do not store cardholder details in physical form. All access to such data is accessed via our online applications, featuring role-based security.
Regularly Monitor and Test Networks	10. Track and monitor all access to network resources and cardholder data	Applications designed and implemented by Foster Moore include audit logging of particular transactions and viewing of particular data, and can be designed to record who views cardholder data and other financial data. At the network level, logging of access to network resources and direct access to the database would need to be tracked and monitored outside of the application, within the infrastructure.
	11. Regularly test security systems and processes	Foster Moore undertakes regular testing of systems we support, including commissioning external organizations to perform tests independently. In situations where Foster Moore is not operating the end solution, clients are free to have systems tested by qualified organizations as they see fit.
Maintain an Information Security Policy	12. Maintain a policy that addresses information security	Foster Moore has an extensive Information Security Policy for our own organization, and can work with clients to develop their own policy.

Payment Application Data Security Standard (PA-DSS)

The Payment Application Data Security Standard (PA-DSS) standard is designed to provide the definitive data standard for software vendors that develop payment applications. The standard aims to prevent developed payment applications for third parties from storing prohibited secure data including magnetic stripe, CVV2, or PIN. In that process, the standard also dictates that software vendors develop payment applications that are compliant with the Payment Card Industry Data Security Standards (PCI DSS).

The following table presents the 14 protections required in order for a payment application to be deemed compliant, and the approach used by Foster Moore to meet the requirement of the standard within our solutions:

PA DSS REQUIREMENTS	FOSTER MOORE APPROACH TO COMPLIANCE
Do not retain full magnetic stripe, card validation code or value, or PIN block data.	Catalyst does not retain any information related to the card or client account. All data is entered directly into the payment system itself, and therefore never recorded or stored by Catalyst.
Protect stored cardholder data.	Catalyst does not retain any information related to the card or client account. All data is entered directly into the payment system itself, and therefore never recorded or stored by Catalyst.
Provide secure authentication features.	Catalyst supports a range of secure and robust user authentication features, and the specific authentication mechanism is decided by the client for whom the solution is being implemented. Authentication can be handled by the Catalyst Security Module, or by an external security service with which Catalyst has been integrated. Such as integration will involve standards such as SAML, and the exchange of data, security tokens and application control
Log payment application activity.	Catalyst records financial transactions and integrates with a financial management system for the handling of accounts receivables etc.
Develop secure payment applications.	Catalyst integrates with secure payment gateways using the integration methods and interfaces provided by those systems.
Protect wireless transmissions.	Wireless transmission are outside of the scope of the Catalyst application solution, but where Foster Moore is involved in designing client network infrastructure, we recommend industry best practices around all network security, including wireless.
Test payment applications to address vulnerabilities.	Foster Moore designs, develops and maintains all registry solution to follow security best practice and to address known threats. This includes the top ten threats as identified by OWASP. Foster Moore has a detailed analysis of our mitigation for the OWASP vulnerabilities, and we can make this available upon request.
Facilitate secure network implementation.	Network design and implementation is outside of the scope of the Catalyst application solution, but where Foster Moore is involved in designing client network infrastructure, we recommend industry best practices around all network security.

Cardholder data must never be stored on a server connected to the internet.	Catalyst does not retain any information related to the card or client account. All data is entered directly into the payment system itself, and therefore never recorded or stored by Catalyst.
Facilitate secure remote software updates.	Catalyst can be updated by the client locally, and the client can also provide Foster Moore with remote access to update Catalyst as and when approved by the client.
Facilitate secure remote access to payment application.	Catalyst integrates with secure payment gateways using the integration methods and interfaces provided by those systems.
Encrypt sensitive traffic over public networks.	Catalyst solutions employ communication protocols such as HTTPS to encrypt all data passing over public networks. In addition, internal registry staff can access Catalyst using a Virtual Private Network (VPN) to provide an added level of security.
Encrypt all non-console administrative access.	Internal registry staff can access Catalyst using a Virtual Private Network (VPN) to provide an added level of security.
Maintain instructional documentation and training programs for customers, resellers, and integrators.	Foster Moore provides a set of detailed training and reference material for the Catalyst product which is available to our customers, resellers and integrators.

CPP-3	Accounting The system should allow: A. An entity to apply for a charge account. An account is created and assigned a unique account number. The system must be able to search accounts by account name using Soundex per RTM Corp-1 or by account number and must include functionality to edit, change status, or place on credit hold, either system generated or by staff, based on number of days account is in arrears. B. Record fees, collect fees, or charge to appropriate account number and receipt payments (full or partial) received on account. C. Prepare deposit for funds receipted the previous day to be sent to the accountant for PFC deposit. See RTM CB-5	Yes			

	D. Bill accounts with balances monthly (electronically, faxing or mailing) assigning an invoice number E. The ability to create and apply partial/in full credit memos. F. The ability to search and retrieve by invoice number. G. The ability to run reports and generate statements. H. The ability to override a fee and the ability to accept overpayment. Describe the system's accounting, receipts, and audit trail for new and existing accounts.				

Bidder Response:

Catalyst provides for collection and processing of fees in the following methods:

- Credit Card Payment – integration with a third party payment allows credit card transactions.
- Pre-paid account – an account balance is maintained per user account. This account balance is incremented online by an internal user, based on a payment receipt (transacted either at an authorized office, e.g. Registry Office, Ministry of Finance, or bank branches). There must be sufficient funds in the account to cover filing of a notice.
- Billing account - post-paid account where funds are not pre-allocated. Pre-approved users will be automatically invoiced monthly by the Register. Non-payment may result in de-activation of the account.
- Cash, Checks, Bank Draft, Other – these payment methods are available to internal users only entering paper applications on behalf of the customer

Within Catalyst, users can create billing and payment accounts for direct debits and billing accounts. Catalyst provides the tools to enable the public user, and the registry office, to manage these accounts. For users without accounts, such as those who pay via credit card, Catalyst allows them to save a payment method for future use.

Billing Accounts

Catalyst enables clients to have billing (post-paid) and deposit (pre-paid).

Catalyst records financial transactions (e.g. payments, adjustments, top-ups) against the client's financial account. Each payment is also linked to an applicable business service that generated the financial transaction (e.g. incorporation fee payment).

Catalyst generates a Financial Account Statement for each deposit and billing account based on a pre-determined schedule (usually monthly), display transaction details (ID, type, date, amount, etc.) and account details (e.g. opening balance, total number of transactions, total amount of fees paid, total amount of adjustments and closing balance).

For pre-paid accounts, an account balance is maintained per user account. This account balance is incremented online by an internal user, based on a payment receipt (transacted either at an authorized office, e.g. Registry Office, Ministry of Finance, or bank branches). There must be sufficient funds in the account to cover filing of a notice. For post-paid, or billing accounts, pre-approved users will be automatically invoiced monthly by the Register. Non-payment may result in de-activation of the account.

Clients may have multiple pre-paid and/or billing accounts which they can view and maintain (limited data only) online.

Catalyst payments module allows an authorized administrator to manage the accounts, including the ability to suspend and unsuspend (reactivate) customer accounts for a range of reasons.

Fees

Catalyst includes a flexible fee schedule that manages the collection and processing of fees for registry services.

Catalyst calculates and allocates fees based on pre-defined business rules and includes support for flat fees, sliding-scale fees and late fees. Catalyst also manages the generation of invoices and the processing of receipts.

The Registrar (or an authorized internal user) may waive the partial or full penalty fee. This will be done on a case-by-case basis.

Fees and penalties are configured within the workflow and are charged on submission of a business service. Where the application and related payments are not concluded within the configured timeframe, then compliance routines can trigger the termination, cancellation or revocation of entities.

The following screenshot illustrates the Catalyst screen used to edit fees for a business service, including an optional penalty fee:

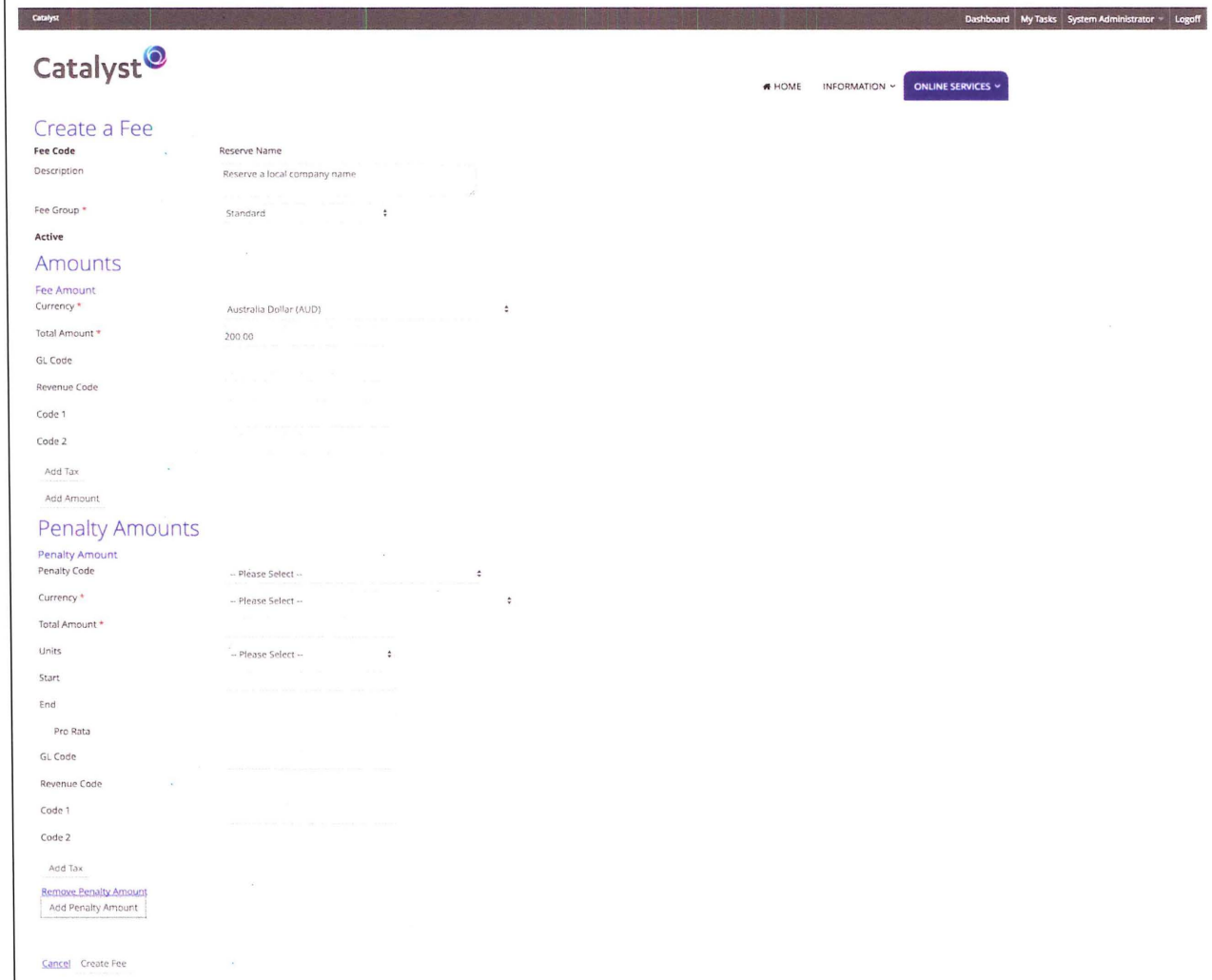


Figure 98. Catalyst Fees Editing Screen including the ability to add and maintain taxes and penalties

A two-tier penalty regime may be applied to late submissions of selected applications. The penalty schedule is configurable, depending on legislative requirements:

- 1st Tier - $xxx charged for failure to deliver a form to the Registrar within *x* working days after the time prescribed by the Act.
- 2nd Tier - $xxx charged for failure to deliver a form to the Registrar *x* working days after the time prescribed by the Act (a longer period than the 1st tier period).

Penalties will be configured within the workflow, however the workflow actions associated with the penalties will need to be built specifically for the client and invoked from the workflow manager.

Making Payments

For a payment transaction, Catalyst records details such as the client account number, associated document (if any), payment type, amount, receipt date, reference number and any comment entered. Depending on the payment type, Catalyst also records additional data such as credit card type, authorization code, bank name for a credit card payment or check number, issuer and issue date for a check payment, and other details as applicable.

Catalyst allows users to fund their transactions, either directly, by loading their pre-paid account, or paying their billing account, using a credit card, debit card or electronic funds transfer. Catalyst allows external users to record payments received from clients against a pre-paid or billing account, via any of the payment options available in Catalyst.

The system automatically updates the payment status on a successful completion of a payment, e.g. credit card or debit card payment type. Under certain conditions, an authorized internal user maintains the payment status at the time of processing the payment.

Catalyst supports the ability for a customer to pay for a transaction at the time of the activity. This payment can be by pre-paid account, billing account, direct debit, cash, check, bank draft or credit card payment.

Internal users may process received paper documents using all forms of payment types.

Fees for transactions performed within Catalyst can be paid for by external users using pre-paid account, billing account, direct debit, cash, check, bank draft or credit card payment. Payments can then be made against this account on multiple occasions.

Transactions within a session are assembled in a shopping cart, allowing the user to pay for multiple documents or submissions with a single payment. Note that no submissions will be finalized until such time as payment is made. Alternatively, customers with pre-paid or billing accounts can perform multiple transactions and then pay for them with a single payment to their account.

Catalyst records payment at the point of receipt for online transactions paid for by credit card. Receipt of checks or cash for manually submitted applications can also be handled by Catalyst.

Catalyst provides the ability to record a dishonored check against a payment, capturing details such as amount, issuer, date received, reason for the check being dishonored, etc. Catalyst also captures any repayment made against the dishonored check, capturing details such as invoice number, repayment amount, waivers (as applicable). Catalyst workflow is configured with the fees for all business services processed by the system.					
CPP-4	Interface with PFC At end of day: A. Each staff member must balance their receipts (Jobs) with batch total for the day. B. On the day after filing, prepare payments for deposit 1. Batches must be balanced and posted, then combined for a total deposit. Once posting happens it adds the charged document amounts into Accounts Receivable. (See Appendix I – Accounts Receivable Data Fields) 2. General Document is generated to collect and combine the information in each Batch Post Report to accompany the deposit and verify the totals. 3. The system must be able to store and retrieve object code and fund code for fees. Some fees are split between codes. 4. Once finalized, the system must create an Excel file which is then imported into the State's accounting program for the PFC Deposit Document. (See Appendix E – Deposit File Layout.) C. At any step in either process above, the system must allow individual jobs and/or fees to be edited or corrected to balance and reconcile for deposit. Subsequent processes must be redone to be properly updated. D. History for these jobs and batches must be stored and searchable. (See Appendix K – Reports and Additional Information) The system must be able to recreate documents and rerun the General Document E. The system must allow payments of cash, check or charge going into the BSFS. (See Appendix I - Accounts Receivables Ancillary Database) F. The system must allow for tracking and follow through of returned payment(s).				

	Bidder will describe their system's API to PFC. Describe and provide screen shots showing how your system handles Accounts Receivable, Receipts, Reconciliation, and Deposit functions, including calculation and recording of fees for all filings.				

Bidder Response:

The Catalyst document receipting module provides day end reconciliation reports. Reports can be generated to show payments captured by user for a particular period. A sum of all payments received for the given period will also be shown. A deposit slip can also be generated from the system.

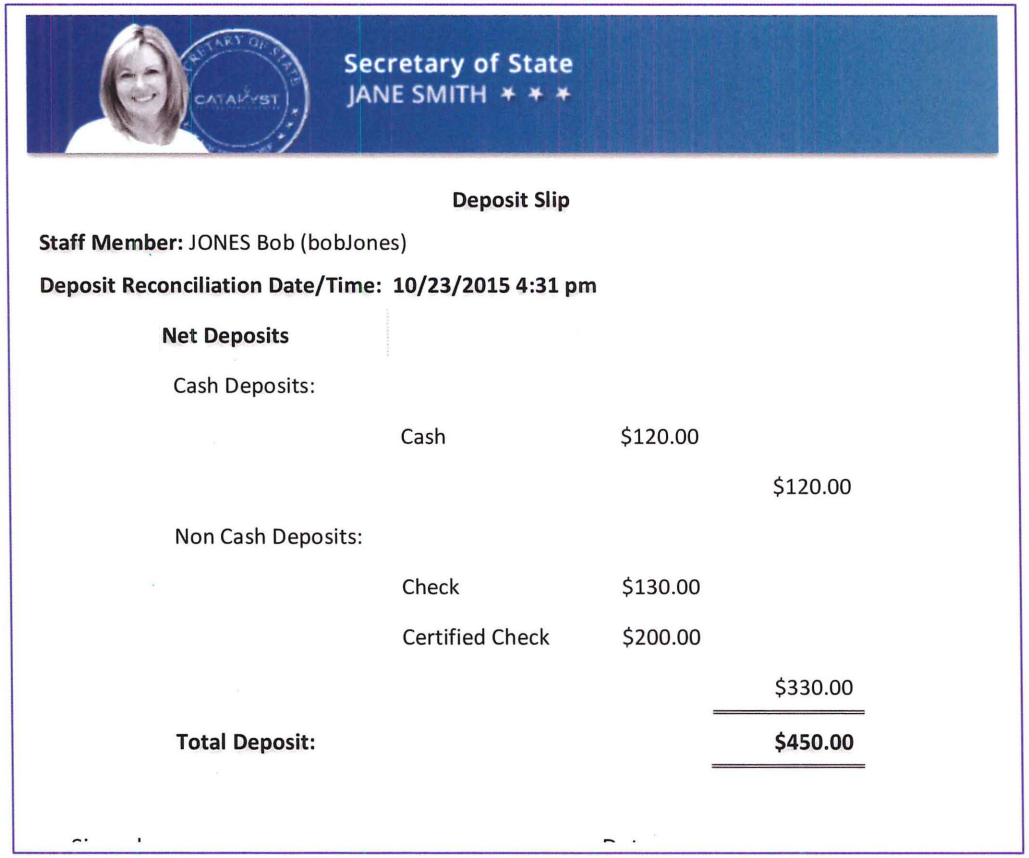


Figure 99. Deposit Slip

Catalyst fee definitions allows the specification of GL Account Codes and Revenue Codes. Payments received for one or more filings can be split across multiple fees. Multiple payments can be captured for one or more fees. The Catalyst Payments modules provides the ability for a user with the appropriate permissions to waive fees, record refunds and adjustments. Payments entered via the document receipting module can also be corrected if required. A history of all transactions will be retained, ensuring an audit trail will be available to internal users.

A scheduled job can be set up to export transactions captured in Catalyst Payments to a third party accounting system. The format and content of the export will need to be defined during detailed analysis.

Multiple payment methods are available to users. The payments methods available will be dependent on the type of user. For example an external user can make payments using pre-paid account, billing account, direct debit or credit card payment. Internal users can also record payment methods such as cash, check, money order.

Where a check is returned an internal user is able to record a Debit Adjustment and set the Adjustment Reason to 'Returned Check'.

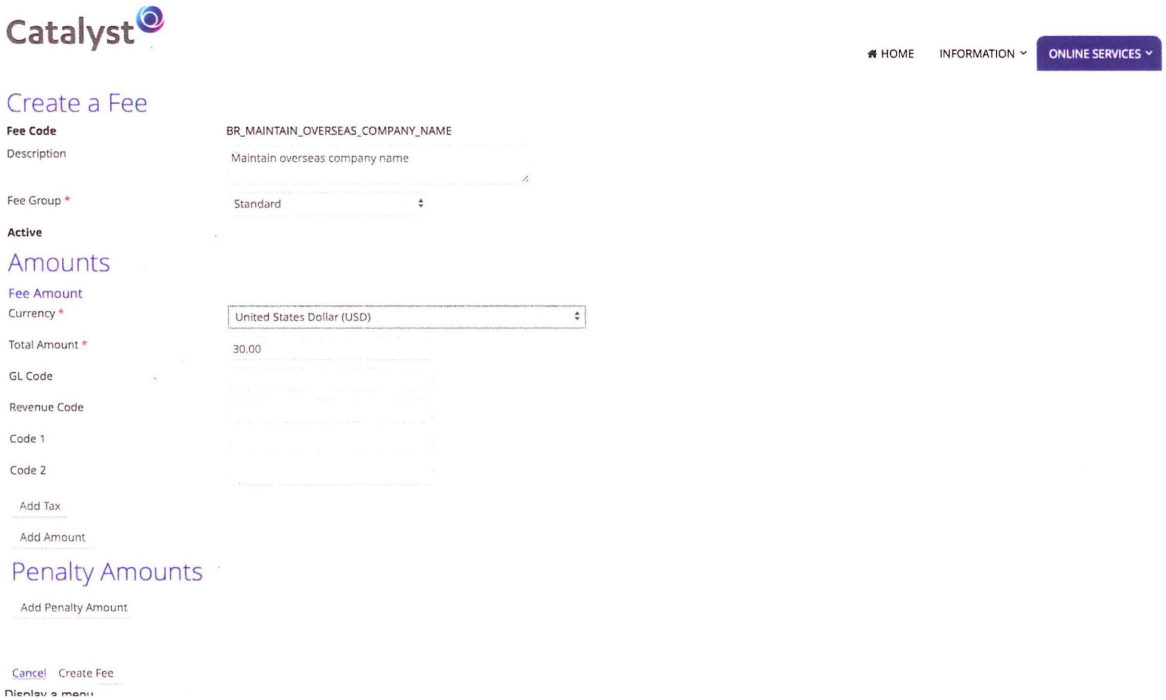


Figure 100. Fee Definition Creation

CPP-5	Cash Change Drawer The system should: A. track cash change drawer additions and withdrawals by user B. track continuous balance C. provide receipt to be included in Acknowledgement of filing, to include type and amount of payment received. The bidder should describe and provide screen shots showing your system's ability to handle a Cash Change Drawer.	Yes			

Bidder Response:

Catalyst supports the ability to track the receiving of payments through the payment and document receipting module. This workflow allows the user to receipt documents and their related payment(s), continuously tracking the balance remaining on the receipted documents. At the end of the receipting workflow, a payment receipt is included which contains the payment types, amounts, and the balance remaining.

In addition to the payment receipting workflow, reports and payment searches are provided in Catalyst by payment type allowing for end-of-day payment reconciliation and research.

PROJECT PLANNING AND MANAGEMENT, DATA CONVERSION, AND TRAINING PLAN

The contractor must assign a Project Manager who has been involved in the implementation of systems similar to the proposed system and shall provide a full Project Management Plan within ten (10) business days after the contract is awarded for review by, and discussion with, SoS.

RTM #	Project Planning And Management	Yes	Customization Required	No	Alternate

PPM-1	An Initial Project Management Plan should be outlined in the bidder's proposal and should provide: A. Project Approach Statement B. Scope of Work Document C. Work Breakdown Structure D. Project Schedule E. Milestones and Deliverables Statement F. Risk Assessment and Risk Mitigation Strategies G. Resource Plan H. Implementation Plan I. Conversion Plan J. Change Control Plan K. Communication/Coordination Plan L. Project Acceptance and Signoff Form M. Project Closeout and Lessons Learned Processes.				
Bidder Response: Please refer to Appendix 1. Project Management Plan (page 360) for our draft Project Management Plan.					
PPM-2	**Data Conversion** Conversion will be done for the following: All data contained in the UCC-Corp Database must be converted. The system must indicate which images are stored in OnBase image library, associate them with filings or cardex information in the system and retrieve them by document id number. Data and/or system information not required to be converted includes: paper filings, paper/microfilm cardex, microfiche, microfilm, cds and foreign corp books.				

	All data contained in the AR Module and Ancillary AR Database must be converted. Refer to Appendix I - Accounts Receivables Ancillary Database, Accounts Receivable Data Fields. Additional data to be converted as designated in Appendix J – Ancillary Databases and Derived Reports, see Item #2. Bidder should propose a Conversion Plan that includes all tasks involved in accomplishing the conversion.				

Bidder Response:

Foster Moore has extensive experience in the conversion of data from legacy to systems to new online registry solutions. We have performed significant data migrations in the past for online companies registers, amongst others. In many cases these migrations have involved significant volumes of data and documents, in a range of formats, with complex data transformation and cleansing activities performed as part of the migration.

Critical to the success of a data migration project is that the data is fit for purpose. This means that the data must be present where required (e.g. coverage of mandatory items) and must conform to the business rules related to that data in the new system. This requires the data to be of the right type, and for values to be appropriate and within the required ranges.

Foster Moore has established **five** principles of operation, that each Catalyst data migration abides by. These principles are aligned closely to the activities and outputs of the Catalyst Data Migration Methodology and are laid out here. The Catalyst Data Migration Methodology will:

1. Ensure that the scope and the expectations of the client are fully understood and agreed upon with respect to data migration prior to any concrete or binding commercial arrangements.
2. Subject to the scope and expectations, ensure that the client understands the nature of the data that must be provided in order to support the functionality that the client's configured Catalyst will provide.
3. Subject to the scope and expectations, ensure that the client understands what constitutes compliant and non-compliant data, and how non-compliance is addressed. This enables the client to review and agree on any areas of the solution that might be subject to a compromise with respect to functionality. Conversely, Foster Moore is able to understand any mandatory client requirements that requires non-compliant data to be addressed as part of the migration exercise.
4. Provide a clearly defined set of processes, tools and outputs that allow for the successful migration of compliant data and the management on non-compliant data. This establishes a closely controlled framework for subsequent activities and interactions, that mitigates risks associated with data migration.
5. Establish a clear understanding of the sign off protocol and responsibilities from both parties. This enables all parties to plan future steps with greater confidence.

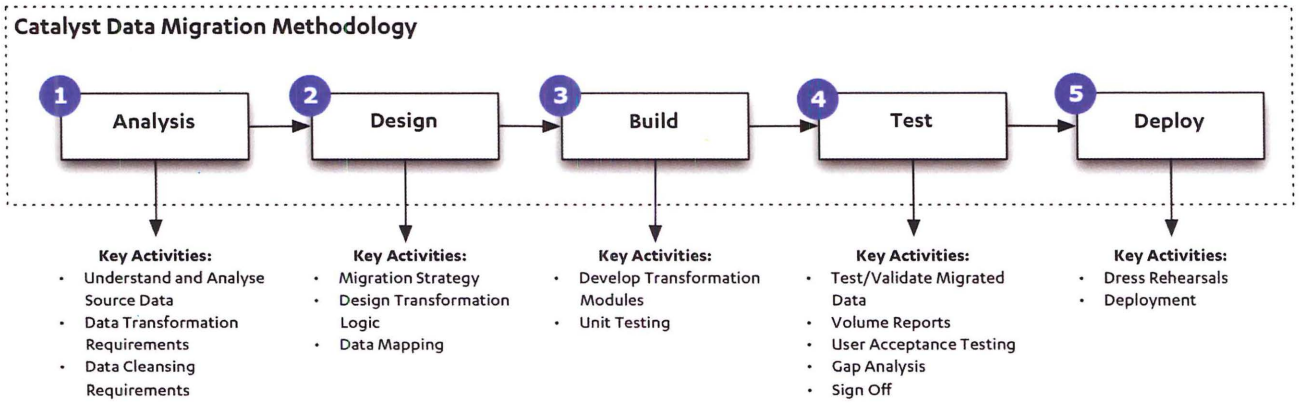
The approach generally taken to data conversions is as follows:

1. The customer is required to have a detailed understanding of the current data, and the low level structure of this data within the current system's database management system.
2. The customer needs to provide a source data repository of legacy data that matches the structures of the legacy production system (or some other mutually agreed structure). Depending on the location of this repository (e.g. within a legacy database management system), Foster Moore may require the customer provide the source data in flat files.
3. Foster Moore works with the customer to map the existing data to the Catalyst data repository using this detailed understanding held by the customer.
4. Foster Moore uses the Catalyst data migration assistant to develop the Extract Transform Load (ETL) definition.
5. The ETL process is run, tested, refined and re-run iteratively until finalized and accepted by the client.
6. Manual effort around the scanning and/or manual data entry of historical data is generally excluded from the Foster Moore scope and undertaken by the customer's staff.

Foster Moore has developed the Standard Migration Library (SML) a set of libraries which align with the standard Catalyst application configuration for a given register type. The library consists of a set of functions, each of which handles the population of a Catalyst domain. A Catalyst domain is a logical representation of physical data, where the logical representation usually represents a business construct such as a 'Director' role domain, or a 'Postal Address' domain.

The Standard Migration Library is the starting point for every data migration for a Catalyst implementation project, and can be extended by client specific package(s) to meet each client's individual requirements. Where entity structures are being imported, each import requires careful analysis and implementation to ensure that the data available from the existing system is able to support the new, often more stringent, business rules configured within the new online filing system.

The following diagram illustrates Foster Moore's methodology for data migration within the project:



PPM-3	A. Training Plan, including training schedule, will provide for: 1. user training for SoS staff and administrators 2. technical training and documentation 3. provision of a User Manual 4. additional training for SoS users when services are enhanced or modified. Bidder should outline and provide a Training Plan.				
Bidder Response: Please refer to Appendix 2. Training Management Plan (page 415) for our draft Training Plan.					

Form A.2

Optional Features Matrix (OFM)

Request for Proposal Number 5301Z1

Each of the items in the Optional Features Matrix in the table below allows a response of one of the following options: "Yes", "Customization Required", and "No". If offering any of these optional features, bidders should respond to the Optional Features Matrix using the matrix format.

The OFM offers the bidder an opportunity to describe how their product can provide any of these features as part of their proposed solution and/or integrate such features at a later date.

The Bidder Response box should be completed if the response to the feature is "Yes" or "Customization Required". **Bidders should provide responses directly in the matrix, using as much space as needed.** Below is a brief definition of each response option.

Yes	Yes, feature is available and demonstrable in the current release of the proposed solution in the bidder's response to this RFP, without manipulation of fields, forms, or the need to add fields or tables to the system.
Customization Required	The feature is not currently included in the proposed solution but the requested functionality can be provided with some customization to fully meet the request.
No	No, the bidder is not offering this feature currently nor in the future in conjunction with this proposal.

OFM	Optional Feature	Yes	Customization Required	No
Notary/ eNotary	**Notary/eNotary Public Component** See Appendix C - Statutes and Rules & Regulations regarding Notary Public, Appendix J – Ancillary Databases and Derived Reports, Optional, #1 which contains data definitions from the current Notary Public System. See Legislative Bill LB465 for eNotary Public details. New rules & regulations will also be drafted to support the details for this new legislation. Bidder should describe the Notary/eNotary component/module of your system and how it works with the proposed BSFS. Describe how you would integrate, configure, and convert existing notary information to include your Notary/eNotary module in the proposed BSFS. Describe how you would integrate, configure, and convert existing notary information to include your Notary module in the proposed BSFS.	Yes (Optional)		

Bidder Response:

Foster Moore has reviewed this optional requirement and is confident of the ability to be able to deliver based on discussions with the State to cover the requirement in greater detail.

The following provides a high level description of Foster Moore's standard Notary/eNotary solution.

Foster Moore can provide the Notary / eNotary Public Component if required.

Supported functions:

1. Application for Notary Public (Initial Application)
2. Renewal of Notary Commission
3. Amendment of Notary Commission Information - Change of Name
4. Amendment of Notary Commission Information - Change of Address
5. Amendment of Notary Commission Information - Change Employment Details
6. Resignation of Commission
7. Revocation of Notary Commission
8. Registration of Facsimile Signature and Seal of Notary Public
9. File Notice of lost Notary Stamp (need to issue new commission number)
10. Notary Search

OFM	Optional Feature	Yes	Customization Required	No

11. Request Document
12. Request Certified Document
13. Request Certificate
14. Amendment of Notary Commission Information be internal user
15. Bond Rider (amendment to bond)

Notary Complaint

1. Lodge Complaint
2. Maintain Complaint
3. Search Complaint

Appendix F (listed following):

1. Includes Apostilles
2. Authentications (is this certification??)
3. Replacement Commission Certificate
4. Request Copies

E-notary Review

The e-notary module will provide the following services:

1. Application to register as an e-notary (electronic notary public) as per section 4. This service will only be available if user holds a current commission.
2. Renewal of e-notary registration
3. Notification of lost/stolen/damaged notary seal or electronic signature.
4. Resign as e-notary
5. Revoke e-notary registration (internal user service)
6. Certification of Authority

The e-notary module will provide support to configure compliance events to expire a e-notary registration if the registration is not renewed.

Certificates

- Commission Cert
- E-notary

OFM	Optional Feature	Yes	Customization Required	No
Compliance • Expire commission • Expire e-notary commission Assumptions E-Notary: • The service to apply to register as an e-notary will ask the user to confirm they have satisfied the education requirements and can be configured to upload proof. Automatically validating the user has satisfied education requirements is not supported and would need to be priced separately. • When generating a certificate of authority, the system can only determine if the notary was registered at the time the document was electronically signed. • Require further understanding of what is meant by 'attach to' and 'logically associated'.				
Additional Filings and Images	**Additional Filings and Images** The State may desire, at a future time, to add filing data and images of past filings which are not in the current system. Bidder should describe their ability to add previously filed records and images into the system. This would include: paper filings, paper/microfilm, cardex, microfiche, microfilm, cds, and foreign corp books.	Yes (Optional)		
Bidder Response: Foster Moore's solution will deliver the ability for users to scan and upload paper and other documents, including microfilm, into Catalyst and associate these with a particular entity. As such, our solution as priced will support this ability.				
Preferred Name Availability Process	**Preferred Name Availability Process** In addition to the required Name Availability basic process, a Preferred Name Availability process is described in Appendix N - Name Availability Screening Bidder should describe their ability to provide such enhanced Name Availability search process.	Yes (Optional)		
Bidder Response:				

OFM	Optional Feature	Yes	Customization Required	No
Foster Moore has provided a response to the standard Name Availability requirements above in Corp-2. In addition, we are confident of the ability to be able to deliver these additional requirements based on discussions with the State to cover the requirement in greater detail.				
Registered Agent Self-Service	**Registered Agent (RA) Self-Service** Currently, registered agents can report address changes for entities they represent to the SoS, then staff updates the RA address. Provide a description of what would be required to allow registered agents to securely access the BSFS and update their address information.	Yes (Optional)		

Bidder Response:

Foster Moore has reviewed this optional requirement and is confident of the ability to be able to deliver based on discussions with the State to cover the requirement in greater detail.

The following provides a high level description of Foster Moore's standard Registered Agent Self Service functionality.

Self Service Functions would include:

1. Register an agent
2. Update agent details
3. Link registered agents
4. Remove registered agent (internal user)
5. Resign as registered agent
6. Change of Agents,
7. Agent's statement of change of registered office
8. Designation of Agent
9. Designation of Agent - Statement of Change
10. Search Agent

Compliance

- Remove from register if no RA

OFM	Optional Feature	Yes	Customization Required	No
Reports • Authorized Registered Agents by Entity Type				

4. Contract

TERMS AND CONDITIONS

By signing the "Request for Proposal for Contractual Services" form, the bidder guarantees compliance with the provisions stated in this Request for Proposal, agrees to the Terms and Conditions unless otherwise agreed to, and certifies bidder maintains a drug free work place environment.

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

The State of Nebraska is soliciting bids in response to the RFP. The State of Nebraska will not consider proposals that propose the substitution of the bidder's contract, agreements, or terms for those of the State of Nebraska's. Any License, Service Agreement, Customer Agreement, User Agreement, Bidder Terms and Conditions, Document, or Clause purported or offered to be included as a part of this RFP must be submitted as individual clauses, as either a counter-offer or additional language, and each clause must be acknowledged and accepted in writing by the State. If the Bidder's clause is later found to be in conflict with the RFP or resulting contract the Bidder's clause shall be subordinate to the RFP or resulting contract.

A. GENERAL

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		JJ.	The Terms and Conditions do not address all the relevant terms and detailed process requirements that would usually apply to an ICT project of this nature. For example (and without limit), the Terms and Conditions are silent as to a detailed acceptance

			process (including specifications for the final configured solution, testing, change control and completion dates), personnel and project management, and support and maintenance. FMUS discusses these terms and process requirements in more detail throughout its responses in this Section III, including in its Attachment to Section III (which forms part of FMUS's response to this Section). FMUS has also attached to its response two documents which must be incorporated into the contract in the order of precedence described in further detail in this Section III (including the Attachment). In particular, FMUS's proposed solution is based on its *off-the-shelf* commercial product, *Catalyst.* To use Catalyst for this project, the State will need to license that software on the standard Catalyst product terms (which are set out in the FMUS End User License Agreement attached to this response). That End User License Agreement must take priority in the event of any conflict or inconsistency between it and any other document comprising the contract (i.e. must be listed in the document priority list below above item (1)). Subject to the comments above, the State's proposal in this section A is otherwise acceptable, provided that any document referred to in this section, and any specification, term or condition to apply under the contract, that have not been provided to FMUS before the date of this response will be provided to FMUS for is agreement before the contract is finalized.

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

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

These documents constitute the entirety of the contract.

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

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

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

B. AWARD

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ.			

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

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

Once intent to award decision has been determined, it will be posted to the Internet at:
http://das.nebraska.gov/materiel/purchasing.html

Grievance and protest procedure is available on the Internet at:
http://das.nebraska.gov/materiel/purchase_bureau/docs/vendors/protest/ProtestGrievanceProcedureForVendors.pdf

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

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

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ			FMUS notes that "Subcontractors" is not defined in this Request for Proposal. Occasionally, FMUS relies on individual consultants (who sometimes operate via sole operator companies) for the purpose of staff augmentation, and assumes that "Subcontractors" in the Terms and Conditions excludes subcontractors of this nature. The same comment applies to all references to "Subcontractors" throughout the Request For Proposal and this response.

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

D. PERMITS, REGULATIONS, LAWS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ			For completeness, FMUS seeks to clarify that it agrees to procure and pay for all permits, licenses, and approvals necessary for the *execution* of the contract. However, FMUS's proposed solution, in its final configured form, interoperates with third party software. The State will need to procure licenses to that third party software, as specified in this response.

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

E. OWNERSHIP OF INFORMATION AND DATA

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		J.J.	Any contract must include provisions that specify that: - all Catalyst IP and CAM IP (as each such term is defined in FMUS's Attachment to Section III) is and will remain FMUS's property; - any use of the Catalyst IP will be governed by the End User License Agreement attached to this response; - the State will receive no rights or interest in the Catalyst source code unless otherwise specifically agreed in writing with FMUS; - if any Catalyst Software (as defined in FMUS's Attachment to Section III) is used in the configured solution, FMUS will grant to the State a non-exclusive license to use that software for the purposes set out in the contract, on the terms of the End User License Agreement (which must take priority in the event of any conflict or inconsistency between that agreement and any other documents comprising the contract). Subject to the terms above, any configured solution developed specifically for the State by FMUS under or in connection with the contract will belong to the State. The ownership and use rights relating to that intellectual property will be governed by the contract. Any transfer to the State of any right, title and interest in any configured solution will not pass to the State until the relevant item has been paid for in full. The State's rights to publish, duplicate, use and disclose the information and data described above will be subject to those provisions in the contract. Otherwise, the section below will apply.

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

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

F. INSURANCE REQUIREMENTS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			

The Contractor shall not commence work under this contract until all the insurance required hereunder has been obtained and such insurance has been approved by the State. The Contractor shall maintain all required insurance for the life of this contract and shall ensure that the State Purchasing Bureau has the most current certificate of insurance throughout the life of this contract. If Contractor will be utilizing any Subcontractors, the Contractor is responsible for obtaining the certificate(s) of insurance required herein under from any and all Subcontractor(s). The Contractor is also responsible for ensuring Subcontractor(s) maintain the insurance required until completion of the contract requirements. The Contractor shall not allow any Subcontractor to commence work on any Subcontract until all similar insurance required of the Subcontractor has been obtained and approved by the Contractor. Approval of the insurance by the State shall not limit, relieve, or decrease the liability of the Contractor hereunder.

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

Insurance coverages shall function independent of all other clauses in the contract, and in no instance shall the limits of recovery from the insurance be reduced below the limits required by this section.

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

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

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

3. INSURANCE COVERAGE AMOUNTS REQUIRED

COMMERCIAL GENERAL LIABILITY	
General Aggregate	$2,000,000
Products/Completed Operations Aggregate	$2,000,000
Personal/Advertising Injury	$1,000,000 per occurrence
Bodily Injury/Property Damage	$1,000,000 per occurrence
Fire Damage	$50,000 any one fire
Medical Payments	$10,000 any one person
Damage to Rented Premises	$300,000 each occurrence
Contractual	Included
XCU Liability (Explosion, Collapse, and Underground Damage)	Included
Independent Contractors	Included
Abuse & Molestation	Included
If higher limits are required, the Umbrella/Excess Liability limits are allowed to satisfy the higher limit.	
WORKER'S COMPENSATION	
Employers Liability Limits	$500K/$500K/$500K
Statutory Limits- All States	Statutory - State of Nebraska
USL&H Endorsement	Statutory
Voluntary Compensation	Statutory
COMMERCIAL AUTOMOBILE LIABILITY	
Bodily Injury/Property Damage	$1,000,000 combined single limit
Include All Owned, Hired & Non-Owned Automobile liability	Included
Motor Carrier Act Endorsement	Where Applicable
UMBRELLA/EXCESS LIABILITY	
Over Primary Insurance	$5,000,000
PROFESSIONAL LIABILITY	
All Other Professional Liability (Errors & Omissions)	$5,000,000 Per Claim / Aggregate
COMMERCIAL CRIME	
Crime/Employee Dishonesty Including 3rd Party Fidelity	$1,000,000
CYBER LIABILITY	
Breach of Privacy, Security Breach, Denial of Service, Remediation, Fines and Penalties	$10,000,000
SUBROGATION WAIVER	

"Workers' Compensation policy shall include a waiver of subrogation in favor of the State of Nebraska."
LIABILITY WAIVER
"Commercial General Liability & Commercial Automobile Liability policies shall be primary and any insurance or self-insurance carried by the State shall be considered excess and non-contributory."

4. **EVIDENCE OF COVERAGE**

The Contractor should furnish the State, with their proposal response, a certificate of insurance coverage complying with the above requirements to the attention of the Buyer at 402-471-2089 (fax)

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

These certificates or the cover sheet shall reference the RFP number, and the certificates shall include the name of the company, policy numbers, effective dates, dates of expiration, and amounts and types of coverage afforded. If the State is damaged by the failure of the Contractor to maintain such insurance, then the Contractor shall be responsible for all reasonable costs properly attributable thereto.

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

G. COOPERATION WITH OTHER CONTRACTORS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG			In relation to subsection 2, FMUS seeks to clarify that FMUS will not be required to cooperate with that contractor unless the contractor and its personnel are subject to reasonable security and confidentiality obligations.

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

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

H. INDEPENDENT CONTRACTOR

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG.			

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

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

I. CONTRACTOR RESPONSIBILITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG.			For completeness, FMUS seeks to clarify that if it is the successful bidder, FMUS intends to subcontract to Nebraska Interactive, LLC ("NI") responsibility for performing certain services the subject of the contract at the local state level. FMUS will seek prior authorization from the State to utilize NI as a Subcontractor, including (without limit) for the services specifically identified in FMUS's proposal.

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

If the Contractor intends to utilize any Subcontractor's services, the Subcontractor's level of effort, tasks, and time allocation must be clearly defined in the Contractor's proposal. The Contractor shall agree that it will not utilize any Subcontractors not specifically included in its proposal in the performance of the contract without the prior written authorization of the State. Following execution

of the contract, the Contractor shall proceed diligently with all services and shall perform such services with qualified personnel in accordance with the contract.

J. CONTRACTOR PERSONNEL

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG			

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

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

The State reserves the right to require the Contractor to reassign or remove from the project any Contractor or Subcontractor employee.

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

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

K. CONTRACT CONFLICTS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG			

Contractor shall insure that contracts or agreements with sub-contractors and agents, and the performance of services in relation to this contract by sub-contractors and agents, does not conflict with this contract.

L. STATE OF NEBRASKA PERSONNEL RECRUITMENT PROHIBITION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG.			

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

M. CONFLICT OF INTEREST

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG.			

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

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

The bidder certifies that it will not employ any individual known by bidder to have a conflict of interest.

N. PROPOSAL PREPARATION COSTS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG.			

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

O. ERRORS AND OMISSIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			

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

P. BEGINNING OF WORK

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			

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

Q. ASSIGNMENT BY THE STATE

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			

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

R. ASSIGNMENT BY THE CONTRACTOR

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG			

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

S. DEVIATIONS FROM THE REQUEST FOR PROPOSAL

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG			The State's proposal in this section is generally acceptable. However, for completeness, FMUS seeks to clarify that its response is subject to deviations from the Request for Proposal and, to the extent that those deviations are not accepted by the State, no contract is entered into until those proposed deviations, or an acceptable alternative position, are agreed between the parties and recorded in the final contract.

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

T. GOVERNING LAW

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG			

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

U. ATTORNEY'S FEES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.G.			

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

V. ADVERTISING

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.G.			

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

W. STATE PROPERTY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.G.			

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

X. SITE RULES AND REGULATIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			

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

Y. NOTIFICATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			In addition to subsection 2, FMUS seeks to ensure the contract will include provisions stating FMUS: - will not be liable or deemed to be in breach of the contract to the extent that any delay is caused by (i) a Force Majeure Event; (ii) an act/omission of the State or its personnel or other contractors; or (iii) an assumption, risk, or qualification stated in FMUS's response materializing, or failing to materialize (as the case may be); and - can claim costs through the change control process to be agreed between the parties and documented in the contract if a delay is caused by an item listed in (ii) or (iii) above.

