

RFP 16-01

EXHIBIT J

Corporations and Charities System

Conceptual Solution Architecture Model

January 2015

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Document Revision History

Version	Date	Description
.9	12/30/2014	Drafted by Sanjeev Batta

1. INTRODUCTION

1.1 Purpose

Corporations and Charities System (CCS) Conceptual Solution Architecture Model (CSAM) provides a common high-level vision of the business solution that was developed and delivered to the sponsor. The CSAM:

- describes the processes used to provide the business services to the customers of the business system;
- describes the customers that use these processes; and
- describes how the customers and processes interface with the business system.

The CSAM is used by the project team during the envisioning phase of the project as an input for drafting the functional and technical requirements needed in order to develop the final solution, and to support analysis and design activities.

This information can also be used to analyze risks, discuss issues with external control agencies, and identify opportunities for shared resources and services at the Enterprise level.

This document helps to align solutions with the strategic visions and goals of multiple entities.

1.2 Scope

This document describes the *Conceptual Architecture* for the Corporations and Charities Division. Certain areas of the Conceptual Architecture will further evolve and will be refined based on the architecture decisions, detailed process model, and user interface design. Any changes in the Conceptual Architecture that result from detailed logical architecture and design decisions will be reflected in an updated version.

1.3 Resources

The information from this document was gathered from the previous work done under the Semantic Arts engagement and from the external user interface design effort.

Additionally, the solution architect used industry understanding of similar systems, document management best practices, discussions with the business teams and technical team supporting the existing systems, and discussions with the SOS technology team and other stakeholders to ensure that the conceptual architecture is feasible and practical.

The architecture also considered the current state of several SOS systems (e.g., Revenue) as well as other agency systems (e.g., DOR), and reused any existing work from the previous engagements.

1.4 Constraint and Considerations

The CSAM document was created within the following constraints:

- No rewrite of the existing Revenue system
- Work with the existing DOR system (minimal changes for existing issues)
- Consideration for OCIO standards around REST interfaces
- Consideration for partner integration with other filing partners

1.5 References

The following references were used in the development of the Corporations and Charities System CSAM:

- Previous envisioning efforts' documents
- High-Level Business Requirements
- User Experience Design for External Web

1.5.1 Project Document Repository

A project document repository, such as Google Drive or SharePoint, needs to be identified for project use.

1.6 Document Maintenance

This document will be reviewed monthly in the early stages of the project and updated as needed, as the project proceeds through each phase of the system development life cycle (SDLC). During the later stages of the project the conceptual model will be reviewed and managed via the governance and change management processes followed by the project.

This document contains a revision history log. When changes occur, the document's revision history log will reflect an updated version number as well as the date, the owner making the change, and change description will be recorded in the revision history log of the document.

2. PARTICIPANT ROLES AND RESPONSIBILITIES MATRIX

This section describes the roles and responsibilities of the Corporations and Charities project team with regard to CSAM. In some cases, one individual may perform multiple roles in the process.

Role	Description	Name
Project Manager	The Project Manager is responsible for providing the resources required to complete this document.	Stephanie Goebel
Solution Architect	The Solution Architect is responsible for developing the CSAM content.	Sanjeev Batta
Business Analysts	<p>The Business Analysts provide information regarding the Business Services, Functions, and Processes required to the Solution Architect during the development of the CSA.</p> <p>The Business Analysts review the information contained within the CSA for accuracy and a common understanding of the Business System and the interfaces, information, and flows of the system.</p>	Jeff Parks, Stephanie Goebel
Technical SME / Technical Lead	<p>The Technical SME / Technical Lead will provide technical information regarding the technology infrastructure and standards required by the Solution Architect during the development of the CSA.</p> <p>The Technical SME / Technical Lead will review the information contained within the CSA for accuracy and a common understanding of the Technology Infrastructure. Each change/addition/deletion of a technology standard will be reviewed for compatibility with the existing technology infrastructure. Another responsibility is the review of the ability to implement the solution, identifying risks and reporting them to the project team.</p>	Scott Cooper
Verification and Validation Team	The Verification and Validation team will review the information for completeness and accuracy, and ensure that the document has been vetted by the project team.	OSOS Technical Steering Committee

3. CONCEPTUAL SOLUTION ARCHITECTURE MODEL

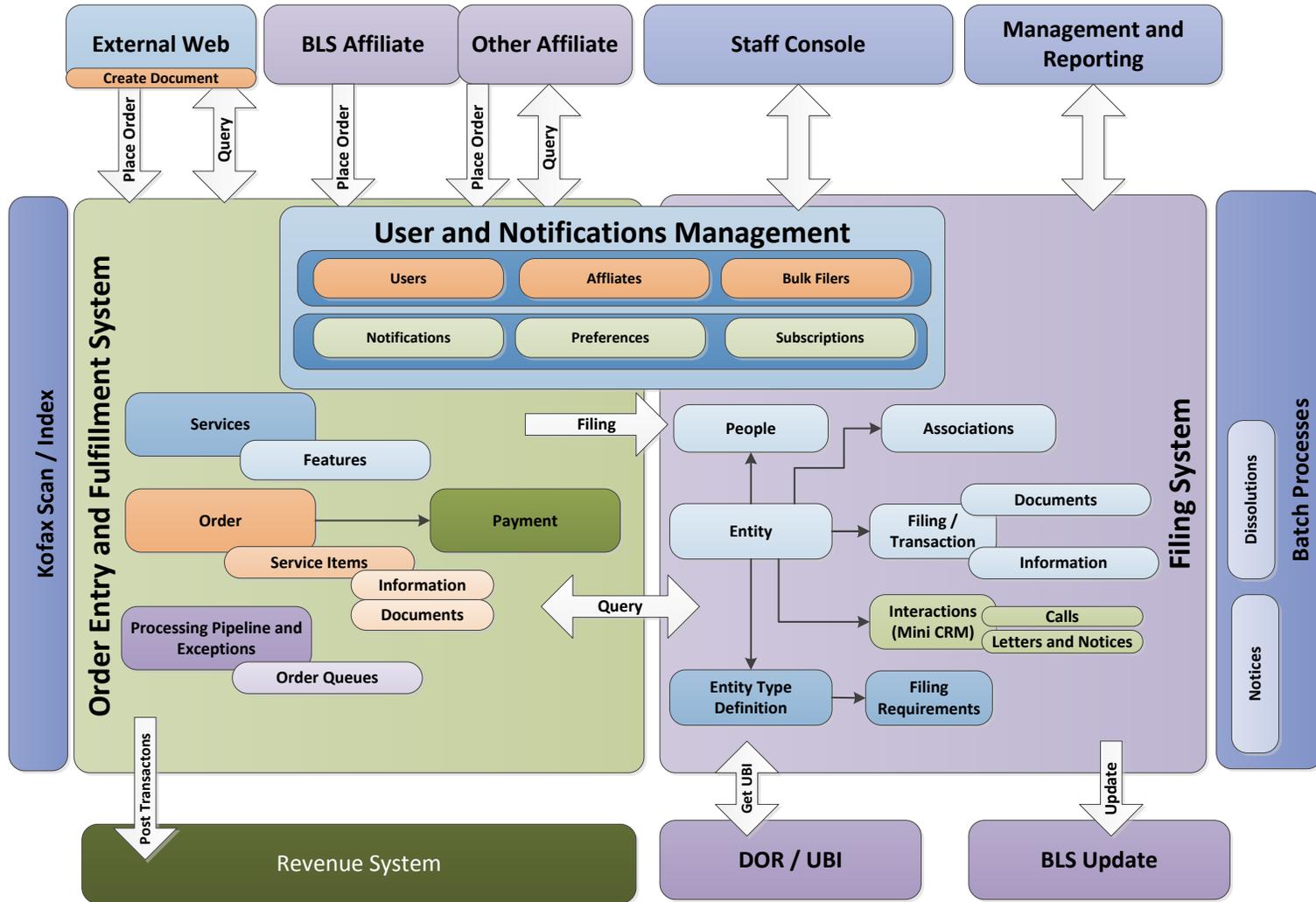


Figure 1: Conceptual Solution Architecture (Big Picture Vision)

3.1 Solution Overview

The proposed conceptual solution architecture is based on a simplified yet holistic approach towards a filing solution that can scale with online filing as well as supporting paper-based processes.