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

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

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

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

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

Z. EARLY TERMINATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		JG.	This section is acceptable subject to the following comments. In relation to subsection 2, FMUS agrees to the State being able to terminate the contract for convenience, provided that: - FMUS's entitlement to payment is determined objectively by reference to the terms and conditions of the contract; and - FMUS should be entitled to recover any costs reasonably incurred prior to the termination. For ease of reference, FMUS has marked up below its proposed changes to subsection 2: *The State, in its sole discretion, may terminate the contract for any reason upon thirty (30) calendar day's written notice to the Contractor. Such termination shall not relieve the Contractor of warranty or other service obligations incurred under the terms of the contract. In the event of termination the Contractor shall be entitled to payment, determined on a pro rata basis, for products or services performed or provided in accordance with the contract, and for the Contractor's reasonable unrecovered sunk capital costs plus any other cost which the Contractor has or will incur by reason of the termination where the Contractor has entered into commitments, arrangements or agreements that it is not able to terminate and will not expire prior to the termination*

			date, excluding (a) all profit elements and post termination operation costs in connection with providing the products or services; and (b) any cost that has been recovered by the State paying the charges up to the termination date. FMUS considers it reasonable that it have a right to terminate for the State's material breach. FMUS submits the following section to be included as a new section Z(4) in the contract. 4 *The Contractor may terminate the contract with immediate effect upon written notice to the State if the State has materially defaulted in one of its material obligations under the contract and: (a) the default cannot be remedied; or (b) if the default can be remedied, the State fails to remedy that default within thirty (30) calendar days' after receipt of a written notice from the Contractor requiring the State to do so.*

The contract may be terminated as follows:

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

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

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

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

j. Contractor engaged in collusion or actions which could have provided Contractor an unfair advantage in obtaining this contract.

AA. FUNDING OUT CLAUSE OR LOSS OF APPROPRIATIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ.			

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

BB. BREACH BY CONTRACTOR

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
	JJ.		FMUS requests that the State's right to terminate the contract under this section be subject to a materiality threshold and an obligation to allow FMUS to remedy the breach. Also, FMUS seeks to limit its liability under the contract and this section should be consistent with that. For ease of reference, FMUS has marked up below its proposed changes to this section: *The State may terminate the contract, in whole or in part, if the Contractor fails to perform its material obligations under the contract in a timely and proper manner. The State will, by providing a written notice of default to the Contractor, allow the Contractor to cure that failure or breach of contract within a period of thirty (30) calendar days (or longer at State's discretion considering the gravity and nature of the default). If the Contractor fails to cure that failure or breach within the period allowed by the State, the State may terminate the contract by written notice with immediate effect. Said notice shall be delivered by Certified Mail,*

			Return Receipt Requested, or in person with proof of delivery. In case of default of the Contractor and subject to section [limitation of liability], the State may contract the service from other sources and hold the Contractor responsible for any excess cost occasioned thereby.

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

CC. ASSURANCES BEFORE BREACH

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			

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

DD. ADMINISTRATION – CONTRACT TERMINATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			FMUS accepts the proposed drafting, subject to its position on section E (not included in the RFP) relating to the ownership of intellectual property rights being accepted and incorporated into the contract.

1. Contractor must provide confirmation that upon contract termination all deliverables prepared in accordance with this agreement shall become the property of the State of Nebraska; subject to the ownership provision (section E) contained herein, and is provided to the State of Nebraska at no additional cost to the State.

2. Contractor must provide confirmation that in the event of contract termination, all records that are the property of the State will be returned to the State within thirty (30) calendar days. Notwithstanding the above, Contractor may retain one copy of any information as required to comply with applicable work product documentation standards or as are automatically retained in the course of Contractor's routine back up procedures.

EE. PENALTY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
	JJ		Withheld payments should only relate to the failure in question. FMUS has marked up below its proposed changes to the drafting: *In the event that the Contractor fails to perform any substantial obligation under the contract, the State may withhold all monies due and payable to the Contractor relating to that breach, without penalty, until such failure is cured or otherwise adjudicated.*

In the event that the Contractor fails to perform any substantial obligation under the contract, the State may withhold all monies due and payable to the Contractor, without penalty, until such failure is cured or otherwise adjudicated.

FF. RETAINAGE

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ			We are unclear how it is intended to work and seek clarification

The State will withhold 10 percent (10%) of each payment due as retainage. 75% of the retainage amount will be payable after 120 days post Go-Live sign off and 25% will be payable after quarterly, annual, and biennial processes are completed and verified. The Contractor will invoice the State for the retainage. The State may reject any invoice for retainage by identifying the specific reasons for such rejection in writing to the Contractor within forty-five (45) calendar days of receipt of each retainage invoice.

GG. PERFORMANCE BOND

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JA			Any forfeited amount must relate to the amount of the liability arising from the failure in question and should be an amount agreed by the parties or finally adjudicated. FMUS has marked up its proposed changes to this section: *The Contractor will be required to supply a bond executed by a corporation authorized to contract surety in the State of Nebraska, payable to the State of Nebraska, which shall be valid for the life of the contract to include any renewal and/or extension periods. The amount of the bond must be an established dollar amount of $250,000. The bond will guarantee that the Contractor will faithfully perform all requirements, terms and conditions of the contract. Failure to comply shall be grounds for forfeiture of the bond as liquidated damages, provided any such forfeiture solely relates to a finally agreed or adjudicated State loss for which the Contractor is liable under the contract. The bond will be returned when the service has been satisfactorily completed as solely determined by the State, after termination or expiration of the contract.*

The Contractor will be required to supply a bond executed by a corporation authorized to contract surety in the State of Nebraska, payable to the State of Nebraska, which shall be valid for the life of the contract to include any renewal and/or extension periods. The amount of the bond must be an established dollar amount of $250,000. The bond will guarantee that the Contractor will faithfully perform all requirements, terms and conditions of the contract. Failure to comply shall be grounds for forfeiture of the bond as liquidated damages. Amount of forfeiture will be determined by the agency based on loss to the State. The bond will be returned when the service has been satisfactorily completed as solely determined by the State, after termination or expiration of the contract.

HH. FORCE MAJEURE

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		JA	FMUS's relief under the Force Majeure Event provisions should not be subject to the State's discretion (and such discretion is inconsistent with the first sentence of this section). FMUS has marked up below its proposed changes to this section: *Neither party shall be liable for any costs or damages resulting from its inability to perform any of its obligations*

			under the contract due to a natural disaster, or other similar event outside the control and not the fault of the affected party ("Force Majeure Event"). A Force Majeure Event shall not constitute a breach of the contract. The party so affected shall immediately give notice to the other party of the Force Majeure Event. The burden of proof for the need for such relief shall rest upon the Contractor. To obtain release based on a Force Majeure Event, the Contractor shall file a written request for such relief with the State Purchasing Bureau. Labor disputes with the impacted party's own employees will not be considered a Force Majeure Event and will not suspend performance requirements under the contract.

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

II. PROHIBITION AGAINST ADVANCE PAYMENT

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			FMUS accepts this provision generally, subject to: - a detailed and objective acceptance process being agreed between the parties and included in the contract; and - the payment in advance of the license fee for FMUS's *off-the-shelf* commercial product *Catalyst*, upon which FMUS's proposed solution is based. That license fee will be payable on or around the time Catalyst is installed on the development site for the project the subject of the contract.

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

JJ. PAYMENT

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
			FMUS seeks to clarify that payment will be made by the State when the services have been provided in accordance with the terms and conditions of the contract. FMUS seeks an acceptance process to be agreed and documented in advance between the parties. This acceptance process should govern whether the services have been provided in accordance with the contract and, accordingly, whether payment is due to FMUS. For ease of reference, FMUS has marked up its proposed changes to the drafting below: *State will render payment to Contractor when the terms and conditions of the contract and specifications have been completed on the part of the Contractor in accordance with the contract. Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §§ 81-2401 through 81-2408).*

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

KK. INVOICES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:

Invoices for payments must be submitted by the Contractor to the agency requesting the services with sufficient detail to support payment. The terms and conditions included in the Contractor's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract.

LL. RIGHT TO AUDIT

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		JJ.	FMUS accepts the State's general right to undertake audits, provided that FMUS will not be required to provide information unless the auditors are subject to reasonable security and confidentiality obligations. FMUS will only bear the costs of the State's audits where FMUS's overpricing or overcharging is intentional. FMUS has marked up below its proposed change to the drafting to address this point. *Costs of any audits conducted under the authority of this right to audit and not addressed elsewhere will be borne by the State unless certain exemption criteria are met. If the audit identifies intentional overpricing or overcharges (of any nature) by the Contractor to the State in excess of one-half of one percent (.5%) of the total contract billings, the Contractor shall reimburse the State for the total costs of the audit.* Alternatively, FMUS will accept bearing costs without the need for "intention" if there is a more material threshold, e.g. 5% of the total contract billings.

Contractor shall establish and maintain a reasonable accounting system that enables the State to readily audit contract. The State and its authorized representatives shall have the right to audit, to examine, and to make copies of or extracts from all financial and related records (in whatever form they may be kept, whether written, electronic, or other) relating to or pertaining to this contract kept by or under the control of the Contractor, including, but not limited to those kept by the Contractor, its employees, agents, assigns, successors, and Subcontractors. Such records shall include, but not be limited to, accounting records, written policies and procedures; all paid vouchers including those for out-of-pocket expenses; other reimbursement supported by invoices; ledgers; cancelled checks; deposit slips; bank statements; journals; original estimates; estimating work sheets; contract amendments and change order files; back charge logs and supporting documentation; insurance documents; payroll documents; timesheets; memoranda; and correspondence.

Contractor shall, at all times during the term of this contract and for a period of five (5) years after the completion of this contract, maintain such records, together with such supporting or underlying documents and materials. The Contractor shall at any time requested by the State, whether during or after completion of this contract and at Contractor's own expense make such records available for inspection and audit (including copies and extracts of records as required) by the State. Such records shall be made available to the State during normal business hours at the Contractor's office or place of business. In the event that no such location is available, then the financial records, together with the supporting or underlying documents and records, shall be made available for audit at a time and location that is convenient for the State. Contractor shall ensure the State has these

rights with Contractor's assigns, successors, and Subcontractors, and the obligations of these rights shall be explicitly included in any subcontracts or agreements formed between the Contractor and any Subcontractors to the extent that those Subcontracts or agreements relate to fulfillment of the Contractor's obligations to the State.

Costs of any audits conducted under the authority of this right to audit and not addressed elsewhere will be borne by the State unless certain exemption criteria are met. If the audit identifies overpricing or overcharges (of any nature) by the Contractor to the State in excess of one-half of one percent (.5%) of the total contract billings, the Contractor shall reimburse the State for the total costs of the audit. If the audit discovers substantive findings related to fraud, misrepresentation, or non-performance, the Contractor shall reimburse the State for total costs of audit. Any adjustments and/or payments that must be made as a result of any such audit or inspection of the Contractor's invoices and/or records shall be made within a reasonable amount of time (not to exceed 90 days) from presentation of the State's findings to Contractor.

MM. TAXES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			We seek clarification on this as it relates to sales tax being included on our invoices.

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

NN. INSPECTION AND APPROVAL

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			Acceptance of this provision is based on the assumption that approval of all work required under the contract will be based on objective acceptance criteria to be agreed in writing in advance between the parties.

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

OO. CHANGES IN SCOPE/CHANGE ORDERS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			

The State may, upon the written agreement of Contractor, make changes to the contract within the general scope of the RFP. The State may, at any time work is in progress, by written agreement, make alterations in the terms of work as shown in the specifications, require the Contractor to make corrections, decrease the quantity of work, or make such other changes as the State may find necessary or desirable. The Contractor shall not claim forfeiture of contract by reasons of such changes by the State. Changes in work and the amount of compensation to be paid to the Contractor shall be determined in accordance with applicable unit prices if any, or a pro-rated value.

Corrections of any deliverable, service or performance of work required pursuant to the contract shall not be deemed a modification. Changes or additions to the contract beyond the scope of the RFP are not permitted.

PP. SEVERABILITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			

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

QQ. CONFIDENTIALITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			

All materials and information provided by the State or acquired by the Contractor on behalf of the State shall be regarded as confidential information. All materials and information provided by the State or acquired by the Contractor on behalf of the State shall be handled in accordance with

federal and state law, and ethical standards. The Contractor must ensure the confidentiality of such materials or information. Should said confidentiality be breached by a Contractor; Contractor shall notify the State immediately of said breach and take immediate corrective action.

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

RR. PROPRIETARY INFORMATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ.			Agreed in respect of data and documentation forming part of the proposal. For completeness, FMUS notes that information and material will be supplied during the project which will be proprietary (e.g. licensed software). The contract will need to address this by including protections for this proprietary information and material.

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

SS. CERTIFICATION OF INDEPENDENT PRICE DETERMINATION/COLLUSIVE BIDDING

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			

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

TT. STATEMENT OF NON-COLLUSION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
J.J.			Note that FMUS is submitting this response as part of a joint bid with Nebraska Interactive LLC Collectively, FMUS and Nebraska Interactive LLC is the bidder for the purpose of this section.

The proposal shall be arrived at by the bidder independently and be submitted without collusion with, and without any direct or indirect agreement, understanding or planned common course of action with, any person; firm; corporation; bidder; Contractor of materials, supplies, equipment or services described in this RFP. Bidder shall not collude with, or attempt to collude with, any state officials, employees or agents; or evaluators or any person involved in this RFP. The bidder shall not take any action in the restraint of free competition or designed to limit independent bidding or to create an unfair advantage.

Should it be determined that collusion occurred, the State reserves the right to reject a bid or terminate the contract and impose further administrative sanctions.

UU. PRICES

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		JJ.	Any lowest price warranty or price reduction obligation should be assessed by reference to the terms and conditions relating to the supply, in addition to the other factors proposed by the State in this section. FMUS has marked up below its proposed changes to this section: *The State will be given full proportionate benefit of any price decrease during the term of the contract.* *Contractor represents and warrants that all prices for services, now or subsequently specified, are as low as and no higher than prices which the Contractor has charged or intends to charge customers other than the State for the same or similar products and services of the same or equivalent quantity and quality for delivery or performance during the same periods of time and on the same or similar terms and conditions as apply under the contract. If, during the term of the contract, the Contractor shall reduce any and/or all prices charged to any customers other than the State for the same or similar products or services specified herein provided on the same or similar terms and conditions as apply under the contract, the Contractor shall make an equal or equivalent reduction in corresponding prices for said specified products or services.*

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

Prices quoted on the Cost Proposal form shall remain fixed for the initial contract period. At renewal time rates may increase no more than 5% upon mutual written agreement by Contractor and SoS, and be accompanied by documentation justifying the price increase. Further documentation may be required by the State to justify the increase. The State reserves the right to deny any requested price increase. No price increases are to be billed to any State Agencies prior to written amendment of the contract by the parties.

The State will be given full proportionate benefit of any price decrease during the term of the contract.
Contractor represents and warrants that all prices for services, now or subsequently specified, are as low as and no higher than prices which the Contractor has charged or intends to charge customers other than the State for the same or similar products and services of the same or equivalent quantity and quality for delivery or performance during the same periods of time. If, during the term of the contract, the Contractor shall reduce any and/or all prices charged to any

customers other than the State for the same or similar products or services specified herein, the Contractor shall make an equal or equivalent reduction in corresponding prices for said specified products or services.

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

VV. BEST AND FINAL OFFER

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JA			

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

WW. ETHICS IN PUBLIC CONTRACTING

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JA			

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

Bidders shall be prohibited from utilizing the services of lobbyists, attorneys, political activists, or consultants to secure the contract. It is the intent of this provision to assure that the prohibition of state contact during the procurement process is not subverted through the use of lobbyists, attorneys, political activists, or consultants. It is the intent of the State that the process of evaluation of proposals and award of the contract be completed without external influence. It is not the intent

of this section to prohibit bidders from seeking professional advice, for example consulting legal counsel, regarding terms and conditions of this Request for Proposal or the format or content of their proposal.

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

XX. INDEMNIFICATION

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		J.J.	The indemnities proposed by the State in this section are generally acceptable to FMUS, subject to the indemnities in subsection 1 and 2 having their scope narrowed to a commercially reasonable level and standard processes and exceptions applying to the proposed indemnity protection. For ease of reference, FMUS has marked up below the standard processes and exceptions FMUS would accept: **1 GENERAL** *The Contractor agrees to defend, indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State, arising out of, resulting from, or attributable to the willful misconduct of the Contractor, its employees, Subcontractors, consultants, representatives, and agents, except to the extent such Contractor liability is attenuated by any action of the State, its personnel, or other contractors which directly and proximately contributed to the claims.* **2 INTELLECTUAL PROPERTY** *The Contractor agrees it will, at its sole cost and expense, defend, indemnify, and hold harmless the indemnified parties from and against any and all third party claims, to the extent such claims arise out of, result from, or are attributable to, the actual or alleged infringement or misappropriation of any patent, copyright, trade secret, or trademark of that third party by the Contractor or its employees, Subcontractors, consultants, representatives, and agents; provided, however, the indemnified party (i) gives the Contractor prompt notice in writing of the claim; (ii)*

			makes no admission of liability or otherwise prejudices or settles the claim without the Contractor's prior written consent; (iii) gives the Contractor authority to conduct and/or settle the negotiations and litigation relating to the claim; and (iv) gives the Contractor all information and assistance reasonably requested by the Contractor for the defense or settlement of the claim (at the Contractor's expense). The Contractor shall have sole control of the defense or settlement of such claim or related action, provided that the Contractor may not settle any infringement claim that will affect the State's use of the Licensed Software without the State's prior written consent, which consent may be withheld for any reason. *The Contractor's obligations under this section 2 will not apply to the extent that a claim arises out of, results from, or is attributable to: (a) use of a product or service by an Indemnified Party (including by its personnel or other contractors) in a manner or for a purpose not authorized under this Agreement; (b) modification of a product or service by or on behalf of any person other than the Contractor; (c) any State or third party data used in conjunction with a product or service; (d) failure by the State, or its personnel or other contractors to use corrections or enhancements made available by the Contractor, if such third party claim would not have arisen but for that failure; or (e) designs, specifications or other information provided by, or at the direction of, the State or any of its personnel or other contractors.* *If a judgment or settlement is obtained or reasonably anticipated against the State's use of any intellectual property for which the Contractor has indemnified the State, the Contractor shall, at the Contractor's sole cost and expense, promptly modify the item or items which were determined to be infringing, acquire a license or licenses on the State's behalf to provide the necessary rights to the State to eliminate the infringement, or provide the State with a non-infringing substitute that provides the State the same functionality.*

1. **GENERAL**

The Contractor agrees to defend, indemnify, hold, and save harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State, arising out of, resulting from, or attributable to the willful misconduct, negligence, error, or omission of the Contractor, its employees,

Subcontractors, consultants, representatives, and agents, except to the extent such Contractor liability is attenuated by any action of the State which directly and proximately contributed to the claims.

2. **INTELLECTUAL PROPERTY**

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

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

3. **PERSONNEL**

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

4. **SELF-INSURANCE**

The State of Nebraska is self-insured for any loss and purchases excess insurance coverage pursuant to Neb. Rev. Stat. § 81-8,239.01 (Reissue 2008). If there is a presumed loss under the provisions of this agreement, Contractor may file a claim with the Office of Risk Management pursuant to Neb. Rev. Stat. §§ 81-8,829 – 81-8,306 for review by the State Claims Board. The State retains all rights and immunities under the State Miscellaneous (Section 81-8,294), Tort (Section 81-8,209), and Contract Claim Acts (Section 81-8,302), as outlined in Neb. Rev. Stat. § 81-8,209 *et seq.* and under any other provisions of law and accepts liability under this agreement to the extent provided by law.

YY. NEBRASKA TECHNOLOGY ACCESS STANDARDS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG			

Contractor shall review the Nebraska Technology Access Standards, found at http://nitc.nebraska.gov/standards/2-201.html and ensure that products and/or services provided under the contract are in compliance or will comply with the applicable standards to the greatest degree possible. In the event such standards change during the Contractor's performance, the State may create an amendment to the contract to request the contract comply with the changed standard at a cost mutually acceptable to the parties.

ZZ. ANTITRUST

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ.			

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

AAA. DISASTER RECOVERY/BACK UP PLAN

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ.			

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

BBB. TIME IS OF THE ESSENCE

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
		JJ.	The State's proposal is generally acceptable to FMUS, subject to the following comments: - time should be of the essence for material milestones only; and - this section will not apply where the failure is caused by an event listed in our notes on section Y.

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

CCC. RECYCLING

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ.			

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

DDD. DRUG POLICY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ.			

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

EEE. EMPLOYEE WORK ELIGIBILITY STATUS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JJ.			

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

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

1. The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at http://das.nebraska.gov/materiel/purchasing.html

   The completed United States Attestation Form should be submitted with the Request for Proposal response.

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

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

FFF. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND INELIGIBILITY

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG.			

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

Contractor, by signature to this RFP, certifies that Contractor has not had a contract with the State of Nebraska terminated early by the State of Nebraska. If Contractor has had a contract terminated early by the State of Nebraska, Contractor must provide the contract number, along with an explanation of why the contract was terminated early. Prior early termination may be cause for rejecting the proposal.

GGG. POLITICAL SUB-DIVISIONS

Accept (Initial)	Reject (Initial)	Reject & Provide Alternative within RFP Response (Initial)	NOTES/COMMENTS:
JG			

The Contractor may extend the contract to political sub-divisions conditioned upon the honoring of the prices charged to the State. Terms and conditions of the Contract must be met by political sub-divisions. Under no circumstances shall the State be contractually obligated or liable for any purchases by political sub-divisions or other public entities not authorized by Neb. Rev. Stat. § 81-145, listed as "all officers of the state, departments, bureaus, boards, commissions, councils, and institutions receiving legislative appropriations." A listing of Nebraska political subdivisions may be found at the website of the Nebraska Auditor of Public Accounts.

ATTACHMENT TO SECTION III: FMUS'S REPONSE TO TERMS AND CONDITIONS

Note: This Attachment to Section III is subject to any assumption, dependency or qualification set out in FMUS's response.

This Attachment forms part of FMUS's response to the Terms and Conditions set out in Section III of the Request for Proposal. Each item, including each section (or clause) listed below and in the documents listed under the heading "Documents to be incorporated into contract", is submitted as an individual clause counter-offered by FMUS to the State.

In addition to the Terms and Conditions set out in Section III of the Request for Proposal, and FMUS's comments on those Terms and Conditions in its response, the contract must include the terms, and incorporate the documents, described below.

Documents to be incorporated into contract

The documents set out below, which are attached to FMUS's response, must be entered into separately between FMUS and the State, and must form part of the documents comprising the contract:

- end user license agreement ("EULA"), governing the license to the State of Catalyst IP (refer to **Appendix 5. Catalyst End User License** Agreement (page 501)); and
- support and maintenance agreement ("Support and Maintenance Agreement"), governing the supply by FMUS of support and maintenance services relating to the final configured solution (refer to **Appendix 7. Foster Moore Support Agreement** (page 523)).

In the event of any inconsistency or conflict between the contract and the terms of the EULA, the EULA must take precedence.

Limitation of liability

FMUS understands that, in the State of Nebraska's opinion, any limitation on the contractor's liability is unconstitutional, and that in the State of Nebraska's opinion, a limitation of liability may not be binding on the State of Nebraska despite inclusion of such language in documents supplied with FMUS's bid or in the

final contract. FMUS acknowledges that the limitations and exclusions relating to FMUS's liability under or in connection with the contract described below will apply only to the extent permitted by law.

The contract must include limitations and exclusions relating to FMUS's liability under or in connection with the contract, including provisions:

a limiting FMUS's maximum liability under or in connection with the contract to a commercially reasonable level;

b excluding FMUS's liability for:

i. loss of income, profit or savings, indirect or consequential, exemplary, punitive or special damages (even if FMUS has been advised of the possibility of those damages in advance); and

ii. failure to perform its obligations under the contract to the extent that such failure is attributable to the State (or its personnel or other contractors) failing to comply with the State's obligations under the contract, or to the negligence or misconduct of the State (or its personnel or other contractors); and

c requiring each party to the contract to take reasonable steps to mitigate any loss or damage, cost or expense it may suffer or incur arising out of anything done or not done by the other party under or in connection with the contract.

FMUS accepts that the limitations of liability set out in sections a and b(i) above do not apply to limit FMUS's liability for personal injury or death, fraud or willful misconduct, breach of any confidentiality obligations under the contract, or for any other liability that cannot be excluded or limited under applicable law.

Source code

The RFP does not mention source code. If the State seeks an escrow of the source code for the Catalyst Software, the parties will need to agree that separately, including agreeing that the source code is proprietary information of FMUS.

Other material terms

The contract must include detailed provisions addressing:

a the acceptance process for the project, including (without limit) detailed provisions defining "Acceptance" and "Final Acceptance" (or similar terms), setting out the requirements for the configured solution, as well as a change control process, personnel and project management, acceptance criteria and acceptance testing, and completion dates;

b a mutual obligation on each party to act reasonably in the exercise of its rights and discretions, and performance of its obligations under the contract; and

c an obligation on the State to:

- perform its obligations as specified in the contract and make all decisions required of the State, provide all approvals and sign-offs required of the State, and run acceptance testing, promptly or in accordance with the time specified in the contract;
- make available to the Contractor in a timely manner all assistance, including (without limit) personnel, information, facilities, services and equipment reasonably required by the Contractor to perform its obligations under the contract; and
- provide the Contractor with such access to State systems as is reasonably required by the Contractor to perform its obligations under the contract.

Defined terms used in FMUS's response

In FMUS's response, the following terms have the following meanings:

"**CAM IP**" means any standard Catalyst Application Methodology ("CAM") software development methodology and template, together with standard updates to such, and any intellectual property rights in those items.

"**Catalyst Documentation**" means any standard documentation for the Catalyst Software (including all product roadmaps, manuals, instructions, specifications, documents and materials), in any form or media, that describe the Catalyst Software, together with standard updates to that documentation.

"**Catalyst IP**" means the Catalyst Software, the Catalyst Documentation, and all trade marks relating to the Catalyst Software.

"**Catalyst Software**" means any proprietary software known as *Catalyst*, including modifications, enhancements, derivative works, and any patch, update, revision or new release of that software.

Appendices

Appendix 1. Project Management Plan

Foster Moore
The registry people

Project Management Plan

State of Nebraska

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Project Management Plan

Project Approach Statement

1.1 Overview

Just as important as the product itself, is a consistent and proven method which can be used to implement client solutions. By clearly identifying the product's implementation approach, we are able to maximize the results achieved from the product implementation.

Foster Moore performs all Catalyst implementations using its specialist Catalyst Adoption Methodology (CAM). The objective of CAM is a comprehensive, well-structured and well-planned implementation project that delivers the functional and technical solution necessary to establish and manage one or more online electronic registers.

Foster Moore has developed the Catalyst Adoption Methodology to streamline the effort and maximize the results of a Catalyst implementation. The benefits that CAM brings can be seen in Three particular areas. Firstly, it ensures that the implementation process runs as smoothly and efficiently as possible, minimizing risks associated with scope management and any misunderstandings or misinterpretations around requirements. Secondly, it demonstrates at a very early stage in the project the functionality, capabilities and features of Catalyst 'out of the box' and also aids in the appreciation of the distinction between what functionality requirements can be achieved through configuration and what represents software customization. Finally, using the Catalyst Adoption Methodology in conjunction with our Catalyst product means our clients can see Catalyst in action, touch it, play with it and start to understand the workflow very early on in the project.

CAM ensures that a Catalyst implementation makes the maximum use of the product's existing capabilities and provides a reliable and supportable system once installed. It does this by detailing the implementation processes that are followed, and identifying the responsibilities and roles undertaken by all parties involved in the implementation.

CAM is based on Foster Moore's extensive experience with the ITIL Service Management framework, the Rational Unified Process (RUP) and our history of online electronic registers implementations.

The ITIL framework establishes a broad implementation strategy which identifies various stages through which a service implementation passes. Foster Moore has taken the ITIL framework and applied it to Catalyst to establish CAM, thus defining the process by which a Catalyst implementation will be achieved, including how and when Foster Moore interacts with the client, and the client's roles and responsibilities. We have combined this with principles drawn from agile methodologies, such as Rational Unified Process (RUP) to create CAM. CAM ensures that a Catalyst implementation delivers a fit for purpose, pragmatic solution in the most time and cost efficient manner, and with the lowest risk.

The Catalyst Adoption Methodology (CAM) represents a tailor-made, proven methodology, identifying a series of phases, and within those phases a set of inputs, activities and outputs that enable the successful implementation of an online registry solution. Each activity, input and output identifies the roles, responsibilities and tasks that each party associated with the implementation is expected to undertake. Typically, these parties are the client and Foster Moore, but can extend to other third parties, depending on the specifics of the overall solution.

1.2 Phases and Deliverables

The following diagram illustrates the phases that are part of the CAM process, and their alignment with the ITIL stages:

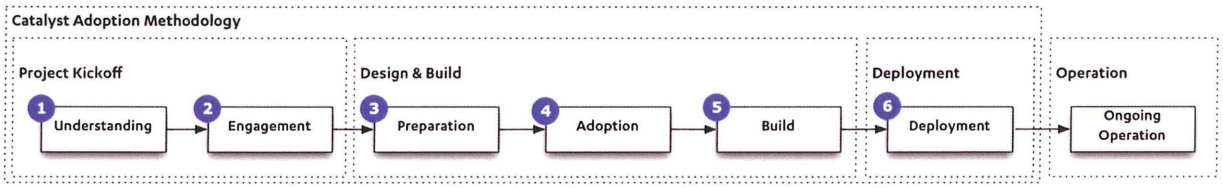


Figure 1. Catalyst Adoption Methodology – High Level Process

Foster Moore views CAM as an integral part of the overall Catalyst product offering. In product installations the biggest issues arise when the vendor's product capabilities or the client's requirements (and by implication expectations) are not fully understood, resulting in common project issues such as cost and time overruns, solution complexity and contractual issues.

By clearly defining the implementation methodology, both Foster Moore and the client can understand the rules of engagement, including what the product-based solution can and cannot be expected to deliver. CAM ensures that the correct activities and tasks are addressed at the correct time, and there is a clear understanding of who is responsible for the different aspects of the implementation.

The CAM methodology, based on the ITIL Service Management framework and allied with the product concepts and capabilities, results in the clear definition of five critical aspects of the Catalyst implementation, namely:

1. What implementation activities should be undertaken and when.
2. What inputs and outputs are expected as part of the implementation activities.
3. How the implementation of Catalyst is achieved.
4. What is implemented, in terms of components and functionality.
5. How the implemented components and functionality is defined (or specified).

The Catalyst Adoption Methodology defines the roles, responsibilities and activities that each party will undertake during the project's different phases, and helps the client adopt Catalyst's processes in order to provide a comprehensive business solution.

The Catalyst Adoption Methodology is based on the principle that the client is implementing and a Commercial Off The Shelf (COTS) product, albeit with comprehensive configuration capacity, and the scope for bespoke features around product integration and agreed customization.

To this end CAM establishes a series of milestones based on key artifacts (typically documents) that are signed by the client and Foster Moore during the project. Details around sign off, such as the artifacts that require sign off and the roles responsible for providing sign off can be changed and agreed within the Project Charter Document as deemed necessary.

The diagram below shows the key sign offs by CAM phase, which are covered in detail within the phase definitions.

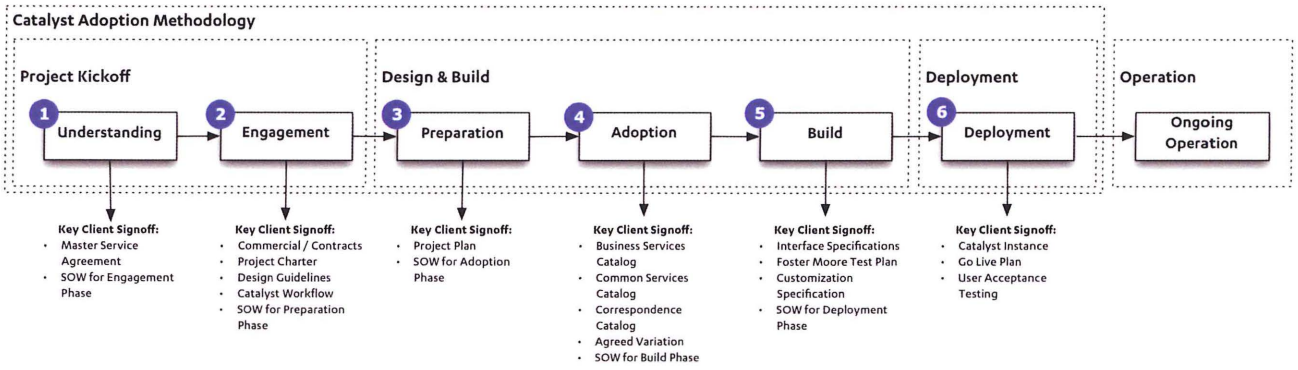


Figure 2. Catalyst Adoption Methodology – High Level Process with gates

1.3 Project Activities

The following diagram illustrates the flow of activities throughout the project as it moves from one CAM phase to the next:

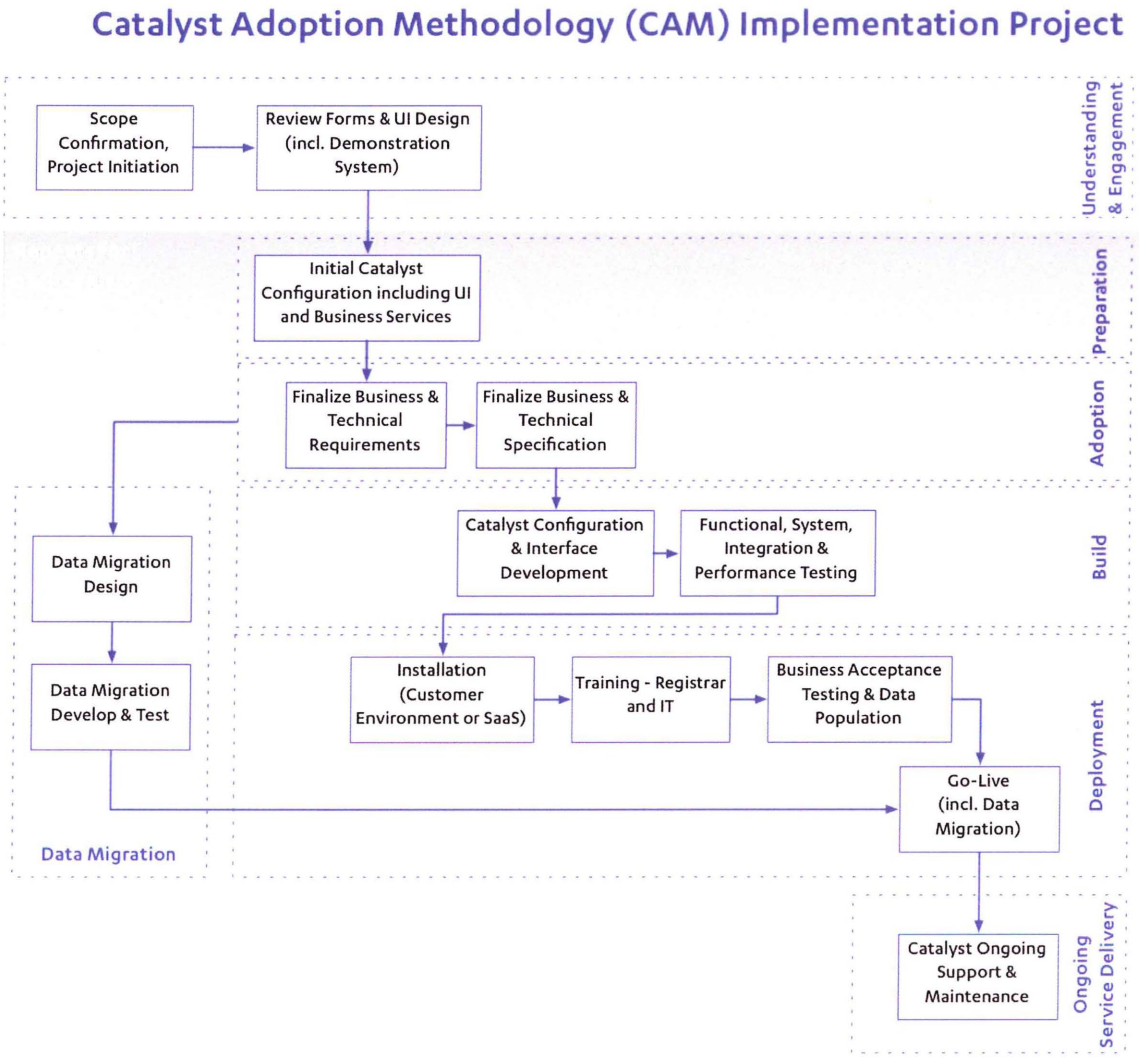


Figure 3. Catalyst Adoption Methodology Project Activities

1.4 Configuration/Customization

1.4.1 Configuration

Catalyst is a Commercial-Off-The-Shelf (COTS) product designed to implement registries through configuration, with a minimal level of customization.

The key area of configuration is the business services by which clients will interact with the register. In general, a business service allows replacement of the traditional paper regulatory form with an online form. From a standard, generic set of

business services, Catalyst is able to meet the specific requirements of different jurisdictions by configuring the business services to their needs. This configurability is reflected in data capture, workflow, fees and notifications /correspondence.

At this time there are no new business services identified that represent a significant challenge to current Catalyst capabilities.

1.4.2 Customization

No customization needs have been identified, outside of what Foster Moore would typically anticipate. Usually the area of greatest 'customization' for a Catalyst project falls within interaction with other systems, i.e. interfaces. This is because our customers may have significant differences in terms of their existing or future architectures and applications, as well as the extent to which external organizations are ready or able to provide, or use, interfaces.

A list of the required interfaces can be found in Appendix 7 (Phase 1). Overall, Foster Moore do not foresee major technical obstacles, given our current understanding of the requirements outside of those that may arise due to dependencies where there is no existing established capability at the current time.

At this time, Foster Moore makes the assumption that the required capabilities will be available for testing and production purposes as and when needed by the project schedule. These interfaces are listed in the dependencies section of this document, as successful delivery of the project will not be possible without timely delivery of services by the relevant projects. It is also assumed that Foster Moore will have access to relevant resources, subject matter experts and documentation in support of the design, build and test of the interfaces.

It is assumed the Interfaces will include technical documentation confirming how Catalyst will be integrated with the associated services.

1.5 Workshops

1.5.1 Introduction

There are two occasions under CAM where we have set workshops; these are during the Engagement and Adoption Phases.

During the workshop period we will undertake multiple sessions in each area, with initial review and assessments in the first sessions followed by review and confirmation sessions.

The duration for the workshops vary depending on the size of the project and what the project manager thinks will work best. For example, as part of a large US-based project currently underway, we undertook a three-week Engagement workshop and the project's next phase will include a four-week Adoption workshop. Foster Moore resources involved during the Engagement workshop for this example project were:

- Project Executive (1)
- Project Manager (1)
- 4 Catalyst Consultants

During the Adoption workshop for this same project we plan to use the following resources:

- Project Manager (0.5)
- 4 Catalyst Consultants (spread out over the workshop, not all at once)

Resources from the client are not required to be involved throughout the entire workshop, but are required for specific sessions covering their areas of expertise and will be required to answer questions after the workshops. Typically however, those involved would need to have time set aside to be available as required throughout the workshops.

Client staff involved in the workshops are the Subject Matter Experts (SME's). They are required to provide subject matter expertise on the client's business operations and requirements. SME's need to understand the legislation and regulations in each jurisdiction they represent. This includes a forms review which will identify and review the data items on each form and, with reference back to the legislative and regulatory requirements. It will also identify the data to be captured by each online business service.

1.5.2 Engagement Workshop

The Engagement workshop is a chance for Foster Moore to demonstrate Catalyst "Out of the Box" (OOTB), including Catalyst's capabilities and workflows. It also allows the team to confirm the items which are in scope (e.g. Business Entities, Business Services, Interfaces etc.) and which will be included in the Project Charter Document. At a high level we will discuss the registers and how business processes will work using Catalyst.

The Engagement workshop also allows the Foster Moore and client project teams to agree the project governance. It will also cover how the teams will work together to achieve set project milestones, the frequency of meetings and reports, preferred methods of communication and how Change Requests or Issues are to be raised and monitored.

Engagement Workshop Foster Moore Staff involved:

- Project Executive (optional, as required and available)
- Project Manager
- Catalyst Consultants
- Infrastructure Architect (optional, as required)

Engagement Workshop Client Staff involved:

- Project Executive (if the Foster Moore Project Executive is onsite)
- Project Manager
- Subject Matter Experts

The Engagement workshop will start near the beginning of the project and run for a number of weeks.

All of the client project team will be involved during the first week of the workshop, for the Catalyst demonstration and high-level discussions of the proposed registry structure.

While they will not be involved in workshops continually for the remainder of the workshop, all client representatives (SME's and other member of the project, such as the project manager) would need to be available for the full duration of the workshop in order to ensure they can be called on when required to participate in discussions. While work is grouped into modules, staff will need to be available at all times as there is significant crossover between the modules. Foster Moore's focus is on keeping workshop involvement to those with the most relevant knowledge of the domain, and with decision-making authority. Typically, client workshop attendee numbers are limited to no more than five or six. The one set of representatives who are typically involved in ALL workshop sessions are legal representatives, as legal compliance is a critical factor in successful system definition and configuration. There should be one lead SME who will be responsible for signing off on the Business Services Catalogs, or responsible for coordinating their 'team' to sign off the Business Services Catalogs in the time frame specified.

Following the workshops there is an intensive three to four-week period for the client to sign off the deliverables from the Engagement phase. This covers signoff of the following:

1) Project charter, including business services and entities
2) Design guidelines
3) Project plan
4) SOW for next phase

1.5.3 Preparation Phase

While there is no workshop per se during Preparation, we need ongoing access to the same SME's that were involved in the Engagement workshop for ad-hoc meetings as required.

This would typically be one or two meetings per week for each SME (total 2 – 3 hours).

1.5.4 Adoption Workshop

The Adoption workshop is where the Catalyst Consultants will work through all the Draft Business Services Catalogs that were drafted during the Preparation Phase.

It is at this time Foster Moore also showcase the base lined Catalyst instance (that includes the clients design) that was being prepared for the client during the Preparation phase. It has the relevant OOTB Configuration turned on. The Consultants use this base lined version of Catalyst along with their catalogs to determine all the final workflows and business rules required.

Adoption Workshop Foster Moore Staff involved:

- Project Manager (often not the whole time)
- Catalyst Consultants

Adoption Workshop Client Staff involved:

- Project Manager (often not the whole time)
- Subject Matter Experts

The Adoption workshop commences in the third week of the Adoption phase, giving the client time to prepare for the workshops ahead of time.

The Adoption workshop runs for a number of weeks, with multiple sessions covering different modules and components of the solution being run in parallel streams. It is critical that the client sends SME's to attend the workshops who can be decision makers for each stream in order to enable these parallel streams.

As with the earlier workshop, while they will not be involved in workshops continually for the remainder of the workshop, all client representatives (SME's and other member of the project, such as the project manager) need to be available for the full duration of the workshop in order to ensure they can be called on when required to participate in discussions.

While work is grouped into modules, staff will need to be available at all times as there is significant crossover between the modules. Foster Moore's focus is on keeping workshop involvement to those with the most relevant knowledge of the domain, and with decision-making authority. Typically, client workshop attendee numbers are limited to no more than five or six. The one set of representatives who are typically involved in ALL workshop sessions are legal representatives, as legal compliance is a critical factor in successful system definition and configuration.

Following the workshops there is a set period for the client to review and sign off the deliverables from the Adoption phase. During this time Foster Moore and the client representatives work together to iteratively refine and complete the deliverables from this phase, including:

1) All of the Business Services Catalogues
2) Updated implementation plan
3) SOW for Build phase

1.5.5 Data Migration Workshops

Foster Moore runs Data Migration workshops separate from the Engagement and Adoption workshops. These would start later than the CAM (business) workshops.

Client Data Subject Matter Experts (SME's) will be involved in these workshops. Data SME's need to understand the data structure and content of the databases within the applications they represent. They need to understand the data and the applications that maintain it, as well as understand the business rules behind the data within the database. This includes not only current state data, but also history data in relation to entities and reference data.

Initial work on the Data Profiling Document will be done during Engagement and the first data migration workshop is during the Preparation phase.

Engagement Phase: One-week data migration workshop including Foster Moore's Data Migration Lead and team, plus data SME's from the client with knowledge of the legacy systems involved. The role of this workshop is to commence the data migration methodology and governance. This workshop will take place towards the end of the Engagement phase.

Adoption Phase: This would be a one-week workshop with data specialists towards the end of the Adoption phase. This phase finalizes the draft data migration design document.

Data Migration Workshop Foster Moore Staff involved:

- Project Manager (often not the whole time)
- Data Migration Lead
- Data Migration Consultants

Data Migration Workshop Client Staff involved:

- Project Manager (not the whole time)
- Data Subject Matter Experts
- Subject Matter Experts (potentially)

1.5.6 Infrastructure Work

Infrastructure work will take place in parallel with the CAM and Data Migration workshops. These will involve infrastructure staff from the client, as well as from Foster Moore.

2 Scope of Work Document

[As per agreed RFP response – to be completed at time of contracting]

2.1.1 In Scope

The high-level scope of this engagement is to implement an online registry system, using the Catalyst COTS registry solution.

A review of the intended scope of the project was commenced during the Engagement Phase workshop visit between <Date Range> and subsequently completed as an input to this document. The detailed scope is presented in <Appendices 1 through 9>.

2.1.2 Out of Scope

The following activities are out of the scope for the project covered by this document *(to be reviewed in Engagement workshop)*:

- Procurement, establishment, enterprise-wide integration and/or on-going support maintenance associated with the technical infrastructure required to support the delivered <client name> Catalyst application solution
- Responsibility for the design and implementation of interfaces (unless specifically noted in Appendix 7) and the wider solution, although Foster Moore is prepared to assist and provide guidance where possible (as agreed).
- Cleansing of existing data being migrated from legacy systems.
- Scanning and Imaging services for legacy paper documents and future paper documents
- Creation of content to support multi-lingual access (any content developed by Foster Moore will be created in English)
- Loading of any content required for the content management system (CMS)
- Key stakeholder and client communications
- Support for the development of a customized user interface using Catalyst's web services.
- Software deployments into <client name> environments
- Business process review or change management
- Organizational change management
- Re-design of legislative forms to meet the requirements of the new system
- End User training

3 Work Breakdown Structure

3.1 Project Phases

The following outline the CAM project phases at a high level.

3.1.1 Understanding Phase

The purpose of the Understanding phase is to provide a base level of appreciation of the capabilities of the Catalyst product, the methodology used to implement the client's solution and the high level scope of the solution, particularly with respect to the configuration and customization effort that will be applied to the standard Catalyst product.

In addition, the Understanding phase enables both parties to gain an insight into the likely commercial, risk and time considerations that will affect the implementation of the solution, and how these will be managed during the lifetime of the implementation project.