The solution architecture is based on following key guiding principles:

- Promote automation and self-service via Web as the key guiding principle.
- Align with the Business Architecture.
 - Receive, Augment, Fulfill, Record
- Create common services that can be leveraged across different business units within the Corporations and Charities Division.
- Allow flexibility and scalability towards future changes as much as possible.
- Integrate with SOS partners in a flexible and open fashion.
- Create a streamlined and lean flow for internal and external filers while allowing for exceptions.
- Integrate with the SOS Revenue system in a loosely coupled fashion.
- Create a robust system of record for filing information and data.
- Allow existing and future partners to integrate with SOS in a flexible fashion.

The solution is mainly comprised of the following sub-systems and components on which the architecture will be founded.

- **Order Entry and Fulfillment Sub-System**

The order entry and fulfillment sub-system is the entry point for all orders in the overall architecture. The source for the incoming orders can be one of the following:

- Online filing and record request Web Interface
- Mail-in filing and record requests entered via staff console
- Walk-in customer filings and record requests
- Phone-based order support
- Orders via external partners (e.g., DOR, BLS)

The goal of the order entry system is to allow recording of any and all requests for services provided by SOS Corporations and Charities Division. This will ensure that provided services can be measured for fulfillment performance as well as for general performance and financial / revenue reporting.

The order entry system will have the following key components:

- **Services Catalog**: The services catalog will provide a list of services provided by the division. The services may have features (e.g., expedite or non-expedite) or other additional enhancements for each type of service. The Service Catalog will also have the prices / fees for the services that can be ordered.
- **Order / Shopping Cart**: The order components or Shopping Cart components will allow external customers and internal staff to record the request for services and add services from the services catalog. The order components for the division are similar to an e-commerce or other order interface with a few differentiators. The order components will allow for customer information to be captured and for customer documents to be attached to the order.
- **Payment components**: The Payment components will allow the receipt of payment via different methods for the services in the order. The payment components will interface with the existing credit card module or other methods of payment. The payment components will also provide the basic check / cash reconciliation interfaces or interface with the Revenue system for the cashier and receipt processes.

- **Order Processing Pipeline and Workflows**: The order pipeline and workflow components will provide the handling of orders as they come in via different channels. Most orders coming in via the online channels will be received, augmented, paid, fulfilled, and filled all by the customer self-service interface. The order workflow components will mainly support the paper filings via the mail or the walk-in customer service interfaces, and will also support any exceptions from other channels.

- **Filing Sub-System**

The filing sub-system is one of the core systems within the proposed conceptual architecture. The sub-system ensures that entity data and documents filed with SOS are reliable and dependable.

The filing sub-system provides a few core capabilities:

- **Document Management**: This allows the documents to be managed, stored, and manipulated along with clear tracking and auditing of changes. The storage of the documents needs to be provided in an industry standard format (e.g., PDF, TIFF) and documents should be easily available for query and retrieval. The document management system also ensures that no extra documents are stored and only documents that pertain to a filing are part of the core filing system. The document system also ensures that all documents are indexed correctly with a filing, transaction, entity, and other attributes so that they can be queried.
- **Entity and Associated People Data**: The entity and associated people with an entity are the core reasons for the filing system to exist. This data needs to be managed in a way that any changes are audited and are managed in a simple yet effective fashion. The system needs to allow a flexible structure for entity types, filing requirements, and associated people requirements that can be managed via metadata. The entity data includes filings related to the entity and associated documents with those filings.

The entity system should allow for a flexible entity identifier system (e.g., UBI, Federal Tax ID) and allow for the different functions that allow entity associations (e.g., mergers, acquisitions, etc.) to be managed and recorded.

All transactions for an entity should be recorded including querying, record requests, and other information.

- **Entity Interactions / Mini CRM**: These components allow for the interactions and communications with an entity stored in a way that is easily retrievable and can be used in servicing customers. The

functionality is only to record information to the registered entities with the division and does not address the general queries and support ticketing by the phone and online support team.

- **User and Notifications Management**

The User and Notifications Management System allows for the management of different types of users in the system.

The current users of the online application belong to one of two groups: occasional users and power users. Occasional users file on behalf of their own entity or single business. Power users represent more than one entity and prefer the application to remember different preferences and defaults.

The other classes of users that the application will have are the affiliates and agencies that will be able to aggregate the services provided by the new system. These users will be affiliates (e.g., DOR or King County business portal) trying to provide one-stop services to businesses.

Notification management is used to generate notifications of any changes to an entity to the stakeholders interested in the entity.

The User and Notifications Management System provides services to both the Filing Sub-System and the Order Receipt and Fulfillment Sub-System.

- **Online Filing System (External Web Interface)**

The Online Filing System is an interface for the external customers to interact with Secretary of State. The Online Filing System will be developed using user-centered design principles and will leverage the Order Receipt and Fulfillment Sub-System as well as the query APIs provided by the Filing Sub-System.

The Online Filing System may provide additional tools (e.g., articles of incorporation generation) to enhance the overall customer experience and provide an incentive for customers to file online.

The Online Filing System will also provide straight-through processing of most requests so that the end-to-end Receive-Augment-Fulfill-Record process can be completed by the customer without any manual intervention.

The Online Filing System will also integrate with the User and Notifications Management System and provide a way for users to subscribe to updates on entities as well as to manage preferences.

- **Staff Console (Internal User Interface)**

The Staff Console will be the internal application used by the SOS staff in different departments to manage the filing process and handle the mailed and in-person paper filings, requests, and also any services that cannot be fully automated.

The Staff Console will also allow exception processing of different types and will provide an interface for customer support, reporting, and end-to-end management of different work processes.

The Staff Console will provide an interface over the order receipt and fulfillment process to provide intake of orders, manage exception queues and fulfillment processing workflows, manage to-do's and follow-ups, provide document and letter generation for exceptions, and provide "mini-CRM" functionality and other staff functions.

The Staff Console will provide a unified interface for the SOS staff over order receipt, augmentation and fulfillment activities, filing system functions, and the Payment system.

- **Management and Reporting Sub-System**

The Management and Reporting Sub-System will be integrated into Staff Console and will also provide a set of reports using a reporting tool allowing staff to manage different aspects of workload, filing, and performance measures. The sub-system will also provide daily operational reports monitoring both online and paper filing.

The management aspects of the system will allow administrative functions such as adding entity types and services offered, changing annual rates, and managing filing requirements and other aspects of different entities.

- **Kofax Scan and Index**

The Kofax Scan and Index processes and user interface will be created or modified to integrate into the Receive and Augment workflows. The scan and index system will feed primarily into the order process to provide document augmentation as needed in various workflows and exception scenarios.

- **Batch Processing**

There are several batch processes that the system will need to automate for daily, weekly, and annual processing of data to maintain the integrity of the filing system.

These processes will be automated using batch processing tools in SQL Server where possible, or using other batch processing methods decided during the logical and physical design.

The batch processing programs will interface mainly with the filing system.

3.2 Solution Objectives

The objectives of the solution are to:

- Improve the overall processing time and quality of services provided by different business units within the Corporations and Charities Division.
- Increase the rate of online filing and customer self-service to reduce overall cost.
- Develop the system in a flexible and scalable fashion to allow long-term viability.
- Provide a consistent and improved processing flow for staff to handle paper filings and exceptions.
- Provide better integration with partners and affiliates by creating an open and standards-based programming interface.
- Provide a system that can be aligned to Lean principles and improve quality of service.
- Reduce staff involvement in application workflows
- Minimize requests backlog and number of queues
- Expand online capabilities to all feasible services
- Make documents available online for public consumption
- Reduce amounts of clicks and data reentry required by professional (power/super) users
- Reduce number of delinquencies, administrative dissolutions and reinstatements by delivering a more intuitive entity lifecycle workflow via the UI
- Reduce number of calls to customer support involving generic legal and filing questions

3.3 Strategic Alignment

The conceptual architecture creates a system structure based on business services and service orientation. The architecture aligns with the overall customer experience for both paper filing and the online environment.