Key deliverables of the Understanding Phase are the Master Services Agreement and Statements of Work for the next phase.

3.1.2 Engagement Phase

The purpose of the Engagement phase is twofold.

1. Firstly it is to establish the commercial and operational relationship between Foster Moore and the client in order to effectively deliver the Catalyst implementation project. This is achieved by means of the agreed Project Charter and includes activities such as establishing the personnel, roles and responsibilities for the project, and preparing the initial project plan which will identify planned delivery timelines and activities.

2. Secondly, it is to perform initial work around the solution's functionality, while providing further information on how the Catalyst product will meet the identified requirements.

Once these two objectives are met, it is possible to commence the implementation activities for the project with a clear high-level understanding of the scope of the project (including functionality, time and commercial aspects) and to have an agreed Project Charter that defines how the project is to be governed.

As with all subsequent phases, this phase allows the discovery of any significant areas of change to be reviewed and managed by means of variations, amendments to scope or changes in business processes. This is reflected in the ensuing statement of work for the Adoption phase.

Key deliverables of this phase are the Project Charter Document (PCD), the Catalyst workflow documentation, design guidelines, initial project plan and an inventory of the register(s) current regulatory forms.

3.1.3 Preparation Phase

The purpose of the Preparation phase is to perform preparatory work that will enable Foster Moore to deliver to the client a number of items in readiness for the Adoption phase. Principally these are the draft Services catalogs and the initial configured instance of the client's Catalyst product.

The initial configured Catalyst instance will provide the client with the ability to view, use and familiarize themselves with Catalyst early in the project. Specifically, it will enable them to:

1. View the behavior and look and feel of Catalyst based on their design guidelines.

2. View and explore the configured online forms (taken from the inventory of forms), plus the standard business services available within Catalyst. (Note that the configuration at this point extends to data content and presentation under with agreed Catalyst Workflow).

Key deliverables of this stage are the draft Services Catalogs. This comprises the Business Service Catalogue that documents the online forms identified in the inventory of forms, plus the Common Services Catalog, which documents the standard services Catalyst provides.

Further deliverables include the draft test and training plans, an updated project plan and the configured Catalyst instance.

3.1.4 Adoption Phase

The purpose of the Adoption phase is to use the deliverables of the project thus far to understand and test how successful the client's adoption to the Catalyst solution will be, and to manage any issues that arise from this. It typically involves an extended period of collaboration between the client's business representatives and Foster Moore's Catalyst Consultants, and is usually carried out at the client's location.

A successful conclusion to this phase ensures that the scope of the solution to be delivered in the Build phase is well defined and understood by all parties, and any variations or extensions to scope have been managed in terms of an agreed delivery schedule.

Key deliverables of this phase include:

- Final Business Services Catalog
- Final Common Services Catalog
- Draft Interface Specifications
- Draft Customization Specifications
- Correspondence Portfolio

3.1.5 Build Phase

The purpose of the Build phase is to construct the final Catalyst instance, in line with the client's agreed requirements.

In addition to the technical processes, the delivered solution must have undergone rigorous testing and must be ready for repeated and controlled deployment into the appropriate client environments.

The following identifies the deliverables that are to be produced during the Build Phase.

- Final Interface Specification
- Final Customization Specification
- Correspondence Templates
- Final Test Plan
- Catalyst Training Material
- Catalyst Training Material
- Variations

3.1.6 Deployment Phase

The purpose of the Deployment phase is to make available to the client their Catalyst solution for subsequent acceptance testing and then on towards a live implementation. This involves the delivery of various artifacts and the achievement of a number of tasks.

The following identifies the deliverables that are to be produced during the Deployment phase.

- Catalyst Instance
    - The final Catalyst instance configured and prepared according to the Service Catalogs, Design Guidelines, Interface specification and Customization specification. Deployed to the appropriate environment.
- Client Support Training Material (if applicable)
    - The completed Client Support training material, in accordance with the Training plan. This material is used to train client support staff in the use of Foster Moore's support tools and processes.
- Draft Go-Live Plan

- Perform Catalyst :Train the Trainer" Training
    - Undertake training in the Catalyst instance according to the Training plan and the Catalyst training material.

3.2 Project Activities

The following diagram presents the activities and standard deliverables of each CAM phase.

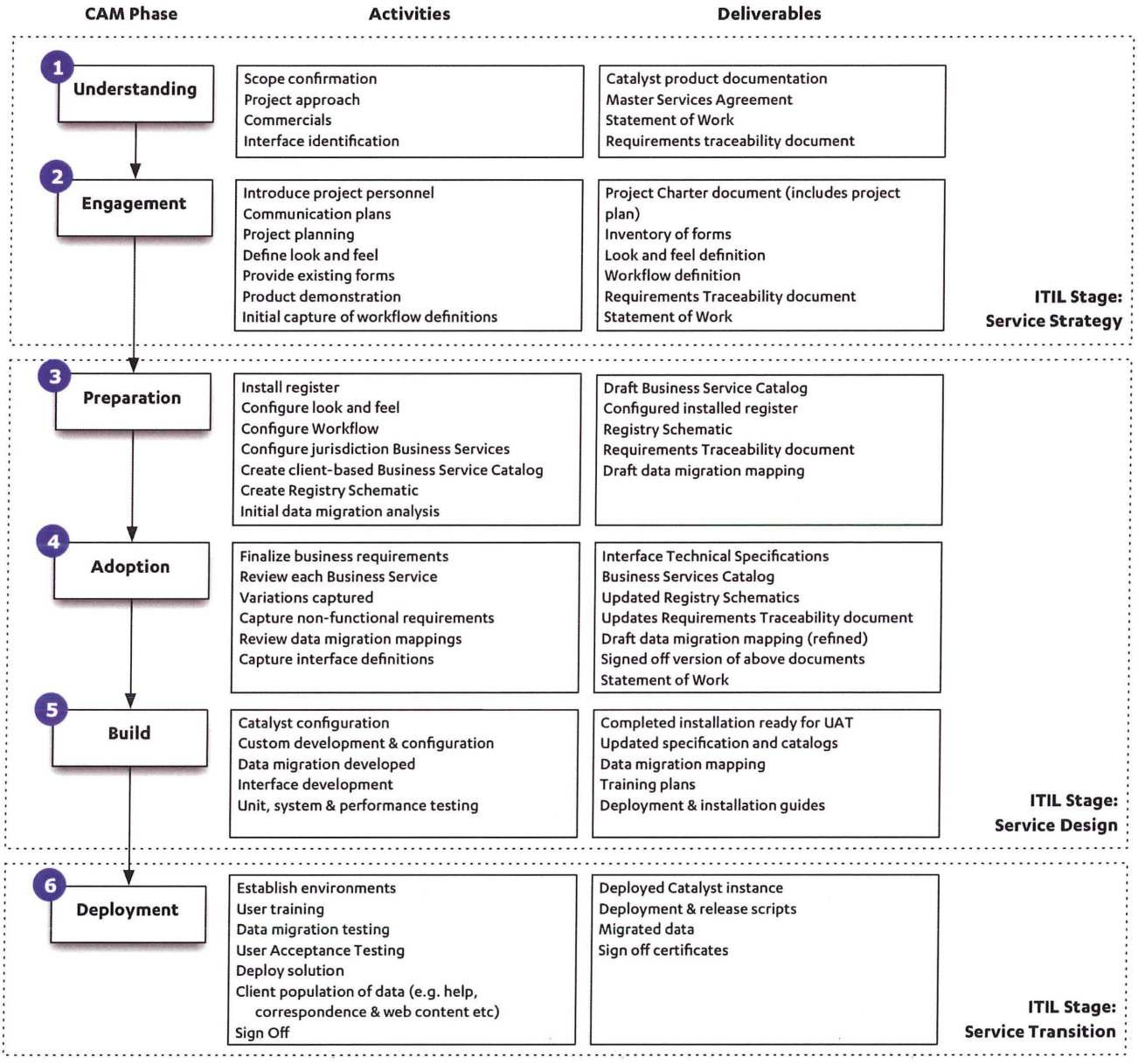


Figure 4. CAM Process with Deliverables by Stage

The following sections outline the principal activities for each of the CAM phases in more detail.

3.2.1 Understanding Phase

The purpose of the Understanding phase is to provide a base level of understanding of the capabilities of the Catalyst product, the implementation methodology to be used and the high level scope of the solution, particularly with respect to the configuration and customization effort that will be applied to the standard Catalyst product.

In addition, the Understanding phase enables both parties to gain an insight into the likely commercial, risk and time considerations that will affect the implementation of the solution, and how these will be managed during the lifetime of the implementation project.

Activity	Description
Introduce key personnel	Establish working relationships between the key personnel that are to work on the project.
Demonstrate Catalyst	In the likely event that the audience within the Engagement phase is different to that of the Understanding phase, provide a demonstration of standard Catalyst functionality and explain key concepts.
Present CAM	In the likely event that the audience within the Engagement phase is different to that of the Understanding phase, present the concepts, phases, activities, roles, responsibilities and deliverables of the Catalyst Adoption Methodology.
Provide Catalyst documentation	Deliver and explain the Catalyst product documentation that is pertinent for the project, including those project-specific working documents that will be used during the implementation.
Review business process change impact	Review how the features and functionality in Catalyst are likely to affect current business process and assess the impact of change necessary to adopt the Catalyst product. Any areas that represent significant areas of change to Catalyst can be addressed within the Project Charter.
Roles and Responsibilities review	Review the roles and responsibilities identified within CAM and confirm that they are appropriate and that resource is available. If changes are required they can be reflected in the Project Charter.
Establish inventory of forms	If applicable, establish a list of all regulatory forms that need to be provided within Catalyst.
Review and confirm Catalyst Workflow	Present and confirm/establish the workflow that an online form is to be controlled by, ensuring an understanding of the various business/process configuration options available.
Assess Compliance requirements	Hold a workshop to understand the compliance requirements of the system, including the data necessary to be established to support it, and ensure that a strategic plan for compliance go-live is in place.
Assess infrastructure requirements	Based on the Server Build Discovery document, assess the requirements for establishing and operating the environment and infrastructure of the Catalyst solution.

Activity	Description
Produce and confirm design guidelines	Based on the standard Catalyst design guidelines, establish the look and feel and any particular behavior patterns necessary for the implementation.
Agree Governance Issues	Agree any additional governance issues, such as communication protocols and timelines, project reporting arrangements, meeting schedules etc.
Produce and agree Project Charter	Produce the Project Charter that dictates the on-going scope, approach, deliverables, schedule and project governance for the project.
Agree any changes to scope	Identify and agree any changes to the original scope of the project, based on any new requirements or areas of significant change to Catalyst identified during the phase.
Initiate the Data Migration/Adoption project	Initiate the project to understand the Catalyst Data Migration methodology and the subsequent data migration activities.
Prepare Project Plan	Prepare the initial project plan for the rest of the project, based on the scope, approach, deliverables schedule and project governance identified in the Project Charter.
Sign off contractual/commercial arrangements	Sign off any applicable contractual or commercial arrangements/agreements pertaining to the project.
Establish the scope of the Preparation phase	Establish the activities that are going to be undertaken, the outputs to be achieved and the timeframe allotted for the Preparation phase, in conjunction with the agreed Project Charter.
Sign off the Statement of Work for the Preparation phase	Sign the Statement of Work that is to be undertaken for the Preparation phase.

The following identifies the principal activities that are undertaken during the Understanding phase of a CAM based implementation.

Activity	Description
Demonstrate Catalyst	Provide a demonstration of standard Catalyst functionality and explain key concepts.
Present CAM	Present the concepts, phases, activities, roles, responsibilities and deliverables of the Catalyst Adoption Methodology.
Establish scope and solution expectations	An exercise carried out by a Catalyst Consultant whereby the client's requirements are measured against Catalyst product functionality and any areas of significant change are identified.
Present and sign Master Services Agreement	If applicable, sign the agreement that covers how services will be requested and delivered.
Establish the scope of the Engagement phase	Establish the activities that are going to be undertaken, the outputs to be achieved and the timeframe allotted for the Engagement phase.
Sign off the Statement of Work for the Engagement phase	Sign the Statement of Work that is to be undertaken for the Engagement phase.

3.2.2 Engagement Phase

The purpose of the Engagement phase is twofold:

1. To establish the commercial and operational relationship between Foster Moore and the client in order to effectively deliver the Catalyst implementation project by means of the agreed Project Charter. This includes activities such as establishing the personnel, roles and responsibilities for the project, and preparing the initial project plan which will identify planned delivery timelines and activities.

2. To perform the initial exploratory work around the functionality that the solution is going to encompass, while providing further information on how the Catalyst product will meet the identified functionality.

The following identifies the principal activities that are undertaken during the Engagement phase of a CAM based implementation. These activities may be subject to refinement by means of the agreed Project Charter.

3.2.3 Preparation Phase

The purpose of the Preparation phase is to perform preparatory work that will deliver a number of items to the client in readiness for the Adoption phase. Principally these are the draft Services catalogues and the initial configured instance of the client's Catalyst product.

The initial configured instance will provide the client with the early ability to view, use and familiarize themselves with the Catalyst functionality in general and more specifically to: -

1. View the behavior and look and feel of Catalyst based on the client's design guidelines.

2. View and explore the configured online forms featured in the inventory of forms, plus the standard business services available within Catalyst. (Note that the configuration at this point extends to data content and presentation under with agreed Catalyst Workflow).

The following identifies the principal activities that are undertaken during the Preparation phase of a CAM based implementation.

Activity	Description
Generate the Look and Feel	Implement the look and feel plus interactive behavior based on the design guidelines.
Review Inventory of forms and legislation	Based on the inventory of forms, Catalyst Consultants review the forms and associated legislation to ratify the client's requirements against the legislation. In the event that the legislation exposes undiscovered requirements that represent an Area of Significant Change, this issue is raised and discussed by the respective Project Managers.
Create draft Business Services Catalog	Based on the inventory of forms and the clients documented requirements, the draft Catalog of Business Services is produced for presentation and review in the Adoption phase.
Create draft Common Services Catalog	Based on the any clients documented requirements, the draft Catalog of Common Services is produced for presentation and review in the Adoption phase.

Activity	Description
Confirm infrastructure requirements	Based on the Server Build Discovery document content, the client's infrastructure and environment requirements are confirmed.
Build baseline environments	Based on the confirmed infrastructure requirements, the client's baseline environments are constructed.
Baseline Catalyst Configuration	Using the configuration functionality within Catalyst, create the business services featuring the content and workflow that the Services Catalog describes.
Initial configuration review workshop	Based on early configuration work, review initial progress and confirm that the configuration detail is appropriate.
Agree any changes to scope	Identify and agree any changes to the scope of the project, based on any new requirements or Areas of Significant Change to Catalyst identified during the phase.
Manage any variations	Raise, agree and plan for any variations arising from changes to requirements, delivery timelines or Areas of Significant Change etc.
Establish the scope of the Adoption phase	Establish the activities that are going to be undertaken, the outputs to be achieved and the timeframe allotted for the Adoption phase, in conjunction with the agreed Project Charter.
Sign off the Statement of Work for the Adoption phase	Sign the Statement of Work that is to be undertaken for the Adoption phase.

3.2.4 Adoption Phase

The purpose of the Adoption phase is to use the deliverables of the project thus far to understand and test how successful the client's adoption to the Catalyst solution will be, and manage any issues that arise from this exercise. It typically involves an extended period of collaboration between the business representatives and Catalyst Consultants, and is usually carried out at the client's location.

A successful conclusion to this phase ensures that the scope of the solution to be delivered in the Build Phase is well defined and understood by all parties, and any variations or extensions to scope have been managed in terms of an agreed delivery schedule.

The following identifies the principal activities that are undertaken during the Adoption phase of a CAM based implementation.

Activity	Description
Present base-lined Catalyst instance	Install and make available for use the initially configured, client-specific instance of Catalyst.
Review, refine and agree Business Service Catalog	Based on the draft Business Services Catalog and the installed Catalyst instance, each online service is demonstrated and used with an eye to confirming the client's ability to use the service appropriately, as well as addressing any reasonable change to the service or error in configuration. The business rules associated within the service, which are to be implemented as part of the Build Phase are revisited and confirmed. In the event that any changes identified by the client represent an Area of Significant Change, the change is raised and discussed by the respective Project Managers.

Activity	Description
Review, refine and agree Common Service Catalog	Based on the draft Common Services Catalog and the installed Catalyst instance, each online service is demonstrated and used with an eye to confirming the client's ability to use the service appropriately, as well as addressing any reasonable change to the service or error in configuration. The business rules associated within the service, which are to be implemented as part of the Build Phase are revisited and confirmed. In the event that any changes identified by the client represent an Area of Significant Change, the change is raised and discussed by the respective Project Managers.
Develop draft interface specifications	Based on identified integration points, a draft interface specification is written for subsequent review and acceptance.
Develop draft customization specifications	Based on identified and agreed customization requirements, and subject to any variation process, a draft Catalyst customization specification is written for subsequent review and acceptance.
Review and confirmation of Menu structure	As part of using the Catalyst instance, a review of the initial menu structure is undertaken, and any changes necessary are identified for re-configuration during the Build Phase.
Review and confirmation of Correspondence portfolio	A review of the correspondence that is to be generated is undertaken, identifying the nature and content of the correspondence and its generation points. Additionally to this all data variables that are required within the correspondence are identified.
Consultancy on process adoption for an online Catalyst solution	If required, a supplementary service can be purchased, whereby a Registry Consultant can assist with the business and operational changes necessary to fully adopt an online solution. The terms and conditions of such a service is discretionary, and arranged by the respective Project Managers.
Agree any changes to scope	Identify and agree any changes to the scope of the project, based on any new requirements or Areas of Significant Change to Catalyst identified during the phase.
Manage any variations	Raise, agree and plan for any variations arising from changes to requirements, delivery timelines or Areas of Significant Change etc.
Establish the scope of the Build Phase	Establish the activities that are going to be undertaken, the outputs to be achieved and the timeframe allotted for the Build Phase, in conjunction with the agreed Project Charter.
Sign off the Statement of Work for the Build Phase	Sign the Statement of Work that is to be undertaken for the Build Phase.

3.2.5 Build Phase

The purpose of the Build phase is to construct the final Catalyst instance, in line with the client's agreed requirements.

In addition to the technical processes, the delivered solution must have undergone rigorous testing and must be ready for repeated and controlled deployment into the appropriate client environments.

The following identifies the principal activities that are undertaken during the Build phase of a CAM based implementation.

Activity	Description
Catalyst Configuration	Final and comprehensive configuration of the standard Catalyst product at all configuration levels to implement the client's requirements.
Sign Off Interface Specification	Final review and sign off of the draft interface specification prior to the development of the interfaces.
Sign Off Customization Specification	Final review and sign off of the draft customization specification prior to the development of the Catalyst customizations.
Interface Development	Development of the interfaces according to the signed off interface specification.
Catalyst Customization	Customization of the client Catalyst instance according to the signed off customization specification.
Correspondence Template generation	Configuration and generation of Catalyst correspondence templates, based on the signed Correspondence portfolio.
Agree any changes to scope	Identify and agree any changes to the scope of the project, based on any new requirements or Areas of Significant Change to Catalyst identified during the phase.
Manage any variations	Raise, agree and plan for any variations arising from changes to requirements, delivery timelines or Areas of Significant Change etc.
Present Final Test Plan	Present the finalized Test Plan, based on the agreed scope of the project.
Catalyst Testing	Based on the finalized test plan, comprehensive system testing.
Produce Catalyst Training Material	Based on the signed Training Plan, produce the training material for the Catalyst instance.
Produce Deployment/Installation guide	Produce a comprehensive deployment/installation guide that will allow the client to deploy the Catalyst instance repeatedly and consistently to all appropriate environments.
Produce Client UAT Training Material	Based on the signed Training Plan, produce the training material for the Foster Moore tools and associated processes to be used when performing User Acceptance Testing.
Perform Catalyst :Train the Trainer" Training	Undertake training in the Catalyst instance according to the Training plan and the Catalyst training material.
Produce UAT Test Plan (Client Responsibility)	Customer develops User Acceptance Testing plan that they client will implement.
Establish the scope of the Deployment phase	Establish the activities that are going to be undertaken, the outputs to be achieved and the timeframe allotted for the Deployment phase, in conjunction with the agreed Project Charter.
Sign off the Statement of Work for the Deployment phase	Sign the Statement of Work that is to be undertaken for the Deployment phase.

3.2.6 Deployment Phase

The purpose of the Deployment phase is to make available to the client their Catalyst solution for subsequent acceptance testing and then on towards a live implementation. This involves the delivery of various artifacts and the achievement of a number of tasks.

The following identifies the principal activities that are undertaken during the Build Phase of a CAM based implementation.

Activity	Description
Catalyst Deployment	The deployment of the Catalyst instance to the appropriate client environment(s).
Smoke Test of Deployment	A basic accessibility and operability test of the deployed instance.
Sign off Training Plan	Sign off the Training Plan, based on the agreed scope of the project.
Perform Client UAT Training	Undertake training in use of the Foster Moore tools and associated processes to be used when performing User Acceptance Testing.
Produce Client Support Training Material	Based on the signed Training Plan, produce the training material for the use of the Foster Moore tools and processes to be used for application support.
Perform User Acceptance Testing	Undertake user acceptance testing according to the user acceptance testing plan.
Produce Draft Go-Live Plan	Subject to project constraints, produce the initial go-live plan...
Perform Client Support Training	Undertake training in use of the Foster Moore support tools and associated processes to be used for application support.
Agree any changes to scope	Identify and agree any changes to the scope of the project, based on any new requirements or Areas of Significant Change to Catalyst identified during the phase.
Manage any variations	Raise, agree and plan for any variations arising from changes to requirements, delivery timelines or Areas of Significant Change etc.

4 Test Management

4.1 Introduction

Quality assurance practices will be applied across the whole project. QA will be planned and executed to address the quality of the project and its outcomes, namely the register software solution. This is also referred to as "Product QA".

4.2 Master Test Planning

Using the detailed Business Catalogs produced during the Preparation and Adoption phases, Foster Moore will define the overall test strategy for the solution. Foster Moore will work with the Ministry to develop a test strategy, detailing the approach to testing in terms of people, tools, procedures and support. The client will sign off the plan prior to commencement of Foster Moore system and integration testing. We propose the following details to be included in the plan:

- Testing schedules, location and participants

- Test environment and data set up
- Procedures for problem identification, defect rectification, re-testing and sign-off of testing activities
- Release management

Once the testing strategy is complete, the Foster Moore Test Team prepares test scenarios based on the functional specifications in advance of the release of each package (or iteration thereof) to the QA environment. Once this is approved, we will move to increasing levels of detail regarding testing, decomposing the test scenarios into a series of detailed test cases, and finally test scripts for each test case

The Test Team tests each function as it is released as part of a package from the development environment to the QA environment. They test against the Detailed Functional Requirements specifications, both at module and system level.

4.3 Configuration & Testing

Configuration activities combine detailed design, configuration and unit/integration testing to produce candidate software for release into the Foster Moore test environment for formal QA testing.

Once a package (i.e. a logical grouping of software functionality) is built and unit/integration tested, it is released to QA testing. The implementation consultants continue with the next package, breaking for re-works for the earlier milestone. Some packages are delivered by breaking the functionality into smaller "iterations", each of which may be configured, tested and released in isolation.

The Build phase follows an iterative delivery approach, with each iteration comprising its own cycle of configuration and testing for a specific subset of system functionality. Thus, each iteration builds on the previous one.

An iterative approach assists in mitigating integration risk because it allows for progressive integration of elements, meaning that integration is not a 'big bang' at a late stage in the project.

4.4 Acceptance Testing

After QA acceptance of a set of functionality the system up to that point will be released to the User Acceptance Testing (UAT) environment for preliminary review. After delivery of the final package, there will be a formal end-to-end testing process.

The Client will manage the UAT team, establish test plans in conjunction with register staff, manage the issues register and liaise with Foster Moore on any issues arising from testing. Issues will be prioritized for attention following the preliminary reviews. Bugs will be addressed according to their priority (i.e. impact on the business) and the time available. After the final end-to-end business testing phase, all outstanding bugs and issues will be reviewed and prioritized.

Members of the UAT team will most likely have participated in the reviews of the Detailed Functional Requirements specifications prior to sign-off so they will be familiar with both the content and the style of the new system.

Each UAT release, with procedures, test scenarios and acceptance criteria, will need to be carefully planned by the business prior to the software being released to business testing.

4.5 Automated Testing

Foster Moore has an automated test tool for testing Catalyst implementations and this is used to test each new release of the application. The test tool operates against both the online web application (via the browser interface) and against the web

services exposed by Catalyst. Test analysts are able to create intuitive scripts of activity to test the system. These tests can then be run manually, or run automatically by the test tool, and the results reported to the operator.

This method of repeatable, reliable and efficient testing allows us to use the tool for the following:

- Functional testing using repeated functional test scripts, including randomized and custom generated (via scripts) data
- Browser compatibility testing
- Application vulnerability and security regression testing
- Performance testing
- Soak testing
- Creation of test data in the system through high-speed and automated data entry via the test system
- Testing of migrated data through the loading of result data for analysis from an existing database or spreadsheet.

5 Quality Assurance Plan

5.1 Tasks

The Quality Assurance Plan covers project activities from project kick-off to production deployment.

They key activities that are covered are:

- Preparation, review and signoff of document deliverables.
- Configuration, development and testing of software deliverables.

Document deliverables will be subject to the following quality assurance principles:

- Project document deliverables will be based on Foster Moore CAM templates or, where applicable, the clients templates.
- Documents will conform to naming and versioning standards as agreed during the Engagement phase.
- All documents will be subject to peer review.
- Documents will be subject to review by key project and business stakeholders as agreed during the Engagement phase.
- Documents will be signed off by key vendor and business stakeholders as agreed during the Engagement phase.

Software deliverables will be subject to the following quality assurance principles:

- Software configured/developed by Foster Moore will conform to Foster Moore's software and usability standards.
- Software (code) will be subject to peer review prior/during unit testing.
- Software will be subject to testing as defined in the Master Test Plan prior to deployment to user acceptance testing.
- Software will be subject to user acceptance testing prior to deployment to production environment.

6 Documentation

6.1 Purpose

This section identifies the documentation governing the development, verification and validation, use, and maintenance of the software.

6.2 Minimum documentation requirements

Project Charter Document

This Project Charter Document (PCD) confirms detailed aspects of the project including:

- Approach
- Project participants and stakeholders
- Registry scope
- Scope of entity types for each registry
- Scope of business services (equivalent to applications/forms) for each registry
- Interface scope
- Payment method scope
- Infrastructure Requirements
- Data Migration Scope

6.2.1 Infrastructure Requirements Assessment

The Infrastructure Discovery Assessment captures information including business volumes that will contribute to determine infrastructure 'sizing' e.g. required storage and processing capacity.

6.2.2 Interface Specifications

Individual Interface Specifications will be developed within the Preparation / Adoption Phase for:

- TBD – Client specific

6.2.3 Catalyst Business Catalogs

Catalyst is a COTS solution that can be adopted by government organizations largely through extensive configurability. This reduces the need for bespoke development effort. The Catalyst Business Catalog documentation details the selected settings for a range of configurable parameters for each register. For example, for registry business services these include:

- Workflow settings including:
  - Whether or not a lodgement type requires internal review
  - Whether or not fees are required and if so the amount to be paid
  - Whether or not re-submission is allowed (for example where a lodgement has insufficient or unclear information
- Online form settings including:

- Data entry and display fields and business rules
- Validation rules

This document/document set is iterated during the Engagement, Preparation and Adoption phases and the settings are finalized in the registry software during the Build phase.

6.2.4 Catalyst Product Information

Catalyst product information defines the following:

- Catalyst architecture
- Catalyst standard features, functions, behaviour and configurability
- Catalyst infrastructure platform requirements

This documentation is made available to the business and to project participants and is used to provide understanding of the standard Catalyst solution and how to implement it. *The documentation is not created or maintained by the project and is not subject to the QA plan, however it is noted here to assist in understanding the document set required to understand a Catalyst implementation. This document is updated as required by the on-going Catalyst product development roadmap.*

6.3 Reviews and audits

All documents are subject to peer and stakeholder review prior to signoff.

Software is subject to extensive testing both in respect to:

- The client's specific Catalyst implementation during the project and as part of the service operation support process.
- Updates to the Catalyst product will be tested and certificated prior to release to clients under the maintenance and support agreement.

6.4 Test

The following test documentation will be produced:

- Test plan - the master test plan describes the strategy and approach to validate the quality of the registry application solution prior to production deployment.
- Defect report – captures the details of an individual defect from identification to resolution.
- Test Summary report – provides a regular update of testing progress.

6.5 Problem reporting and corrective action

6.5.1 Pre-production

When defects are found, the tester will complete enter a defect report into the JIRA defect tracking system. The defect will then be tracked and assigned to relevant people through the defect resolution process. JIRA is accessible by testers, developers and all members of the project team. When a defect has been fixed or more information is needed, the developer will change the status of the defect to the "Resolved" state. The testers will close the defect report once a defect is verified as FIXED by the testers.

6.5.2 Production

Should users experience issues in the production registry software environment, they will submit an incident report into Foster Moore's online help desk system (ManageEngine's ServiceDesk Plus product), which will track the incident through the incident management process to resolution. Should multiple incidents occur, and/or the issue cannot be resolved without undertaking root cause analysis, the problem management process will be invoked to resolve the issue. Foster Moore will provide training to enable the client to use Service Desk Plus.

Foster Moore's incident and problem management processes and system provide a proven, ITIL-aligned, service support operation that includes incident reporting and tracking, problem management and service support reporting capabilities.

6.6 Records collection, maintenance, and retention

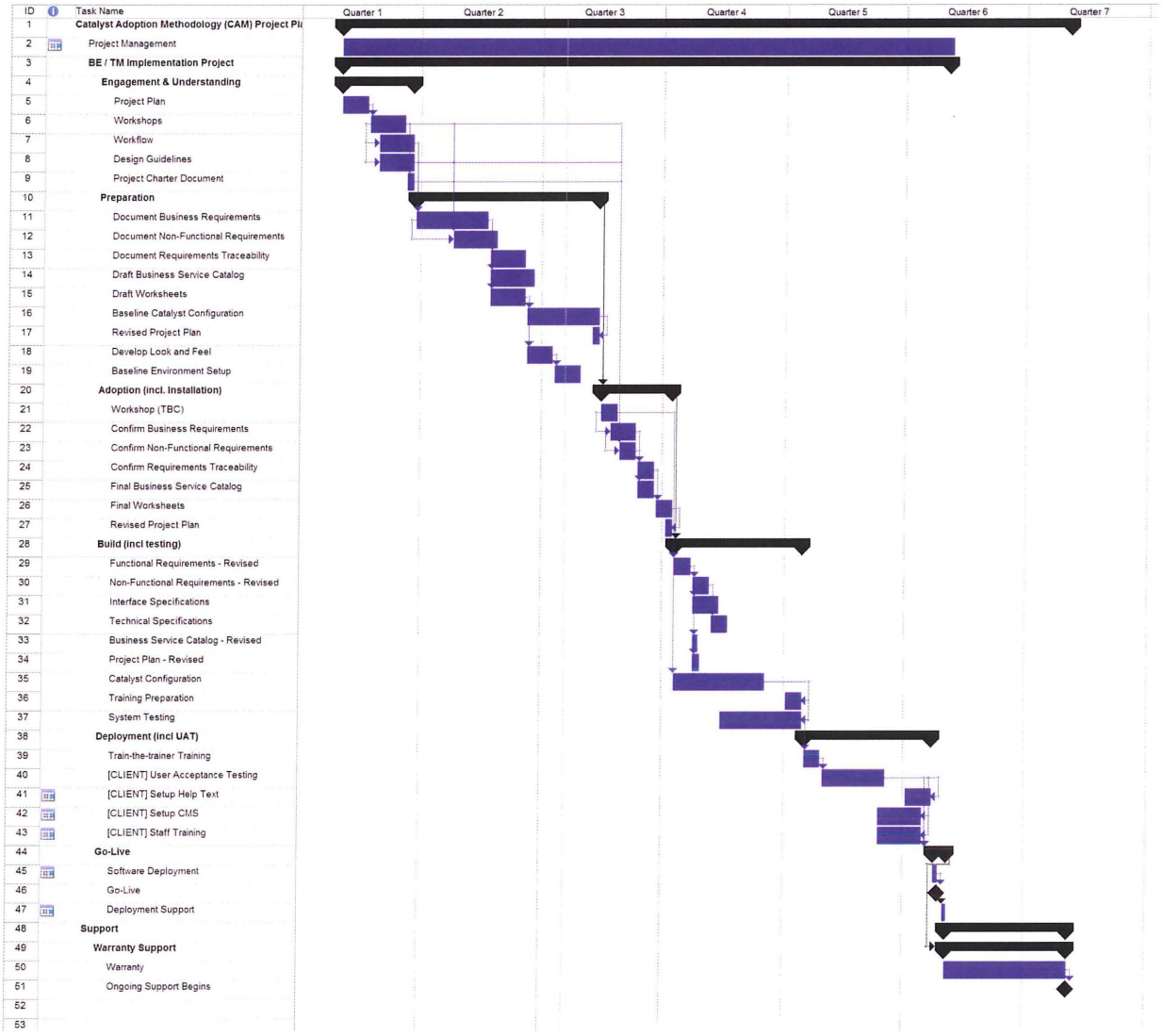
Foster Moore will keep a record of all documents including working drafts and signed off versions. It is recommended that the business keep their own copy of relevant documents.

All documents will be maintained by Foster Moore during the project and service operation life of the registry software solution. Note that the business will be able to alter a range of configuration settings once the registry is deployed to production. This means that Foster Moore will only hold accurate Configuration Setting documentation if configuration setting updates are supplied by the Secretary of State.

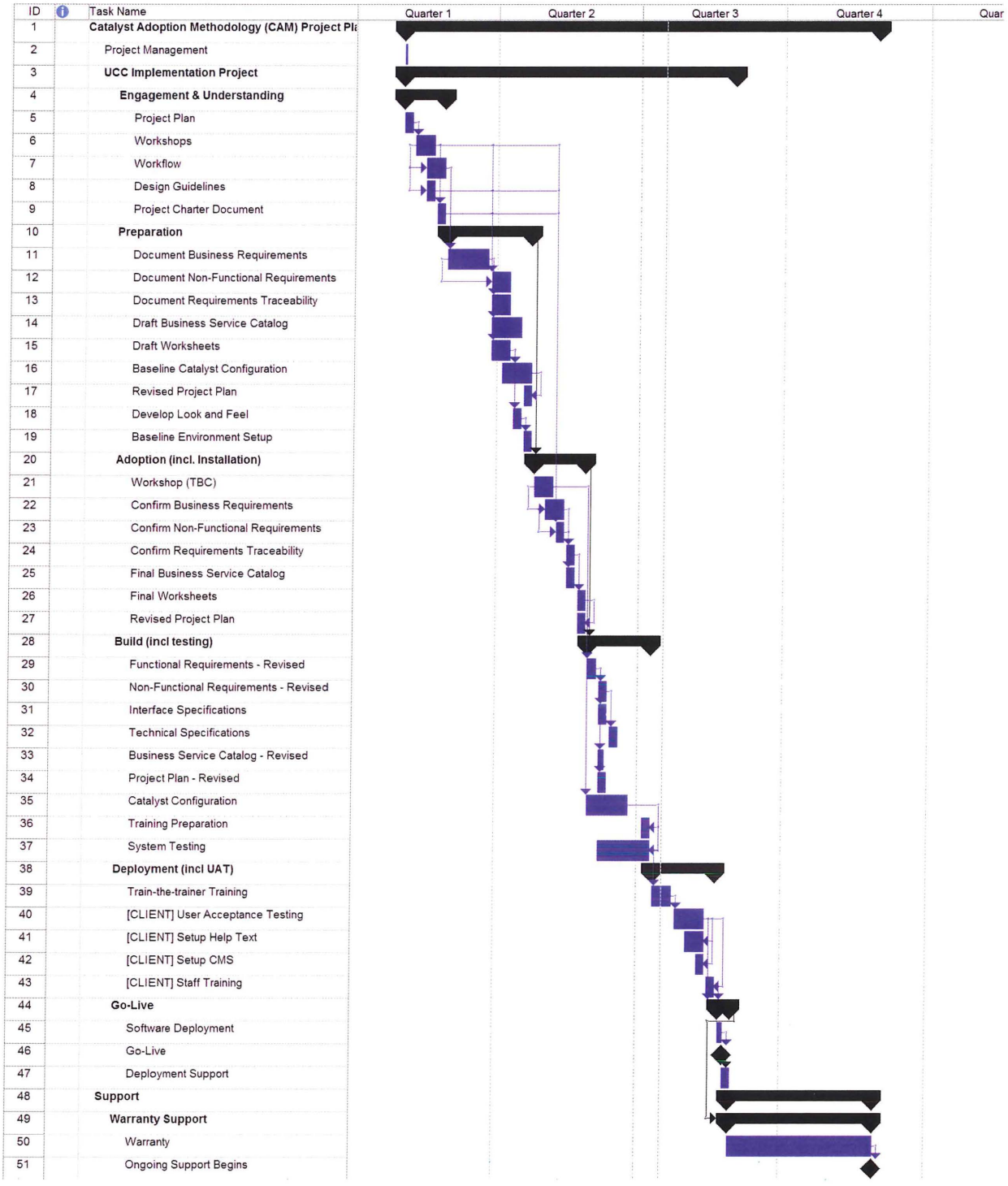
6.7 Project Gantt Chart

[Project Plan to be finalized as part of project initiation]

The following is a **DRAFT** plan for the implementation of Business Entities and Trademarks:



The following is a **DRAFT** plan for the implementation of UCC/EFS:



6.8 High Level Work Breakdown Structure

High level WBS

[WBS to be finalized as part of project initiation]

7 Project Schedule

This section provides the estimated timings for CAM phase completion and product delivery.

CAM Stage or Phase	Scheduled Start	Scheduled Completion
Understanding	TBC	TBC
Preparation	TBC	TBC
Adoption	TBC	TBC
Build	TBC	TBC
Deployment	TBC	TBC

[Dates to be finalized as part of project initiation]

8 Milestones and Deliverables Statement

8.1 Project Milestones

The diagram below shows the key sign offs by CAM phase, which are covered in detail within the phase definitions.

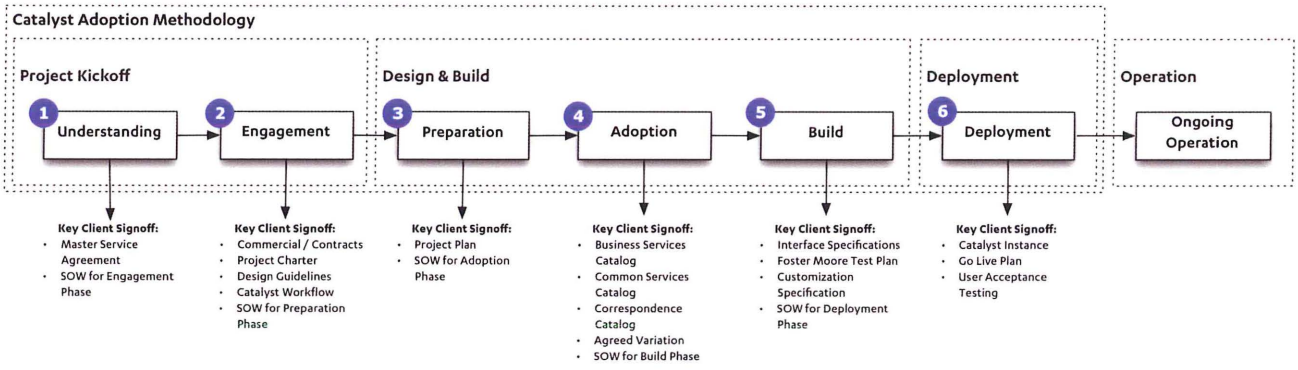


Figure 5. Catalyst Adoption Methodology – High Level Process with gates

The following diagram presents the activities and standard deliverables of each CAM phase.

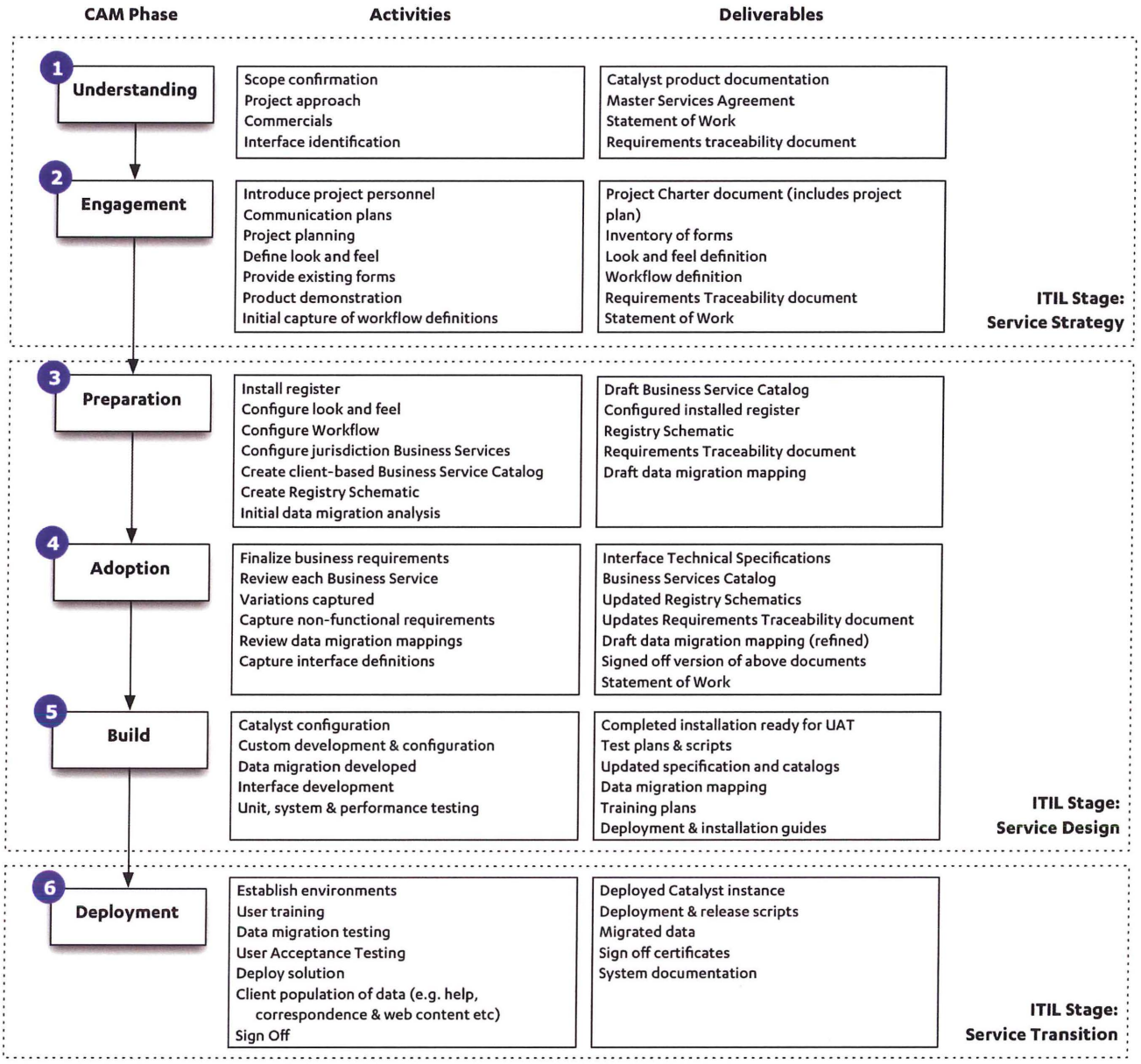


Figure 6. CAM Process with Deliverables by Stage

Notes:

- This diagram excludes activities relating to infrastructure. It is assumed this work will be done in parallel based upon an agreed resource and time line commitment between and Foster Moore.
- This diagram excludes activities relating to Data Migration. Refer to the Data Migration Methodology Document for data migration deliverables.

- It is assumed that the document deliverables will be based on the standard CAM templates and will sign off the documents within the timeframe established in the project plan.
- See the Quality Assurance Plan section for an overview of document deliverables.
- Foster Moore will deliver training on a 'train the trainer' basis.
- As per the CAM methodology the FM and resource responsibilities will be established by the Project Manager for each CAM phase prior to the start of the given phase.

The following table illustrates the key client signoff activities for each CAM phase:

CAM Phase	Key Client Signoff
Understanding	Master Service Agreement SOW for Engagement Phase
Engagement	Commercial / Contracts Project Charter Design Guidelines Catalyst Workflow SOW for Preparation Phase
Preparation	Project Plan SOW for Adoption Phase
Adoption	Business Services Catalog Common Services Catalog Correspondence Catalog Agreed Variation SOW for Build Phase
Build	Interface Specifications Foster Moore Test Plan Customization Specification SOW for Deployment Phase
Deployment	Catalyst Instance Go Live Plan User Acceptance Testing

Foster Moore will organize a meeting with the client to gain acceptance and sign off of a phase. Prior to the meeting Foster Moore will distribute the appropriate documents/information that have been identified as deliverables for the phase to be reviewed by the client prior to the acceptance meeting. The acceptance certificate will be signed at the meeting unless there is are any issues raised regarding the deliverables.

8.2 Project Deliverables

The following sections outline the key deliverables for each of the CAM phases.

8.2.1 Understanding Phase

The following identifies the deliverables that are to be produced during the Understanding phase.

Deliverable	Description
Master Services Agreement	Produced if applicable, and signed by both parties.
Statement of Work for Engagement phase	Based on work undertaken during the Understanding Phase, this sets out what is to be performed during the Engagement phase. To be signed by both parties.

8.2.2 Engagement Phase

The following identifies the deliverables that are to be produced during the Engagement phase.

Deliverable	Description
Project Charter	The agreed Project Charter that defines the on-going scope, approach, deliverables, schedule and project governance for the project. To be signed by both parties.
Catalyst Workflow documentation	The agreed workflow that the Catalyst implementation will implement. To be signed by the client.
Design Guidelines	The agreed design guidelines, including look and feel definitions and interactive behavioral aspects of the implementation. To be signed by the client.
Initial Project Plan	The initial project plan based on the scope, approach, deliverables schedule and project governance identified in the Project Charter. Plan will be refined and updated throughout the remainder of the project.
Inventory of forms	The agreed list of regulatory forms that are to be implemented as on line services.
Contractual/Commercial agreements	Any applicable contractual or commercial arrangements/agreements pertaining to the project. To be signed by both parties.
Statement of Work for Preparation phase	Based on work undertaken during the Engagement Phase, this sets out what is to be performed during the Preparation phase. To be signed by both parties.

8.2.3 Preparation Phase

The following identifies the deliverables that are to be produced during the Preparation phase.

Deliverable	Description
Draft Business Services Catalog	The draft documented business services identified in the inventory of forms, to be provided as the Catalyst solution

Deliverable	Description
Draft Common Services Catalog	The draft documented common services defining the standard Catalyst functions and incorporating any project specific changes.
Variations	If applicable, any variations to the project raised during the phase. To be signed by both parties.
Configured Catalyst Instance	The client specific baseline configured Catalyst instance. Representing the inventory of forms and client look and feel.
Statement of Work for Adoption phase	Based on work undertaken during the Preparation Phase, this sets out what is to be performed during the Adoption phase. To be signed by both parties.

8.2.4 Adoption Phase

The following identifies the deliverables that are to be produced during the Adoption phase.

Deliverable	Description
Final Business Services Catalog	The final documented business services arising from a review of the draft catalog and the installed Catalyst instance. To be signed by the client.
Final Common Services Catalog	The final documented common services arising from a review of the draft catalog and the installed Catalyst instance. To be signed by the client.
Draft Interface Specifications	The draft interface specification as agreed during the Adoption phase.
Draft Customization Specifications	The draft customization specification as agreed during the Adoption phase
Menu Structure definition	An agreed menu structure for the Catalyst instance. To be signed by the client.
Correspondence Portfolio	An agreed portfolio of correspondence items, identifying nature, content, point of generation and data variables. To be signed by the client.
Variations	If applicable, any variations to the project raised during the phase. To be signed by both parties.
Statement of Work for Build Phase	Based on work undertaken during the Adoption Phase, this sets out what is to be performed during the Build phase. To be signed by both parties.

8.2.5 Build Phase

The following identifies the deliverables that are to be produced during the Build Phase.

Deliverable	Description
Final Interface Specification	The final interface specification as agreed during the Build Phase. To be signed by client.
Final Customization Specification	The final customization specification as agreed during the Build Phase. To be signed by client.

Deliverable	Description
Correspondence Templates	Catalyst correspondence templates generated and implemented, generation points integrated and Catalyst correspondence variables established based on the agreed portfolio of correspondence items.
Final Test Plan	Finalized Test Plan for system testing undertaken by Foster Moore.
Catalyst Training Material	Train-the-trainer raining material for the Foster Moore tools and associated processes to be used when performing User Acceptance Testing.
Catalyst Training Material	The completed Catalyst training material, in accordance with the Training plan.
Variations	If applicable, any variations to the project raised during the phase. To be signed by both parties.
Statement of Work for Deployment phase	Based on work undertaken during the Build Phase, this sets out what is to be performed during the Deployment phase. To be signed by both parties.
Phase completion certificate	Certifying that all phase activities have been completed. To be signed by both parties.

8.2.6 Deployment Phase

The following identifies the deliverables that are to be produced during the Deployment phase.

Deliverable	Description
Catalyst Instance	The final Catalyst instance, configured and prepared according to the Service Catalogs, Design Guidelines, Interface specification and Customization specification. Deployed to the appropriate environment.
Client Support Training Material	The completed Client Support training material, in accordance with the Training plan. This material is used to train client support staff in the use of Foster Moore's support tools and processes.
Draft Go-Live Plan	The draft go-live plan.
Variations	If applicable, any variations to the project raised during the phase. To be signed by both parties.
Perform Catalyst "Train the Trainer" Training	Undertake training in the Catalyst instance according to the Training plan and the Catalyst training material.

9 Risk Assessment and Risk Mitigation Strategies

9.1 Issues

When issues/problems arise, that may affect the direction and timetable of the project, the Project Manager will be formally advised. Issues, and their outcomes, will be recorded centrally and reported in the issues register. Both the Client and Foster

Moore will have the opportunity to add issues and add comments to existing issues. Each issue must have a drop dead date for resolution and an owner assigned.

9.2 Risks

A project risk register is maintained by the Foster Moore Project Manager and summarized for project reporting. This will be regularly reviewed and, where appropriate escalated to the relevant party for consideration. The following ratings will be assigned to all identified risks:

The impact of a risk can be High, Medium or Low. These are defined as follows:

- High – potential to terminate the project
- Medium - potential to seriously affect milestone dates and budget
- Low - potential to slightly affect milestone dates and budget

The likelihood of occurrence can be High, Medium or Low. These are defined as follows:

- High – Almost certain, requires strong mitigation strategy
- Medium – Good chance of occurring, requires strong mitigation strategy
- Low – Very small chance of occurring

Each risk must have a management strategy e.g. mitigate, avoid, accept, transfer, monitor.

Risk mitigation strategies will be identified for each identified risk, describing how the individual risks will be managed to ensure that they do not jeopardize the success of the project.

Potential Risks and Issues identified during initial workshops, and the mitigation strategies, are outlined in the table below:

[Actual risks to be modified as part of project initiation]

	Risk	**Mitigation**
1	**Data Migration –** Migrating data from an existing system, such as the legacy CIS system, is a complex area and there is a risk that if the migration is not managed carefully it will be unsuccessful..	It is necessary to understand the structure of the legacy data and how that maps to the Catalyst data structures. It is also important to understand the quality of the legacy data, both in terms of accuracy of content, as well as compliance with the data integrity rules defined within Catalyst; it is not advisable to import legacy data that breaks defined rules within the Catalyst register, so a mitigation approach is required to handle such a situation. Foster Moore has a specialist data migration team that has completed many registry migrations. We commence the data migration at the very beginning of the implementation project. We are able to do so because of our project-based approach, and the fact that we have a default template that we can use to get started. Foster Moore expects to have access to documentation and skilled staff with experience of the legacy system at a detailed level (database structures, field content etc.), in order to perform data migration.

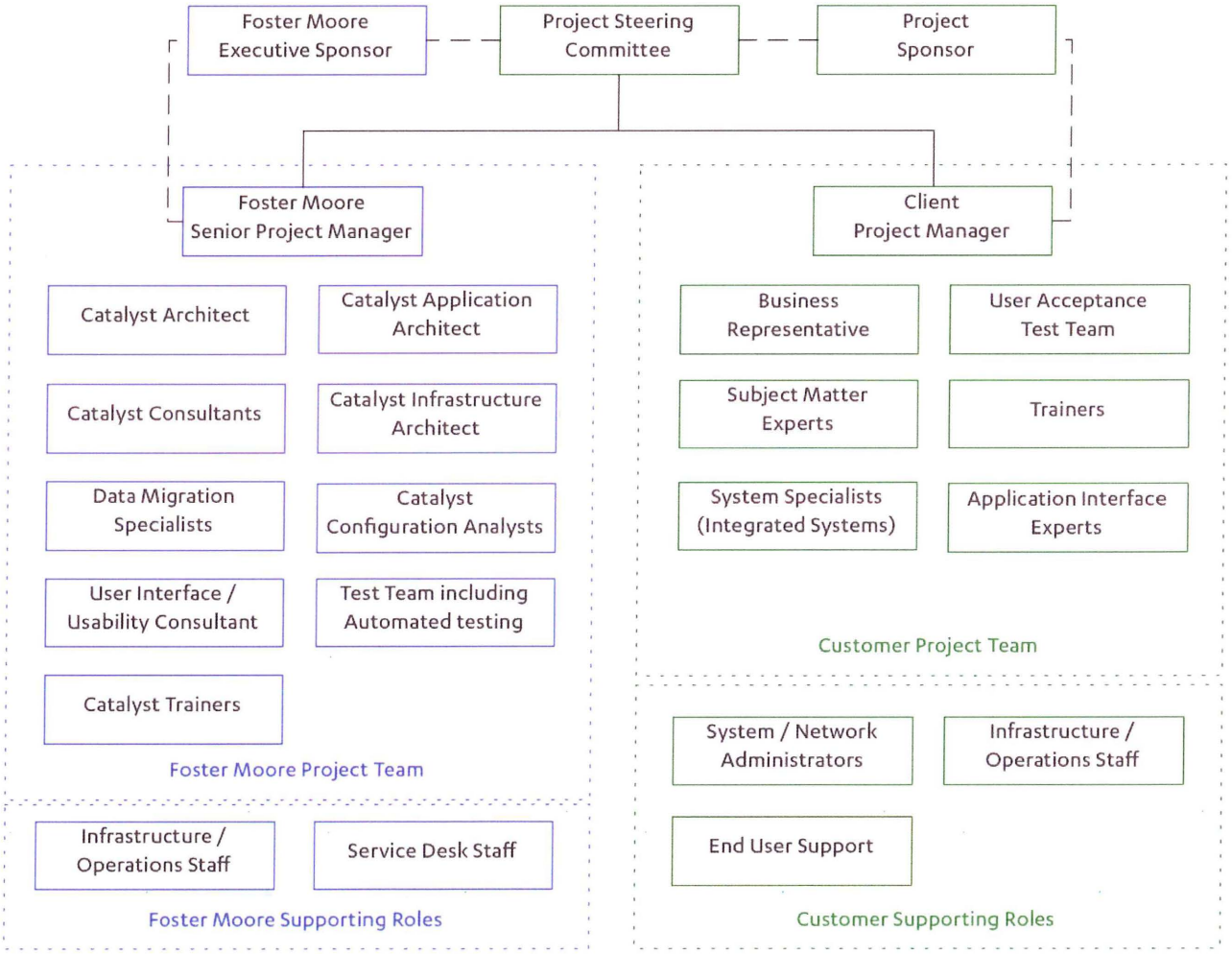
	Risk	Mitigation
2	**Third Party Integration –** especially where this register is an early adopter – There is always an element of integration with a catalyst implementation, and for this to be successful it is critical that sufficient up to date documentation and resources are available regarding the interfaces supported by that external system.	In most cases, and particularly for integration with custom applications, it is important to have access to development and technical staff with a thorough understanding of the system. It is also critical to have access to a test system in order to test integration with the external system. Often this requires support from the client (government) to drive the other agencies and parties involved in the testing (i.e. those responsible for the external systems). Key to success is that each interface is addressed individually.
3	**Scope Management**	Through all projects, it is important that scope is well controlled by all stakeholders. Scope management requires disciplines and activities throughout the whole project, from accurate and thorough requirements gathering, to project governance and change control procedures. Changes to requirements will be identified as early as possible and discussed with the client, and may result in a variation being generated.
4	**Access to Business Subject Matter Experts –** All Catalyst implementation projects require input from key personnel from the registry office, including an individual identified as the registrar representative	In our experience access to this person is most productive and efficient be on a frequent and almost instantaneous basis, often to answer quick questions related to detail around the operation of the register and the implementation underway. Through this process, the customer gains the added benefit of this key person being up skilled in the Catalyst product, the configuration and the solution being implemented.
5	**Project Governance –** Central to project success, in terms of the technical solution as well as the commercial result (e.g. timeframes and budget), is good project governance.	This ensures that all parties, including Foster Moore and the customer, understand the overall project goals, the responsibilities of all concerned, and the framework in which the project will operate.
6	**Project Team Resourcing – Key** resource changes slows down project progress	On a project as large and complex as this it is important to share knowledge where possible either verbally, via email or in documentation as key resource changes can have a large impact on progress.
7	**Documentation Management –** Document versioning and control is not well managed which results in misunderstandings between parties and may generate rework.	A central document repository should be identified that all vendors have access to and that is managed via version control. There should be one person nominated from the MBIE project team to manage this repository and they will require integral knowledge of the project and areas of responsibility for each vendor.

	Risk	Mitigation
8	**Registry Information** – It is critical that our implementation project team has access to the requirements, and receives the information and solution approvals required to progress the project in a timely manner.	Foster Moore and the client need to jointly ensure that the governance timeframes are adhered to so as not to introduce delays to the project. This requires strong project management on both sides, with a decision maker that has the authority to make decisions.

10 Resources & Resource Plan

[Resource Plan to be finalized as part of project initiation]

The following diagram illustrates the governance structure for the project, including the Foster Moore and client teams



10.1 Foster Moore Roles and Responsibilities

The primary role of Foster Moore will encompass management of the software development work stream and development of the application to ensure a successful implementation into user acceptance testing. Foster Moore is responsible for application development and system documentation.

Foster Moore staff through their skills and experience will be major contributors to the success of the project and a project manager has been assigned. The Foster Moore Project Manager will have adoption consultancy, development, management and testing resources available to support delivery.

The following Foster Moore people are involved:

Role	Name	Responsibility
FM Executive	[Add FM Names]	• Overall responsibility for contract and variation negotiation, delivery of Foster Moore obligations under the contract. In addition this person represents FM with if there is the need for problem escalation/resolution.
Project Manager	[Add FM Names]	• Being the prime point of contact between , Foster Moore and third party vendors • Obtaining and allocating Foster Moore project resources and requesting/recommending Client resources • Planning and direction of all Foster Moore activities required to successfully meet the project objectives and handover to FM/ IT Operations teams • Facilitating resolution of any project issues, including acquiring advice and guidance (from Foster Moore and where needed. • Reporting to the Project Meetings on project progress, and raising all issues requiring management attention, particularly slippage or emergent risks • Day to day management of Foster Moore project resources. • Maintain the issues, risk and assumptions registers • Review all faults and change requests • Ensure all deliverables are reviewed and approved by appropriate FM and stakeholders in accordance with CAM signoff points
Project Administrator	[Add FM Names]	• Maintain and track progress against the project plan. • Maintain the issues, risk and assumptions registers • Assist in the preparation of Project Reporting for the defined project meetings • Document and provide Project and other related meeting minutes • Maintain an open dialogue with and the FM Account Manager to discuss items that may arise during the project needing quick resolutions • Document meeting minutes
Catalyst Consultant	[Add FM Names]	• Conform to the CAM Methodology as defined • Facilitate adoption of the client online registers into the Catalyst product • Develop and publish CAM specification artefacts in conjunction with Business Representatives. Including:

		• Business Service Catalogue • Registry Schematics • Requirements Traceability • Business Requirements • Non-Functional Requirements • Technical Specifications • Data migration specifications • Bring to the Project Manager's attention items that may fall outside of the CAM methodology or project scope
Usability and Web Design	[Add FM Names]	• Conform to the CAM methodology • Develop Look and Feel design concept for the the client online registers Catalyst Project • Document Look and Feel Design Specification
Catalyst Configuration Team	[Add FM Names]	• Conform to the CAM methodology • Configure the client online registers Catalyst solution to meet requirements • Undertake any approved custom development required to meet any client-specific requirements • Configure/develop any required system interfaces • Develop data migration scripts • Undertake Quality Assurance of the Catalyst solution including: • System testing • Performance testing • Provide support for User Acceptance Testing • Bring to the Project Manager's attention items that may fall outside of the CAM methodology or project scope
Deployment Team	[Add FM Names]	• Conform to the CAM methodology • Work closely with the related resources at the appropriate time • Deploy the Catalyst instance into the designated environments • Execute production data migration • Support Client deployment activities
Trainer	[Add FM Names]	• Develop training plans and collateral • Deliver "train the trainer" training to representatives

10.2 CLIENT Roles and Responsibilities

Staff members are major contributors to the success of the project. [Add XYZ Name] has overall responsibility for the client online registers project and ensuring that stakeholder expectations are met. Project Steering Committee staff, through their business experience will ensure that external issues impacting on the project are addressed and will be responsible for maintaining relationships with interested parties.

The following people are involved:

Role	Name	Responsibility
Steering Committee	[Add XYZ Names]	• Ultimate authority for the project. • Contract definition • Identifying business strategies and policies affecting the project • Agreeing the project budget and ensuring funds are available • Approve "scope change" submissions, if necessary, from the time and cost perspectives. • Ensuring sufficient resources are available to progress the work • Establishing the overall project objectives and ensuring that they are met • Ensuring throughout the lifecycle of the project that the business needs of XYZ are being met • Providing advice and guidance on policy issues as required • Review deliverables and Sign Off CAM stages • Approve payments, in a timely manner, following contractual milestone completions and signoffs
Project Manager	[Add XYZ Names]	• Co-ordination and management of the overall project to ensure project success • Reviewing the overall project objectives and scope to ensure that they are met and kept within the project defined and approved bounds • Defining with FM the appropriate XYZ resources to be used on the project and when • Monitoring and allocating appropriate project resources both FM and XYZ in conjunction with Steering Committee and FM • Coordinate engagement with external parties including vendors, government and XYZ customers • Define, review and monitor the required relationships and responsibilities • Manage all XYZ tasks and activities to ensure timely completion • Ensure that XYZ subject matter experts, in concert with XYZ, are available to support project activities within the defined project timelines • Ensure successful handover of the XYZ Catalyst instance into XYZ production operations
Business Subject Matter Experts	[Add XYZ Names]	• Representing the nominated business domain with the authority to make decisions from the functionality perspective • Providing input to and guidance from the XYZ perspective in the development of the Training Manual and specific user training • Supplying existing data to Foster Moore for conversion and be responsible for providing advice and clarification to Foster Moore during data conversion data of data from existing systems • Assisting in preparation of the User Acceptance test plans • Providing input to and support of the execution of User Acceptance testing

11 Implementation Plan

[Implementation Plan to be finalized as part of project initiation]

12 Conversion Plan

12.1 Introduction

Foster Moore has extensive experience in the conversion of data from legacy to systems to new online registry solutions. We have performed significant data migrations in the past for online companies registers, amongst others. In many cases these migrations have involved significant volumes of data and documents, in a range of formats, with complex data transformation and cleansing activities performed as part of the migration.

Data that is to be populated into a Catalyst instance is provided from a number of sources and in all instances must be 'fit for purpose'. This term has a wide meaning, including the requirement that the data must: -

- **Be present** – A Catalyst register requires certain data elements to be mandatory, both from a system and a business operational perspective;
- **Conform to a common data type** – data that is provided from multiple sources into a single data element must have a common data type; for instance all data that is to migrate to a date element must have be able to conform to that data type ;
- **Support Catalyst Value Lists** – data that is migrated must be one of, or support the derivation of, a Catalyst-based list of values;
- **Satisfy minimum content rules** – certain Catalyst data elements have mandatory content rules, such as being at least 'n' characters long;
- **Have appropriate boundaries** – certain data elements are defined and subsequently configured according to system or business rules, such as being a date that is in the past;
- **Be bounded by any client validation or business rules** – certain data elements are defined and configured according to business rules or validation rules to ensure that the functionality within Catalyst business services are supported.

Foster Moore has established **five** principles of operation, that each Catalyst data migration abides by. These principles are aligned closely to the activities and outputs of the Catalyst Data Migration Methodology and are laid out here. The Catalyst Data Migration Methodology will:

1. Ensure that the scope and the expectations of the client are fully understood and agreed upon with respect to data migration prior to any concrete or binding commercial arrangements.
2. Subject to the scope and expectations, ensure that the client understands the nature of the data that must be provided in order to support the functionality that the client's configured Catalyst will provide.
3. Subject to the scope and expectations, ensure that the client understands what constitutes compliant and non-compliant data, and how non-compliance is addressed. This enables the client to review and agree on any areas of the solution that might be subject to a compromise with respect to functionality. Conversely, Foster Moore is able to understand any mandatory client requirements that requires non-compliant data to be addressed as part of the migration exercise.

4. Provide a clearly defined set of processes, tools and outputs that allow for the successful migration of compliant data and the management on non-compliant data. This establishes a closely controlled framework for subsequent activities and interactions, that mitigates risks associated with data migration.
5. Establish a clear understanding of the sign off protocol and responsibilities from both parties. This enables all parties to plan future steps with greater confidence.

The approach generally taken to data conversions is as follows:

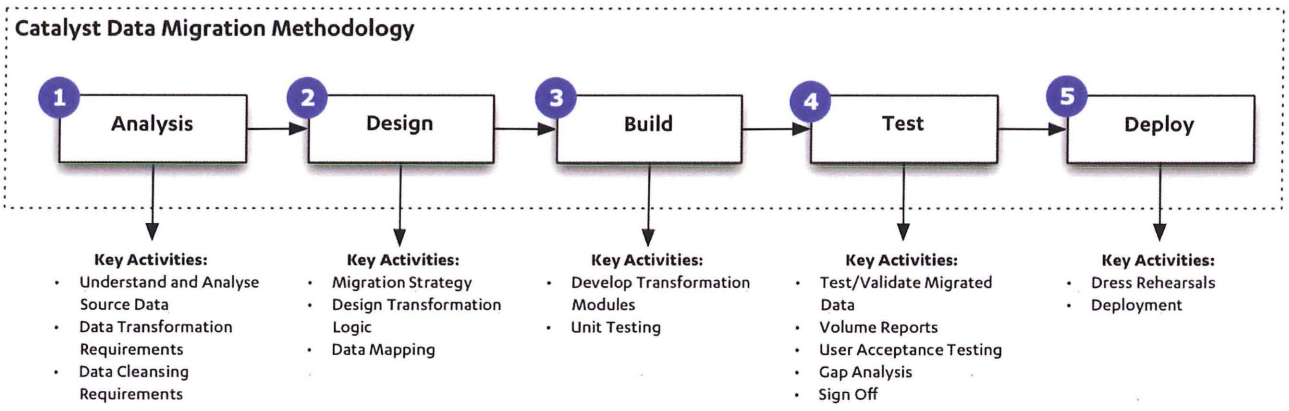
1. The customer is required to have a detailed understanding of the current data, and the low level structure of this data within the current system's database management system.
2. The customer needs to provide a source data repository of legacy data that matches the structures of the legacy production system (or some other mutually agreed structure). Depending on the location of this repository (e.g. within a legacy database management system), Foster Moore may require the customer provide the source data in flat files.
3. Foster Moore works with the customer to map the existing data to the Catalyst data repository using this detailed understanding held by the customer.
4. Foster Moore uses the Catalyst data migration assistant to develop the Extract Transform Load (ETL) definition.
5. The ETL process is run, tested, refined and re-run iteratively until finalized and accepted by the client.
6. Manual effort around the scanning and/or manual data entry of historical data is generally excluded from the Foster Moore scope and undertaken by the customer's staff.

Foster Moore has developed the Standard Migration Library (SML) a set of libraries which align with the standard Catalyst application configuration for a given register type. The library consists of a set of functions, each of which handles the population of a Catalyst domain. A Catalyst domain is a logical representation of physical data, where the logical representation usually represents a business construct such as a 'Director' role domain, or a 'Postal Address' domain.

The Standard Migration Library is the starting point for every data migration for a Catalyst implementation project, and can be extended by client specific package(s) to meet each client's individual requirements. Where entity structures are being imported, each import requires careful analysis and implementation to ensure that the data available from the existing system is able to support the new, often more stringent, business rules configured within the new online filing system.

12.2 Methodology

The following diagram illustrates Foster Moore's methodology for data migration within the project:



Foster Moore uses the following methodology for the planning, development, testing and execution of data migration:

12.2.1 Data Analysis Phase

Purpose

The purpose of this phase is to establish an in-depth, business level, understanding of the data that is proposed to be migrated.

Principal Activities

The following identifies the principal activities that are undertaken during the Analysis Phase. The parties that are engaged in the activities vary according to the particular activity.

These activities may be subject to refinement by mutually agreed means, depending on the nature of the relationship between the two parties.

- **Understand and Analyze Source Data**
  - Understand the legacy data structures, their integrity, relationships, and the quality of data
- **Data Transformation Requirements**
  - Understand the transformation requirements to get legacy data into the staging area and subsequently into the target Catalyst system. For example, One-to-One mappings, Data Enrichment requirements.
- **Data Cleansing Requirements**
  - Identify data issues such as: data that is not "fit for purpose", or data, that is a mandatory requirement, yet does not exist.

Deliverables

The following identifies the deliverables that are to be produced during the analysis phase. Some of these are the sole responsibility of the client, some are the sole responsibility of Foster Moore representatives and some are a joint responsibility.

- **Data Profiling Document**
  - A joint responsibility between Foster Moore and the client. An informal document answering many standard questions about client data based on the registry type.

Roles

The following identifies the key roles that are to be performed during the analysis phase. It is expected that each party provide the personnel to fulfill these roles where and when necessary during the phase.

- **Foster Moore Data Migration Project Manager**
  - To attend to project management/data migration issues.
- **Client Project Manager**
  - To attend to project management issues.
- **Foster Moore Data Migration Consultant**
  - To analyze/understand the business' data and relationships.
- **Client Business SME**
  - To provide subject matter expertise on the client's business processes
- **Client Data SME**
  - To provide subject matter expertise on the client legacy data

Responsibilities

The following identifies the roles that are generally responsible for the completion of the activities identified within the analysis phase.

- **Understand and Analyze Source Data**
  - Foster Moore Data Migration Analyst/Consultant
  - Client Business SME
  - Client Data SME
- **Data Transformation Requirements**
  - Foster Moore Data Migration Analyst/Consultant
- **Data Cleansing Requirements**
  - Foster Moore Data Migration Analyst/Consultant
  - Client Business SME
  - Client Data SME

12.2.2 Design Phase

Purpose

The purpose of this phase is to establish the data transformation rules and the migration strategy.

Principal Activities

The following identifies the principal activities that are undertaken during the Design Phase. The parties that are engaged in the activities vary according to the particular activity.

These activities may be subject to refinement by mutually agreed means, depending on the nature of the relationship between the two parties.

- **Define the Migration Strategy**
  - Establish whether the migration is to be a big bang approach or a split/phased migration?
  - Define out-of-scope data
- **Design Transformation Logic**
  - Define the transformations required to "fit" the client legacy data into the staging area and subsequently into the target Catalyst system.
- **Data Mapping Specification**
  - Start the Mapping Specification Document by documenting the above transformations

Deliverables

The following identifies the deliverables that are to be produced during the analysis phase. Some of these are the sole responsibility of the client, some are the sole responsibility of Foster Moore representatives and some are a joint responsibility.

- **Draft Data Migration Specification Document**
  - Written by Foster Moore but with significant input from the Client Data and Business SMEs

Roles

The following identifies the key roles that are to be performed during the analysis phase. It is expected that each party provide the personnel to fulfill these roles where and when necessary during the phase.

- **Foster Moore Data Migration Project Manager**
  - To attend to project management/data migration issues.
- **Client Project Manager**
  - To attend to project management issues.
- **Foster Moore Data Migration Consultant**
  - To analyze/understand the business' data and relationships.
- **Client Business SME**
  - To provide subject matter expertise on the client's business association to the legacy data
- **Client Data SME**
  - To provide subject matter expertise on the client legacy data

Responsibilities

The following identifies the roles that are generally responsible for the completion of the activities identified within the analysis phase.

- **Define the Migration Strategy**
  - Foster Moore Data Migration Analyst/Consultant
  - Client Business SME
- **Design Transformation Logic**
  - Foster Moore Data Migration Analyst/Consultant
- **Data Mapping Specification**
  - Foster Moore Data Migration Analyst/Consultant
  - Client Business SME
  - Client Data SME

12.2.3 Build Phase

Purpose

The purpose of this phase is to write the data migration modules to perform the transformations defined in the design phase.

Principal Activities

The following identifies the principal activities that are undertaken during the Build Phase. The parties that are engaged in the activities vary according to the particular activity.

These activities may be subject to refinement by mutually agreed means, depending on the nature of the relationship between the two parties.

- **Develop Transformation Modules**
  - Software Development of the transformation rules
- **Unit Testing**
  - Define unit tests for each module

Deliverables

The following identifies the deliverables that are to be produced during the build phase. Some of these are the sole responsibility of the client, some are the sole responsibility of Foster Moore representatives and some are a joint responsibility.

- **Migration Code Release(s)**
  - Data migration code
  - Migration Configuration and execution guide

Roles

The following identifies the key roles that are to be performed during the analysis phase. It is expected that each party provide the personnel to fulfill these roles where and when necessary during the phase.

- **Foster Moore Data Migration Project Manager**
  - To attend to project management/data migration issues.
- **Client Project Manager**
  - To attend to project management issues.
- **Foster Moore Data Migration Consultant**
  - To analyze/understand the business' data and relationships
- **Foster Moore Data Migration ETL Developer**
  - Software Development
- **Client Business SME**
  - To provide subject matter expertise on the client's business association to the legacy data
- **Client Data SME**
  - To provide subject matter expertise on the client's legacy data

Responsibilities

The following identifies the roles that are generally responsible for the completion of the activities identified within the analysis phase.

- **Develop Transformation Modules**
  - Foster Moore Data Migration Developer
- **Unit Testing**
  - Foster Moore Data Migration Test Analyst

12.2.4 Test/User acceptance testing Phase

Purpose

The purpose of this phase is to perform and pass business testing of the application with Migrated Data.

Principal Activities

The following identifies the principal activities that are undertaken during the Test Phase. The parties that are engaged in the activities vary according to the particular activity.

These activities may be subject to refinement by mutually agreed means, depending on the nature of the relationship between the two parties.

- **Test/Validate Migrated Data.**
  - Business testing of the application integrated with migrated data
- **Signoff Data Migration Mapping specification**
  - Sign off the final Data Migration Mapping specification
- **Signoff Gap Analysis Report**
  - Produce and sign off Gap Analysis report showing unmapped data elements.
- **Signoff Volume Report**
  - Produce and sign off Volume reports - containing Source vs Target counts.
- **UAT (User Acceptance Testing). Requires Sign-off.**
  - Business signoff of data migration specification and UAT testing.

Deliverables

The following identifies the deliverables that are to be produced during the Test/UAT phase. Some of these are the sole responsibility of the client, some are the sole responsibility of Foster Moore representatives and some are a joint responsibility.

- **Final Data Migration Mapping requiring sign-off**
  - Contains logical business rules and physical element mappings
- **Gap Analysis**
  - Detailed report showing all elements that have not been mapped (and therefore not migrated).
- **Volume Reports**
  - Reports detailing Source vs Target counts by area (i.e. Role counts, Address type counts)

Roles

The following identifies the key roles that are to be performed during the Test/UAT phase. It is expected that each party provide the personnel to fulfill these roles where and when necessary during the phase.

- **Foster Moore Data Migration Project Manager**
  - To attend to project management/data migration issues.
- **Client Project Manager**
  - To attend to project management issues.
- **Foster Moore Data Migration Consultant**
  - To analyze/understand the business' data and relationships
- **Foster Moore Data Migration Test Analyst**
  - To respond to any UAT issues raised
- **Client Business SME**
  - To provide subject matter expertise on the client's business processes
- **Client Data SME**
  - To provide subject matter expertise on the client's legacy data
- **Client Operational Staff**
  - Client staff responsible for operational work. I.e. running scripts, sending log files

Responsibilities

The following identifies the roles that are generally responsible for the completion of the activities identified within the Test/UAT phase.

- **Test/Validate Migrated Data**
  - Client Business SME
  - Client Data SME
  - Client Operational Staff
- **Signoff Volume Reports**
  - Client Business SME
  - Client Data SME
- **Signoff Volume Reports**
  - Client Business SME
  - Client Data SME
- **UAT (User Acceptance Testing). Requires sign-off.**
  - Client Business SME
  - Client Data SME

12.2.5 Deployment Phase

Purpose

The purpose of this phase is to plan and execute dress rehearsals. Once these are deemed satisfactory, to then plan and execute data migration to support the Production Go-Live.

Principal Activities

The following table identifies the principal activities that are undertaken during the Deployment Phase. The parties that are engaged in the activities vary according to the particular activity.

These activities may be subject to refinement by mutually agreed means, depending on the nature of the relationship between the two parties.

- **Dress Rehearsals**
  - Plan and execute several dress rehearsals (simulated migrations).
- **Production Deployment**
  - Plan production go-live.

Deliverables

The following identifies the deliverables that are to be produced during the Deployment phase. Some of these are the sole responsibility of the client, some are the sole responsibility of Foster Moore representatives and some are a joint responsibility.

- **Migration Go-Live Project Plan**
  - A plan detailing all dependencies and clearing defining roles and responsibilities for the migration activity.

Roles

The following identifies the key roles that are to be performed during the analysis phase. It is expected that each party provide the personnel to fulfill these roles where and when necessary during the phase.

- **Foster Moore Data Migration Project Manager/Migration Lead**
  - To attend to project management/data migration issues.
- **Client Project Manager**
  - To attend to project management issues.
- **Foster Moore Data Migration Consultant**
  - To analyze/understand the business' data and relationships.
- **Client Business SME**
  - To provide subject matter expertise on the client's business processes
- **Client Data SME**
  - To provide subject matter expertise on the client's legacy data
- **Client Operational Staff**
  - Client staff responsible for operational work. I.e. running scripts, sending log files.

Responsibilities

The following identifies the roles that are generally responsible for the completion of the activities identified within the deployment phase.

- **Dress Rehearsals**
  - Foster Moore Data Migration Consultant
  - Foster Moore Data Migration Project Manager
  - Client Project Manager
  - Client Business SME
  - Client Data SME
  - Client Operational Staff
- **Production Deployment**
  - Foster Moore Data Migration Consultant
  - Foster Moore Data Migration Project Manager
  - Client Project Manager
  - Client Business SME
  - Client Data SME
  - Client Operational Staff

12.2.6 Data Migration Requirements

Foster Moore expects to have access to documentation and skilled staff with experience of the legacy systems system at a detailed level (database structures, field content etc.), in order to complete the analysis, design, development and testing of the data migration. Access is also required to test versions of any legacy systems from which data it migrated. These systems require data that is representative of the production data, while for later testing full production data is required. In order to ensure efficient testing these systems need control over versioning and changes to data and data structures for the duration of the migration testing development and testing.

13 Change Control Plan

13.1.1 Technical Process

Foster Moore's change management process covers pre-production and production environments. Our responsibilities include:

- Adhering to relevant client Change Policy, process and procedures,
- Raising Requests for Change (with associated back out plan) for approval by the client or delegated authority,
- Performing an impact analysis and risk assessment for each change,
- Co-ordinating the activities of any external service providers so that the change is completed efficiently, effectively and successfully,
- Recording changes against relevant Configuration Items in the CMDB (if applicable);
- Interacting with the Release Management Service and Configuration Management Service for the client,
- Attending the Change Advisory Board (CAB) and the emergency CAB in whatever capacity is required for the change (if applicable),
- Reporting on the success (or otherwise) of the change implementation,
- Closing the change once all activities have been completed,
- Contributing to the production of the monthly Forward Schedule of Change,
- Maintaining documentation of Change Management processes and operational procedures.

We also maintain an internal change management process for our development and test environments.

13.1.2 Change Control within CAM Projects

All Catalyst projects are delivered through adherence to the Catalyst Adoption Methodology (CAM). Within CAM there are a number of defined phases with specific project deliverables that are agreed and signed by both the client and FM.

In regard to project change there are two key deliverables that are used to determine whether the requirement raised is deemed to be a change.

Within the project Engagement phase, FM will produce a 'Project Charter Document'. One of the key goals for this document is to define the overall project scope i.e. how many entity types, which specific business services will be built for the legislative forms, what interfaces are supported, what payment methods are supported etc.

Within the project Adoption phase, FM will produce a detailed Business Catalog specification for each entity type / register being built. These Business Catalogs are compiled after the initial Catalyst configuration has been prepared, presented and reviewed at the adoption workshop with the client. The Business Catalogs are to be read and agreed in conjunction with the standard Product Catalogs for the Catalyst application.

The goal of the Adoption workshop is to present the client with an initial version of the Catalyst application and to establish all the outstanding business rules that have not been covered. The Catalyst consultant will capture all final requirements and present the Business Catalogs for client sign off.

Change requests may therefore be raised at one of two levels:

- Against the signed Project Charter, because a new service or interface is required that has not been included and is therefore deemed to be outside of the agreed scope.
- At the detailed level against the signed Business Catalog that is being built for each entity type. If changes or new / amended business rules are raised by the client, then these will be reviewed to determine whether they constitute a material change to the project work required. This will depend upon how much of the work has progressed and the impact on the delivery estimates / project plan.

For each change request that is raised FM will analyze the requirement and present a project change for executive review and sign off; this will include the relevant details along with cost and time implications.

One of the goals of the Catalyst Adoption Methodology is to ensure that there are no surprises and that the client understands the product and the project process. The final detailed business requirements are only established when there is a working Catalyst application built (that includes all the core services to be delivered) for client review and elaboration.

If changes are raised that impact the core Catalyst product i.e. a new feature, then these will also be reviewed by the Catalyst Product manager. If it is agreed that the change should be added to the product itself, then an assessment will be provided as to when this will be developed and released by the product team, but there will be no cost impact to the client.

14 Communication/Coordination Plan

The Foster Moore Project Manager will provide a Project Highlight Report to on <enter timeframe>. A Project Meeting between the Foster Moore and Project Managers and key personnel (as required) will be held each week at an agreed time.

The Project Board will meet each month on dates agreed to by both parties. Project meetings and level of reporting to be agreed through Engagement workshop.

15 Project Acceptance and Signoff Form

[TBC]

16 Project Closeout and Lessons Learned Processes.

[TBC]

Appendix 2. Training Management Plan

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Training Plan

State of Nebraska

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Training Plan

1. Overview of the Training Plan

This document is organized as follows:

- Aim of the training – Clearly states aim of the training plan.
- Objectives of the training – Describes the 3 key objectives covered by the completion of the training plan.
- Learning outcomes of the training – Lists a high level breakdown of what is covered within the 3 key objectives.
- Assumptions – Lists the assumptions that are taken on creation of the training plan.
- Training Groups – Defines the actual groups and content to be trained.
- Training Approach – Defines the 3 training methods that will be used to effectively deliver the training.
- Logistics – Lists any equipment and supplies required for successful delivery of training.
- Roles and Responsibilities – Lists the key stakeholders who will be involved in the successful delivery of the training plan.
- Appendix – Lists relevant appendix to support this training plan.

2. Aim of the Training Plan

The aim of this training plan is to familiarize the client's Registry users with their Catalyst Registers.

3. Objectives

The objective of the Catalyst Registry training is to:

- Present the client's Business Services
- Be familiar with the Common Catalyst Business Services
- Understand the Catalyst Registry Administrator functions
- Prepare the client's users for User Acceptance Testing (UAT)
- Prepare the client's Trainer(s) for completing their end user training

4. Learning Outcomes

By the end of the Catalyst Registry Training, **Registry Compliance Users** will be able to:

- Search and view entities
- Understand the difference between external and internal functionality
- Be confident with the different roles of an internal Registry user
- Complete paper applications and review online submissions
- Use the search email delivery log for application purposes
- Use the unfinished business search, search compliance, and search tasks function
- Understand the pre and post incorporation lifecycle of the implemented entities

By the end of the Catalyst Registry Training, **Registry Fiscal Users** will be able to:

- Record paper applications via the Document and Payment Receipting services
- Search and view payment baskets and fees
- Search and maintain basket and account transactions
- Maintain payment notifications
- Use the search email delivery log for fiscal purposes
- Understand payment schedules

By the end of the Catalyst Registry Training **Registry Administrator Users** will be able to:

- Create external users and login and out of Catalyst
- Manage internal users, teams and groups and organisations
- Maintain security notifications
- Use the search email delivery log for user account purposes
- Use and maintain the task descriptions
- Maintain general Catalyst Administration tasks such as Business Calendar, Service Configuration, Task Definitions and Fee Definitions
- Maintain Catalyst Register tasks such as schedules and the inline text editor

5. Assumptions

The Catalyst Registry training is predicated on the following assumptions:

- The core users will receive the Catalyst Registry training

- The users receiving the training will be familiar with their existing business rules, processes and workflows and the Catalyst application from previous CAM phases and Foster Moore on site visits. The users would have read and understood the Business Services Catalogs
- A training environment will be available to support both onsite and remote training that includes a data projector and a high-speed Internet connection
- The training material will be supplied to the users via the client knowledge base within Foster Moore's InSight portal
- The training material will be able to be exported via Adobe PDF and or Microsoft Word format from the client knowledge base portal
- The users will have access to the client knowledge base portal for the life of the Project and subsequent Support Contract
- The term Registry user refers to the client project team only and excludes external or client users
- The Client Knowledge Base Portal will be available at the time of formal on-site training or 1 week prior to the beginning of formal on-site training

6. Training Groups

This section describes the user groups to be trained. The training will be delivered to three target audiences. The Compliance user group, the Fiscal user group and the Registry Administrator user group.

Compliance user group training: is focused on the entity types configured within Catalyst.

This training is intended to be delivered to the users who will be processing applications submitted to these Catalyst Registers. This training will cover pre- and post-incorporation tasks and maintaining an entity throughout its lifecycle.

Fiscal user group training: is focused on the Catalyst Payments and Document/Payment Receipting modules.

This training is intended to be delivered to the users who will be supporting the fiscal transactions within Catalyst and Document/Payment Receipting. The fiscal training will be a high level approach stepping through searching fees, transactions and baskets with the intention of supporting client requests. This training will cover supporting pre- and post-incorporation tasks within the Catalyst Document/Payment Receipting module.

Registry Administrator user group training: is focused on Catalyst Security and the Catalyst Administration functions.

This training is intended to be delivered to the users who will be creating internal users, maintaining Catalyst teams and groups and maintaining the Catalyst Administration functions. It is important to note the distinction between a Catalyst Registry Administrator and a Network System Administrators. A Catalyst Registry Administrator is a very high level non-technical Administrator. A Catalyst Registry Administrator does not require the technical expertise or knowledge of a Network System Administrator.

7. Training Approach

Training will be delivered to the users through three mediums, to ensure that different learning styles are catered for and that knowledge of the Catalyst Registers is delivered at appropriate timings throughout the Project, rather than a one off hit at the end. The following mediums will be used:

- Onsite Training
- Remote Training
- Client Knowledgebase Portal

7.1 Onsite Training:

Onsite training for users conducted through the lifecycle of the Project. It is important to not think of onsite training as a one off, rather a series of ongoing Professional Development sessions throughout the course of the Project.

Training will be delivered at different stages of the relevant CAM Phases by Foster Moore Catalyst consultants and training representatives. This approach ensures that the knowledge is delivered in a scaffolded manner to ensure the users are confident users of their Catalyst Registries. The following professional development sessions have been outlined for the registry users.

- Engagement: Catalyst Consultants demonstrating Catalyst at Engagement Workshops
- Adoption: Catalyst Consultants reviewing Business Rules within onsite Adoption Workshops
- Build/Deployment: Formal onsite Training prior to UAT

7.2 Remote Training:

To supplement the onsite training sessions, remote training sessions can be provided using Cisco's WebEx screen share technology if additional training is deemed to be required by Foster Moore and the client. This should be discussed and agreed to within the Project Charter Document.

The remote training sessions can be used to support large or smaller groups and to focus specific content areas, or introduce new Catalyst content. They will be conducted during client business hours, at the convenience of the users. If remote training is required, a plan will be put in place at least two weeks prior to the required training to allow Foster Moore to prepare for these sessions. The following outlines where remote training can be an effective medium of delivering training.

Scenario 1:

A number of users are beginning to ask a similar question, or having trouble with a similar form or application.

Scenario 2:

Training is required for a single business unit, for specific knowledge that is not typically required across multiple business units. See section 10.3 in the Appendix for an example of a one off Remote Training Session that would be covered in this.

Scenario 3:

As the vast majority of some of the business services will be similar, in terms of completing and submitting the form, a remote training session can be used to address those forms that were not addressed in depth during formal onsite visits or covered as user guides within the Client Knowledge Base Portal.

7.3 Client Knowledge Base Portal:

The Client Knowledge Base Portal will be the Central Dashboard for everything that the Registry Team requires to effectively run their Catalyst Registry.

Section 10.1 in the Appendix shows a representation of the SOS Knowledge Base.

The Dashboard will be broken down into easy to access categories, Getting Started, Popular Topics, Customizing Catalysts and will allow searching across the entire Knowledge Base or by Topic.

Online user guides will be available for the core Catalyst common services and major business services. These user guides can be easily exported as an Adobe PDF or Microsoft Word Document.

7.1 User Guide:

Section 10.2 in the Appendix shows a representation of a User Guide.

The Online User Guides are designed to give the user a holistic snapshot of the Catalyst common or business service. Each User Guide begins with an Introduction to give an overview of the service, typically taken from the Business Services Catalog.

Next "Where to Find" section shows the user where to find the service, complete with a screenshot.

The body of the User Guide is then broken down into the general life cycle of the service, for example, Searching > Maintaining > Applying Changes.

8. Training Logistics

The following are a list of equipment and supplies required:

- Internet access, data projector and workstation.
- All attendees in one room with a view of the shared screen / projector.
- Access to a computer for the duration of training sessions if the attendees wish to practice training scenarios.
- Internet access via the supplied computer
- A training environment will be set up prior to the training sessions for use throughout the duration of the training.
- Training material will be available in an online knowledge base during and after training sessions. The training environment will be made available at the start of the scheduled training sessions. The training environment is not a Test environment, and as such, no formal issues may be raised when using this environment. Formal issues will be raised during UAT against the release in the UAT environment.

9. Roles and Responsibilities

This section lists the roles of the key stakeholders who will be involved in the successful delivery of the Montana SOS training plan.

Client Registry Team

Name	Role	Responsibility
TBC	Project Director	Project Executive. Lead the Client team(s). Ensure Client's obligations are carried out in accordance with the MSA and SoW.
TBC	Project Manager	Responsible for the delivery of the project. Carry out obligations required of the Client for this project.
TBC	Deputy of Business Services Division Subject Matter Expert	Work with the FM Consultants to understand the Business Requirements and workflow for this project.
TBC	Business Services Subject Matter Expert	Work with the FM Consultants to understand the Business Requirements and workflow for this project.
TBC	Business Services Subject Matter Expert	Work with the FM Consultants to understand the Business Requirements and workflow for this project
TBC	Accountant Subject Matter Expert	Work with the FM Consultants to understand the Business Requirements and workflow for this project.
TBC	Chief Financial Officer Subject Matter Expert	Work with the FM Consultants to understand the Business Requirements and workflow for this project.
TBC	IT Systems Analyst Subject Matter Expert	Work with the FM Consultants to understand the Business and Technical Requirements and workflow for this project.
TBC	IT Network Admin Subject Matter Expert	Work with the FM Consultants to understand the Technical Requirements and workflow for this project.