The project is aligned with the overall vision of transitioning to having the online user experience be the primary focus, while providing an integrated and robust filing system.

The conceptual architecture is also aligned with providing an auditable and dependable filing system as the foundation.

The overall architecture will support REST-based services that align with OCIO standards and vision for a statewide integrated portal.

3.4 Critical Success Factors

The critical success factors for the architecture are both business and technical in nature. The key factors include:

- The ability to strike the balance between automation of online services vs. exception processing (e.g., name conflicts). The goal is to provide close to 100% self-service online services and complete 90% of filings online with no staff interaction.
- The overall business process transformation effort will need to align with the architecture to support different aspects of the new vision. The organizational and process changes will require significant commitment from the division.
- The ability to migrate existing data into the new system in a way that documents and information regarding entities can be trusted. The data cleanup efforts may require significant effort.
- The ability to integrate with the existing Agency Revenue system without significant changes to the Revenue system, while designing for future reuse (e.g., existing Revenue system will still need tracking ID).
- Improved integration with the existing Department of Revenue systems while keeping in consideration the pending redesign of the BLS system.
- Providing interfaces and APIs based on open standards, which respond to affiliate and partner needs. These interfaces and APIs will need prioritization rankings so that they can be developed using a phased approach.

3.5 Benefits

The conceptual architecture is envisioned to be an integrated architecture that allows for both paper and online processes to be automated. The

architecture allows a phased approach in which certain aspects of online vs. offline service offerings can be managed. The architecture also allows SOS to have flexibility in business process improvement and a gradual transition to increased online transactions.

The full scope of the actual implementation will be decided based on the logical design, project scope, and budget, but the benefits at the conceptual level include:

- The solution provides a roadmap towards an integrated Corporations and Charities System.
- The solution provides a robust and dependable filing system for entities and related transactions, while also supporting the order receipt and fulfillment workflows.
- The solution provides an open architecture that will allow better integration with partners and affiliates.

3.6 Existing System History

The existing systems for Corporations and Charities Division are mostly architected around a document imaging solution and paper-based filings. An online interface was implemented which acts only as the receiving mechanism; the fulfillment aspects of current workflows are still manual processes.

The existing processes are tightly coupled into the Revenue system for receipt of payments and documents.

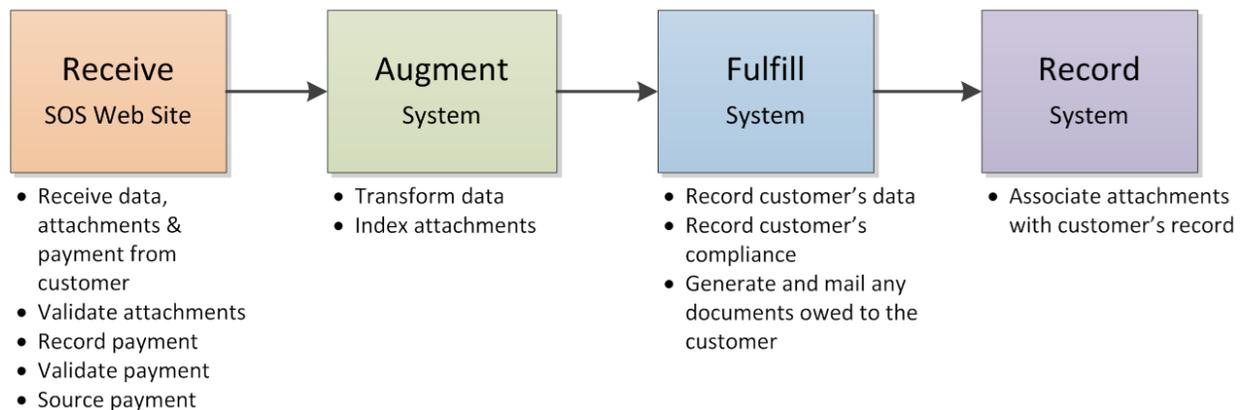
The existing workflows are based around document imaging work packages that take significant time to create and are error prone.

Interfaces with partners cause issues and delays, and a number of annual processes still are carried out by the partner agency Business Licensing System (BLS).