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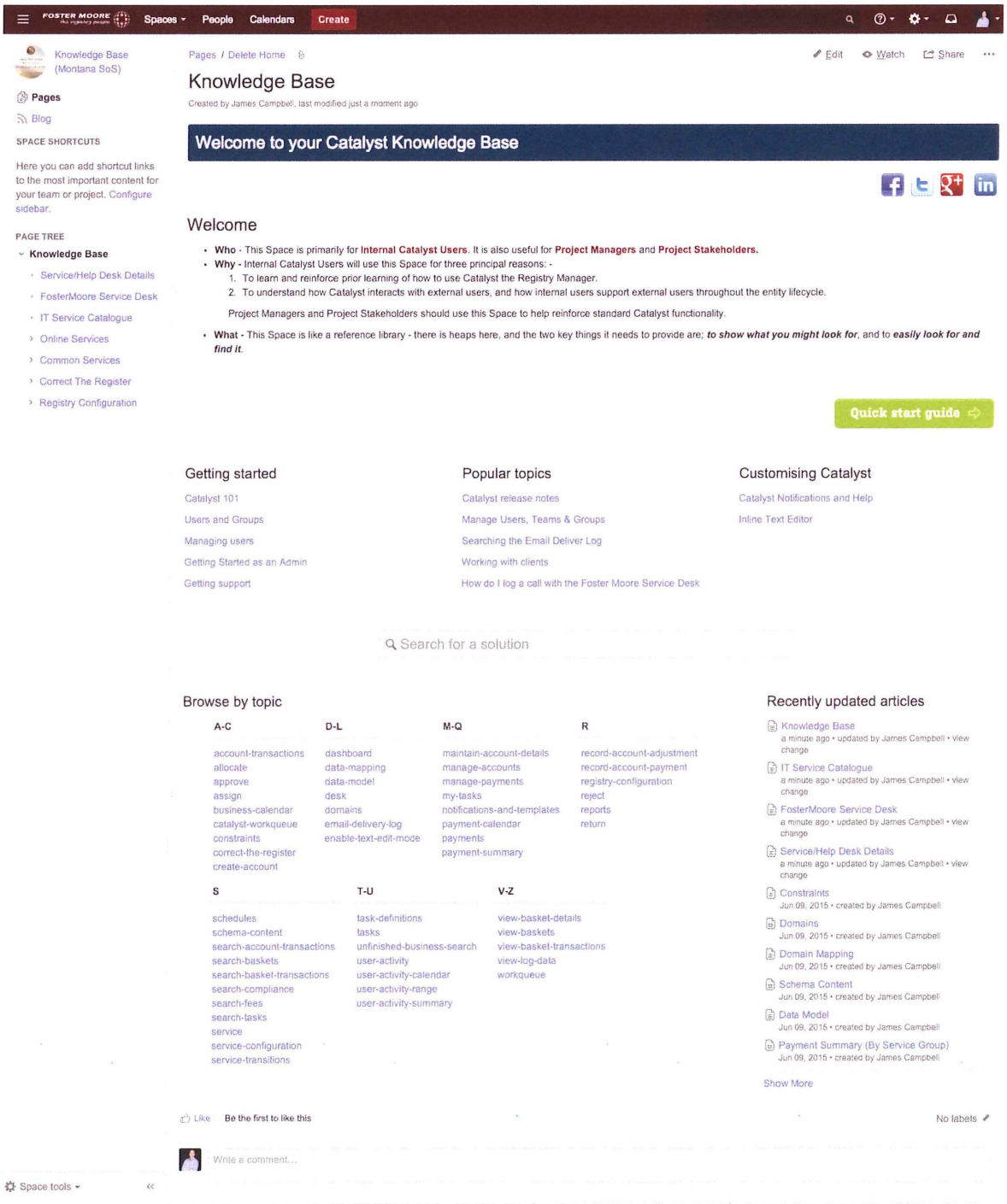
Name	Role	Responsibility
TBC	Project Manager	Responsible for the delivery of the project. Carry out obligations required of the Client for this project.
TBC	Catalyst Consultant	Understand and document Business Requirements and workflow for this project.
TBC	Catalyst Consultant	Understand and document Business Requirements and workflow for this project.
TBC	Catalyst Consultant	Understand and document Business Requirements and workflow for this project.

10. Appendix

10.1 User Client Knowledge Base Portal



10.2 Online User Guide for the Business Calendar

Business Calendar

Created by James Campbell, last modified just a moment ago

Introduction

The business calendar is used by the Catalyst workflow engine to set task timers and calculate due dates. The business calendar stores national holidays. It does not support regional holidays. The Business Calendar business service enables an internal user to view the business calendar. Only an authorised internal user may change calendar details.

Service Features

Up to four months will be displayed at one time plus the days of the weeks. Days that are not a weekday and any holidays are highlighted. The user can navigate through the months. An option to edit will be provided to users with the Maintain Business Calendar permission.

On this page

- Introduction
- Where to find Business Calendar
- Maintaining Business Calendar
- Updating the hours of work of Business Days
- Adding a Public Holiday

Related pages

- Common Services Product Catalogue

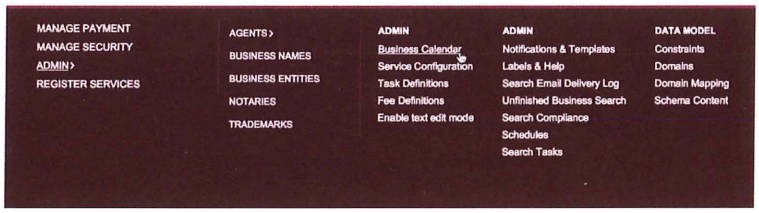
Who Can Use this Service

Casual User:	No
External Registered User:	No
Internal User:	Yes, must have 'View Business Calendar' role to access calendar and 'Maintain Business Calendar' role to edit the calendar

Where to find Business Calendar

Online Services > Admin Menu > Companies > Business Calendar

ⓘ **Please Note**
Please note that the Business Calendar will need to be modified under EACH registry type e.g. Companies, Business Names, Charitable Associations to keep them in sync with one another.



Maintaining Business Calendar

From the View Business Calendar screen select the Edit button.

Updating the hours of work of Business Days

Update the start and finish times.

Select the refresh button to update the Business Days Start and Finish times.

Select apply changes to save.

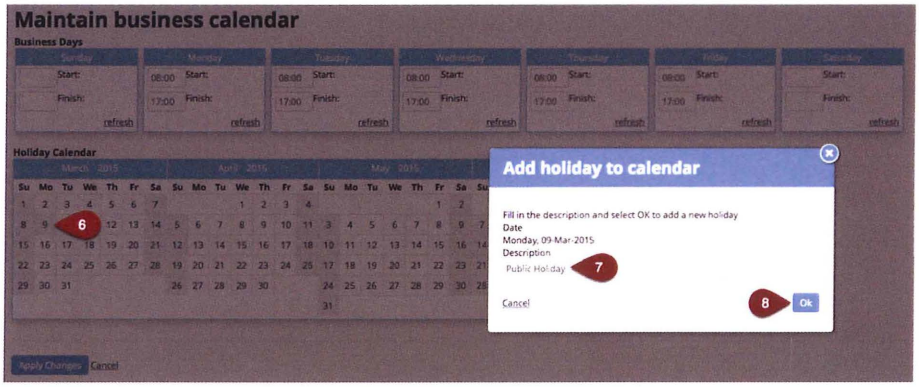
Adding a Public Holiday

To add an event of significance or a public holiday

Select the correct month and day from the Holiday Calendar.

Type the title of the event or public holiday.

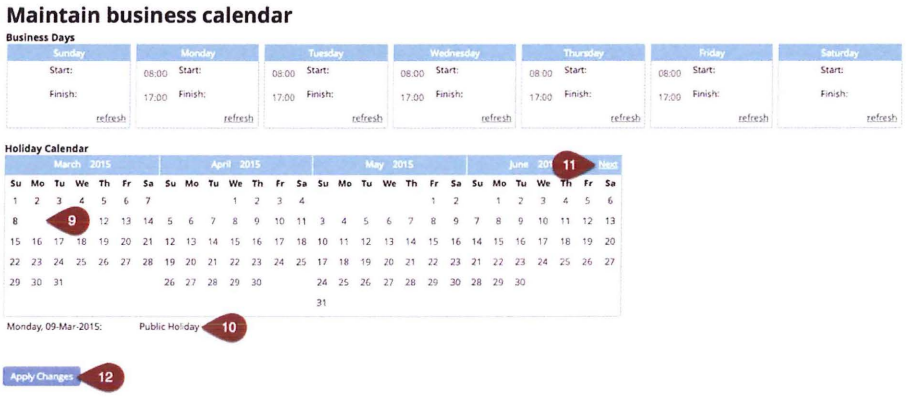
Select Ok to update.



You will now see that the [9th of March] has been highlighted, and you will see all Event and Holidays listed

To save changes, select the [Apply] button.

You can scroll through the [Calendar] using the [Next] link.



Like Be the first to like this

No labels

Write a comment...

10.3 A One Off Remote Training Session

Topic:	Remote Training Maintain Payment Notifications
Date:	
Time:	
Duration:	1hr
Attendees:	FM Trainer, Fiscal users
WebEx URL:	http://fostermoore.webex.com/payment-notification-training-session

Learning Objective

At the end of this remote session attendees will be able to...

Maintain payment notification

Resources Required

List any resources required to assist with the successful delivery of this session...

Maintain payment notification

Key Points	Time	Key Points	Learning Check
Roles Required	5mins	ROLE_PAYMENT_MAINTAIN	Do attendees know how to add the role to their user.
Accessing Payment Notifications	5mins	Payments > Maintain Payment Notifications	Do attendees know how to access the maintain payment notification
Maintaining a payment notification	30mins	Saving changes Editing the template Updating the template	Can attendees all update a payment notification template
Testing a changed payment notification	10mins	How to test your changes in pre-production	Did the update change successfully?
Review	10mins		

10.4 Onsite training visit (*date*)

The tables below detail the proposed two-week training onsite. Training sessions are broken down into morning and afternoon blocks. Training sessions are also grouped in context with the users' roles within Catalyst, for example, Fiscal and BSD users.

To accommodate the splitting of the Fiscal and BSD users into two groups, the same topics will be covered in the morning and afternoon sessions of the first seven days of training. This set up allows participants to choose to attend either the morning or afternoon session, depending on their day-to-day responsibilities.

A summary of the topics covered on each day is listed below.

Note: Identical morning and afternoon sessions held indicated – allows participant to choose which session to attend on a given day. Those topics covered in one session only are conversely noted.

Day	Topic	Target Audience	AM/PM Sessions Held
First Week			
Mon	Overview and Work Queue Processing	BSD, Fiscal	Yes
Tue	Security Management	Registry Administrator, BSD, Fiscal	Yes
	Document and Payment Receipting	BSD, Fiscal	Yes
Wed	Document and Payment Receipting	BSD, Fiscal	Yes
	Payment Management	Fiscal	Yes
Thu	Registered Agents (RA)	BSD	Yes
	Assumed Business Names Register	BSD	Yes
Fri	Business Entities, LLCs	BSD	Yes
Second Week			
Mon	Business Entities, LPs	BSD	Yes
	Business Entities, Corporations	BSD	Yes
Tue	TM and Bonds Registers	BSD	Yes
	MT SOS Common Business Services	BSD, Fiscal	Yes
Wed	Correct the Register (CTR)	BSD users with CTR permission	No
	Entity and RA Authority Management	BSD, Registry Administrator	No
Thu	General Registry Administration	Registry Administrator	No
	Reports and Miscellaneous Services	BSD, Fiscal, Registry Administrator	No
	UAT Support, Defect Management and JIRA	BSD, Fiscal, Registry Administrator	No
Fri	Customer Support, FAQ	BSD, Fiscal, Registry Administrator	No

Proposed Typical Daily Training Schedule

Start Time	Activity (Group 1)	Activity (Group 2)
8:30am – 9am	SIMS Project Team Stand-up Mtg	
9am – 10:30am	Morning Training p1	Daily Tasks
10:30am – 10:45am	Morning Break	Daily Tasks
10:45am – 11am	Cover Break for Group 2	Morning Break
11am – 12pm	Morning Training p2	Daily Tasks
12pm – 12:30pm	Lunch	Daily Tasks
12:30pm – 1pm	Daily Tasks	Lunch
1pm – 2pm	Daily Tasks	Afternoon Training p1
2pm – 2:15pm	Daily Tasks	Afternoon Break
2:15pm – 2:30pm	Afternoon Break	Cover Break for Group 1
2:30pm – 3:30pm	Daily Tasks	Afternoon Training p2
3:30pm – 4pm	Daily Tasks	SIMS Project Team Wrap-up (or Add'l Training time if needed)

Appendix 3. Staff Profiles

As part of this response, Foster Moore has included staff profiles for a range of staff from Foster Moore. These profiles are indicative of the people we can provide for the project. We have provided sample staff profiles for the following staff, detailed here with their positions within the organization, indicating the role they could take on in the project.

- Joel Foster – President & CEO, Foster Moore (project role: Client Executive Sponsor)
- Kelly Kopyt – VP US Operations
- Bill Clarke – VP Business Development and Partnerships
- Justin Hygate – VP Registry Innovation
- Brent Hoffman – General Manager (Nebraska Interactive)
- Don Mason – Director US Catalyst Consulting
- Gareth Morris – Senior Project Manager
- Jane Rihanek – Senior Project Manager (Nebraska Interactive)
- Phil Long – Catalyst Application Architect
- Linda Hughes – Lead Catalyst Consultant
- Stephanie Nixon – Lead Tester
- Richard Griffin – Data Migration Lead
- Mike Elmsly – Senior Infrastructure Architect
- Saphia Thatch – Senior Catalyst Configuration Analyst
- Gabriel JungBerg– Test Automation Lead
- Carmen Easley – Director of Operations (Nebraska Interactive)

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Foster Moore Staff Profile

Joel Foster – President & CEO

Summary

Joel is the **founder**, **president** and **CEO** of **Foster Moore.** He also **guides the product development and business strategy**. Joel's professional experience has been in the **architecture**, **design** and **development** of **large business applications** and his vision for Foster Moore has seen the creation of the **Catalyst Registry Manager Product Suite** and various other value enhancing innovations. Joel's **technical** and **operational specialities** include **JavaEE architecture**, **Project Management (Prince 2), ITIL, System Design, Business Analysis, Management, Web Services and SOA, Web 2.0** as well as **multiple programming languages**. Joel is a **highly talented** and **innovative** creator of **ground-breaking systems** which effect change and innovation, **leading his teams** with **great insight** and a **smart business approach**. Joel is recognised by his peers as a **careful** and **positive ambassador and leader** for Foster Moore.

Role & responsibilities within Foster Moore

As **Managing Director** of **Foster Moore**, Joel is responsible for setting the tone and **guiding the direction and management of the business**. His **relationship building skills** and **account service management expertise** lead Foster Moore into **consistently breaking new ground** by effectively **transforming** and **systemizing** large business applications across the government sector and further. Joel's management style combined with his **strong ethics** and **technical competency** has been pivotal to the success of the broader team. Much of Joel's focus in the last 7 years has been the **design and implementation** of **highly scalable, available J2EE architecture** for the **Ministry of Business, Innovation and Education of New Zealand**. This architecture and **supporting framework** have enabled the **development of large scale applications** and systems for the **NZ Insolvency and Trustee Service, the NZ Companies Office, Personal Property Securities Register and Radio Spectrum Management.** Joel and his team have **trail-blazed** around the world with **powerful**, **effective**, **top-quality** systems based on Foster Moore's highly successful **Catalyst Product Suite**.

Joel also plays a **pre-sales** and **sales** role as well as **mentoring** and guiding his team to continue to provide **world-class architecture, systems and innovation**.

Summary of Employment History

Joel's career began in 1996 when he joined **Cornerstone Software** as a **Developer**, **developing** and **maintaining** various **FoxPro** and **C++** applications and working on several **Telecom New Zealand migration projects**. In 1998 Joel joined **Oracle** as a **Senior Consultant** where he **designed** and **developed custom Oracle solutions** including **Air New Zealand Cargo Mail**, the implementation of **Air NZ warehouse integration**, an **XML gateway for AirNZ**, two **systems for Fletcher Challenge Paper** as well as **developing custom modules** for **Vodafone NZ accounting solutions**. Joel moved on to **Cintra NZ** in 2001 for a year where he **designed** and **developed Java Solutions** for **New York based applications** including an online **J2EE lawyer application** as well as a **content management system.**

In Joel's next role as **Senior Technical Consultant & Architect** for Bookrite Ltd, he **designed**, **developed** and **implemented** a **J2EE travel global booking management system**. In 2002, Joel became the **IT Development Manager** for **Jarin Consulting Limited** where he **designed**, **documented** and **implemented** a **J2EE solution framework to enable J2EE application development**. He also developed an **Official Assignee Information System 3 (OASIS3)** as well as architectural and design work for **Personal Property Securities Register's migration to J2EE**.

Various other projects Joel **developed** and **designed** include: **NZ Radio Spectrum Management System application (Smart); JEEP application (utility service system to manage jobs, events, escalations and productivity); COFEE (Common Fees Application Library); Companies Office of New Zealand Biznet application; Motor Vehicle Traders Registry; Document Request Queue; CSP administration; credit card integration services; as well as web services frameworks and more.** Joel managed multiple development projects at a time; always ensuring architecture was **best of breed** and met government and internal standards.

With the retirement of Jarin's Managing Director, senior staff members established **Foster Moore**. As **Foster Moore's CEO**, Joel's goal has been to lead the company into becoming the international leader in online registry solutions, and to ensure the **continued delivery of high quality software solutions** to all clients, including the **New Zealand Ministry of Business, Innovation and Education.** His focus is to continue to expand the group's portfolio across the **broader government sector** and into the **global market**.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
2009	APM Group - Prince 2 Practitioner
2008	ProActive – ITIL Foundation
2005	Sun Certification - Java Developer Certification
2001	Auckland BEA - Weblogic Administrator course
2000	Auckland BEA - Weblogic Developers Course
1999	Massey University - Bachelor of Information Systems and Technology, Double Major Computer Science and Information Systems
1999	University scholarship for completing degree with overall highest grade
1998	Oracle Auckland - Oracle DBA
1998	Oracle Sydney - Oracle Warehousing (3 Month Graduation Program)
1998	Oracle Auckland - Advanced PL/SQL
	Oracle Auckland - Oracle Reports, Forms and PL/SQL

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Foster Moore Staff Profile

Kelly Kopyt – VP US Operations

Summary

Kelly is a well-known and respected **leader in government administration**, having been **president and chairing the board of directors of the International Association of Commercial Administrators in 2012-2013**, while she served as **Assistant Director of the Massachusetts Secretary of State's Corporations Division**.

Kelly came to join Foster Moore in 2015, bringing 11 years of industry experience as **counsel to the Massachusetts Secretary of the Commonwealth**, working primarily in the Corporations Division. She has extensive knowledge of business services, corporate registration, secured transactions and land records. Kelly was also **counsel to 13 registries of deeds districts regarding intellectual property licenses, commercial leases, technology contracts and other legal agreements** associated with registry operations. She has extensive experience **overseeing projects to modernize government workflows** and increase efficiency. She has an intimate **understanding of government project management** and the importance of a clear project scope, ongoing collaboration between parties, development of a project schedule, ongoing evaluation and employee training.

Role & responsibilities within Foster Moore

Kelly **leads Foster Moore's US team**, taking the overall **responsibility for delivery and ongoing support** for our US-based clients. In her current role, she is the **Vice President of US Operations** and will act as an **account executive** in the US. Kelly ensures that clients' needs are met, holding all client relationships to a high standard. Utilizing her industry experience with registry operations and management, Kelly and her US team **brings innovation and registry best practice** to Foster Moore's clients through products and consulting. She ensures that the **team is personally accountable, open and friendly by improving service delivery** with easy to use IT solutions. Kelly brings a wealth of experience in the registry industry to Foster Moore and ensures that the US team makes an absolute commitment to its clients.

Summary of Employment History

She received her B.A. from St. Lawrence University in Canton, New York, and J.D. from New England Law in Boston, Massachusetts. Kelly is lic**ensed to practice law in New York, Massachusetts, Maine and the United States District Court**. Kelly's areas of practice include administration of the corporate laws and laws governing limited liability companies, partnerships, trademarks, and business trusts, the commercial statutes of the Uniform Commercial Code, and real property and registration of titles. She served as an observer to the Uniform Law Commission Revised Article 9 Joint Review Committee throughout its drafting process. She was a **member of the American Bar Association (ABA) UCC Leadership Committee**, serving as an **editor of the Commercial Law Newsletter**. Kelly also served as a **National Conference of Commissioners on Uniform State Laws Observer to the Model Registered Agents Act**, **Amendments to Entity Acts to Rational Annual Filings** and the **Uniform Statutory Trust Entity Act**.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
2003	Juris Doctor New England Law, Boston Boston, MA
2001	Juris Doctor course credits College of Law of England and Wales England, UK
1999	Bachelor of Arts St. Lawrence University Canton, NY

YEAR(S)	CURRENT BAR REGISTRATIONS
2015	New York
2005	Maine
2005	U.S. District Court, Massachusetts
2004	Massachusetts

Foster Moore
The registry people

Foster Moore Staff Profile

Bill Clarke – VP Business Development & Partnerships

Summary

Bill is an **executive business professional** with a distinguished career in the areas of **business development, strategic planning and execution, relationship management, contract negotiations, public & private governance models** as well as **government services modernization**. Bill has been directly responsible for **structuring** and **operationalizing profitable business models** for **private public partnerships**, and leveraging **strategic business partnerships** both nationally and internationally. Bill's natural talent for **articulating direction** and **fostering collaboration** has elevated and buoyed his influence throughout his career. He is an **innovative** and **strongly motivated leader** with a successful track record in the **design**, **development** and **implementation** of **public sector service transformations**; **technology innovation**; **global expansion** and **leadership**; **knowledge transfer solutions** and **relationship management**.

Role & responsibilities within Foster Moore

Bill's role at **Foster Moore** as **Vice President of Business Development** is to drive the **growth of business expansion** and strategies in the North American market by **generating** and **structuring key business partnerships**, developing successful **sales strategies** and delivering new business and customer bases across **Canada, the US and other key global markets**. In this role, Bill conducts **market** and **risk assessments** and **competitive analysis** as well as identifies future industry trends and client contact opportunities. Bill also **oversees the development** and presentation of marketing action plans, proposals, licensing solutions and budgets.

Summary of Employment History

In 1996, Bill joined the **Teranet International Corporation** where he worked until 2011 in various roles senior and influential roles. Initially brought on as **Head of Global Programs**, Bill's role was to **grow brand** and **expand Teranet's footprint** internationally. Focused on **technology innovation**, **market segmentation** and **knowledge transfer programs** for the Government sector, Bill established key **strategic relationships** with international and local partners leading the integrated delivery teams. Following success in **driving global expansion** within government modernization initiatives, Bill was **selected** as **Head of Government Relations** to pioneer and build upon the **restructuring** of one of **Canada's most successful private-public-partnerships (PPP).** Bill was **head** of the **PMO** for all major business transformation projects.

Bill took on the role of **Director, Business Development** in 2008 and was chosen to **design**, **implement** and **guide** other **Alternative Service Delivery Models** to drive long-term strategic growth domestically and internationally. Here, he **built** and **led** a new **business unit** composed of key cross-functional internal resources which merged with a **select team of internationally recognized experts**.

In 2012, Bill became the **Principal/Strategic Advisory Consultant** to the **Public Sector Transformation Group of Toronto, Canada**. In this role he consulted to a number of **management consulting firms**, private and public corporations and private equity investors in Canada, United Kingdom and New Zealand and focused on **large-scale government transformation** and **modernization initiatives**. Bill joined **Foster Moore Canada** Ltd in September 2013 in the role of **Strategic Advisor** and worked with the **Foster Moore board** and their investment advisors in identifying and negotiating the strategic investment program, **leading key areas of the negotiations** between Teranet Inc. and Foster Moore.

Foster Moore
The registry people

Foster Moore Staff Profile

Justin Hygate – VP Registry Innovation

Summary

Having spent **26 years** with the **New Zealand Companies Office** over which time the Companies Office gained an **international reputation for innovative service delivery** and **world class registry management**, Justin is a **registry guru**. He was responsible for the **development of the NZ Companies office**, including its move from a **paper-based registry to an online entity** and he also led the introduction of the **Personal Property Securities Register** (PPSR) in 2003, **New Zealand's first wholly online registry**. Justin is very active in the international registry community and is widely regarded as the **founder** of the **Corporate Registers Forum**. He has spoken at numerous **APEC** and **World Bank** seminars on topics related to **corporate registry reform** and **online service delivery** and now consults in areas of registry reform, online service delivery and best practise and has **assisted in several jurisdictions** around the globe.

Role & responsibilities within Foster Moore

As part of Foster Moore's Professional Service practice, Justin's role involves the preparation of **diagnostics, legislative reviews, organizational reviews** along with an **analysis of the processes within the agencies**. His role as **Senior Registry Consultant** is to bring **innovation** and **registry best practice** to Foster Moore's international clients through products and consulting; improving service delivery through the use of cleverly designed and easy to use IT solutions. He brings his wealth of experience in the industry to Foster Moore and backs this up with his absolute commitment to the business.

Summary of Employment History

Justin's distinguished career began in 1985 when he joined the **New Zealand Ministry of Innovation, Business and Education** as Registration Clerk Team Leader. He moved up the ranks over the years in managerial positions throughout New Zealand ministry branches including Wellington, Christchurch and South Island. In 2000, Justin was made **General Manager for the Intellectual Property Office** of New Zealand and 2 years later became **Group Manager for Business Registries**, a position in which he stayed for the next 9 years before joining Foster Moore. Justin is very **active in the international registry community**; he held the position of **Secretary of the Corporate Registers Forum** (CRF) from its inception in 2003 until 2011 and is widely regarded as the founder of this organisation. Justin was also the **Chair of the International Relations Section of the International Association of Commercial Administrators (IACA)** from 2006 to 2007. In 2013, Justin worked as part of the team developing the new **Christchurch Justice & Emergency Services Precinct** (CJESP) after the earthquakes of 2010/11 and his role involved **responsibility for commissioning of the CJESP** and the **transition of services, agencies and systems** into the facility. This is one of the anchor projects of the Canterbury Earthquake Recovery Agency's (CERA) city Recovery Plan. In April 2014, Justin joined the **board of directors** for **the Midwifery and Maternity Providers Organisation (MMPO)**, established in 1997, to support with strategic digital service provision initiatives along with general good governance.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
2005	Master of Public Administration, Victoria University
2001	Strategic Leadership Program, Ontario, Canada
1998	Bachelor of Commerce, Organisational Development

Foster Moore
The registry people

Nebraska Interactive Staff Profile

Brent Hoffman – General Manager

Summary

Brent is the President and General Manager of Nebraska Interactive, LLC part of eGovernment firm NIC's family of companies Brent advises government leaders on strategies to deliver electronic government services which enable companies and citizens to conduct business with government securely and efficiently across all digital platforms.

Brent provides leadership to continuously improve quality and revenue. Fosters partnerships to expand –Government capabilities with government partners and implements processes that provide for project completion on time. Brent has created an environment which empowers his team to deliver quality services to his partners.

Role & responsibilities within Nebraska Interactive, LLC.

At Nebraska Interactive, LLC., Brent is **responsible for managing overall operations** to maintain, develop and host over 500 of Nebraska's electronic government services through the State's official web site Nebraska.gov.

Brent manages a local **team** consisting of over 19 management, project managers, developers, support and quality assurance. Brent's major responsibilities as President include security management, management of operations and budgeting, and building partner relationships.

Summary of Employment History

Prior to moving to Nebraska, Brent was hired by NIC Inc. as a Project Manager in Kansas and worked directly with **Secretary of State online services for more than sixteen years**. His primary responsibility was to manage the delivery of online services for the Kansas Secretary of State Office's specific needs and requirements at a business level..

Quickly promoted to Director of Marketing and Portal Operations with responsibilities Marketing of complex internet and e-commerce products, coordinating with other Directors on application design, timelines and budgets. Brent developed agency agreements and fee attachments as well as proper billing and customer management.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
1988	Diploma Washburn Rural H.S.
1989	Attended – Washburn University, Topeka, KS

Foster Moore
The registry people

Foster Moore Staff Profile

Don Mason – Director US Catalyst Consulting

Summary

With **eleven years of product implementation / analysis experience**, Don is a **highly motivated professional** dedicated to understanding and meeting client needs with a **proven track record of excellent customer relationships**. He is especially knowledgeable in successful **project processes, communication, and implementation**.

Don was hired by FileONE as a business analyst and has worked directly with FileONE clients on **Secretary of State implementations for more than six years**. His primary responsibility on earlier projects was to analyze and communicate Secretary of State Office's specific needs and requirements at a business level, and **then managed and directed Secretary of State Office's implementations** later in the time period. Don now **oversees Secretary of State Implementations** as Director of Catalyst Consulting for Foster Moore.

Role & responsibilities within Foster Moore

At Foster Moore, Don is **responsible for managing large projects** or a portfolio of small projects in a program of work from statement of work initiation through to implementation and warranty phases with delivery on time, within budget, and with a positive customer experience.

Don **manages an implementation team** consisting of over seven product owners, project managers, business analysts, developers, and quality assurance testers. Don's major responsibilities as director include project management, management of project time reporting and budgeting, and building customer relationships.

Summary of Employment History

Prior to FileONE's acquisition by Foster Moore, Don worked as **VP of Implementations for FileONE**. During this time his focus was on capturing, documenting, and managing customer requirements. This work was typically focused on specific state implementations and included the **processes and workflows of the underpinnings of a Secretary of State software** suite as well as **correspondence generation**. Don acted as the **lead business analyst** for an enterprise wide web-based solution deployed successfully in July 2013.

Whilst at FileONE Don was promoted five times in five years based on exceptional customer / co-worker feedback, as well as **rapid absorption and understanding of the solutions the firm delivered**. Don directly supervised an eight-member team consisting of business analysts, associate product managers, quality assurance technicians, and documentation specialists.

During projects, Don was the **lead business analyst** with responsibilities including scope management, leading customer analysis sessions, production of requirements documents and use cases, and leading analysis sessions with the internal technical team using an agile methodology.

Prior to joining FileONE, Don worked at TransLogic Systems as an **analyst and project manager**. During his tenure he **successfully delivered seven projects** from start to finish. His role included consulting directly with clients to identify key requirements, defining project scope, and creating project artifacts. A key success for Don during this time was the **successful delivery of a project which had failed on two previous occasions**, with other vendors.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
2004	B.S., Computer Science, cum laude, University of Massachusetts- Amherst

Foster Moore
The registry people

Foster Moore Staff Profile

Gareth Morris – Senior Project Manager

Summary

Gareth is a Senior IT and Management Consulting professional with 12 years' experience in high-pressure, delivery-focused environments. He has significant project and program management experience including leading multidisciplinary and mixed client, consultant and contractor teams through programs of up to $5m in value and over 12 months in duration. Gareth is currently actively **pursuing PMP certification**, with this expected to be **completed before May 2016**.

He is a **strong written and oral communicator**, comfortable working with colleagues and clients of all levels of seniority, from new recruits to **CXO level**. Gareth has experience in a broad range of industries, including **registries and public sector**, retail, FMCG / CPG, healthcare, engineering and defense. Gareth has the experience of working across **all phases of project lifecycles** from opportunity identification and pre-sales, sales, strategy and business case development through to delivery, transition and support management.

Role & responsibilities within Foster Moore

Gareth is a **Senior Project Manager** in the Catalyst Consulting & Implementation Services (CCIS) group tasked with leading the implementation of their leading-edge **Catalyst Registry solution**. He is currently leading the group's most strategically-important project, the US **market entry registry implementation in Montana**. Gareth is currently working to deliver the Montana implementation **on time and on budget**.

Gareth has put significant effort into improving the company's deliverable templates to improve quality and consistency of approach. Documents included: Go Live Plan, Test Strategy, Test Approach, Functional and Technical Design documentation.

Summary of Employment History

Prior to joining Foster Moore, Gareth was a **Senior Manager at A.T. Kearney** where he was recruited by the practice leadership to re-join the London office's Organization & Transformation practice. During this time, he supported the Program Director in establishing **key governance and management processes for the PMO** of a major global transformational program to **deliver $100m in annual savings**. A key challenge was **overcoming organizational resistance** to a centrally-managed program, and the imposition of good project and program management discipline. **Gareth led two work streams** within a mixed client and consultant team to conduct an assessment of major organizational divisions and processes at global leader in the handling equipment pooling solutions industry. He **identified $10m of potential annual savings from process and structural improvements** and presented the teams' **recommendations to the Global CEO and CFO**. Gareth also collaborated with the European Demand Planning Director in a **ground-up redesign of the S&OP process at a major global CPG manufacturer** and worked with a multi-disciplinary client/consultant team at a major global CPG manufacturer to identify significant SG&A savings.

Prior to this, Gareth was a **Program Manager at Wipro Retail**, responsible for planning and leading complex retail technology projects and programs to deliver strategic business objectives. Gareth **turned around a failing conversion and cutover work stream as part of a €25m+ merchandising and supply chain program** at a major European retail client; and delivered a live production system **on time and under budget**. Gareth also took the role of Release/Delivery manager responsible for planning and establishing delivery of a mixed client / Wipro / Oracle team totaling **24 individuals on a 5,000+ man day multi-work stream program** to implement Oracle's Retail Demand Forecasting (RDF) and Advanced Inventory Planning (AIP) applications at a leading UK retailer. As a result of the project's success, Gareth was **commended by the client Supply Chain Development Director** to Wipro Retail leadership on his professionalism and dedication; and given an internal Wipro award for his work on the account. Gareth also **turned around a failing EDI re-platforming exercise** at one of the UK's big four retailers from "red" status to delivery of a **major release of functionality in two months**.

Gareth's first stint at **AT Kearney**, as an Associate, was prior to his Wipro role. During this time, Gareth was a senior consultant working with client senior management teams with AT Kearney's Strategic IT and Organization & Transformation Practices. He worked as a member of a team engaged by the Head of European Information Systems at a global FMCG company to **redefine the application delivery model and location strategy, identifying $20m in potential savings**. He delivered an assessment of capability and capacity to the **Head of IT at a London Borough to support an IT-led transformation program**. Gareth also worked with the **Head of Health Informatics at an NHS Trust with an annual budget of £650m** to develop the business case and implementation plan for a shared service to deliver IT services to four NHS Trusts. The plan **identified savings of 15%** of turnover and was signed off by the boards of all four trusts.

Gareth also completed an assessment of the client support team at a financial services data vendor, **identifying a potential 20% capacity saving** to support expansion, and **personally presented the findings of the project to the board of directors**. He also **reported directly to the COO of an NHS Primary Care Trust with a £450m annual budget** while creating a three-year organizational development program plan, and worked with directors and service heads to define work stream project plans.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
2016 (April)	PMP (planned)
2007 – 2008	MBA, Director's Scholar (720 GMAT) University of Cambridge, Judge Business School
1998 – 2002	2:i MChem (Hons.) Chemistry with French, ERASMUS exchange student University of Sheffield / Ecole Nationale Supérieure de Chimie

Foster Moore
The registry people

Nebraska Interactive Staff Profile

Jane Rihanek – Project Manager

Summary

Jane has been with Nebraska Interactive for over 3 years working as a Project Manager. Ms. Rihanek has project managed the launch of several successful projects for the Nebraska Secretary of State Business Services Division including Annual and Biennial Tax Report Filings, Corporate Document eDelivery enhancements, and UCC and EFS Search enhancements. Jane has proven success in understanding the importance of the time-sensitive processes involving Uniform Commercial Code filings and reporting. This is crucial to the operational activities in the Secretary of State Business Services Division

Role & responsibilities within Nebraska Interactive

As Project Manager, Jane is responsible for executing the project management methodology and process for Nebraska Interactive's online applications and services. Ms. Rihanek's primary responsibilities are developing the project requirements, project workflows, functional specifications, business processes and recommendations related to the project. She is responsible for the project planning and execution throughout the project lifecycle. Duties include:

- Execute project management methodology and process for online applications and services for Nebraska state and local government agencies
- Communicate effectively to various audience types (e.g. state agency directors, developers, and management) to identify needs and evaluate business solutions
- Responsible for understanding and interpreting business objectives and aligning project development activities with business priorities and strategies
- Establish project milestones based on design and scope of work
- Lead and conduct website application quality assurance and testing efforts
- Operate with an inspection mind set to ensure the deliverable meets/exceeds the client's expectation
- Attend regular project meetings to disseminate project status information; work closely with the development team in project coordination
- Problem-solve and troubleshoot issues for agencies and provide assistance to customer service support when appropriate and necessary
- Quickly identify and understand the issues and challenges of clients and construct counter-solutions; ensure issues are identified, tracked, reported, and resolved in a timely manner
- Create social media posts and track effectiveness via Google Analytics and other web tools
- Generate marketing activity reports; lead print and online Public Relations materials, including brochures, newsletters, press releases, and articles
- Assist with creating quarterly board meeting reports, and yearly budget and business plans

Summary of Employment History

Jane has successfully launched several projects for the Nebraska Secretary of State including:

- Annual and Biennial Tax Report Filings
- Corporate Document eDelivery New Filing Enhancements
- Corporate and Business Search Online Certificates of Good Standing
- UCC and EFS Search Re-write and Enhancements
- Online Voter Registration

Ms. Rihanek has also completed these projects for other Nebraska state agencies:

- Department of Motor Vehicles – Change of Address for Driver Licensing Services
- Board of Engineers and Architects – License Renewals
- Department of Revenue – Motor Fuel Filings and Searches
- State Electrical Division – License Renewals
- Board of Public Accountancy – License Renewals

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
1998	B.S., Business Administration, York College-York, Nebraska

Foster Moore
The registry people

Foster Moore Staff Profile

Phil Long – Catalyst Application Architect

Summary

Phil Long is a **seasoned IT professional** with over **20 years** software engineering experience which accompanies his **Bachelor of Technology (Hons)** and his **Ph.D., Image Processing** (analysis of technologies involved in CAT scanning reconstruction algorithms). His interest in technology is **far-reaching** and his career overview demonstrates his **commitment to software architecture** of the highest calibre and impact. His **Java development** experience is prolific over a diverse range of industries and his confident use of the most popular and relevant technologies such as **JSP, EJB, HTML, SQL, Hibernate, Struts, ANT** and various others add to his well-rounded and **progressive development** and **team lead** approach. Most recently, Phil has been **responsible for the architecture, design and implementation of the Catalyst Product Suite.**

Role & responsibilities within Foster Moore

Phil is responsible for the **architecture**, **design** and **implementation** of the **Catalyst Product Suite** and **system architecture** at **Foster Moore**. Here, he's been **managed the registry and solution design** for a number of **international online companies registers** based on the **Catalyst product** including for the **Investment Promotion Authority of Papua New Guinea, the Samoan Ministry of Commerce, Industry & Labour, the Cook Islands, Solomon Islands, Tongan and New Zealand company registers.**

Summary of Employment History

Phil started working as a **software developer** on a number of short projects in the United Kingdom between 1995 and 1996. In 1997, Phil joined **Oracle New Zealand** as a software developer before accepting a job for **London Electricity** as a **software development Team Leader**, responsible for a group of 10 developers. His main tools used here were **Oracle Developer/Designer 2000** and **PL/SQL** and alongside his team, Phil **rolled out** a **multi-user (client-server) Contract Administration system** with **Prince** employed as the **primary design methodology**. Phil worked on large-scale implementation projects for clients such as **CMG (BUPA)** using **Oracle PL/SQL** as senior developer Team Leader, **setting up infrastructure** and code templates and guidelines to produce **Oracle 8 database services within a 3-tier architecture**.

Between July 1999 and July 2000, Phil worked as a **Senior Developer** for **Paymaster General** in England where he was responsible for the design and build of an **intranet annuity data entry system** using **Java, JDBC and Oracle 7.3 database**, producing a **Java applet** client using **AWT objects** to gather and update data with dynamic lists & real-time validation. He also worked as an **analyst** in this role, **designing** and **developing** a **data conversion CASE tool** in which source and target structures are described along with mapping details through the use of **purpose-built, high-level language**.

Between 2000 and 2003, Phil worked on various diverse design, development and implementation projects including an **Oracle based internet-enabled emergency response system** for **First Assist, England,** with modules deployed over an **Oracle Application Server** using the **Java Initiator** to **Citrix** clients. He also worked on the **"Nursery Web Camera"** Project in 2001 with **MySQL, Java Servlets, JDBC, HTML & FTP** as his main tools to do the required **analysis, design** and **development** of an Internet system used by parents to monitor their children at nursery school.

Recognizing the advancements in the ever-changing **mobile technologies environment**, Phil focused his attention on up-skilling which resulted in two complex and forward-thinking projects. Using **Java, Servlets, JSP, JDBC, HTML, MMS** and **WAP**, Phil created a **security system based on MMS** as well as a **questionnaire system** for use by field-staff who are prompted with questions and are able to record their results in real-time using a **WAP mobile interface**.

In 2003, Phil established himself as a **Senior Developer** and **Development Manager** for **Jarin Consulting** and **Foster Moore** where he led teams for the development and maintenance of applications for the **Ministry of Business, Innovation and Education** including the **Motortrader's Registry, Companies Registry, Payment Services, Radio Spectrum Management, Insolvency** and others. The **J2EE technology** was used for all applications and the architecture **SUN certified**, **while STRUTS** provided the **model-view-control web-tier architecture**.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
1993	Ph.D., Image Processing – analysis of current technologies involved in computer aided technology (CAT) scanning reconstruction algorithms and development of a fast real-time reconstruction system for use in detecting defects in log cross-sections.
1990	Bachelor of Technology (Hons), Computing Technology
2009	ITIL Version 3 Certification
2004	Sun Certified Business Component Developer (EJB)
2001	Sun Certified Java Programmer
1995	Oracle Systems Designer: Application Design
1995	Oracle Systems Generator for Forms and Reports

Foster Moore
The registry people

Foster Moore Staff Profile

Linda Hughes – Lead Catalyst Consultant

Summary

Linda's experience in **software engineering** and **business consulting** for the likes of **Oracle NZ** and Foster Moore, coupled with her knowledge of and experience with **Company Registers,** have led to her role as a **Senior Catalyst Consultant** for Foster Moore where she captures and **details system requirements** and comprehensive specifications for the **BR Catalyst System** and various Company Registers including **Solomon Islands, Cook Islands FSC and Montana SOS Business Entities Registers**. Linda is a specialist in both **Business, Occupational, Trademark** and **Secured Transaction Registers**. Prior to her current role at Foster Moore, Linda focused on the **development of the New Zealand Companies Office website** for the **Ministry of Business, Innovation and Employment**. The gamut of experience covered during Linda's focused career include the **implementation of Oracle Applications** for Waitemata Health; the design and **development of a J2EE travel booking management system**; NZ Radio's **Spectrum Management System** (Smart) and the **JEEP utility service system** to manage jobs, events, escalations and productivity for Jarin Limited where she worked as a **software engineer**.

Role & responsibilities within Foster Moore

Linda's current role at Foster Moore is **Senior Catalyst Consultant** working on **capturing system requirements** and producing **detailed specifications** for the Service Ontario occupational register for security guards and private investigators, **Labuan Financial Services Authority business and occupational registers**, **Solomon Islands Company Register and the Cook Islands FSC Register** as well as producing detailed specifications for the **Catalyst Product**. Linda has been in this role since 2010 and has worked in various countries all over the world. As a Catalyst Consultant, Linda not only worked as a senior developer but also undertook various other tasks such as **project management** as well as **registry** and **business analysis** for the **large scale Catalyst based** projects such as the **Samoan**, **New Zealand** and **Cook Islands companies register**, the **Labuan Financial Services Authority**, and the **Service Ontario Private Investigator** and **Security Guard Register**.

Summary of Employment History

From 1988 to 1996, Linda worked as a **Commercial and Corporate Banking Assistant Manager** for **ANZ Banking Group** and prior to Linda's senior consultant role at Foster Moore, she spent a year working as a **software engineer** where she developed, on behalf of Foster Moore, the **Companies Office of New Zealand application** with a particular focus on the user interface. Before this and between 2003 and 2010, Linda worked as a **software engineer** for various other large businesses developing a **gamut of custom systems**. Between 2002 and 2003, Linda **implemented various Oracle applications** and nodule enhancements for **Waitemata Health** as well as an **RD1 website** for NZ dairy giant Fonterra in her role as a **consultant for Oracle NZ**.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
1999	Bachelor of Information Systems & Technology, Double Major & University Scholarship for highest grade in Computer Science.
1999	Oracle Auckland – Financial Applications
1998	Oracle Auckland – Advanced PL/SQL
1998	Oracle Auckland – Oracle PL/SQL

Foster Moore
The registry people

Foster Moore Staff Profile

Stephanie Nixon – Lead Tester

Summary

With a bachelor of Information Systems and 13 years broad **technical, design, programming & QA experience**, Stephanie is a seasoned IT professional and has worked in various **testing & QA analyst** roles, with **analyst and leadership** responsibilities. Her experience as a **head developer** on **complex C++/.NET applications** gives her an impressive level of understanding of **software development processes** and **end-user requirements**. Stephanie has combined and applied her **design & technical skills** and knowledge with her **attention to detail** to go on to complete testing activities on large development projects, including leading **Catalyst testing** activities from planning to delivery as well as providing user support. Stephanie has gained experience working over **multiple platforms** including **Oracle 8, 9 and SQL Server 2005** and been responsible for the leadership of a number of large test projects over her **12 year** employment with **Foster Moore**.

Role & responsibilities within Foster Moore

In her role as **Testing Lead** for Foster Moore, Stephanie has gained invaluable experience in leadership for a number of **Catalyst implementation** projects such as the New Zealand Companies Register (Enterprise), Tongan, Solomon Islands, Papua New Guinea and Labuan FSA Companies Registers as well as various other large-scale complex projects. Her responsibilities include the design and development of comprehensive test plans for the **functional and regression testing** of various web based applications for the **Ministry of Business, Innovation and Employment** and the **World Bank**. This includes comprehensive **time estimates/testing effort required** as well as the **preparation of test cases and test data** based on test plan requirements as well as the **provision of user support** to the business.

Summary of Employment History

Stephanie spent **1 year** in 2001 as a **C++ head developer** at **CAD Methods Limited** where she **developed and co-developed several applications** streamlining, innovating & upgrading systems using **C++**, working on multiple platforms including **Oracle 8, 9 and SQL Server 2005**. Stephanie moved on in 2002 to a **QA Analyst role** for **Prism Software**, leader in the provision of MIS solutions to the print industry with offices around the world. Here, she **completed testing of a large suite of software applications built in C++/.NET** and **co-developed various PSLs** as well as implementing **effective testing and reporting strategies**. Her current role as **Testing Lead** for Foster Moore extends over a **12 year** period.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
2001	Bachelor of Information Systems
1998	Certificate in Animation & Illustration
2009	Proactive ITIL Certification V3

Foster Moore
The registry people

Foster Moore Staff Profile

Richard Griffin – Data Migration Lead

Summary

Richard has over **17 years' experience** as an **Oracle DBA** and has unparalleled knowledge and experience in the field of database administration and architecture. His strong **analytical, communication and leadership skills** make him a strong team player and his formidable expertise across database life cycles over the past 20 years (including development, tuning, security, backup, recovery and installation) mean that he is an invaluable source of knowledge. His current role at Foster Moore sees him responsible for the **database performance and application tuning** for all applications supported by Foster Moore for the **NZ Ministry of Business, Innovation and Employment** as well as international **implementations of the Catalyst product** where he specializes in the migration of high volumes of data into the Catalyst data model. He is a specialist in **Application Performance Tuning** with 3 years **Oracle BRM and RMAN experience**. His strong **programming** and **scripting** skills in **SQL, PL/SQL** and **UNIX** and working experience in **HTML**, **Perl & C** demonstrate Richard's robust set of analytical skills. Richard has 4 years' experience on **VMS with Rdb database support** and 2 years' experience with **Sybase/MS SQL Serve**r.

Role & responsibilities within Foster Moore

Richard's current role at Foster Moore is Catalyst Data Architect and Migration Specialist/Database Performance and Data Migration Specialist. Since 2009 this role has seen him manage the implementation and support of the Catalyst Business Registry software for the NZ Ministry of Business, Innovation and Employment as well as Foster Moore's major international implementations. Richard is a data migration specialist in the migration of high volumes of data into the Catalyst data model. Richard has recently completed the design of the Catalyst Data Migration Methodology, focused on delivering a consistent and high quality migration of data for all Catalyst implementation projects. As an example of his work, Richard has implemented Catalyst migrations with data volumes in the hundreds of millions of records. Another example includes the Ontario ONBIS Business Register project which involved data in the range of several hundred million records with a total migration size of approximately 250GB. Richard and his team has recently achieved successful data migration projects in Australia, Malaysia (Labuan), Canada, New Zealand, Africa and the Pacific.

Summary of Employment History

Richard's road to his current role at Foster Moore began in 1994 where he worked as an **Oracle Database Administrator** for 2.5 years at **ASB**, a full service national New Zealand bank. As their **sole Oracle DBA** he was responsible for the management of the **development** and **maintenance** of their **corporate data warehouse** using **Oracle 7**. From 1997 to 2000, Richard worked as a **Senior Oracle Database Administrator** for **Telecom**, New Zealand's largest telecommunications company where a large portion of his work was his involvement in the **Y2K project**. In this role, he was also responsible for the junior/trainee DBAs. From 2000 – 2004, Richard worked as an **Oracle Rdb/Sybase Database Administrator and Application DBA** in Zurich, **Switzerland** for **UBS Warburg**, a leading global financial services firm where he took on various responsibilities including, but not limited to the **Rdb database administration**, tuning & maintenance as well as **training and support** for new Oracle systems.

Returning to New Zealand in 2004 saw Richard taking on the role of **Senior Oracle DBA/Performance Analyst** for **IBM New Zealand** working on *"Program Sam"*, a **major upgrade** of IBM's customer management, billing and provisioning systems (Portal Infranet) in Vodafone New Zealand, Australia and Fiji. This **four year project** was the **most significant and substantial regional project Vodafone has undertaken to date** enabling considerable growth.

Richard's role at IBM New Zealand also saw Richard working with **AirNZ** and **Contact Energy administrating** all product and development **databases versions 7.3.4 to 10.2.0.2 (including RAC).**

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
1987-1990	Bachelor of Science (Compute Science)
1990-1991	Postgraduate Diploma in Computer Science
2015	Agile Scrum Master Certified
2015	PRINCE2 Foundation Certified

Foster Moore
The registry people

Foster Moore Staff Profile

Mike Elmsly – Senior Infrastructure Architect

Summary

Mike has over **10 years' experience** in the **IT industry** in the **telecommunications, content and government sectors** and has worked for some of the world's most **highly regarded** and **well-known businesses** in wide-ranging and **diverse environments**. Mike is regularly recognised for his **ability** to **master a range of technologies** to streamline and perfect internet products and services. Mike has worked on **content and identity management** and **Single Sign On and SOA infrastructure** and more as a **Java Developer**, **Systems Integrator** and **Application & Infrastructure Architect**. Mike is experienced in **HA** and **DR Architecture**, **Weblogic Administration** and **Architecture** and he is a **Bea Certified Administrator** with experience in the **Sun Identity Management Suite**, **Xpress Workflow** and **Forms**, **SPML**, **Unix Administration**, **Network Design & Admin**, **Apache, Tomcat, iPlanet** and **JBoss**. His development expertise includes **Java development**, **Spring**, **Perl** and **PHP**, **WAP**, **MMS**, **SMS** and **Android**.

He draws upon his wealth of **technical infrastructure and architecture** knowledge and experience in his current role at Foster Moore supporting the **implementation of the Catalyst product suite.**

Role & responsibilities within Foster Moore

Mike's role at **Foster Moore** is focused on the **design** and **implementation** of the **infrastructure** to support various **Catalyst implementation projects**. His solution design responsibilities include the **development** of **timeframe estimations** and **technical documentation** to drive and support the software, platform and hardware selection process which meet the **resilience, recovery, performance, security and scalability requirements** of clients. Mike provides **mentorship** and **technical leadership** to both internal and external technical staff and frequently **evaluates new technologies** and systems with the objective of **enhancing the customer solution**.. Working with **Catalyst Implementers** and **Configurators**, Mike assists with the **design** of the **hardware** and **other infrastructure** as well as the **configuration of pre-production and production environments**.

Summary of Employment History

In February 2001, Mike joined **Vodafone New Zealand** as a **Systems Engineer** where he was responsible for the **technical implementation** of project work for delivery into the operation space. His role here saw him responsible for the **systems integration support** for projects including **Vodafone Live R1** (initial release to the NZ market of the Vodafone Live WAP offering) as well as **KNOX**, a **local authentication, authorization** and **identity management platform**. In 2004, Mike was **promoted to Team Leader** and made responsible for the **Vodafone Life platform**, the **Identity Management platform** including **Sun Access Manager**, **Identity Manager** and **Directory Server** which was run predominantly on **Solaris** and **Red Hat Linux**. Mike was also responsible for **full change management** of the technical environment as well as **systems integration**, **consultation** and **delivery management** for various projects including the **Vodafone Prepay Systems Upgrade**, an **Identity Management platform** managing over **1 million user accounts**, the **Vodafone NZ 3G launch** including the development of a

video streaming platform as well as heading the **migration to Red Hat Linux on IBM blades for the Vodafone Web and Vodafone Live infrastructure from HPUX**.

Mike became a contractor for Vodafone in 2006 and for 3 months he was employed as the **Technical Lead** on the **Vodafone Mobile Music** project working with hosting partners in France to manage the **implementation** and **integration** of the system.

In 2007 Mike joined the **Walt Disney Internet Group** where he worked as a **Technical Lead** on a project to deploy a **custom CMS solution** and **re-launch** the **Disney UK website** based on this new platform. The infrastructure was predominantly **Java on Windows Server 2003**. Mike followed this role with a 6 week short contract as a **Systems Integrator** for **SLA Mobile** where he worked on site at a **major international mobile operator** integrating **localized content access controls** to work with a **mobile portal application** for the Australian and New Zealand markets. This involved integration with **Sun Access Manager 7.1** and custom **LDAP development**.

As **Technical Architect** for Vistorm Ltd on another short-term project, Mike delivered several **POC sites** with **custom workflow** in **Identity Manager** and **Access Manager Integration**. He was the **architect** on several **IDM projects** with proposals based on both **Sun and Oracle IDM suites** as well as performing consultant duties for clients using **Sailpoint's Identity IQ**. Between 2009 and 2001, Mike was brought back to **SLA Mobile** as a **Systems Integrator** to **develop** and **roll out** a **registration, user management and SSO service** for a **major international telecommunications provider** before joining **Foster Moore** as a **Catalyst Senior Infrastructure Architect to support Catalyst Implementation.**

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
2000-2002	Bachelor of Computer Science, Auckland University
2006	BEA Certified – System Administrator WebLogic Server
2005	Sun Java System Directory Server – Advanced Design & Deployment
2005	Sun Java System Access Manager – Configuration and Customization
2005	Sun Java System Identity Manager 5.0 – Administration and Implementation
2005	BEA WebLogic Server 8.1. Administration Training
2002	Inet+ CIW at New Horizons NZ

Foster Moore
The registry people

Foster Moore Staff Profile

Saphia Thatch – Senior Catalyst Configuration Analyst

Summary

Saphia is an experienced **technical lead** with an understanding of **multiple development technologies** and **languages** including **Java, C/C++** and **Groovy** as well as experience with databases systems such as **Sysbase, MySQL** and **Oracle**. He is an experienced developer within **SOA** using **EJB3.0, JPA, SQL, JUnit, jQuery, Hibernate, Spring, SpringMVC** and **apache libraries**. Saphia has been a software developer since 1999 and draws on this experience and knowledge to maintain his **articulate** and **progressive approach** to software design, development and implementation.

Role & responsibilities within Foster Moore

Saphia's current role at Foster Moore as a **Technical Lead** includes the implementation of the **Financial Market Conduct Registers** (Disclose) for **Financial Markets Authority** (FMA) and the **New Zealand Ministry of Business, Innovation and Employment** based on Foster Moore's **Catalyst OR** product. Saphia also contributes to the ongoing development of the **Catalyst product suite** as well as to the enhancement of the **licensing register *Arkwright*** for **FMA** based on Foster Moore's **Catalyst OR product.** Saphia was also technical lead on the Labuan Financial Services Authority (LFSA) which was a major Catalyst implementation, delivered by Foster Moore **on time and on budget**.

Saphia works on platforms **Tomcat Application Server** and **MS SQL Server 2013** while using the in-house Catalyst product suite based on **Spring MVC** and **Hibernate**, **JSDK 1.6, JavaScript AJAX, jQuery, HTML, CSS, XML, SQL, ANTLRWorks, Apache Velocity, Apache Maven, Apache Subversion** and **IntelliJ.**

Summary of Employment History

Saphia began his career in 1999 as a **software developer** working for **Advantage Retail Solutions** on the **Caltex Electronic Payment Server** project using **C & RTXC APIs.** His responsibilities included the **development** and **design** of the **Electronic Payment Server** system which included **user configuration interfaces** and **interface communication** between the EPS system. In 2001, Saphia joined **EDS NZ** where he worked as an **Information Analyst** and then onto various other projects managed by EDS for the next 5 years, working his way up towards the role of **Information Specialist.** In 2006, Saphia joined **Jarin** where he worked on the **Oasis** and **Smart** projects as a **software developer** using **JavaScript, HTML, CSS** and **XML** with an **iterative and incremental development approach**. In this role Saphia contributed to the design and development of the **Insolvency and Radio Spectrum Management** web applications for the **Ministry of Business, Innovation and Employment** as well as various application enhancements.

In 2008, Saphia joined **Foster Moore** where he took on the role of **Senior Software Developer**, contributing and providing **technical leadership** on the design and development of a suite of web applications for the Ministry of Business, Innovation and Employment using platforms **Weblogic Application Server, JBOSS jBPM, Oracle 10g** and **Apache SOLR**. The tools and technologies used in this role included **Spring, JMS, Hibernate, JSDK 1.6 JavaScript, AJAX, jQuery, HTML, CSS, SQL.**

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
2005	Sun Certified Programmer for the Java 2 Platform 1.4
2000	Object Oriented Analysis and Design Using UML
1997	B.E. in Electrical and Electronics, Auckland University

Foster Moore
The registry people

Foster Moore Staff Profile

Gabriel JungBerg –Test Automation Lead

Summary

Gabriel has **extensive experience** in **software quality assurance** and testing of **business applications** and has **managed various functional** and **test automation efforts**, **creating test frameworks** using commercial, open-source or home-grown testing tools. Gabriel's specialities lie in **web** and **rest services automation** as well as **HP Quicktest Professional, Load Runner, Quality Center API (VAPI-XP), Selenium, Lopus, UNIX/Mainframe** and **SAP** and he has expertise in **various programming languages** including **Java, Groovy, SQL, VB.NET, ASP.NET, XML & HTML**. Gabriel strongly believes that being **proactive** and keeping up to date with the progression of new technologies and **applying new methodologies** to the test process improves performance and product delivery overall. Gabriel has a strong **working knowledge** of all phases of the **SDLC** from an **Agile Environment** using **TDD**.

Role & responsibilities within Foster Moore

In his role as **Test Automation Lead** for Foster Moore which began in 2012, Gabriel is responsible for performing all **system-related testing activities** including **functional, integration, system, performance and load testing as well as network scanning**, **vulnerability assessment, penetration testing and device configuration** reviews. He develops **comprehensive test plans** in accordance with client specifications, ensuring a **rigorous test process** acting quickly on potential enhancements or improvements. Gabriel has developed **test automation plans** for several projects at Foster Moore including **ONBIS – Canada, LFSA – Malaysia, Ministry of Business, Innovation and Education – Tonga, Africa and New Zealand** and is responsible for all **development** and **updates** on the **Robot Framework & RIDE** open source automation tools.

Summary of Employment History

After completing a degree in **Industrial Electronics**, Gabriel began his career as a **Technical Supervisor** for **Springfield Electronica** where he worked for 5 years. He was responsible for the **monitoring** and **troubleshooting** of equipment operation, **testing of hardware and software** as well as all **initial configurations** on various operating systems and the provision of **on-site** and **customer technical support**. In 2006, Gabriel joined **Repsol YPF** as a **Semi-Senior Tester** for **SAP projects** and web applications where he **analyzed**, **designed** and **developed test plans** and test cases. His responsibilities included the **functional testing** of the Repsol portal and guide as well as the testing of **ABAP developments** on various **complex SAP projects**. Gabriel designed and executed **test cases** for the **Trinidad and Tobago Field Project**, a **web application** involving **complex calculations** to rate oil coming in from various fields. In 2007, Gabriel joined **Verizon Business** where he spent 4 years as a **Senior Tester implementing QA automation** for several systems as well as **championing the automation training for USA, India and Argentina**. He worked on **several systems including PQS/DOMS, CRIT, ETMS, CPT** and he regularly sized the scope and impact of **Automation & Functional Testing**, and **designing automation scripts** in various languages (**QTP, VAPI-XP, SOAP UI, Groovy**). Some of the projects Gabriel worked on during his time at Verizon Business included **ETMS (Enterprise Trouble Management System, a Java Application)**, **CRIT (Contract Rate Implementation Tool, a SCRUM project** related to contracts implementation

for the US government and customers around the world), **PQSDOMS (Princing Quoting System)** and **WOFI (Wholesale Order Form Interface), a web application integrated with Exchange API**.

In 2011, Gabriel was an **independent IT consultant** for **Atos Origin**, charged with the **Quickset Professional Training** for Testing Teams covering company projects such as a **Peugeot Web Application** and **Oracle based forms for Claro Telecommunications** on a 5 month project.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
2003-2010	Bachelor of Software Engineering, Interamerican Open University
1994-2000	Electrical Technician, major in Industrial Electronics
2011	Certified ISTQB Intermediate Level Tester
2011	Certified Quicktest Professional 11.0
2011	Certified HP Application Lifecycle Management 11.0
2011	Certified ISTQB Foundation Tester
2010	Certified ScrumMaster
2009	Technical Mainframe Training
2009	QuickTest Professional 9.5 Training (QTP-0120, TSOFT)
2008	Linux Administrator Course

Foster Moore
The registry people

Nebraska Interactive Staff Profile

Carmen Easley – Director of Operations

Summary

With over 10 years of managing the operations for the Nebraska.gov portal, Carmen is a highly experienced and successful manager of the day-to-day operations of project management, process management, graphic design, business development, marketing, quality assurance, customer service and finance administration. Carmen is integral in the business analysis and strategy of the Nebraska.gov portal and has a proven track record of implementing complicated front-end solutions on time and exceeding partner expectations. She is very knowledgeable in the PMBOK, ITIL, Web 2.0, SOA, Web Services, project process and product implementation, finance and analytics.

Role & responsibilities within Nebraska Interactive

At Nebraska Interactive, Carmen is responsible for managing the successful implementation of all online services and websites, as well as the negotiations and marketing of the services. She is also responsible for the business development, customer service and financial administration. Carmen ensures the Nebraska Interactive project process and product catalog is managed and consistently improved.

Carmen manages a team of 4 project managers, 3 graphic designers, 1 quality assurance, 1 business development, 1 product and customer support as well as 1 financial manager. Carmen's major responsibilities as director include project management, management of project time reporting, budgeting and forecasting, building customer relationships, finding new opportunities, and management and improvement of the online services portfolio

Summary of Employment History

Prior to Nebraska Interactive, Carmen worked for First Data Merchant Services in Mexico as the implementation manager for the national migration of all merchants to a new merchant platform. In total, Carmen spent 7 years in Mexico and managed 2 vendor relationships to execute the migration as well as implementing a call center to provide interim service and support for all merchants needing assistance. In total, Carmen worked for First Data for 9 years. The first 6 she worked on the acquiring business in various project management roles and then moved to the merchant side of the business as an implementation manager.

Education & Qualifications

YEAR(S)	EDUCATION & TRAINING
1997	International Business (B.S., Business Administration, B.A., Spanish)

Appendix 4. Financial Statements

This section of our response is proprietary and confidential.

The release of the content of this section of our proposal would give an advantage to Foster Moore's competitors, including (without limit) Enterprise Registry Solutions (ERS), Information Services (ISC), PCC Technologies Inc; Tecuity; GCR Inc.. If this information was disclosed, the above-mentioned persons would gain a demonstrated advantage because they would have access to highly sensitive information about Foster Moore's financial position. As a result, the disclosure of this information would cause material harm to Foster Moore's business (and the business of its related group of companies).

This appendix contains the consolidated Annual Report of Foster Moore group for Financial Year ending 30 September, 2015.

Appendix 5. Catalyst End User License Agreement

oster Moore International Limited a limited liability company registered in New Zealand **("Foster Moore")**
oftware License Agreement

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c) at any time after the date of receipt by the Licensee, received in good faith from a third party without any breach of an obligation confidentiality by that third party.

Documentation" means the current standard documentation for the Licensed Software, together with any standard updates to that ocumentation provided with the Maintenance Services;
Force Majeure Event" means any event that is beyond the reasonable control of Foster Moore, including without limitation war, riot, strik ommunication lines or internet failure, and natural or man-made disaster;
Foster Moore Software" means any Foster Moore application, including any modification, enhancement or derivative work and all patche tandard updates and revisions of an application provided as part of Maintenance Services or otherwise. To avoid doubt, the Licensed Software oster Moore Software;
Intellectual Property" includes copyright, patents, designs, trade marks, trade names, goodwill rights, trade secrets, confidential informatio now-how and any other intellectual proprietary right or form of intellectual property existing anywhere in the world and whether registered or not;
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ensed Software" means the Foster Moore Software specified in the Order Form and includes all patches, standard upgrades and revisions software supplied as part of the Maintenance Services, but excludes the source code;
Licensee" means the person named as Licensee in the Order Form;
Maintenance Services" means services to maintain the Licensed Software in good operating condition as determined by Foster Moore at i iscretion, including the provision of patches, updates and revisions and new releases of the Licensed Software, but excludes the support ar ıaintenance of any Licensee specific customisations made to, or Licensee specific derivative works of, the Licensed Software (such support ar ıaintenance to be supplied under a separate support agreement);
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(d) alter, remove or tamper with any trade marks, any patent or copyright notices, or any confidentiality, proprietary or trade secr legend or notice, or any numbers, or other means of identification used on or in relation to the Licensed Software or Documentatio or
(e) do any act which would or might invalidate or be inconsistent with Foster Moore's (or its licensor's) Intellectual Property rights.

Without limiting the earlier part of this clause 2.4, the Licensee must not supply or otherwise use the Licensed Software or Documentatic in competition with Foster Moore.

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.1 Foster Moore will provide Maintenance Services for the Licensed Software to the Licensee, commencing on the commencement date i Maintenance Services specified in the Order Form. Provision of Maintenance Services is subject to (a) payment by the Licensee of th annual fees for Maintenance Services; (b) the Licensee using a current or supported version of the Licensed Software; and (c) the License maintaining an adequate and properly configured environment for the operation of the Licensed Software (in accordance with ar recommendation of Foster Moore from time to time). Support services for Licensee specific customisations made to, or Licensee specif derivative works of, the Licensed Software are only available under a separate agreement (and for which separate fees apply) and a subject to Licensee having paid the annual Maintenance Services fees under this License Agreement.

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.3 Provision of Maintenance Services does not include supply of any services, whether for installation or implementation of patches, update or revisions or otherwise. Such services are available from the Service Provider under the Services Agreement or separate suppo agreement (as applicable).

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.2 All fees payable by the Licensee under the License Agreement must be made in full without set-off or counterclaim and, except to the exte required by law, free and clear of any deduction on account of tax or otherwise.

.3 If the Licensee fails to pay any amount due under a License Agreement by the due date, Foster Moore may without prejudice to its oth rights and remedies:

(a) decline to supply any additional Foster Moore Software to the Licensee until payment of all outstanding amounts is paid; and/or

(b) require the Licensee to pay interest at 10% per annum on the amount due from the due date until the date of payment (in addition t the Licensee remaining liable for the full amount outstanding); and

(c) suspend the provision of the Maintenance Services or suspend the Licensee's access and use of the Licensed Software, including:

(i) by utilizing and changing passwords or remote access provided to Foster Moore by or on behalf of the Licensee (albeit other purposes or provided under the Services Agreement or another separate agreement between the parties);

(ii) by instructing any third party hosting provider to cease hosting the Licensed Software and return all copies to Foster Moo and Foster Moore may disclose the License Agreement, and in particular this clause, together with such evidence of no payment of relevant invoices as the hosting provider may require to any such hosting provider as Foster Moore's authority t instruct the hosting provider accordingly.

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Confidentiality and publicity

.1 The Licensee must effect and maintain adequate security measures to safeguard the Confidential Information.

.2 The Licensee must not use or disclose any Confidential Information other than (a) to its directors or employees to the extent necessary the performance of the License Agreement; or (b) with the express prior written consent of Foster Moore; or (c) to its professional adviser or (d) to the extent required by law. Disclosure of Confidential Information to the persons in (a) and (c) is subject to those persons beir subject to confidentiality obligations no less onerous than those set out in this License Agreement.

.3 Foster Moore may, with the Licensee's prior written consent, use the Licensee as a reference site or in a case study or other promotion material.

Warranties

.1 Foster Moore warrants that Foster Moore or its licensors are entitled to grant the license granted under the License Agreement.

.2 Except as provided under clause 7.1, all warranties, terms and conditions (including without limitation, warranties and conditions as t fitness for purpose and merchantability), whether express or implied by statute, common law or otherwise are excluded to the exte permitted by law.

Limitation of liability

.1 To the extent permitted by law, the maximum aggregate liability of Foster Moore under or in connection with the License Agreement relating to the Licensed Software or the Maintenance Services, whether in contract, tort (including negligence), breach of statutory duty otherwise, must not in any 12 month period starting on the Commencement Date or anniversary of that date exceed the fees paid by th Licensee under the License Agreement in that 12 month period (which in the first 12 month period of this License Agreement is deemed t be the total fees paid by the Licensee from the Commencement Date to the date of the first event giving rise to liability).

.2 To the extent permitted by law, Foster Moore will not be liable for losses or damages which do not flow directly from a breach of the Licens Agreement nor for any loss of business, savings, revenue, profits, data, and/or goodwill.

.3 Foster Moore is not liable to the Licensee for any failure to perform its obligations under the Agreement to the extent caused by (a) Forc Majeure or (b) any use or modification of the Licensed Software, the Documentation or the Maintenance Services in a manner not permitte under this License Agreement.

Termination

.1 Either party may terminate the License Agreement immediately by notice in writing:

(a) upon the other party committing any material breach of the License Agreement that is incapable of remedy;

(b) upon the other party failing to remedy any breach of the License Agreement that is capable of remedy within 30 days of written notic of that breach having been given by the non-defaulting party to the other party (and, without limitation, a failure by the Licensee t pay any amount due under the License Agreement by the due date is a breach that is capable of remedy for the purposes of th clause 9.1(b));

(c) upon the commencement of liquidation or the insolvency of the other party (except for the purposes of solvent amalgamation reconstruction) or upon the appointment of a receiver, statutory manager or trustee of the other party's property or upon a assignment for the benefit of the other party's creditors or upon execution being levied against the other party or upon the other par compounding with its creditors or being unable to pay its debts in the ordinary course of business.

0 **Consequences of termination**

0.1 On termination of the License Agreement by either party whether in accordance with clause 9 or otherwise:

(a) the licenses granted under the License Agreement will terminate immediately; and

(b) the Licensee will cease to use Foster Moore's (and its licensor's) Intellectual Property (including all Licensed Software ar Documentation) and remove the Licensed Software from its systems and instruct any hosting provider hosting the Licensed Softwa to cease hosting it and remove it from all relevant systems;

(c) Foster Moore may require the Licensee to provide written certification to Foster Moore that it has complied with the requirements clause 10.1(b);

(d) the Licensee will promptly pay any amounts outstanding under the License Agreement.

1 **General**

1.1 Assignment: The Licensee will not assign its rights under the License Agreement without the prior written consent of Foster Moore. Fost Moore may assign its rights under the License Agreement at any time without the Licensee's consent.

? Entire agreement: The License Agreement constitutes the complete and exclusive statement of the agreement between the partie superseding all proposals or prior agreements, oral or written, and all other communications between the parties relating to the subje matter of the License Agreement. Without limiting the previous sentence, the parties agree that sections 9, 12A and 13 of the New Zealar Fair Trading Act 1986 do not apply.

1.3 Further assurances: The parties must each do all such further acts (and sign any documents), as may be necessary or desirable f effecting the transactions contemplated by the License Agreement.

1.4 Amendments: Except as specifically provided, no amendment to the License Agreement will be effective unless it is in writing and signed b both parties.

1.5 No waivers: No exercise or failure to exercise or delay in exercising any right or remedy by a party will constitute a waiver by that party that or any other right or remedy available to it. No waiver will be effective unless it is in writing and signed by the party waiving the right remedy.

1.6 Remedies cumulative: Except as is expressly stated in the License Agreement, the rights, powers and remedies provided in the Licens Agreement are cumulative and will be in addition to every other right, power or remedy given under the License Agreement or existing law.

1.7 Severability: If any term of the License Agreement is subsequently found to be unenforceable, invalid or illegal for any reason whatsoeve the other terms will remain in full force and effect as if the License Agreement had been executed without such provisions.

1.8 Order of precedence: if there is any conflict or inconsistency between a) the terms and conditions of this license agreement and b) th Order Form, the Order Form will take precedence.

2 **Notices**

2.1 Any notice or other communication under the License Agreement will be deemed to be validly given if in writing and delivered by hand, pr paid post or email to the Licensee or Foster Moore at the addresses for that party specified in the Order Form. Receipt will be deemed: a) delivered by hand, upon delivery, b) if delivered by post, three days after posting if sent and received within New Zealand and ten da after posting from one state or country to another or c) if delivered by email, on sending provided the sender does not receive any indicatic of the failure of, or delay in, delivery within 24 hours after dispatch.

3 **Dispute resolution**

3.1 Where any dispute arises between the parties concerning the License Agreement or the circumstances, representations, or conduct givir rise to the License Agreement, no party may commence any court or arbitration proceedings relating to the dispute unless that party ha complied with the procedures set out in this clause 13.

3.2 The party initiating the dispute ("the first party") must provide written notice of the dispute to the other party ("the other party") and nomina in that notice the first party's representative for the negotiations. The other party must within seven days of receipt of the notice, give writte notice to the first party naming its representative for the negotiations. Each representative nominated will have authority to settle or resol the dispute.

3.3 If the parties are unable to resolve the dispute by discussion and negotiation within 14 days of receipt of the written notice from the fir party, then the parties must immediately refer the dispute to mediation.

3.4 The mediation must be conducted in terms of the LEADR New Zealand Inc Standard Mediation Agreement. The mediation must b conducted by a mediator at a fee agreed by the parties. Failing agreement between the parties, the mediator will be selected and his/h fee determined by the Chair for the time being of LEADR New Zealand Inc.

4 **Governing law**

4.1 The License Agreement is governed by the laws of New Zealand, and the parties submit to the non-exclusive jurisdiction of the courts o New Zealand.

Appendix 6. Catalyst Escrow Agreement

IRON MOUNTAIN

Effective Date	
Master Deposit Account Number	
*Effective Date and Deposit Account Number to be supplied by Iron Mountain only.	

Three-Party Master Depositor Escrow Service Agreement

1. Introduction

This Three-Party Master Depositor Escrow Service Agreement (the "**Agreement**") is entered into by and between Foster Moore International, Limited ("**Depositor**"), and by any additional party enrolling as a "**Beneficiary**" upon execution of the Beneficiary Enrollment Form attached as Exhibit E to this Agreement and by Iron Mountain Intellectual Property Management, Inc. ("**Iron Mountain**"). Beneficiary, Depositor, and Iron Mountain may be referred to individually as a "Party" or collectively as the "Parties" throughout this Agreement.

(a) The use of the term services in this Agreement shall refer to Iron Mountain services that facilitate the creation, management, and enforcement of software or other technology escrow accounts as described in Exhibit A attached to this Agreement ("**Services**"). A Party shall request Services under this Agreement by selecting such Service on Exhibit A upon execution of the Agreement or by submitting a work request for certain Iron Mountain Services ("**Work Request**") via written instruction or the online portal maintained at the website located at www.ironmountainconnect.com or other websites owned or controlled by Iron Mountain that are linked to that website (collectively the "**Iron Mountain Website**").

(b) In the event bankruptcy proceedings are commenced in Canada by a Party to this Agreement, the Parties to this Agreement will comply with the Bankruptcy and Insolvency Act of Canada ("**Act**") and the remedies provided therein, and unless otherwise ordered by the court, Depositor shall not interfere with the rights of the Beneficiary to elect to continue this Agreement as supplementary to the License Agreement.

2. Depositor Responsibilities and Representations

(a) It shall be solely the Depositor's responsibility to: (i) make an initial deposit of all proprietary technology and other materials covered under this Agreement ("**Deposit Material**") to Iron Mountain within thirty (30) days of the Effective Date; (ii) make any required updates to the Deposit Material during the Term (as defined below) of this Agreement; and (iii) ensure that a minimum of one (1) copy of Deposit Material is deposited with Iron Mountain at all times. At the time of each deposit or update, Depositor will provide an accurate and complete description of all Deposit Material sent to Iron Mountain using the form attached to this Agreement as Exhibit B.

(b) Depositor represents that it lawfully possesses all Deposit Material provided to Iron Mountain under this Agreement and that any current or future Deposit Material liens or encumbrances will not prohibit, limit, or alter the rights and obligations of Iron Mountain under this Agreement. Depositor warrants that with respect to the Deposit Material, Iron Mountain's proper administration of this Agreement will not violate the rights of any third parties.

(c) Depositor represents that all Deposit Material is readable and useable in its then current form; if any portion of such Deposit Material is encrypted, the necessary decryption tools and keys to read such material are deposited contemporaneously.

3. Beneficiary Responsibilities and Representations

(a) Beneficiary acknowledges that, as between Iron Mountain and Beneficiary, Iron Mountain's obligation is to maintain the Deposit Material as delivered by the Depositor and that, other than Iron Mountain's inspection of the Deposit Material (as described in Section 4) and the performance of any of the optional verification Services listed in Exhibit A, Iron Mountain has no other obligation regarding the completeness, accuracy, or functionality of the Deposit Material.

(b) It shall be solely the Beneficiary's responsibility to monitor whether a deposit or deposit update has been accepted by Iron Mountain.

4. Iron Mountain Responsibilities and Representations

(a) Iron Mountain agrees to use commercially reasonable efforts to provide the Services requested by Authorized Person(s) (as identified in the "**Authorized Person(s)/Notices Table**" below) representing the Depositor or Beneficiary in a Work Request. Iron Mountain may reject a Work Request (in whole or in part) that does not contain all required information at any time upon notification to the Party originating the Work Request.

(b) Iron Mountain will conduct a visual inspection upon receipt of any Deposit Material and associated Exhibit B. If Iron Mountain determines that the Deposit Material does not match the description provided by Depositor represented in Exhibit B, Iron Mountain will notify Depositor of such discrepancy.

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(c) Iron Mountain will provide notice to the Beneficiary of all Deposit Material that is accepted and deposited into the escrow account under this Agreement. Unless Depositor or Beneficiary submits a Work Request for "**Deposit Tracking Notification**" as described in Exhibit A, Iron Mountain shall not have any obligation to prompt the Depositor to make a deposit, nor shall it have an obligation to notify the Beneficiary of the Depositor's failure to make a deposit or deposit update. Notwithstanding the forgoing, either Depositor or Beneficiary may obtain information regarding deposits or deposit updates upon request or through the Iron Mountain Web.

(d) Iron Mountain will follow the provisions of Exhibit C attached to this Agreement in administering the release of Deposit Material.

(e) Iron Mountain will hold and protect Deposit Material in physical or electronic vaults that are either owned or under the control of Iron Mountain, unless otherwise agreed to by all the Parties.

(f) Upon receipt of written instructions by both Depositor and Beneficiary, Iron Mountain will permit the replacement or removal of previously submitted Deposit Material. The Party making such request shall be responsible for getting the other Party to approve the joint instructions. Any Deposit Material that is removed from the deposit account will be either returned to Depositor or destroyed in accordance with Depositor's written instructions.

(g) Should transport of Deposit Material be necessary in order for Iron Mountain to perform Services requested by Depositor or Beneficiary under this Agreement or following the termination of this Agreement, Iron Mountain will use a commercially recognized overnight carrier such as Federal Express or United Parcel Service. Iron Mountain will not be responsible for any loss or destruction of, or damage to, such Deposit Material while in the custody of the common carrier.

5. Deposit Material Verification

(a) Beneficiary may submit a verification Work Request to Iron Mountain for one or more of the Services defined in Exhibit A attached to this Agreement and Depositor consents to Iron Mountain's performance of any level(s) of such Services. Upon request by Iron Mountain and in support of Beneficiary's request for verification Services, Depositor shall promptly complete and return the escrow deposit questionnaire and reasonably cooperate with Iron Mountain by providing reasonable access to its technical personnel whenever reasonably necessary.

(b) The Parties consent to Iron Mountain's use of a subcontractor to perform verification Services. Such subcontractor shall be bound by the same confidentiality obligations as Iron Mountain and shall not be a direct competitor to either Depositor or Beneficiary. Iron Mountain shall be responsible for the delivery of Services of any such subcontractor as if Iron Mountain had performed the Services. Depositor warrants and Beneficiary warrants that any material it supplies for verification Services is lawful, does not violate the rights of any third parties and is provided with all rights necessary for Iron Mountain to perform verification of the Deposit Material.

(c) Iron Mountain will work with a Party who submits any verification Work Request for Deposit Material covered under this Agreement to either fulfill any standard verification Services Work Request or develop a custom Statement of Work ("**SOW**"). Iron Mountain and the requesting Party will mutually agree in writing to an SOW on terms and conditions that include but are not limited to: description of Deposit Material to be tested; description of verification testing; requesting Party responsibilities; Iron Mountain responsibilities; Service Fees; invoice payment instructions; designation of the paying Party; designation of authorized SOW representatives for both the requesting Party and Iron Mountain with name and contact information; and description of any final deliverables prior to the start of any fulfillment activity. After the start of fulfillment activity, each SOW may only be amended or modified in writing with the mutual agreement of both Parties, in accordance with the change control procedures set forth in the SOW. If the verification Services extend beyond those described in Exhibit A, the Depositor shall be a necessary Party to the SOW governing the Services.

6. Payment

The Party responsible for payment designated in the Paying Party Billing Contact Table ("**Paying Party**") shall pay to Iron Mountain all fees as set forth in the Work Request ("**Service Fees**"). All Service Fees are due within thirty (30) calendar days from the date of invoice in Canadian currency and are non-refundable. Iron Mountain may update Service Fees with a ninety (90) calendar day written notice to the Paying Party during the Term of this Agreement (as defined below). The Paying Party is liable for any taxes (other than Iron Mountain income taxes) related to Services purchased under this Agreement or shall present to Iron Mountain an exemption certificate acceptable to the taxing authorities. Applicable taxes shall be billed as a separate item on the invoice. Any Service Fees not collected by Iron Mountain when due shall bear interest until paid at a rate of one percent (1%) per month (12% per annum) or the maximum rate permitted by law, whichever is less. Notwithstanding the non-performance of any obligations of Depositor to deliver Deposit Material under the License Agreement or this Agreement, Iron Mountain is entitled to be paid all Service Fees that accrue during the Term of this Agreement.

7. Term and Termination

(a) The term of this Agreement is for a period of one (1) year from the Effective Date ("**Initial Term**") and will automatically renew for additional one (1) year terms ("**Renewal Term**") (collectively the "**Term**"). This Agreement shall continue in full force and effect until one of the following events occur: (i) Depositor and Beneficiary provide Iron Mountain with sixty (60) days' prior written joint notice of their intent to terminate this Agreement; (ii) Beneficiary provides Iron Mountain and Depositor with sixty (60) days' prior written notice of its intent to terminate this Agreement; (iii) the Agreement terminates under another provision of this Agreement; or (iv) any time after the Initial Term, Iron Mountain provides sixty (60) days' prior written notice to the Depositor and Beneficiary of Iron Mountain's intent to terminate this Agreement. The Effective Date and the Deposit Account Number shall be supplied by Iron

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Mountain only. The Effective Date supplied by Iron Mountain and specified above shall be the date Iron Mountain sets up the escrow account.

(b) Unless the express terms of this Agreement provide otherwise, upon termination of this Agreement, Iron Mountain shall return physical Deposit Material to the Depositor and erase electronically submitted Deposit Material. If reasonable attempts to return the physical Deposit Material to Depositor are unsuccessful, Iron Mountain shall destroy the Deposit Material.

(c) In the event of the nonpayment of undisputed Service Fees owed to Iron Mountain, Iron Mountain shall provide all Parties to this Agreement with written notice of Iron Mountain's intent to terminate this Agreement. Any Party to this Agreement shall have the right to make the payment to Iron Mountain to cure the default. If the past due payment is not received in full by Iron Mountain within thirty (30) calendar days of the date of such written notice, then Iron Mountain shall have the right to terminate this Agreement at any time thereafter by sending written notice to all Parties. Iron Mountain shall have no obligation to perform the Services under this Agreement (except those obligations that survive termination of this Agreement, which includes the confidentiality obligations in Section 10) so long as any undisputed Service Fees due Iron Mountain under this Agreement remain unpaid.

8. Infringement Indemnification

Anything in this Agreement to the contrary notwithstanding, Depositor at its own expense shall defend, indemnify and hold Iron Mountain fully harmless against any claim or action asserted against Iron Mountain (specifically including costs and reasonable attorneys' fees associated with any such claim or action) to the extent such claim or action is based on an assertion that Iron Mountain's administration of this Agreement infringes any patent, copyright, license or other proprietary right of any third party. When Iron Mountain has notice of a claim or action, it shall promptly notify Depositor in writing. Depositor may elect to control the defense of such claim or action or enter into a settlement agreement, provided that no such settlement or defense shall include any admission or implication of wrongdoing on the part of Iron Mountain without Iron Mountain's prior written consent, which consent shall not be unreasonably delayed or withheld. Iron Mountain shall have the right to employ separate counsel and participate in the defense of any claim at its own expense.

9. Warranties

IRON MOUNTAIN WARRANTS ANY AND ALL SERVICES PROVIDED HEREUNDER SHALL BE PERFORMED IN A COMMERCIALLY REASONABLE MANNER CONSISTENT WITH INDUSTRY STANDARDS. EXCEPT AS SPECIFIED IN THIS SECTION, ALL CONDITIONS, REPRESENTATIONS, AND WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE, ARE HEREBY EXCLUDED TO THE EXTENT ALLOWED BY APPLICABLE LAW. AN AGGRIEVED PARTY MUST NOTIFY IRON MOUNTAIN PROMPTLY UPON LEARNING OF ANY CLAIMED BREACH OF ANY WARRANTY AND, TO THE EXTENT ALLOWED BY APPLICABLE LAW, SUCH PARTY'S REMEDY FOR BREACH OF THIS WARRANTY SHALL BE SUBJECT TO THE LIMITATION OF LIABILITY AND CONSEQUENTIAL DAMAGES WAIVER IN THIS AGREEMENT. THIS DISCLAIMER AND EXCLUSION SHALL APPLY EVEN IF THE EXPRESS WARRANTY AND LIMITED REMEDY SET FORTH ABOVE FAILS OF ITS ESSENTIAL PURPOSE.

10. Confidential Information

Iron Mountain shall have the obligation to implement and maintain safeguards designed to protect the confidentiality of the Deposit Material and use at least the same degree of care to safeguard the confidentiality of the Deposit Material as it uses to protect its own confidential information, but in no event less than a reasonable degree of care. Except as provided in this Agreement Iron Mountain shall not use or disclose the Deposit Material. Iron Mountain shall not disclose the terms of this Agreement to any third party other than its financial, technical or legal advisors, or its administrative support service providers. Any such third party shall be bound by the same confidentiality obligations as Iron Mountain. If Iron Mountain receives a subpoena or any other order from a court or other judicial tribunal pertaining to the disclosure or release of the Deposit Material, Iron Mountain will promptly notify the Parties to this Agreement unless prohibited by law. After notifying the Parties, Iron Mountain may comply in good faith with such order. It shall be the responsibility of Depositor or Beneficiary to challenge any such order; provided, however, that Iron Mountain does not waive its rights to present its position with respect to any such order. Iron Mountain will cooperate with the Depositor or Beneficiary, as applicable, to support efforts to quash or limit any subpoena, at such Party's expense.

11. Limitation of Liability

EXCEPT FOR: (I) LIABILITY FOR DEATH OR BODILY INJURY; (II) PROVEN GROSS NEGLIGENCE OR WILLFUL MISCONDUCT; OR (III) THE INFRINGEMENT INDEMNIFICATION OBLIGATIONS OF SECTION 8, ALL OTHER LIABILITY RELATED TO THIS AGREEMENT, IF ANY, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, OF ANY PARTY TO THIS AGREEMENT SHALL BE LIMITED TO THE AMOUNT EQUAL TO ONE YEAR OF FEES PAID TO IRON MOUNTAIN UNDER THIS AGREEMENT. IF CLAIM OR LOSS IS MADE IN RELATION TO A SPECIFIC DEPOSIT OR DEPOSITS, SUCH LIABILITY SHALL BE LIMITED TO THE FEES RELATED SPECIFICALLY TO SUCH DEPOSITS.

12. Consequential Damages Waiver

IN NO EVENT SHALL ANY PARTY TO THIS AGREEMENT BE LIABLE FOR ANY INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, LOST PROFITS, ANY COSTS OR EXPENSES FOR THE PROCUREMENT OF SUBSTITUTE SERVICES (EXCLUDING SUBSTITUTE ESCROW SERVICES), OR ANY OTHER INDIRECT DAMAGES, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE EVEN IF THE POSSIBILITY THEREOF MAY BE KNOWN IN ADVANCE TO ONE OR MORE PARTIES.

13. General

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(a) Purchase Orders. In the event that the Paying Party issues a purchase order or other instrument used to pay Service Fees to Iron Mountain, any terms and conditions set forth in the purchase order which constitute terms and conditions which are in addition to those set forth in this Agreement or which establish conflicting terms and conditions to those set forth in this Agreement are expressly rejected by Iron Mountain.

(b) Right to Make Copies. Iron Mountain shall have the right to make copies of all Deposit Material as reasonably necessary to pe the Services. Iron Mountain shall copy all copyright, nondisclosure, and other proprietary notices and titles contained on Deposit Material onto any copies made by Iron Mountain. Any copying expenses incurred by Iron Mountain as a result of a Work Request to copy will be borne by the requesting Party. Iron Mountain may request Depositor's reasonable cooperation in promptly copying Deposit Material in order for Iron Mountain to perform this Agreement.

(c) Choice of Law. The validity, interpretation, and performance of this Agreement shall be construed under the laws of the Province of Ontario, Canada, without giving effect to the principles of conflicts of laws.

(d) Authorized Person(s). Depositor and Beneficiary must each authorize and designate one person whose actions will legally bind such Party ("Authorized Person" who shall be identified in the Authorized Person(s) Notices Table of this Agreement or such Party's legal representative) and who may manage the Iron Mountain escrow account through the Iron Mountain website or written instruction. Depositor and Beneficiary warrant that they shall maintain the accuracy of the name and contact information of their respective designated Authorized Person during the Term of this Agreement by providing Iron Mountain with a written request to update its records for the Party's respective Authorized Person which includes the updated information and applicable deposit account number(s).

(e) Right to Rely on Instructions. With respect to release of Deposit Material or the destruction of Deposit Material, Iron Mountain shall rely on instructions from a Party's Authorized Person. In all other cases, Iron Mountain may act in reliance upon any instruction, instrument, or signature reasonably believed by Iron Mountain to be genuine and from an Authorized Person, officer, or other employee of a Party. Iron Mountain may assume that such representative of a Party to this Agreement who gives any written notice, request, or instruction has the authority to do so. Iron Mountain will not be required to inquire into the truth of, or evaluate the merit of, any statement or representation contained in any notice or document reasonably believed to be from such representative.