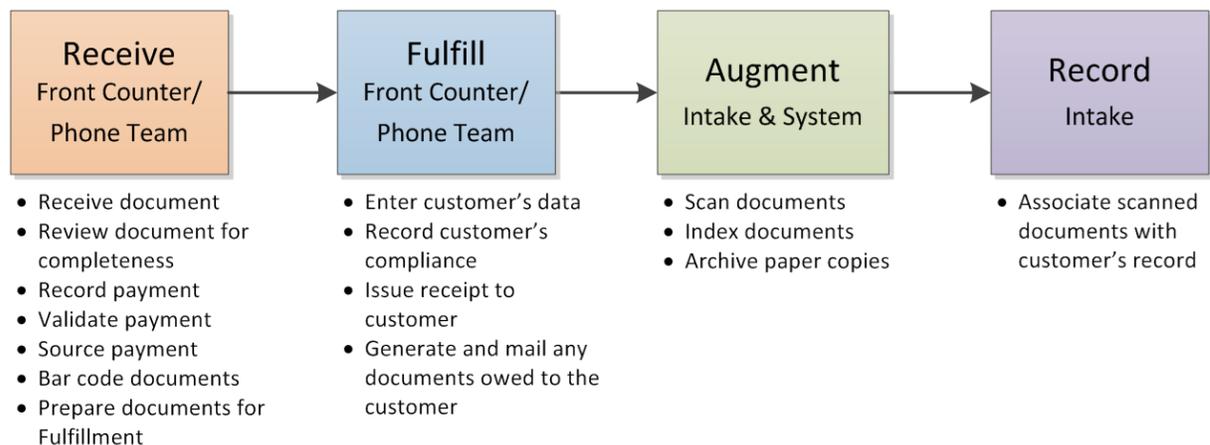
4. CONCEPTUAL SOLUTION ARCHITECTURE KEY AREAS

The following section describes key processes of the Corporations and Charities Division.

The online filing process lays out the four process elements in an order that can also be followed for the majority of Corporations & Charities Division's other processes if a scan-first model is implemented. Mail in processes are similar steps as the online system other than the aspect of online customer doing receive, augment, fulfill and record steps all in an automated fashion.



For Front Counter and Phone Team staff, the process follows a slightly different order than the recommended Corporations & Charities process, since Fulfill occurs at the individual transaction versus batch process level.



4.1 Customers

External Customers: There are several different methods through which external stakeholders and recipients will interact with the system or aspects of its functionality.

External customers fall into the category of either occasional users or power users. Each of these user types requires different aspects of the system to be functional and usable in response to their needs.

The following is a list of initial filing methods known at this point:

- Online via the Corporations and Charities Web Application
- Paper filings and requests received by mail
- Walk-ins to the Corporations and Charities service desk
- Phone calls to the customer service desk
- E-mail requests (from state agencies)
- Use a partner- or affiliate-provided Web filing application

Attorney General staff will conduct research on Charities, Fundraisers and Trusts with read-only access to mini CRM functions.

Support Staff: Support staff are spread across three different groups. The support staff members need access to the overarching system functions across all business areas, as well as specialized functions for their particular job. The three support staff groups are:

- Front counter staff serving the walk-in customers
- Receive and Augment staff receiving the mailed filings and requests
- Phone and Web Support team providing services and support to phone and Web customers

Business Area Staff: The staff in each business area (e.g., Corporations, Charities) needs particular functions in the system that they will require as power users. These business area functions may need to be specialized based on each respective business area.

4.2 System Interfaces

The system will provide the following interfaces at the conceptual architecture level. The mechanisms and actual workings of these interfaces will be defined

at the logical architecture level. New interfaces may be discovered during logical architecture creation to support some of the detailed business requirements or non-functional requirements for performance, security, availability, and loose coupling.

- **Department of Revenue UBI Interface:**

The Department of Revenue provides a Web Service interface to issue a UBI. The fulfillment aspects of the new system will interface with the UBI interface. The UBI interface is a critical interface for providing fully automated self-service filing.

In the conceptual architecture, the UBI interface will be accessed only via the filing system so that integrity of the system can be maintained.