(f) Force Majeure. No Party shall be liable for any delay or failure in performance due to events outside the defaulting Party's reasonable control, including without limitation acts of God, strikes, riots, war, acts of terrorism, fire, epidemics, or delays of common carriers or other circumstances beyond its reasonable control. The obligations and rights of the excused Party shall b extended on a day-to-day basis for the time period equal to the period of the excusable delay.

(g) Notices. Iron Mountain shall have the right to rely on the last known address provided by each the Depositor and Beneficiary for its respective Authorized Person and Billing Contact as set forth in this Agreement or as subsequently provided as an update to such address. All notices regarding Exhibit C (Release of Deposit Material) shall be sent by commercial express mail or other commercially appropriate means that provide prompt delivery and require proof of delivery. All other correspondence, including but not limited to invoices and payments, may be sent electronically or by regular mail. The Parties shall have the right to rely on the last known address of the other Parties. Any correctly addressed notice to the last known address of the other Parties, that is refused, unclaimed, or undeliverable shall be deemed effective as of the first date that said notice was refused, unclaimed, or deemed undeliverable by electronic mail, the postal authorities, or commercial express mail.

(h) No Waiver. No waiver of any right under this Agreement by any Party shall constitute a subsequent waiver of that or any other right under this Agreement.

(i) Assignment. No assignment of this Agreement by Depositor or Beneficiary or any rights or obligations of Depositor or Beneficiary under this Agreement is permitted without the written consent of Iron Mountain, which shall not be unreasonably withheld or delayed. Iron Mountain shall have no obligation in performing this Agreement to recognize any successor or assign of Depositor or Beneficiary unless Iron Mountain receives clear, authoritative and conclusive written evidence of the change of Parties.

(j) Severability. In the event any of the terms of this Agreement become or are declared to be illegal or otherwise unenforceable by any court of competent jurisdiction, such term(s) shall be null and void and shall be deemed deleted from this Agreement. All remaining terms of this Agreement shall remain in full force and effect.

(k) Independent Contractor Relationship. Depositor and Beneficiary understand, acknowledge, and agree that Iron Mountain's relationship with Depositor and Beneficiary will be that of an independent contractor and that nothing in this Agreement is intended to or should be construed to create a partnership, joint venture, or employment relationship.

(l) Attorneys' Fees. Any costs and fees incurred by Iron Mountain in the performance of obligations imposed upon Iron Mountain solely by virtue of its role as escrow service provider including, without limitation, compliance with subpoenas, court orders, discovery requests, and disputes arising solely between Depositor and Beneficiary, including, but not limited to, disputes concerning a release of the Deposit Material shall, unless adjudged otherwise, be divided equally and paid by Depositor and Beneficiary.

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(m) No Agency. No Party has the right or authority to, and shall not, assume or create any obligation of any nature whatsoever on behalf of the other Parties or bind the other Parties in any respect whatsoever.

(n) Disputes. Any dispute, difference or question relating to or arising among any of the Parties concerning the construction, meaning, effect or implementation of this Agreement or the rights or obligations of any Party hereof will be submitted to, and settled by arbitration. Three arbitrators shall be selected. The Depositor and Beneficiary shall each select one arbitrator and the two chosen arbitrators shall select the third arbitrator, or failing agreement on the selection of the third arbitrator, the third arbitrator shall be appointed pursuant to the Arbitration Act (Ontario) or similar legislation. If Iron Mountain is a party to the arbitration, Iron Mountain shall select the third arbitrator. The decision of such arbitrators appointed pursuant to this Agreement or such Act will be final and binding on the Parties and no appeal will lie therefrom.

(o) Regulations. Depositor and Beneficiary are responsible for and warrant, to the extent of their individual actions or omissions, compliance with all applicable laws, rules and regulations, including but not limited to: customs laws; import; export and re-export laws; and government regulations of any country from or to which the Deposit Material may be delivered in accordance with the provisions of this Agreement. With respect to Deposit Material containing personal information and data, Depositor agrees to (i) procure all necessary consents in relation to personal information and data; and (ii) otherwise comply with all applicable privacy and data protection laws as they relate to the subject matter of this Agreement. Iron Mountain is responsible for and warrants, to the extent of their individual actions or omissions, compliance with all applicable laws, rules and regulations to the extent that it is directly regulated by the law, rule or regulation and to the extent that it knows or has been advised that, as a result of this Agreement, its activities are subject to the law, rule or regulation. Notwithstanding anything in this Agreement to the contrary, if an applicable law or regulation exists or should be enacted which is contrary to the obligations imposed upon Iron Mountain hereunder, and results in the activities contemplated hereunder unlawful, Depositor and/or Beneficiary will notify Iron Mountain and Iron Mountain will be relieved of its obligations hereunder unless and until such time as such activity is permitted.

(p) No Third Party Rights. This Agreement is made solely for the benefit of the Parties to this Agreement and their respective permitted successors and assigns, and no other person or entity shall have or acquire any right by virtue of this Agreement unless otherwise agreed to by all of the Parties.

(q) Entire Agreement. The Parties agree that this Agreement, which includes all attached Exhibits and all valid Work Requests and SOWs submitted by the Parties, is the complete agreement between the Parties concerning the subject matter of this Agreement and replaces any prior or contemporaneous oral or written communications between the Parties. There are no conditions, understandings, agreements, representations, or warranties, expressed or implied, which are not specified in this Agreement. Each of the Parties warrant that the execution, delivery, and performance of this Agreement has been duly authorized and signed by a person who meets statutory or other binding approval to sign on behalf of its organization as named in this Agreement. This Agreement may be modified only by mutual written agreement of all the Parties.

(r) Counterparts. This Agreement may be executed electronically in accordance with applicable law or in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

(s) Survival. Sections 7 (Term and Termination), 8 (Infringement Indemnification), 9 (Warranties), 10 (Confidential Information), 11 (Limitation of Liability), 12 (Consequential Damages Waiver), and 13 (General) of this Agreement shall survive termination of this Agreement or any Exhibit attached to this Agreement.

(balance of this page left intentionally blank – signature page follows)

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IN WITNESS WHEREOF, the Parties have duly executed this Agreement as of the Effective Date by their authorized representatives:

DEPOSITOR	
Signature	
Print Name	
Title	
Date	

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.	
Signature	
Print Name	
Title	
Date	

Provide the name and contact information of the Authorized Person under this Agreement. Please complete all information as applicable. Incomplete information may result in a delay of processing.

Depositor Authorized Person/Notices Table (Required information)	
Print Name	
Title	
Email Address	
Street Address	
City	
Province/State	
Postal/Zip Code	
Phone Number	
Fax Number	

Approved as to IPM Operational Content:
Iron Mountain IPM Service Delivery

Ryan B. Smith

Name: Ryan B. Smith, Contracts Specialist
Date: June 9, 2015

Provide the name and contact information of the Billing Contact under this Agreement. All Invoices will be sent to this individual at the address set forth below. Incomplete information may result in a delay of processing.

Paying Party Billing Contact Information Table (Required information)	
Please provide the name and contact information of the Billing Contact for the Paying Party under this Agreement. All Invoices will be sent to this individual at the address set forth below. Incomplete information may result in a delay of processing.	
Company Name	
Print Name	
Title	
Email Address	
Street Address	
City	
State/Province	
Postal/Zip Code	
Phone Number	
Fax Number	
Purchase Order #	

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.

All notices should be sent to ipmclientservices@ironmountain.com OR Iron Mountain Intellectual Property Management, Inc., Attn: Client Services, 2100 Norcross Parkway, Suite 150, Norcross, Georgia, 30071, USA. Telephone: 800-875-5669. Facsimile: 770-239-9201 and in the case of any legal proceedings or notices a copy must also be sent to the registered office of Iron Mountain Canadian Headquarters at 195 Summerlea Road, Brampton, Ontario L6T 4P6. Telephone 1-877-459-8326.

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Exhibit A
Escrow Services Fee Schedule – Work Request

Deposit Account Number	

Service	Service Description - Three-Party Master Depositor Escrow Service Agreement All services are listed below. Check the requested service and submit a Work Request to Iron Mountain for services requested after agreement signature.	One-Time Fees	Annual Fees
☒ Setup Fee (Required) ☒ Deposit Account Fee (Required)	Iron Mountain will setup a new escrow deposit account using a standard escrow agreement. Iron Mountain will set up one deposit account to manage and administrate access to Deposit Material to be secured in a controlled storage environment. Iron Mountain will provide account services that include unlimited deposits, electronic vaulting, access to Iron Mountain Connect™ Escrow Management Center for secure online account management, submission of electronic Work Requests, and communication of status. Release of deposit material is also included in the annual fee. An oversize fee of $200 USD per 1.2 cubic foot will be charged for deposits that exceed 2.4 cubic feet.	CAD $2860	CAD $1,125
☐ Add Beneficiary	Iron Mountain will fulfill a Work Request to add a Beneficiary to an escrow deposit account and manage account access rights. Beneficiary will have access to Iron Mountain Connect™ Escrow Management Center for secure online account management, submission of electronic Work Requests, and communication of status.		CAD $865
☐ Add Additional Deposit Account	Iron Mountain will set up one additional deposit account to manage and administrate access to new Deposit Material that will be securely stored in controlled media vaults in accordance with the service description above and the Agreement that governs the Initial Deposit Account.		CAD $1,125
☐ File List Report	Iron Mountain will perform a File List Test, which includes a Deposit Material media readability analysis, a file listing, a file classification table, virus scan outputs, and confirmation of the presence or absence of a completed Exhibit Q – Deposit Questionnaire. A final report will be sent to the requesting Party regarding the Deposit Material. Deposit must be provided on CD, DVD-R, or deposited electronically.	CAD $2,625	N/A
☐ Level 1 Inventory and Analysis Test	Iron Mountain will perform an Inventory and Analysis Test on the initial deposit, which includes the outputs of the File Listing test, identifying the presence/absence of build, setup and design documentation (including the presence or absence of a completed Exhibit Q), and identifying materials required to recreate the Depositor's application development and production environments. Output includes a report that includes compile and setup documentation, file classification tables and file listings. The report will list required software development materials, including, without limitation, required source code languages and compilers, third-party software, libraries, operating systems, and hardware, and Iron Mountain's analysis of the deposit. A final report will be sent to the requesting Party regarding the Deposit Material.	CAD $5,250 or based on SOW if custom work required	N/A
☐ Deposit T[illegible]ing	At least semi-annually, Iron Mountain will send a reminder to Depositor to update Deposit Material. Thereafter, Beneficiary will be notified of last deposit.	N/A	CAD $445
[illegible]al Vaulting	Iron Mountain will fulfill a Work Request to store and manage a redundant copy of the Deposit Material in one (1) additional location. All Deposit Material (original and copy) must be provided by the Depositor.	N/A	Based on quote
☐ Remote Vaulting	Iron Mountain will fulfill a Work Request to store and manage the Deposit Material in a remote location, designated by the client, outside of Iron Mountain's primary escrow vaulting location. All Deposit Material (original and copy) must be provided by the Depositor.	N/A	Based on quote
☐ Custom Contract Fee	Custom contracts are subject to the Custom Contract Fee, which covers the review and processing of custom or modified contracts.	CAD $810	N/A
Additional Verification Services (Fees based on Statement of Work)			
Level 2 Deposit Compile Test	Iron Mountain will fulfill a Statement of Work (SOW) to perform a Deposit Compile Test, which includes the outputs of the Level 1 - Inventory and Analysis Test, plus recreating the Depositor's software development environment, compiling source files and modules, linking libraries and recreating executable code, providing a pass/fail determination, and creation of comprehensive compilation documentation with a final report sent to the Paying Party regarding the Deposit Material. The requesting Party and Iron Mountain will agree on a custom SOW prior to the start of fulfillment. A completed escrow deposit questionnaire is required for execution of this test.		
Level 3 Binary Comparison Test	Iron Mountain will fulfill a Statement of Work (SOW) to perform one Binary Comparison Test - Binary Comparison, which includes the outputs of the Level 2 test, a comparison of the executable files built from the Deposit Compile Test to the actual executable files in use by the Beneficiary to ensure a full binary-level match, with a final report sent to the Requesting Party regarding the Deposit Material. The Paying Party and Iron Mountain will agree on a custom SOW prior to the start of fulfillment. A completed escrow deposit questionnaire is required for execution of this test.		
Level 4 Full Usability Test	Iron Mountain will fulfill a Statement of Work (SOW) to perform one Deposit Usability Test - Full Usability, which includes which includes the outputs of the Level 1 and Level 2 tests (if applicable). Iron Mountain will confirm that the deposited application can be setup, installed and configured and, when installed, will execute functional tests, based on pre-determined test scripts provided by the Parties, and create comprehensive setup and installation documentation. A final report will be sent to the Paying Party regarding the Deposit Material. The Paying Party and Iron Mountain will agree on a custom SOW prior to the start of fulfillment. A completed escrow deposit questionnaire is required for execution of this test.		

Pursuant to the Agreement, the undersigned hereby issues this Work Request for performance of the Service(s) selected above.

Paying Party – For Future Work Request Use Only	
Paying Party Name	
Signature	
Print Name	
Title	
Date	

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.

All Work Requests should be sent to ipmclientservices@ironmountain.com OR Iron Mountain Intellectual Property Management, Inc., Attn: Client Services, 2100 Norcross Parkway, Suite 150, Norcross, Georgia, 30071, USA. Telephone: 800-875-5669. Facsimile: 770-239-9201

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EXHIBIT B

DEPOSIT MATERIAL DESCRIPTION

(THIS DOCUMENT MUST ACCOMPANY EACH SUBMISSION OF DEPOSIT MATERIAL)

Company Name		**Deposit Account Number**	
Deposit Name		**Deposit Version**	

(Deposit Name will appear in account history reports)

DEPOSIT MEDIA (PLEASE LABEL ALL MEDIA WITH THE DEPOSIT NAME PROVIDED ABOVE)

MEDIA TYPE	QUANTITY		MEDIA TYPE	QUANTITY
☐ CD-ROM / DVD			☐ USB Drive	
☐ DLT Tape			☐ Documentation	
☐ DAT Tape (4mm/8mm)			☐ Hard Drive / CPU	
☐ LTO Tape			☐ Circuit Board	
☐ Other (please describe below):				

	TOTAL SIZE OF TRANSMISSION (SPECIFY IN BYTES)	# OF FILES	# OF FOLDERS
☐ Electronic Deposit			

Deposit Encryption

(Please check either "Yes" or "No" below and complete as appropriate)

Is the media or are any of the files encrypted? ☐ Yes or ☐ No

If yes, please include any passwords and decryption tools description below. Please also deposit all necessary encryption software with this deposit. Depositor at its option may submit passwords on a separate Exhibit B.

Encryption tool name		**Version**	
Hardware required			
Software required			
Other required information			

Deposit Certification (Please check the box below to certify and provide your contact information)

☐ I certify for Depositor that the above described Deposit Material has been transmitted electronically or sent via commercial express mail carrier to Iron Mountain at the address below.		☐ Iron Mountain has inspected and accepted the above described Deposit Material either electronically or physically. Iron Mountain will notify Depositor of any discrepancies.	
Print Name		**Name**	
Date		**Date**	
Email Address			
Telephone Number			

Note: If Depositor is physically sending Deposit Material to Iron Mountain, please label all media and mail all Deposit Material with the appropriate Exhibit B via commercial express carrier to the following address:

Iron Mountain Intellectual Property Management, Inc.
Attn: Vault Administration
195 Summerlea Road
Brampton, Ontario L6T 4P6
Telephone: 800-875-5669
Facsimile: 770-239-9201

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EXHIBIT C

RELEASE OF DEPOSIT MATERIAL

Master Deposit Account Number	

Iron Mountain will use the following procedures to process any Beneficiary Work Request to release Deposit Material. All notices under this Exhibit C shall be sent pursuant to the terms of Section 13(g) Notices.

1. Release Conditions.

Depositor and Beneficiary agree that a Work Request for the release of the Deposit Material shall be based solely on one or more of the following conditions (defined as "Release Conditions"):

(i) Depositor's material breach of its obligations to support or maintain the software (the subject of the Deposit Material) under the License Agreement, and (a) the breach has not been remedied within thirty (30) days of the receipt of the notice from Beneficiary requiring Depositor to remedy the breach, or the breach is not capable of being remedied; and (b) Beneficiary has exercised its right to terminate the License Agreement; or

(ii) Depositor is subject to voluntary or involuntary bankruptcy and is unable to support or maintain the software (the subject of the Deposit Material) as required under the License Agreement and Beneficiary has exercised its right to terminate the License Agreement; or

(iii) Depositor has assigned all of its intellectual property rights in the software (the subject of the Deposit Material) but Beneficiary has not within thirty (30) days of assignment been provided or offered escrow protection on terms substantially similar to this Agreement by Depositor or the assignee.

For the avoidance of doubt, Iron Mountain shall not exercise any discretion nor make any determination regarding the validity of a Release Condition nor the Beneficiary's eligibility to submit a Work Request for the release of the Deposit Material. Iron Mountain shall rely solely on notice from the Beneficiary in a Work Request of the occurrence of a Release Condition.

2. Release Work Request.

A Beneficiary may submit a Work Request to Iron Mountain to release the Deposit Material covered under this Agreement. Iron Mountain will send a written notice of this Beneficiary Work Request within five (5) business days to the Depositor's Authorized Person.

3. Contrary Instructions.

From the date Iron Mountain mails written notice of the Beneficiary Work Request to release Deposit Material covered under this Agreement, Depositor's Authorized Person shall have ten (10) business days to deliver to Iron Mountain contrary instructions. Contrary instructions shall mean the written representation by Depositor that a Release Condition has not occurred or has been cured ("**Contrary Instructions**"). Contrary Instructions shall be on company letterhead and signed by a Depositor Authorized Person. Upon receipt of Contrary Instructions, Iron Mountain shall promptly send a copy to Beneficiary's Authorized Person. Additionally, Iron Mountain shall notify both Depositor and Beneficiary Authorized Persons that there is a dispute to be resolved pursuant to the Disputes provisions of this Agreement. Iron Mountain will continue to store Deposit Material without release pending (i) instructions from Depositor to release the Deposit Material to Beneficiary; or (ii) dispute resolution pursuant to the Disputes provisions of this Agreement; or (iii) withdrawal of Contrary Instructions from Depositor's Authorized Person or legal representative; or (iv) receipt of an order from a court of competent jurisdiction.

4. Release of Deposit Material.

If Iron Mountain does not receive timely Contrary Instructions from a Depositor Authorized Person or written instructions directly from Depositor's Authorized Person to release a copy of the Deposit Materials to the Beneficiary, Iron Mountain is authorized to release Deposit Material to the Beneficiary or, if more than one Beneficiary is registered to the deposit, to release a copy of Deposit Material to the Beneficiary. Iron Mountain is entitled to receive any undisputed, unpaid Service Fees due Iron Mountain from the Parties before fulfilling the Work Request to release Deposit Material covered under this Agreement. Any Party may cure a default of payment of Service Fees.

5. Termination of Agreement Upon Release.

This Agreement will terminate upon the release of Deposit Material held by Iron Mountain. For the avoidance of doubt, each enrollment of a Beneficiary made by the respective parties signing the Beneficiary Enrollment Form attached to this

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Agreement as Exhibit E constitutes and shall be construed as a separate agreement between Iron Mountain, Depositor and the signing Beneficiary.

6. Right to Use Following Release.

Beneficiary has the right under this Agreement to use the Deposit Material for the sole purpose of continuing the benefits afforded to Beneficiary by the License Agreement. Notwithstanding, the Beneficiary shall not have access to the Deposit Material unless there is a release of the Deposit Material in accordance with this Agreement. Beneficiary shall be obligated to maintain the confidentiality of the released Deposit Material.

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EXHIBIT D

AUXILIARY DEPOSIT ACCOUNT TO ESCROW AGREEMENT

Master Deposit Account Number	
Auxiliary Deposit Account Number	

_____("**Depositor**"), and Iron Mountain Intellectual Property Management, Inc. ("**Iron Mountain**") have entered into the above referenced Escrow Agreement ("**Agreement**"). Pursuant to that Agreement Beneficiary or Depositor may create additional deposit accounts ("**Auxiliary Deposit Account**") for the purpose of holding additional Deposit Material in a separate account which Iron Mountain will maintain separately from other deposit accounts under this Agreement. The new account will be referenced by the following name: _____ ("**Deposit Account Name**").

Pursuant to the Agreement, Depositor may submit material to be held in this Auxiliary Deposit Account by submitting a properly filled out Exhibit B with the Deposit Material to Iron Mountain. For avoidance of doubt, Beneficiary's rights and obligations relative to the Deposit Material held in any deposit account under this Agreement are governed by the express terms of the Agreement; this form does not provide any additional rights in the Deposit Material.

Depositor Authorized Person(s) Notices Table (Required information)

Please provide the name(s) and contact information of the Depositor Authorized Person(s) for this Deposit Account. It is the intent of the Parties that the individual identified below will act as the Authorized Person with respect to this Deposit Account. All Notices will be sent electronically or through regular mail to the appropriate addresses set forth below. Please complete all information as applicable. Incomplete information may result in a delay of processing.

Print Name	
Title	
Email Address	
Street Address	
City	
Province/State	
Postal/Zip Code	
Phone Number	
Fax Number	

Billing Contact Information Table(Required information)

All Invoices for Deposit Account Fees will be sent to the contact set forth below.

☐ *Check if same as Authorized Person or provide below*	
Company Name	
Print Name	
Title	
Email Address	
Street Address	
City	
Province/State	
Postal/Zip Code	
Phone Number	
Fax Number	

The undersigned hereby agrees that all terms and conditions of the above referenced Escrow Agreement will govern this Auxiliary Deposit Account. The termination or expiration of any other deposit account will not affect this account.

DEPOSITOR	
Signature	
Print Name	
Title	
Date	

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.	
Signature	
Print Name	
Title	
Date	

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EXHIBIT E

BENEFICIARY ENROLLMENT FORM

Depositor and Iron Mountain Intellectual Property Management, Inc. ("Iron Mountain"), hereby acknowledge that

BENEFICIARY COMPANY NAME: _____ is the **Beneficiary** referred to in the Escrow Agreement that supports **Deposit Account Number:** _____ with Iron Mountain as the escrow agent. **Beneficiary** hereby agrees to be bound by all provisions of such Agreement.

Authorized Person(s) Notices Table			
Please provide the name(s) and contact information of the Authorized Person(s) under this Agreement. Please complete all information as applicable. Incomplete information may result in a delay of processing.			
DEPOSITOR (Required information)		**BENEFICIARY (Required information)**	
Print Name		**Print Name**	
Title		**Title**	
Email Address		**Email Address**	
Street Address		**Street Address**	
City, Province/State		**City, Province/State**	
Postal/Zip Code		**Postal/Zip Code**	
Phone Number		**Phone Number**	
Fax Number		**Fax Number**	

Paying Party Billing Contact Information Table (Required information)	
Please provide the name and contact information of the Billing Contact for the Paying Party under this Agreement. All Invoices will be sent to this individual at the address set forth below. Incomplete information may result in a delay of processing.	
Company Name	
Print Name	
Title	
Email Address	
Street Address	
City	
State/Province	
Postal/Zip Code	
Phone Number	
Fax Number	
Purchase Order #	

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Beneficiary Enrollment Form Work Request			
Please check boxes to order services.			
Service	**Service Description**	**One-Time Fees**	**Annual Fees**
☐ **Additional Beneficiary**	Iron Mountain will fulfill a Work Request to add a new Beneficiary to an escrow deposit account and manage account access rights. Beneficiary will have access to Iron Mountain Connect™ Escrow Management Center for secure online account management, submission of electronic Work Requests, and communication of status.		**CAD** $865
☐ **Additional Deposit Account**	Iron Mountain will set up one additional deposit account to manage and administrate access to new Deposit Material to be secured in a controlled storage environment in accordance with the Agreement that governs the Initial Deposit Account.		**CAD** $1,125
☐ **File List Report**	Iron Mountain will perform a File List Test, which includes a Deposit Material media readability analysis, a file listing, a file classification table, virus scan outputs, and confirmation of the presence or absence of a completed Exhibit Q - Deposit Questionnaire. A final report will be sent to the requesting Party regarding the Deposit Material.. Deposit must be provided on CD, DVD-R, or deposited electronically.	**CAD** $2,625	N/A
☐ **Level 1 - Inventory and Analysis Test**	Iron Mountain will perform an Inventory and Analysis Test on the initial deposit, which includes the outputs of the File Listing test, identifying the presence/absence of build setup and design documentation (including the presence or absence of a completed escrow deposit questionnaire), and identifying materials required to recreate the Depositor's application development and production environments. Output includes a report that includes compile and setup documentation, file classification tables and file listings. The report will list required software development materials, including, without limitation, required source code languages and compilers, third-party software, libraries, operating systems, and hardware, and Iron Mountain's analysis of the deposit. A final report will be sent to the requesting Party regarding the Deposit Material.	**CAD** $5,250 or based on SOW if custom work required	N/A

IN WITNESS WHEREOF, the Parties have duly executed this Enrollment as of the Effective Date by their authorized representatives:

DEPOSITOR		**BENEFICIARY**	
Signature		**Signature**	
Print Name		**Print Name**	
Title		**Title**	
Date		**Date**	

IRON MOUNTAIN INTELLECTUAL PROPERTY MANAGEMENT, INC.	
Signature	
Print Name	
Title	
Date	

All notices **to Iron Mountain Intellectual Property Management, Inc.** should be sent to ipmclientservices@ironmountain.com OR Iron Mountain Intellectual Property Management, Inc., Attn: Client Services, 2100 Norcross Parkway, Suite 150, Norcross, Georgia, 30071, USA. Telephone: 800-875-5669. Facsimile: 770-239-9201 and in the case of any legal proceedings or notices a copy must also be sent to the registered office of Iron Mountain Canadian Headquarters at 195 Summerlea Road, Brampton, Ontario L6T 4P6. Telephone 1-877-459-8326.

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Appendix 7. Foster Moore Support Agreement

[NOTE TO INDIVIDUALS POPULATING THIS DOCUMENT: YOU SHOULD ENSURE THAT ALL APPLICABLE DETAILS SECTIONS (IN THE FRONT OF THE AGREEMENT AND IN THE SCHEDULES) ARE POPULATED AND THAT DRAFTING NOTES ARE REMOVED BEFORE PROVISION TO THE CLIENT.]

SUPPORT AGREEMENT

Agreement dated _____

BETWEEN [*Foster Moore International Limited OR insert name of appropriate Foster Moore company*] having its principal place of business at [*Auckland, New Zealand/Insert*] ("Foster Moore")

AND [*insert full legal name of client*] having its principal place of business at [*Insert place*] ("Client"[*or "[insert abbreviation]"*]**[Drafting note: If *Client* is used and not another abbreviated name, delete the last square-bracket.]**

PART 1: AGREEMENT, SERVICES WITHIN SCOPE, AND KEY DETAILS

AGREEMENT

Foster Moore agrees to provide, and the Client agrees to buy, certain support and related services on the terms of this Agreement in respect of certain software and other related items.

SERVICES WITHIN SCOPE

Where a Service is "within scope" and no support-level prefix is stated, then the Service will be provided at all tiers of support (level 2 to level 4) - refer Appendix A for explanation of support tiers. Level 1 support is the responsibility of the Client.

[Drafting Note: Each Service requires at least one entry under either the "within scope" or "out of scope" column (although if an entry is left blank, the Agreement states that the Services is "out of scope"). Where Foster Moore is responsible for all levels of support, then insert only its name. Where Foster Moore is responsible for only certain support tiers, then prefix its name with the appropriate support level i.e. L2, L3 or L4 (see the Appendices for an explanation of each of the levels). On completion, surplus "level" lines should be deleted.]

Services within the scope of this Agreement[1]		
Service	Within Scope[2] (i.e. responsibility of Foster Moore)	Out of Scope[4] (i.e. responsibility of the Client or a third party)
Application Support		
Application Support Services[3]		

Service Desk for Application Software		
Incident Management for Application Software		

Operational Support Services		
Service Desk for Managed Services		
Incident Management for Managed Services		
Problem Management (for Managed Services other than the Application Software, if applicable)		
Reporting		

Change Management		
Release Management		
CMS/CMDB Management		
Service Level Management		
Capacity Management		
Availability Management		
IT Service Continuity Management		

Deployment Services		
Patch Management		
Security Services		
Monitoring Services		
Backup Services		
Middleware Services		
Database Services		

Server & Storage Management		
Payment Gateway Service		
E-mail Gateway Service		
Network Services		
Hosting		
	Target availability: [*insert %*]% Territories in which Data may be stored: [Insert] **[Drafting Note: Remove Target Availability and Territories clause where Hosting is not in scope for FM.]**	

[1] If neither the "Within scope" nor the "Out of scope" section is completed, the corresponding Service is deemed to be out of scope. Any Service not mentioned above is also deemed to be "Out of scope".

[2] For “Within scope” Services, other than Application Support Services, details of the deliverables and activities for that Service are listed in Schedule – Operation Support Services and applicable sections of the Appendices (which described in more detail levels 1 – 4 support and the activities and deliverables included for each support level).

[3] Details of "Within Scope" Application Support Services are listed in Schedule – Base Services for Application Software

[4] In some instances, Foster Moore may agree to provide "out of scope” services and tasks on a time and material basis.

KEY DETAILS

Item	Details	
General details		
General Context	[*Insert background details*]	
Commencement Date (clauses 1.1 & 2.1)	[*Insert date/the date of this Agreement*] **[Drafting note: If the services could start on a different date, e.g. hosting on X date and support on Y date, this should be clearly distinguished here.]**	
Business Day (clause 1.1)	[*Insert the days on which core Services will be provided and notice periods are calculated, e.g. any day that is not a Saturday or a Sunday and not a day observed as a statutory holiday in Auckland, New Zealand.*] **[Drafting note: If you include days other than Monday to Friday or refer a location other than a New Zealand one, you must ensure that Foster Moore is available to provide the services on those days, taking into account time zone differences.]**	
Core Hours (clauses 1.1)	[*insert, e.g. 8.30am to 5.00pm on Business Days.*]	
Contact details (clause 13.10)	Foster Moore	Client
	[*insert name, address, fax number, and email address*]	[*insert name, address, fax number, and email address*]
Schedules (clause 1.1)	As at the Commencement Date, the Schedules forming part of this Agreement are: • [*Schedule – Base Services for Application Software* • *Schedule – Operational Support Services*] **[Drafting note: Delete any Schedule not within the scope of this Agreement.]**	
Fees and payment	Application Support Service	[*Either:* ***Fixed Fee*** *$[Insert] per month for no more than X hours of Application Support in that month. For Application Support in a given month in excess of the stated hours, on a time and materials basis at the Standard Service rates. With the prior written agreement of Foster Moore, the Client may "carry over" unused hours from a given month into the following month (provided that those hours*

Item	Details	
		must be used in the following month, i.e. otherwise they will expire) ***OR*** ***Time and Materials*** *On a time and materials basis at the Standard Service Rates*]
	Support Desk and Incident Management for Application Software	$[*Insert*] per [*month/annum*]
	Operational Support Services	$[*Insert*] per [*month*] [*for no more than X hours of Operational Support. For Operational Support in a given month in excess of the stated hours, on a time and materials basis at the Standard Service rates. With the prior written agreement of Foster Moore, the Client may "carry over" unused hours from a given month into the following month (provided that those hours must be used in the following month, i.e. otherwise they will expire)*]
Account details (clause 5.6)	Bank account name: [*insert*] Bank account number: [*insert*] [*insert any other detail, e.g. Swift number.*]	
Currency (clause 1.3)	[*Insert, eg NZD; USD*]	
Standard Service Rates (clause 1.1)	[*insert rate card*] **[Drafting Note: Current Rate card should be obtained from Chief Financial Officer.]**	
Related Agreements		
License Agreement (clause 1.1)	The license agreement between the parties dated [*insert date*].	
Master Services Agreement (clause 1.1)	The master services agreement between the parties dated [*insert date*]. **[Drafting note: This section should refer to either the FMIL MSA or the supply agreement under which Foster Moore has provided any customisation or installation services. If no such agreement is in place (and normally, one is in place), remove the wording in this cell and insert**	

Item	Details
	"N/A".]
Special Terms	
Special Terms (clause 1.4)	[*Insert any special term relating to this Agreement, including if clauses in Part 2 (General Terms) are overriden. Overriding the clauses in Part 2 (General Terms) requires to approval of the Chief Executive Officer*]

SIGNED

SIGNED for and on behalf of **[*FOSTER MOORE INTERNATIONAL LIMITED/FULL LEGAL NAME OF FM CONTRACTING PARTY*]** by:

Authorised signatory's full name:

Date:

SIGNED for and on behalf of **[*INSERT FULL LEGAL NAME OF CLIENT*]** by:

Authorised signatory's full name:

Date:

PART 2: GENERAL TERMS

1 Interpretation

1.1 In this Agreement:

"Agreement" means Part 1 (Agreement, Services Within Scope, and Key Details, including the cover page and signature clauses), Part 2 (General Terms), the Schedules listed in the Key Details, and Appendices A to C;

"Application Software" means the application software identified in the Schedule – Base Services for Application Software;

"Business Day" means those days set out in the Key Details;

"Client Service Desk" means the service desk described in clause 4.2;

"Commencement Date" means the commencement date of the Services as specified in the Key Details;

"Confidential Information" means any information which is provided by a party to the other party under or in connection with this Agreement or the provision of the Services, whether of a business, financial, technical or non-technical nature or otherwise and whether existing in hard copy form, electronically or otherwise, but does not include any information which is:

(a) on receipt by the recipient party, in the public domain or which subsequently enters the public domain without any breach of this Agreement;

(b) on receipt by the recipient party, already known by that party (otherwise than as a result of disclosure by the other party); or

(c) at any time after the date of receipt by the recipient party, received in good faith by the recipient party from a third party without any breach of an obligation of confidentiality;

"Core Hours" means the hours specified in the Key Details on Business Days;

"Environment" means a logical subset of the Client's or Foster Moore's infrastructure that is used for a specific purpose (e.g. user acceptance testing (UAT), production, development or testing);

"Force Majeure Event" means any event that is beyond the reasonable control of a party, including war, riot, strike, communication lines or internet failure, and natural or man-made disaster;

"Incident" means an unplanned interruption to the Application Software or (if applicable) a Managed Service or a reduction in the quality of the Application Software or (if applicable) the Managed Service;

"Intellectual Property" includes copyright, patents, designs, trade marks, trade names, goodwill rights, trade secrets, confidential information, know-how and any other intellectual proprietary right or form of intellectual property existing anywhere in the world and whether registered or not;

"Licensed Software" means the Foster Moore software licensed to the Client under the License Agreement;

"License Agreement" means the software license agreement between the parties identified in the Key Details;

"Managed Service" means the Third Party Items, the supporting Environments, and the interfaces specified in the Schedule – Operational Support Services, and includes the Application Software if also specified as a Managed Service in that schedule;

"Master Services Agreement" means the master services agreement or supply agreement (if any) between the parties identified in the Key Details;

"Problem" means the root (or underlying) cause of one or more unplanned interruption, or a reduction of quality, within the Application Software or (if applicable) the Managed Service;

"Renewal Term" has the meaning given in clause 2.2;

"Services" means the services that are set out in the "Services within Scope" section of Part 1;

"Standard Service Rates" means the rates set out in the Key Details, as updated in accordance with clause 5.7;

"Statement of Work" means a Statement of Work that is agreed by the parties in accordance with the applicable provision of this Agreement;

"Supporting Party" means, for a Managed Service, the person listed in the Schedule – Operational Support Services as the supporting party (and who is responsible for providing second, third and fourth level support (as applicable) in respect of the relevant Managed Service);

"Support Request" means a Client request, logged in accordance with this Agreement, for the provision of Services by Foster Moore; and

"Third Party Item" means any third party product listed in the Schedule – Operational Support Services.

1.2 Terms used in a Schedule but not in the General Terms are defined in that Schedule.

1.3 In this Agreement:

(a) No term of this Agreement is to be read against a party because the term was first proposed or drafted by that party.

(b) The headings are for convenience and have no legal effect.

(c) Where a term is defined, that definition applies to all grammatical forms.

(d) The singular includes the plural, and vice versa.

(e) All fees and other amounts stated in this Agreement are in the currency set out in the Key Details.

(f) A reference to:

(i) a "party" to this Agreement includes that party's successors and permitted assigns;

(ii) "personnel" includes officers, employees, contractors and agents, but a reference to the Client's personnel does not include Foster Moore;

(iii) a "person" includes an individual, a body corporate, an association of persons (whether corporate or not), a trust, a government department, or any other entity;

(iv) "including" and similar words do not imply any limit; and

(v) a statute includes references to regulations, orders or notices made under or in connection with the statute or regulations and all amendments, replacements or other changes to any of them.

1.4 If there is any conflict between the documents forming part of this Agreement, the document listed before another document prevails in the following list:

(a) the Special Terms set out in Part 1 of this Agreement;

(b) Part 2 (General Terms) of this Agreement;

(c) a Schedule;

(d) an Appendix; and

(e) any document referred to in the above documents.

2 Term and Scope

2.1 This Agreement starts on the Commencement Date and, subject to the parties' earlier rights of termination, will continue for an initial term of 12 months ("Initial Term").

2.2 On expiry of the Initial Term and any subsequent term and subject to the parties' earlier rights of termination, this Agreement will automatically renew for further periods of 12 months ("Renewal Term") unless either party provides the other party with written notice of termination not less than 20 Business Days prior to the expiration of the relevant term. Despite the previous sentence, Foster Moore may not exercise the termination right under this clause 2.2 to terminate this Agreement prior to the 5th anniversary of the Commencement Date.

2.3 To avoid doubt and despite anything to the contrary in this Agreement, the Services in this Agreement exclude Maintenance Services for the Licensed Software. The provision of Maintenance Services for the Licensed Software is governed by the terms of the License Agreement only. In this clause 2.3, "**Maintenance Services**" has the meaning given in the License Agreement.

3 Foster Moore Obligations

3.1 In addition to its other obligations in this Agreement, Foster Moore will provide Services to the Client:

(a) in accordance with the relevant Schedule and Appendix, and otherwise on the terms of this Agreement;

(b) exercising reasonable care, skill and diligence; and

(c) using suitably skilled, experienced and qualified personnel.

3.2 Despite anything to the contrary in this Agreement, Foster Moore is not required to provide the Services to the Client to the extent that:

(a) where Foster Moore is not providing Hosting Services:

(i) Foster Moore is unable to obtain remote access to the Client's IT environment (including where the Client has not made access available or where a telecommunications or internet failure or outage has occurred or is occurring) and such access is required to provide the Services; or

(ii) the Client has not maintained an adequate and properly configured environment and/or sufficient internet connectivity and bandwidth for the operation of the Application Software and the Managed Services in accordance with any recommendation from Foster Moore from time to time;

(b) the Client:

(i) is not using the current version, or version immediately preceding the current version, of the Application Software (unless Foster Moore has agreed in writing to continue to provide the Services for previous versions of the Application Software); or

(ii) has failed to pay or is overdue in the payment of any fees or other amounts due under this Agreement, the License Agreement, or the Master Services Agreement;

(c) the Incident or Problem is:

(i) attributable to the failure of the Client to approve/implement reasonable recommendations made by Foster Moore (or any Supporting Party) within a reasonable timeframe;

(ii) caused by changes made by end users or third parties (excluding subcontractors of Foster Moore) that alter the way the Managed Service operates (other than changes recommended by Foster Moore); or

(iii) caused by anyone other than Foster Moore, its subcontractors and personnel;

(d) Foster Moore is only required to provide the Services for a fixed number of hours per month (see the "fees and payment" details in the Key Details section of Part 1) and those hours have been used up, except to the extent that the Client agrees to the further provision of the Services for the remainder of that month on a time and materials basis at the Standard Service Rates; or

(e) upon investigation/analysis, the Application Software or the Managed Service (as the case may be) is deemed to be functioning as designed.

3.3 Where Foster Moore provides Services and an exclusion in clause 3.2 applies, it may charge for the relevant services at its Standard Service Rates and will provide the services in accordance with timeframes to be agreed by the parties on a case-by-case basis.

3.4 At the request of the Client and subject to the parties agreeing the terms of the applicable Statement of Work, Foster Moore may agree to provide the Client additional related services (including out of scope services) on the terms and conditions of this Agreement. Any additional related services under a Statement of Work are deemed to be Services for the purpose of this Agreement.

4 Client Obligations

4.1 In addition to its other obligations in this Agreement, the Client must:

(a) promptly make decisions (including providing approvals), and provide Foster Moore with all information, reasonably required by Foster Moore to provide the Services;

(b) where Foster Moore does not provide Hosting Services:

(i) provide Foster Moore with:

(A) remote access to the Client's IT environment as required by Foster Moore to provide the Services; and

(B) where physical access is required, all access to its premises, computer systems, infrastructure and networks to the extent required by Foster Moore to provide the Services; and

(ii) ensure that at all times the computer equipment on which the Application Software and Managed Services are installed is capable of running the Application Software and Managed Services in a reliable manner, that the computer equipment, the Application Software and Managed Services are used in accordance with the manufacturer's and/or licensor's operating instructions, and that the computer equipment, Application Software and Managed Services are only used by competent operators who are fully trained in the use of those items; and

(c) notify Foster Moore prior to updating or changing any hardware, "server/client" operating system, network software, or third party software update, that may affect the operation of the Managed Services; and

(d) back up all Client data in accordance with standard industry practice.

4.2 The Client must provide level 1 support for the Application Software and Managed Services, during the term of this Agreement, including a support desk that is manned by competent and trained personnel to enable the Client to comply with its obligations in clause 4.3.

4.3 The Client Service Desk must:

(a) provide the first point of contact for the Client's personnel, including logging calls from users relating to Application Software and/or Managed Services;

(b) resolve basic Application Software and/or Managed Services support issues, which as a minimum includes:

(i) simple information look ups;

(ii) basic troubleshooting (answering common questions); and

(iii) basic investigation or desk-side support for an Incident; and

(c) where Foster Moore is providing Support Desk Services and the Client Service Desk is unable to resolve an issue, log a Support Request with Foster Moore in accordance with the process set out in the Schedule – Base Services for Application Software. For this purpose, the Client must provide Foster Moore with a list of those personnel who are members of the Client Service Desk and who are authorised to log Support Requests with Foster Moore. Any change to this list must be notified to Foster Moore in writing.

5 Fees

5.1 The Client will pay to Foster Moore the fees or other amounts set out in the Schedules and the Key Details. Any applicable sales tax (e.g. goods and services tax, value added tax, or sales tax) will be charged and is payable by the Client in addition to the fees and other amounts.

5.2 To the extent that Foster Moore provides services and support that are outside the scope of this Agreement, the Client will pay Foster Moore on a time and materials basis for those services and support at the Standard Service Rates.

5.3 The Client will pay any expenses and disbursements properly incurred by Foster Moore in the provision of the Services, including any travel, accommodation, daily expenses, courier, parking, third party software purchases, and similar expenses.

5.4 All fees and other amounts invoiced under this Agreement are due and payable on the 20th of the month following the date of the invoice.

5.5 The Client will pay all invoices in full, without set off, counterclaim or deduction of any kind, on or before the due date. All amounts must be paid electronically in cleared funds into the account set out in the Key Details. Without limiting the previous sentence, all amounts to be paid under this Agreement must be paid gross without deduction of any withholding or similar tax. If the Client is obliged to make a deduction, the amount payable to Foster Moore must be grossed up to ensure that, after the deduction, the amount received by Foster Moore is the same as the amount originally invoiced.

5.6 If any amount due is not paid by the Client by the due date, Foster Moore may:

(a) charge the Client interest calculated at 10% per annum on the balance of the amount due by the Client from the due date until payment is received in full by Foster Moore; and/or

(b) charge the Client all collection costs incurred by Foster Moore in collection of the amount outstanding (including solicitor and/or collection agency fees); and/or

(c) suspend its provision of the Services until the outstanding amount is paid in full. Foster Moore will give 1 Business Day's notice in writing of its intention to suspend Services under this clause.

5.7 On notice to the Client, Foster Moore may increase any fee, rate or other amount set out in this Agreement, provided that any increase must be not exceed 5% more than the fee, rate or other amount current at the time of the notice. The increase will only take effect on commencement of

the next anniversary of this Agreement (i.e. at the start of the next Renewal Term). Foster Moore may only exercise this right once in each of the Initial Term and each of the Renewal Terms.

6 Confidentiality and Data

6.1 Each party agrees to:

(a) keep confidential at all times all Confidential Information disclosed to it by the other party;

(b) ensure that all Confidential Information of the other party is protected at all times from unauthorized access or use by, or disclosure to, any third person (subject to clause 6.1(c), including personnel) or misuse, damage or destruction by any person; and

(c) disclose the other party's Confidential Information to its personnel or professional advisers on a "need to know" basis only and, in that case, ensure that any personnel or professional adviser to whom it discloses the other party's Confidential Information is aware of, and complies with, the provisions of this clause 6.

6.2 The obligations of confidentiality in clause 6.1 do not apply to any use or disclosure of Confidential Information:

(a) for the purpose of performing a party's obligations or exercising a party's rights under this Agreement;

(b) required by law (including under the rules of any stock exchange); or

(c) by Foster Moore if required as part of a "bona fide" sale of its business (assets or shares, whether in whole or in part) to a third party, provided that Foster Moore enters into a confidentiality agreement with the third party on terms no less restrictive than this clause 6.

6.3 In clauses 6.4 to 6.6, "**Data**" means all data, content, and information (including personal information) owned, held, used or created by or on behalf of the Client (or its clients) that is stored using, or inputted into, the Managed Services.

6.4 The Client acknowledges that:

(a) Foster Moore may require access to the Data to exercise its rights and perform its obligations under this Agreement; and

(b) to the extent that this is necessary but subject to the remainder of this clause 6, Foster Moore may authorise a member or members of its personnel to access the Data for this purpose.

The Client must arrange all consents and approvals that are necessary for Foster Moore to access the Data as described in this clause.

6.5 The Client acknowledges and agrees that to the extent Data contains personal information, in collecting, holding and processing that information through the Managed Services, Foster Moore is acting as an agent of the Client for the purposes of the New Zealand Privacy Act 1993 and any other applicable privacy law. The Client must obtain all necessary consents from the relevant individuals to enable Foster Moore to collect, use, hold and process that information in accordance with this Agreement.

6.6 Where Foster Moore provides Hosting Services, the Client agrees that Foster Moore may store Data (including any personal information) in secure servers in the territories listed in the "Services Within Scope" section of Part 1 to this Agreement and may access that Data (including any personal information) in those territories and New Zealand from time to time.

7 Intellectual Property

7.1 Subject to clause 7.2, the following Intellectual Property remains the property of the current owner, regardless of its use in the Services or its modification in the course of the performance of the Services:

(a) Intellectual Property that existed prior to the Commencement Date; and

(b) Intellectual Property that was development independently of this Agreement.

To the extent that Foster Moore modifies any Intellectual Property:

(c) owned by the Client in the course of performing the Services, the Client will, on payment in full for the relevant Services, own the Intellectual Property rights in that modification.; or

(d) owned by Foster Moore in the course of performing the Services, ownership of those modifications automatically vests in Foster Moore.

7.2 The Client acknowledges that:

(a) Foster Moore (and its licensors) owns the Intellectual Property in the means, methods, processes, templates and know-how that Foster Moore employs to provide the Services and in any of Foster Moore's pre-existing library code (including base software frameworks, custom controls, diagrams and templates) that may be used in the provision of the Services.

(b) Despite anything to the contrary in this Agreement, to the extent that the Services require a change or addition of any kind to the code of the Licensed Software:

(i) the Intellectual Property in the resulting deliverable will vest in Foster Moore on creation; and

(ii) the resulting deliverable will be incorporated into and form part of the Licensed Software and accordingly the License Agreement will govern the Client's use of that deliverable (as part of the Client's license to use the Licensed Software).

Nothing in this Agreement operates to vest ownership of the Intellectual Property described in this clause 7.2 in the Client or to transfer any such Intellectual Property rights to the Client.

8 Force Majeure

8.1 Neither party is liable to the other for any failure to perform its obligations under this Agreement to the extent caused by a Force Majeure Event.

8.2 Where, as a result of a Force Majeure Event, a party is unable to perform a material obligation under this Agreement for a period of 20 Business Days or more, the other party may immediately terminate this Agreement by giving notice in writing to the other party.

9 Disputes

9.1 Both parties must use their best efforts to resolve any dispute that may arise under, or in connection with, this Agreement ("**dispute**") through good faith negotiations and using its best efforts to resolve the dispute as quickly as possible.

9.2 If the parties are unable to resolve a dispute by negotiation within 10 Business Days, either party may require the dispute to be escalated for resolution by each party's chief executive or equivalent officer.

9.3 If a dispute cannot be resolved under clause 9.2 within 10 Business Days of escalation, either party may refer the dispute to mediation, in which case the following procedure applies:

(a) the mediation will be conducted by a single independent mediator in accordance with the terms of the LEADR New Zealand Inc. (**LEADR**) Standard Mediation Agreement and at a fee to be agreed by the parties;

(b) if the parties fail to agree on the identity of the mediator and/or the mediator's fee within 10 Business Days of the referral of the dispute to mediation, the mediator will be chosen, and the mediator's fee determined, by the chairperson for the time being of LEADR (or his or her nominee); and

(c) unless agreed otherwise by the parties, the mediator's fees must be borne equally between the parties.

9.4 If the dispute is not settled through mediation, the dispute may be submitted by either party to arbitration, in which case:

(a) the parties must appoint a sole independent arbitrator with requisite skills and expertise to resolve the matter to be determined;

(b) if the parties cannot agree on an arbitrator within 5 Business Days of either party requiring the dispute to be referred to arbitration, either party may request the President of the New Zealand Law Society to appoint a suitably qualified independent arbitrator;

(c) unless agreed otherwise by the parties or the arbitrator considers it unreasonable, the arbitrator's fee must be borne equally between the parties; and

(d) the arbitration must be conducted in accordance with the New Zealand Arbitration Act 1996 and the decision of the arbitrator is final and binding on the parties.

9.5 Neither party may commence any court proceedings in connection with a dispute unless that party has complied with this clause 9 or that party is seeking urgent interlocutory and/or injunctive relief from any Court of competent jurisdiction.

10 Termination and suspension

10.1 This Agreement will automatically terminate on any termination of the License Agreement.

10.2 Either party may terminate this Agreement immediately by notice in writing to the other party:

(a) if the other party:

(i) fails to remedy a material breach of this Agreement within 20 Business Days of receiving notice of that breach (and, to avoid doubt, a failure by the Client to pay fees by the due date is deemed to be a material breach of this Agreement); or

(ii) commits a material breach of this Agreement which is not capable of remedy; or

(b) becomes insolvent, liquidated or bankrupt, has an administrator, receiver, liquidator, statutory manager, mortgagee's or chargee's agent appointed, becomes the subject to any form of insolvency action or external administration, or ceases to continue business for any reason.

10.3 The following provisions apply in respect of the termination of this Agreement.

(a) Termination of this Agreement does not affect either party's rights and obligations that accrued before the effective date of termination.

(b) On termination, the Client must pay all fees and other amounts for Services provided prior to that termination.

(c) Clauses which, by their nature, are intended to survive termination of this Agreement, including clauses 5, 6, 7, 9, 10, 11, and 12, continue in force.

10.4 Without limiting any other right or remedy available to Foster Moore, where Foster Moore considers (acting reasonably) that the Client has materially breached this Agreement, it may restrict or suspend the Client's access to the Application Software and/or Managed Services. Foster Moore must notify the Client where if it exercises its right under clause 10.4. Foster Moore will not be held to be in breach of any agreement between the parties (including this Agreement, the License Agreement, or the Master Services Agreement) where it exercises this right.

11 Exclusion of warranties

11.1 All warranties, terms and conditions (including warranties and conditions as to fitness for purpose and merchantability), whether express or implied by statute, common law or otherwise are excluded to the extent permitted by law.

11.2 The Client agrees and represents that it is acquiring the Services, and entering this Agreement, for the purpose of a business and that the New Zealand Consumer Guarantees Act 1993 does not apply to the supply of the Services or this Agreement.

11.3 Where legislation or rule of law implies into this Agreement a condition or warranty that cannot be excluded or modified by contract, the condition or warranty is deemed to be included in this Agreement. However, the liability of Foster Moore for any breach of that condition or warranty is limited, at Foster Moore's option, to:

(a) supplying the Services again; and/or

(b) paying the reasonable costs of having the Services supplied again.

12 Limitation of liability

12.1 The maximum aggregate liability of Foster Moore under or in connection with this Agreement or relating to the Services, whether in contract, tort (including negligence), breach of statutory duty or otherwise, must not in any Year exceed an amount equal to the fees paid by the Client under this Agreement in the previous Year (which in the first Year is deemed to be the total Fees paid by the Client from the Commencement Date to the date of the first event giving rise to liability). In this clause 12.1, "**Year**" means any 12 month period from the Commencement Date or the anniversary of that date.

12.2 Foster Moore is not liable to the Client under or in connection with this Agreement or the Services for any:

(a) loss of profit, revenue, savings, business, use, data, and/or goodwill; or

(b) consequential, indirect, incidental or special damage or loss of any kind.

12.3 Clauses 12.1 and 12.2 do not apply to limit Foster Moore's liability under or in connection with this Agreement or the Services for:

(a) personal injury or death;

(b) fraud or wilful misconduct; or

(c) a breach of clause 6.

12.4 Neither party will be responsible, liable, or held to be in breach of this Agreement for any failure to perform its obligations under this Agreement or otherwise, to the extent that the failure is caused by the other party failing to comply with its obligations under this Agreement, or by the negligence or misconduct of the other party or its personnel.

12.5 Each party must take reasonable steps to mitigate any loss or damage, cost or expense it may suffer or incur arising out of anything done or not done by the other party under or in connection with this Agreement.

13 General

13.1 The Client may not assign, transfer or subcontract its rights and obligations under this Agreement without the prior written consent of Foster Moore.

13.2 This Agreement constitutes the complete and exclusive statement of the agreement between the parties relating to the subject matter of this Agreement, superseding all proposals or prior agreements, oral or written, and all other communications between the parties relating to that subject matter. The parties have not relied on any representation, warranty or agreement relating to the subject matter of this Agreement that is not expressly set out in this Agreement, and no such representation, warranty or agreement has any effect from the Commencement Date. Without limiting the previous sentence, the parties agree to contract out of sections 9, 12A and 13 of the New Zealand Fair Trading Act 1986.

13.3 The parties must each do all such further acts (and sign any documents), as may be necessary or desirable for giving effect to the intent of this Agreement.

13.4 No amendment to this Agreement will be effective unless it is in writing and signed by both parties.

13.5 No exercise or failure to exercise or delay in exercising any right or remedy by a party will constitute a waiver by that party of that or any other right or remedy available to it. To waive a right or remedy under this Agreement, that waiver must be in writing.

13.6 Except as is expressly stated in this Agreement, the rights, powers and remedies provided in this Agreement are cumulative and will be in addition to every other right, power or remedy given under this Agreement or existing at law.

13.7 If any term of this Agreement is subsequently found to be unenforceable, invalid or illegal for any reason whatsoever, the other terms will remain in full force and effect as if this Agreement had been executed without such provisions.

13.8 The parties agree that Foster Moore is an independent contractor to the Client and that nothing in this Agreement constitutes a partnership, joint venture or relationship of employer and employee between the parties.

13.9 The Client will not, either during the term of this Agreement or in the 12 months following termination of this Agreement, directly solicit for employment or to otherwise engage the services of any employee or contractor of Foster Moore who has been involved in the provision of Services under this Agreement without the prior written consent of Foster Moore (which may be withheld in Foster Moore's absolute discretion).

13.10 Notices and authorized representative:

(a) Any notice in connection with this Agreement must be given in writing:

(i) marked for the attention of the person specified in the Key Details or any replacement person notified in writing by the relevant party; and

(ii) left at the address or sent by prepaid post, facsimile or email to the address or facsimile number of the relevant party specified in the Key Details or any replacement address or facsimile number notified by that party.

(b) Notices or other communications are deemed received:

(i) if delivered by hand, on delivery;

(ii) if delivered by post:

(A) on the 5th Business Day following posting; and

(B) on the 10th Business Day following international posting;

(iii) if delivered by facsimile, on production of a transmission report by the machine from which the facsimile was sent in its entirety to the facsimile number of the recipient, specifying the correct number of pages sent, the date and time of transmission and that transmission was successful, provided that where the facsimile is received after 5.00pm on a Business Day, it is deemed to be delivered on the next Business Day;

(iv) if delivered by email, on sending the email provided that no email is successfully sent if the sender receives any type of delivery notification failure and provided further that the onus is on the sender to ensure that the email has been successfully received by the recipient.

(c) The person specified in the Key Details or any replacement person must have sufficient authority to act for and bind the party it represents under or in connection with the Agreement, including providing approvals.

13.11 This Agreement is governed by, and must be interpreted in accordance with, the laws of New Zealand. The parties hereby submit to the non-exclusive jurisdiction of the courts of New Zealand.

13.12 This Agreement may be signed in counterparts, each of which constitutes an original and all of which constitute the same agreement. A party may enter this Agreement by signing and emailing a counterpart copy to the other party.

SCHEDULE – BASE SERVICES FOR APPLICATION SOFTWARE

Subject to the limits and exclusions set out in this Schedule and the Agreement, during Core Hours (unless expressly stated otherwise), Foster Moore will provide the services described in this Schedule for the Application Software.

BASE SERVICE SPECIFIC DETAILS

Item	**Details**	
Application Software	**Application**	**Description**
	[*Client specific customisations or derivative works made under the Master Services Agreement*]	[*Insert a brief description or cross-refer to the description in the Master Services Agreement, e.g. as described in section X of schedule Y to the Master Services Agreement*] **[Drafting note: Section X should set out all of the customisation work being undertaken by Foster Moore which does not form part of the based Catalyst software – usually any component other than the base software. This section must not describe the base Catalyst software –maintanence for the base software is governed by the License Agreement.]**

Service Desk – Contact details and Client Obligations

Where Service Desk is a "Within Scope" Service, Foster Moore will provide the Foster Moore Service Desk as a single point of contact for receiving and responding to Support Requests for the Application Software. Unless agreed otherwise by the parties (e.g. if Foster Moore agrees to provide level 1 support to the Client), one member of the Client Service Desk personnel will be provided access to the Foster Moore Service Desk tool to log Application Software Support Requests directly with Foster Moore.

Contact Details	The Foster Moore Service Desk can be contacted as follows: via phone: +64 9 950 2300;

	via email: sd@fostermoore.com; and via the Foster Moore Service Desk tool: https://sd.fostermoore.com;
Client obligations	Without limiting any other obligation on the Client, the Client must provide the following information when logging a Support Request with Foster Moore: • Name and contact information of user • Detail of the error or fault seen (with screen shots of the error) • Entity names and/or numbers • Business impact • Has the error or fault been replicated? If so, what are the steps to replicate it? • Is it affecting one or many users? • What business function(s) are they unable to undertaken? • When was the last time it worked, or has it ever worked? • Detail the operating system, browser type and version • Detail the Business catalogue reference • Any other information reasonably requested by Foster Moore. All Priority 1 and 2 incidents must also be phoned through to Foster Moore's Service Desk, to ensure that a response can be provided in a timely manner If the Support Request is for level 3 or 4 assistance and Foster Moore is not responsible for the level 1 and level 2 support for the matter, the Client (or relevant person contracted by the Client) must have fulfilled its responsibilities at level 1 and level 2 support, as listed in Appendix B, before escalating.

Incident Management Service

Foster Moore will use its reasonable efforts to respond and resolve Incidents related to the Application Software in accordance with the table below.

The primary goal of the Incident Management Service is to ensure any disruption to business operations resulting from Incidents is minimised.

Priority*	Business Impact (which is considered, in conjunction with urgency, to determine the priority)	Applicable Hours	Target Response Time** (Target Service Level 95%)	Target Resolution Time calculated from Target Response Time *** (Target Service Level 95%)
Critical – Priority 1	The Application Software is unavailable and/or wholly unusable to all users; or there is a major, realistic and verifiable threat to, or breach of security for, the Application Software.	24/7	Within 15 minutes	Within 4 hours
Serious – Priority 2	One or more material function or component is unavailable or unusable and it affects a significant number of users.	24/7	Within 30 minutes	Within 1 Business Day
Medium – Priority 3	Any operational issue affecting the Application Software which does not result in unavailability.	Core Hours only	Within 1 Business Day	Within 3 Business Days
Low – Priority 4	A request for a non-fault activity that is handled by the Foster Moore Service Desk.	Core Hours only	Within 3 Business Days	Within 15 Business Days

* Priority is determined by Foster Moore, acting reasonably, based on Foster Moore's standard priority matrix as follows:

	URGENCY		
	High	Medium	Low
Impact			
1 – Critical Business Impact	Priority 1	Priority 2	Priority 3
2 – Serious Business Impact	Priority 2	Priority 3	Priority 3
3 – Medium Business Impact	Priority 3	Priority 3	Priority 4
4 – Low Business Impact	Priority 3	Priority 4	Priority 4

** The target response time is the time for Foster Moore to acknowledge the Support Request.

*** The resolution time relates to when the relevant resolution (e.g. code fix) is delivered to UAT by Foster Moore.

If Foster Moore considers that it is unable or unlikely to achieve the target resolution time for an Incident, it will notify the Client and propose a plan and estimated timeframe for resolution of the Incident.

The following qualifications apply to the Incident Management Service in respect of the Application Software:

- For a Priority 1 or Priority 2 Incident relating to the Application Software, the Incident is resolved under this section on Foster Moore providing a workaround or patch as a temporary solution to the Incident. Where a temporary solution is provided for the Incident, Foster Moore will open a Problem ticket for the Problem giving rise to the Incident and the Problem will be resolved under the Application Support Service. However, where no temporary solution is available, Foster Moore will provide a permanent fix to the Incident under this section.
- For a Priority 3 or Priority 4 Incident relating to the Application Software, Foster Moore will immediately open a Problem ticket for the Problem giving rise to the Incident and the issue will be resolved as a Problem under the Application Support Service.

Foster Moore may notify the Client of a reduction in the Priority classification of an Incident if it has established a workaround for the Incident or the Incident is not as severe as initially thought.

APPLICATION SUPPORT (Problem resolution for the Application Software)

Application Support is Problem resolution for Application Software. Application Support is provided during Core Hours only.

The severity of a Problem is determined by the Client (acting reasonably, in consultation with Foster Moore, and based on the severity of any related Incident). Where Foster Moore disputes the severity determination, the severity level must be as agreed by the parties. A party may request that the initial severity of a Problem be re-assessed. Each party must consider any request to re-assess the severity in good faith and acting reasonably.

Foster Moore will use its reasonable efforts to achieve the following target resolution times for Problems that have been logged and allocated a Problem ticket via a Service Request.

Severity Level	Target Resolution Time* (Target Service Level 95%)
Critical	5 Business Days to UAT
High	15 Business Days to UAT
Medium	30 Business Days to UAT
Low	60 Business Days to UAT

* The resolution time relates to when the relevant resolution (e.g. code fix) is delivered to UAT by Foster Moore.

[*Where Problem resolution is required and Foster Moore provides Application Support Services on a time and materials basis, if Foster Moore expects that work to resolve the Problem will take:*

(a) *five hours or less, Foster Moore will proceed with the task without requiring any formal signed Statement of Work or other written instruction from the Client (and the Client acknowledges that this Agreement authorises Foster Moore to proceed with and charge for that task). Foster Moore does not, by expecting that a task will take five hours or less and so proceeding on that basis, give any warranty or make any representation that the task will take five hours or less. If it eventuates that work on the Problem will take longer than five hours, Foster Moore will prepare a Statement of Work and obtain written approval from the Client before proceeding further; and*

(b) *more than five hours, Foster Moore will submit a Statement of Work to the Client for approval before proceeding with Problem resolution.*

To avoid doubt, the timeframe taken to agree a Statement of Work under this Schedule must be excluded from the applicable target resolution time for the relevant Problem resolution.

All times / amounts in Statements of Work are estimates only. If the actual time taken for resolution of a Problem is likely to exceed the time estimate provided in a Statement of Work by more than 20%, Foster Moore will advise the Client and the Client will be given the option as to whether to proceed further or not. If the Client decides not to proceed further, the Client is still liable to pay for all work performed to date, all risk associated with the work being unfinished resides with the Client and, without limiting any other provision of this Agreement, Foster Moore gives no warranty in respect of the work that has been done.]

[Drafting note: Delete the square bracketed wording if Application Support is provided on a fixed fee basis.]

SCHEDULE – OPERATIONAL SUPPORT SERVICES

Subject to the limits and exclusions set out in this Schedule and the Agreement, during Core Hours (unless expressly stated otherwise), Foster Moore will provide the services described in this Schedule for the Managed Services.

To avoid doubt, where this Schedule includes a service description for an item or service that is listed as "out of scope" in Part 1 of the Agreement, that service or item is not provided by Foster Moore under the Agreement regardless of the inclusion of that description or otherwise.

OPERATIONAL SUPPORT SERVICES SPECIFIC DETAILS

[Drafting Notes: If Foster Moore is not the Supporting Party, the third party responsible for 2nd, 3rd, and/or 4th level support of items listed must be included here, i.e. this section should not be left blank. The table includes some non-exhaustive examples of the items that may be included as a Managed Service. However, the person completing this table should ensure the listed items apply to the Client and are intended to be "within scope" for the Services.]

Third Party Items (clause 1.1)	Generic Type	Third Party Item Name	Supporting Party (if no party is listed, the Supporting Party is the third party licensor of the Application)
	[*Operating system*]	[*Red Hat Enterprise Linux (RHEL)*]	
	[*Operating system*]	[*Microsoft Windows Server*]	
	[*DBMS*]	[*PostgreSQL*]	
	[*DBMS*]	[*Oracle*]	
	[*DBMS*]	[*Microsoft SQL Server*]	
	[*DBMS*]	[*MySQL*]	
	[*Java application server*]	[*Jboss Application Server*]	

	[*Java application server*]	[*Oracle Application server (Weblogic)*]	
	[*Java application server*]	[*Tomcat*]	
	[*Java application server*]	[*Websphere*]	
	[*Search engine*]	[*Elastic*]	
	[*Search engine*]	[*SOLR*]	
	[*Webserver*]	[*Jboss EWS*]	
	[*Webserver*]	[*Nginx*]	
	[*Revese proxy cacheing server*]	[*Varnish*]	
	[*PHP server*]	[*PHP-FPM*]	
	[*Content Management System*]	[*Wordpress*]	
	[*Online monitoring and alerting*]	[*New Relic*]	
	[*Payment Gateway Service*]		
	[*Email Gateway Service*]		
	Logical environment	**Description**	**Supporting Party**
	[*User acceptance testing/production Environments*]	[*Infrastructure hosting the UAT/PRD environments*]	
	[*Development and test Environments*]	[*Infrastructure hosting the DEV/TST environments*]	
	Interface Service Name	**Description**	**Supporting Party**
	[*Insert*]	[*Insert*]	

Is the Application Software a Managed Service (within the scope of the Services set out in this Schedule)?	[*Yes/no*]. If this box is blank or is not completed, the Application Software does not form part of the Managed Services.

Foster Moore level 2 support

Foster Moore will perform the Level 2 Service activities set out in Appendix B for a Managed Service where:

- that Level 2 Service is "within scope" (as set out in Part 1 of this Agreement) at L2 (level 2); and
- Foster Moore is listed the Supporting Party for the Managed Service.

Foster Moore level 3 and/OR 4 support

Foster Moore will perform the Level 3 and/or Level 4 (as the case may be) Service activities set out in Appendix B for a Managed Service where:

- that Level 3 and/or 4 Service (as the case may be) is "within scope" (as set out in Part 1 of this Agreement) at L3 and/or L4 (level 3 and/or level 4); and
- Foster Moore is listed the Supporting Party for the Managed Service.

Foster Moore Service Desk

Where Foster Moore is listed as a *Supporting Party* for a Managed Service and the Service Desk is listed in the Key Details as "within scope", Foster Moore will provide the Foster Moore Service Desk for the logging of Support Requests for the Managed Service. The contact details and Client obligations set out in the Schedule – Base Services for Application Software apply equally to the provision of the Service Desk for the Managed Services.

Incident resolution

Where Incident Resolution is "within scope" for a particular Managed Service, the Incident Resolution Service, as described in the Schedule – Base Services for Application applies to the Managed Service and any reference to Application Software in the priority table is deemed to include a reference to that Managed Service. To avoid doubt, the qualifications relating to Application Software in the Incident Resolution Service description apply to the Application Software only.

In respect of Managed Services, the Client agrees that where the Supporting Party is not Foster Moore, the target resolution time and Foster Moore's obligations in respect of the resolution of that Incident do not apply on handover from Foster Moore to the relevant third party that supports the Managed Service.

Change and Release management – Third Parties ITEMs

Where Foster Moore is listed as the Supporting Party for a Managed Service, change and release management includes the application of standard patches or bug fixes in accordance with the supplier's/licensor's instructions. The application of a patch or bug fix for a Managed Service that requires non-standard (in the reasonable opinion of Foster Moore) installation work (including to ensure the ongoing compatibility of components of the Managed Services) is excluded from the scope of this Service but may be provided under a Statement of Work.

Hosting

Foster Moore will host the Managed Services on behalf of the Client in accordance with good industry practice. Without limiting any other right of Foster Moore, the Client agrees that Foster Moore may host the Managed Services via the "cloud" and may use reputable third party hosting providers for this purpose (as at the Commencement Date, the Client acknowledges that Foster Moore uses the Amazon Web Service for the Hosting Services). The Client will comply with any acceptable use policy or similar policy or condition imposed by a third party hosting provider.

Target Availability

Foster Moore will use all reasonable efforts to ensure that the Managed Services are available during Core Hours and to achieve the target availability percentage specified in the "Services Within Scope" section of Part 1 of this Agreement during Core Hours in each calendar month.

The target availability in each calendar month is calculated by subtracting from 100% the percentage of minutes during Core Hours that the Managed Services were unavailable. This calculation must exclude any unavailability resulting from:

- Force Majeure;

- any suspension under clause 5.5(c) or 10.4;
- the acts or omissions of the Client, its personnel, or any third party, including the failure of the Client to approve and/or implement recommendations made by Foster Moore in respect of the Managed Services;
- the Client's third party equipment, software, or other technology;
- any downtime during a release window;
- any downtime caused by an Incident or Problem that has been referred by Foster Moore to a third party Supporting Party;
- any other event the subject of a relevant exclusion or qualification set out in the Agreement; and/or
- any downtime agreed in advance by the parties or any downtime at the direction of the Client.

Exclusions and Qualifications

For each Third Party Item and interface, the Client must have in place a current support and maintenance agreement with the relevant third party supplier/licensor/Supporting Party that includes a term enabling the Client to nominate or otherwise permit Foster Moore to raise and discuss Incidents with the supplier/licensor/Supporting Party on behalf of the Client. To avoid doubt, where such an agreement is not in place, Foster Moore is not required to provide any Service for the relevant item. This exclusion does not apply to the extent that the parties have agreed in writing that no such agreement is required for a Third Party Item and/or interface.

Any change to an Environment forming part of the Managed Services (including any component forming part of that Environment) may only be made with the agreement of Foster Moore.

Services are provided remotely only. If Foster Moore needs to attend on-site, any travel, accommodation or other expenses incurred by Foster Moore in doing so will be charged to the Client. Any travel time to the site will be excluded from the target resolution time calculation.

Appendix A: Multi-tiered support in IT Operations Management

This Appendix sets out generally understood descriptions of each support level of IT operations. It must not be read as limiting or overriding any other provision in the Agreement.

Technical support is often subdivided into tiers, or levels, in order to better serve a business or client base. The number of levels a business (or with 3rd party support) uses to arrange their technical support group is dependent on a business' needs regarding their ability to sufficiently serve their customers or users.

L1 - Level 1 Support (Service Desk)

Level 1 is the initial support level responsible for basic customer issues. It is synonymous with first-line support, level 1 support, front-end support, support line 1, and various other headings denoting basic level technical support functions. The first job of a Level 1 specialist is to gather information and to determine the issue by analyzing the symptoms and figuring out the underlying problem. When analyzing the symptoms, it is important for the technician to identify what the customer is trying to accomplish so that time is not wasted on "attempting to solve a symptom instead of a problem".

This level should gather as much information as possible from the end user. The information could be computer system name, screen name or report name, error or warning message displayed on the screen, any logs files, screen shots, any data used by the end user or any sequence of steps used by the end user, etc. This information needs to be recorded into the issue tracking or issue logging system. This information is useful to analyze the symptoms to define the problem or issue.

L2 - Level 2 Support

Level 2 is a more in-depth technical support level than Level 1 and therefore costs more as the techs are more experienced and knowledgeable on a particular product or service. It is synonymous with level 2 support, support line 2, administrative level support, and various other headings denoting advanced technical troubleshooting and analysis methods. Technicians in this realm of knowledge are responsible for assisting Level 1 personnel in solving basic technical problems and for investigating elevated issues by confirming the validity of the problem and seeking known solutions related to these more complex issues. However, prior to the troubleshooting process, it is important that the technician review the support request to see what has already been accomplished by the Level 1 technician and how long the technician has been working with the particular client.

This team needs to collect information such as program name that is failed or application name or any database related details (table name, view name, package name, etc.) or API names. These details are useful for Level 3

L3 - Level 3 Support

Level 3 is the highest level of support in a three-tiered technical support model responsible for handling the most difficult or advanced problems. It is synonymous with level 3 support, 3rd line support, back-end support, support line 3, high-end support, and various other headings denoting expert level troubleshooting and analysis methods. These individuals are experts in their fields and are responsible for not only assisting both Level 1 and Level 2 personnel, but with the research and development of solutions to new issues.

L4 - Level 4 Support

A fourth level often represents an escalation point beyond the Level 3's organization. Level 4 is generally a hardware or software vendor. Within a corporate incident management system, it is important to continue to track incidents even when they are being actioned by a vendor.

Appendix B: Level 2 IT Support Services providers' responsibilities

Where a Service is "Within Scope" for Foster Moore at Level 2 then its deliverables and activities are as listed below under the appropriate Service entry. Where a Service is "Within Scope" for Foster Moore at Level 3 or Level 4 only, then Appendix C applies and the Client is responsible for all Level 2 support. To avoid doubt, the Client is responsible for the provision of Level 1 support for all Services.

Where a process or procedure is stated as a deliverable in respect of an item then it is that item's maintenance updates that are being delivered under the Agreement - not the development of that item.

The descriptions in this Appendix are high-level. Further details of the relevant deliverables and activities are available in Foster Moore's policy and procedure documents.

Application Support		
Service	**Service Provides**	**Deliverables/Activities**
Application Support Services	Application Software Support	Application Software Support

Operational Support Services		
Service	**Service Provides**	**Deliverables/Activities**
Availability Management	Availability Improvement Plan	**Deliverables**
	Availability Report	• Availability Management processes and operational procedures
		• Recommendations in a monthly Availability Improvement Plan
		• Availability Report
		Activities

		• Monitor the availability of a Managed Service on an ongoing basis
		• Measure and report on the availability of the Managed Service
		• Assess the impact of changes to the availability of the Managed Service
		• Identify risks to the availability of Managed Service e.g. single points of failure
		• Investigate the underlying reasons for unacceptable availability
		• Ensure shortfalls in availability are recognised and appropriate corrective actions are identified and progressed
		• Optimise the availability of the Managed Service to deliver tangible improvements to users of the Service
Backup Services	Server Backup	**Deliverables**
	Server Restore	• Backup and Restore Service processes and operational procedures
		• Published Backup, Restore and Retention Policies
		• A Backup Log indicating the status of backup published each Business Day
		• Published results of monthly restore testing.
		• A log of off-site data (if applicable)
		Activities
		• Monitor and manage the backup service
		• Perform regular testing of the backup service by performing test restores, including data, monthly
		• Assess impact on backup introduced by any change activity performed on a server or storage device and apply remedial action if necessary
		• Ensure that each system has the planned backup solution applied

		• Develop and maintain documentation of Backup and Restore processes and operational procedures
		• Ensure compliance to off-site data policy by managing the off-siting of data
Capacity Management	Capacity Plan	**Deliverables**
	Capacity Forecast	• Capacity Management processes and operational procedures
	Capacity Report	• Annual Capacity Plan including current user base and projected growth of the Managed Services with forecasts for individual Managed Services with finite resources
		• Capacity Management Report detailing finite resources of components, including capacity anomalies, and warnings, in the along with recommendations for upgrades;
		Activities
		• Monitor the performance and throughput of all components that make up the Services
		• Collect and analyse system performance data for capacity planning
		• Undertake tuning activities to make the most efficient use of existing resources
		• Record the resource demands currently being made by the Managed Services
		• Assess the impact of any change to the capacity of the Managed Services
		• Produce capacity forecasts for the future requirements of the Managed Services
		• Report on capacity anomalies in terms of usage patterns and file system activities
		• Set warning and exception thresholds for each component
		• Run automated tasks at regular intervals, checking for potential or current capacity issues
		• Address performance / capacity issues as they arise

		• Identify and report exceptional or near capacity resource utilisation in the monthly report
		• Report database growth and forecast capacity needs
		• Interpret response time trends
		• Review logs for capacity and performance statistics
		• Perform iterative tuning and optimisation activities on the Managed Services
Change Management	Request for Change RFC	**Deliverables**
	Change Record	• Change Management processes and operational procedures
	Change Classification	• Published Change Management Policies
	CAB Agenda	• Published Forward Schedule of Change
	Forward Schedule of Changes (FSC)	**Activities**
	Post Implementation Review (PIR)	• Raise Request for Change with unique ID record (with associated plans) for approval by Client or delegated authority
		• Perform impact analysis and risk assessment for each change
		• Coordinate the activities of external Service providers so that change is completed
		• Manage Change Advisory Board (CAB) if applicable
		• Attend Change Advisory Board Meeting if applicable
		• Compile Forward Schedule of Changes (FSC)
		• Close RFC
		• Manage a Post Implementation Review (PIR) where appropriate
CMS/CMDB Management	Configuration Item (CI) Record	**Deliverables**

	CMDB Audit	• Configuration Management processes and operational procedures
		• Published Configuration Management Policies
		• Configuration Management System
		• A record for each CI in the CMS that includes its attributes and relationships
		Activities
		• Identify, classify and define all components of the Managed Services and recording their details in the Configuration Management System
		• Define naming conventions for each CI
		• Record and maintain attributes for each CI
		• Update CI details and related CIs within 2 Business Days of each approved Change
		• Perform regular reviews and audits that reconcile logical and physical CIs and ensure they are correctly recorded in the Configuration Management System
Database Services	Database Services	**Deliverables**
	Replication Services	• Database Administration processes and operational procedures
	Restore Services	• Records of activities for administration and tuning tasks in the Database Activity Log
		• Management of licencing, patching and certificates
		• An annual statement of compliance for licences
		Activities
		• Respond to all database related events (e.g. availability alerts, log messages, core dumps, etc.)
		• Respond to database / DBMS-related Incidents and changes raised

		• Define events and customize monitoring parameters for database health monitoring
		• Set warning and exception thresholds which will be adjusted as reasonably requested
		• Install and configure database monitoring scripts
		• Monitor database usage such as transaction volumes and response times
		• Monitor connectivity, performance, locks and listener operations
		• Report on database growth and forecast capacity needs via the Capacity Management Service
		• Manage archived redo logs to ensure continual operation of databases
		• Log database Incidents into the Service Request management system and the Incident log
		• Manage database log, dump and trace files
		• Configure and maintain voting devices and Database Cluster Registry files
		• Undertake regular maintenance like statistic collection, index rebuilds, table rebuilds, etc.
		• Perform ongoing administration of database objects including indexes tables, and stored procedures
		• Perform database tuning so that databases are functioning optimally and securely
		• perform upgrades of database software at the maintenance '(dot)' level (e.g. 11.1.5 -> 11.1.6)
		• Manage database schema objects
		• Install / reinstall and configure DBMS Software as required
		• Reinstall and configure database software after infrastructure failures or disaster recovery operations

		• Undertake database recovery in disaster situations
		• Analyse patch requirements and apply patches as required
		• Apply individual database or DMBS wide patches to address bugs as required
		• Perform backups of databases and ensure that backup jobs are complete
		• Perform test restores of databases
		• Conduct daily database and archived redo log backups and ensure files are copied to a recovery site if one exists
		• Maintain the relationship of database licences to VM clusters and physical and virtual servers
		• Reconcile deployed database licences against the entitlement
		• Maintain recoverability for previous database versions
		• Maintain documentation of database administration processes and operational procedures
Deployment Services	Server Deployments	**Deliverables**
	Software Deployments	• Managed deployment of releases to appropriate Environments
	Application Deployments	**Activities**
		• Manage releases into UAT and into the Production Environment
		• Test of deployment against Release Notes
Hosting	Cloud hosted environment	**Deliverables**
		• Resilient, secure, scalable computing and storage capacity
		Activities
		• Manage virtual server and storage environments

		• Maintain firewall
		• Manage IP addresses
		• Scale infrastructure to meet increasing demand
		• Maintain security groups
Incident Management	Incident Recording	**Deliverables**
	Incident Prioritisation	• Incident Management process and operational procedures
	Initial Analysis of an Incident	• Major Incident Management process and operational procedures
	Incident Escalation	• Published Incident Management Policies
	Incident Resolution	**Activities**
	Incident Closure	• Record & classify all Incidents accurately and clearly
	Incident Reporting	• Assign appropriate Incident priority based on urgency and business impact
		• Analyse & investigate Incidents, providing updates of findings in the Incident record
		• Perform Incident monitoring, tracking & communication including escalation as required
		• Raise Problem records where root cause of Incident is not determined
		• Close Incidents with documented solution used to resolve issue
IT Service Continuity Management	ITSCM Risk Analysis	**Deliverables**
	IT Service Continuity Plan	• A maintained Service Continuity Plan for the Service
	ITSCM Report	• A report describing the plans and outcomes of any invocations or tests along with advice and recommendations for improvements
	Emergency Plan	• Personnel who are educated and trained in the continuity and recovery of the Service
	Protocol Disaster Practice	**Activities**

		• Maintain a Service Continuity Plan for each Managed Service that supports the Client's reasonable Business Continuity Plan notified in advance to Foster Moore
		• Report all potential risks to the Service Continuity Plans and register those risks in the Operational Risk Register
		• Assess the impact of all changes on the Business Continuity Plan and Service Continuity Plans
		• Ensure that staff are aware of the Service Continuity Management processes and procedures, and are appropriately trained
Monitoring Services	Application Monitoring	**Deliverables**
	Server Monitoring	• Monitoring processes and operational procedures with details of thresholds
		• Access to the monitoring and management tools for Application Monitoring
		• Access to the monitoring and management tools for Server Monitoring
		Activities
		• Monitor the Managed Services for events or potential Incidents, and reporting on the status of Managed Services
		• Monitor infrastructure resources, such as checking whether file systems are full, network connections are active or an out of tolerance condition exists
		• Monitor jobs, investigating failures and rescheduling jobs if appropriate
		• Respond to warning events
		• Configure, manage and monitor batch jobs, background tasks and scheduled jobs
		• Configure, maintain and upgrade monitoring and management software
		• Configure logging services (e.g. server log, HTTP access log and standard out log)

		• Accurately associate events with knowledge base of Problems and Incidents
		• Record exception events as Incidents
Middleware Services	Web Services	**Deliverables**
	Application Services	Managed Web Services
		Managed Application Services
		Activities
		• Install, configure, upgrade and patch the application server software
		• Install, configure, upgrade and patch the Java Virtual Machine (JVM)
		• Maintain automatic start and stop scripts for application servers and domains
		• Configure and set levels of application server logging services (server log, HTTP access log and standard out log)
		• Configure application logging services
		• Create and maintain application deployment scripts specific to the environment
		• Verify and troubleshoot deployments (when required)
		• Start and stop applications when required
		• Ensure monitoring of deployed applications is in place
		• Performance tuning:
		o Interpret response time trends within the application stack
		o Tune the JVM for memory management and garbage collection
		o Review logs for performance statistics
		• Trouble shoot and performance tune applications:

		o Monitor application instances for CPU and memory usage
		o Review logs when issues arise
Network services	Managed & secured Connectivity & Firewalls	**Deliverables**
		• Network Management processes and operational procedures in the Operations Manual, (including the functionality of any scripts used) and standard operating procedures for each device type
		• As-built documentation
		• Records of activities for administration and tuning tasks in the Network Management Activity Log
		Activities
		• Maintaining network infrastructure and its application components
		• Securing network system by establishing and enforcing policies, and defining and monitoring access
		• Monitoring network performance
		• Troubleshooting network problems
Patch Management	Server Patching	**Deliverables**
	Software Patching	• Managed deployment of patches to appropriate Environments
	Application Patching	**Activities**
		• Manage patches into UAT and into the Production Environment
		• Test deployment of patches
Problem Management	Problem Recording	**Deliverables**
	Problem Prioritisation	• Problem Management processes and operational procedures
	Closure of a Problem	• Published Problem Management Policies
	Problem Report	• Access to Problem & Known Error database

		Activities
		• Proactively and reactively identify repeating issues
		• Record & classify all problem records accurately and clearly
		• Assign appropriate Problem priority based on repeatability, impact and risk
		• Diagnose issues to determine root cause
		• Recommend course of action to be taken whether temporary (workaround) or permanent
		• Update Known Error database
		• Close Problem with documented solution used to resolve issue.
Release Management	Release Policy	**Deliverables**
	Release Plan	• Release Management processes and operational procedures
		• Published Release Management Policies
		• Published Release Plan
		• A secure library of physical and logical releases (Definitive Media Library)
		Activities
		• Interact with the Change Management and Configuration Management Service providers
		• Develop/follow test plans for each release as necessary
		• Develop a back out plan for each release and executing as necessary
		• Track releases to environments matrix
Reporting	Report compilation and publishing Secure on-line portal for report viewing Report archive	**Deliverables** • Reporting service processes and operational procedures • A secure online reporting portal for reports

		• Reports containing the information in the agreed format and at agreed intervals including supporting information as reasonably required
		Activities
		• Compile and publish the agreed reports
		• Publish the reports on a reporting portal
		• Retain copies of reports for the term of the Agreement and for two years thereafter
Security Services	Network Security	**Deliverables**
	Server Security	• Auditable underlying procedures for the implementation of security policy, standards, and controls covering Network, Server and Application Security
	Application Security	• An operational risk register that details all security risks to the Service
	Security Audits	• Reporting on the level of compliance to the security policy standards
		Activities
		• Monitor for, and address, vulnerabilities in all Managed Services
		• Deploy and maintain secure system configurations to all Managed Services
		• Control the use of administrative and privileged accounts
		• Administer systems through secure channels and authentication mechanisms
		• Deploy and maintain anti-Malware tools / end point protection to all Managed Services
		• Implement logging and alerting of Information security events on all Managed Services
		• Subscribe to vulnerability intelligence services in order to stay aware of emerging exposures.
		• For external and internal certificate-based authentication perform the following activities:
		• Create certificate signing requests

		and keys
		• Apply and test certificates on secure web sites
		• Be the "Certificate Issuing Authority"
		• Maintain a certificate registry to track dates and times for certificate renewals
Server & Storage Management	Server Management	**Deliverables**
	Storage Management	• Server and Storage Management processes and operational procedures in the Operations Manual, (including the functionality of any scripts used for the Infrastructure or Software Utilities) and standard operating procedures for each server type
	Licence Management	• Up-to-date as-built documentation
		• Server and Storage Logs detailing routine, warning and exception events for each log entry
		• Records of activities for administration and tuning tasks in the Server & Storage Activity Log
		• Management of licencing, patching and certificates
		• An annual statement of compliance for licences
		Activities
		• Respond to all server & storage related events (e.g. availability & capacity alerts, log messages, core dumps, etc.)
		• Respond to server & storage related Incidents and changes raised;
		• Define events and customize monitoring parameters for server & storage health monitoring
		• Set warning and exception thresholds which will be adjusted as reasonably requested
		• Install and configure server & storage

		monitoring scripts
		• Report on storage growth and forecast capacity needs via the Capacity Management Service
		• Manage server log, dump and trace files
		• Perform server tuning so that servers are functioning optimally and securely
		• Install / reinstall and configure server software as required
		• Perform upgrades of server software at the maintenance '(dot)' level
		• Analyse patch requirements
		• Arrange for the deployement of individual server or server-farm wide patches to address bugs as required
		• Reconcile deployed server licences against the entitlement
		• Maintain documentation of Server & Storage management processes and operational procedures
Service Level Management	SLA OLA	**Deliverables**
	Service Level Requirements (SLR)	• Service Level Management processes and operational procedures
	Service Specification Sheet	• Published SLA /LA
	Service Catalogue	• Documented Service Level Requirements (SLR)
	Service Level Report	• Service Specification Sheet
	Protocol SLA Review	• Published Service Catalogue
	Service Quality Plan (SQP)	• Published Service Level Report
		• Published Service Quality Plan (SQP)
		Activities
		• Collect and analyse data to baseline Service capability
		• Collect data and analyse trends against the

		Service baseline
		• Host and manage monthly Service reviews
		• Attend monthly Service reviews
		• Evaluate all Service failures and implement appropriate mechanisms to ensure that they are not repeated
		• Maintain Service Catalogue
Service Desk	Single point of contact	**Deliverables**
	27x7 call reception	• Provide single point of contact for client issues and requests
	Access to ticketing system	• Provide a (single) repository for the recording Support Requests
	Ticket routing	• A dedicated telephone number that is answered 24x7
	Functional level escalation	• Service desk email address
		• Perform monitoring, tracking & communication including escalation on all tickets on behalf of the client through to resolution
		Activities
		• Record & classify all clients requests for assistance or notifications accurately and clearly
		• Perform monitoring, tracking & communication including escalation on all tickets on behalf of the client through to resolution
		• Provide managed escalation point to external service providers

Appendix C: Level 3/Level 4 IT Support Services providers' responsibilities

Where a Service is "Within Scope" for Foster Moore at Level 3 or Level 4 only:

- the Client must have fulfilled its responsibilities at Level 1 or Level 2 before escalating and, where Foster Moore considers (acting reasonably) that this has not occurred, it may refer the matter back to the Client for completion of those Level 1 or Level 2 responsibilities before Foster Moore is required to provide its Services; and
- Foster Moore will verify and troubleshoot escalated issues in accordance with the Agreement and will escalate to a Third Party Item vendor if required.

The descriptions in this Appendix are high-level. Further details of the relevant deliverables and activities are available in Foster Moore's policy and procedure documents.

The Service Desk and Incident Management services for Level 3 and 4 are:

Operational Support Services		
Service	**Service Provides**	**Deliverables/Activities**
Service Desk	Single point of contact	**Deliverables**
	24x7 call reception	• Provide single point of contact for client issues and requests
	Access to ticketing system	• Provide a (single) repository for the recording of all client issues, requests & changes with unique IDs records
	Ticket routing	• A dedicated telephone number that is answered 24x7
	Functional level escalation	• Service desk email address
		Activities
		• Record & classify all requests raised with Foster Moore for assistance or notifications accurately and clearly

		• Perform monitoring, tracking & communication including escalation on all tickets raised with Foster Moore on behalf of the Client through to resolution
		• Provide managed escalation point to external service providers and third party vendors
Incident Management	Escalated Incident Analysis	**Activities**
	Incident Escalation to other vendors	On escalation:
	Incident Resolution	• Analyze & investigate Incidents, providing updates of findings in the Incident record
		• Perform Incident monitoring, tracking & communication including escalation to other vendors as required

Appendix 8. Form A

Bidder Contact Sheet

Request for Proposal Number 5301Z1

Preparation of Response Contact Information	
Bidder Name:	Foster Moore US, LLC
Bidder Address:	5520 Dillard Drive, Suite 280, Cary NC 27518-9237
Contact Person & Title:	Kelly Kopyt, VP US Operations
E-mail Address:	kelly.kopyt@fostermoore.com
Telephone Number (Office):	(919) 745 2141
Telephone Number (Cellular):	(617) 519 1942
Fax Number:	N/A

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

Communication with the State Contact Information	
Bidder Name:	Foster Moore US, LLC
Bidder Address:	5520 Dillard Drive, Suite 280, Cary NC 27518-9237
Contact Person & Title:	Bill Clarke, VP Business Development and Partnerships
E-mail Address:	bill.clarke@fostermoore.com
Telephone Number (Office):	(416) 524 4542
Telephone Number (Cellular):	914 0070
Fax Number:	N/A