- **Department of Revenue Update**

An existing system provides extracts for the Department of Revenue Business Licensing on a scheduled interval. The DOR Business Licensing system currently depends heavily on Corporations data to determine if a current entity is valid and in good standing. The system will continue to provide this information to keep the existing system functioning.

The system will also provide a query-based interface for any future upgrades to BLS to provide the entity information and status.

- **Department of Revenue or Other Filing Affiliate**

The Department of Revenue currently has a Web application and paper processes that allow for annual renewal filings to be processed by DOR. These filings currently are imported directly into the system.

Part of the vision for the new system is to provide an open affiliate interface that allows Department of Revenue and other affiliates to accept filings on behalf of the Corporations and Charities Division. This interface will ensure that the affiliate transactions flow through the same Receive-Augment-Fulfill-Record workflow as any other transaction.

A specialized process will need to be developed to continue supporting the existing Department of Revenue interface while leveraging the new interface.

The interfaces provided for affiliates will support the industry standard REST philosophy.

- **Query**

The new system must provide an open interface to search and query filing information. The query interface should allow the public and affiliates to query for the information in the SOS filing system.

- **SOS Revenue**

The new system will leverage the existing Revenue system for revenue and fund accounting functionality without tightly coupling with the Revenue system for Revenue ID and Tracking ID. The new interface will post transactions to Revenue and will integrate with the Receive and Augment workflows.

- **Other Affiliates (Charities Filing)**

There are some other perceived needs for automating charities filings via an online interface. The interface will allow affiliates filing on behalf of charities to file in an automated fashion.

- **Combined Fund Drive**

The Combined Fund Drive uses the Charities data to leverage information on charities. The system will provide the required information for the Combined Fund Drive, or alternatively the Combined Fund Drive could leverage the query interface.

5. ALTERNATIVE ANALYSIS AND RECOMMENDATIONS

Separate System for Trusts

During the conceptual architecture development process, a need for evaluating a separate or more loosely coupled system for trusts was evaluated based on a consideration that the program may be moved to another agency.

Options Evaluated

- **Option 1: Integrated in the Proposed Architecture:** This option will allow trusts to use the core system capabilities for online filing, paper filing, support, and integrated interfaces. In this option there would be only marginal cost to provide functionality for trusts.
- **Option 2: Stand-Alone System:** A stand-alone system for trusts with the same level of maturity and automation. This option will include duplicating most of the core aspects of the proposed system. This would require significant effort and costs.
- **Option 3: Minimal Stand-Alone System:** In this option, trusts would move to a less mature and robust system and that provides minimal functionality, where the workflow follows a primarily paper process. The system could be developed in Microsoft Access or an equivalent basic-level database, and allow ease of maintenance. The cost of this solution will be similar to the Option 1.

Recommendation

Our recommendation is to develop the trust functionality under Option 1, and if the program later moves to another agency, let the current system provide access to users from the new agency.

This option will allow trusts to leverage the robust filing platform that the division intends to build.

APPENDICES

Appendix A - Glossary of Terms

Activity – A collection of business tasks typically executed in a sequential fashion in order to achieve intermediate results.

Business System – A collection of processes (automated or manual) that are provided that fulfill some or all of the requirements for a Line of Business.

Customer – The end consumer of a business systems service. Typically this is the consumer of the information that a business system provides.

Customer Interface – The services, system, or mechanisms that a business system uses to interface with the customers of a business system.

Information Flow – The path and process that information takes from the originating source to the consumer of the data.

Line of Business – A set of one or more highly-related products which service a particular customer transaction or business need.

Mechanism – Technology or other utility that is used by a business system that helps to automate a business process, activity, or task.

Process – Related business activities performed to produce an end product or provide a business service. A process has a specific beginning, and an end point marked by the delivery of a product of output.

System Interface – The services, system, or mechanisms that a business system uses to gather or provide information. The information source varies, and can be an external system service or information repository, or an internal data source managed by the business system.

Task – The smallest unit of work performed by an organization, which is limited in duration and scope.

Project Agreement Signatures

The signatures below indicate that the conceptual solution architecture model was reviewed by all parties, and that all parties agree with its content.

Enterprise Architecture Office