



ADOA-ASET

Project Investment Justification

Version 01.01

A Statewide Standard Document for Information Technology Projects

Project Title:

Arizona Corporation Commission Securities Division Legacy System Replacement Project

Agency Name:	Arizona Corporation Commission ("ACC") Securities Division ("Division")
Date:	December 3, 2014
Agency Contact Name:	Mark Dinell
Agency Contact Phone:	
Agency Contact Email:	

I. Management Summary*

The Division relies heavily upon two legacy software databases in order to accomplish its work in addition to numerous stand-alone spreadsheets. One database handles enforcement matters while the other handles registration and compliance matters. Standalone spreadsheets are used extensively in order to compensate for functional deficiencies in the legacy databases.

The Division seeks to replace its outdated legacy databases and standalone spreadsheets with one fully integrated system to handle both enforcement cases and registration/compliance matters. After conducting a survey of solutions adopted by other state regulatory agencies and engaging in an extensive discovery process, the Division concluded that a highly-configurable, commercial-off-the-shelf ("COTS") product offers the optimal solution. The COTS solutions presented by vendors in response to the Division's RFP appear to address the Division's specific business needs in the most cost-effective manner.

II. Project Investment Justification (PIJ) Type*

Yes No Is this document being provided for a Pre-PIJ / Assessment phase?

If Yes,

Identify any cost to be incurred during the Assessment phase.	\$ -0-
Based on research done to date, provide a high-level estimate or range of development costs anticipated for the full PIJ.	\$647,334*

*Includes Development Costs of \$549,000, 1st year Maintenance Costs of \$62,000, \$12,334 SQL license, and estimated \$24,000 in additional Application Program Interfaces

Explain:

The Division's RFP was publicly released in June, 2014. Data contained in this PIJ is based on vendor responses to that RFP.

Yes No Will a Request for Proposal (RFP) be issued as part of the PIJ?

III. Business Case

A. Business Problem*

The Division's two legacy databases are over thirteen years old and have severely limited functionality. As the two systems are separate and distinct, information entered into one is not connected with the other. This lack of integration results in information silos and an inability to run comprehensive searches on firms and persons who interact with the Division and investors in the state. Management reporting is overly time-consuming and negatively impacted by the lack of integrated data and reporting capabilities. Furthermore, neither database can be integrated with common office automation applications, such as Microsoft Office, email or calendaring applications. Finally, the database used to handle registrations is no longer supported by the vendor and presents a risk of failure.

Continued use of the legacy databases and reliance on stand-alone spreadsheets to compensate for the database deficiencies drive antiquated manual and paper-based processes as well as redundant data entry. The lack of a true case management system diminishes the efficiency of enforcement case teams. Information collected and to be analyzed for enforcement cases is housed in a number of locations rather than centrally. The registration, collection and accounting sections perform extensive mathematical calculations and accounting analysis manually which is both time-consuming and prone to human error. All securities registration/exemption filings and renewals are paper-based.

Technology advances have raised the public's expectations of being able to conduct business electronically beyond "normal business hours." The Division is currently unable to offer the public or securities issuers the convenience, transparency and accessibility of 24/7 electronic filing and payment. For example, the majority of state securities agencies nationwide offer mutual fund filers electronic filing and payment capabilities. Arizona's filing procedure, for mutual funds as well as other securities registration/exemption filings, is exclusively paper-based.

Staffing levels have declined more than 20% over the past five years without any corresponding decrease in business demands. The Division does not anticipate significant hiring in the future. Acquiring the necessary technology tools to assist staff in working faster and more efficiently is a business imperative.

B. Proposed Business Solution*

After an extensive RFP process the Corporation Commission would like to award a contract to the preferred bidding vendor to provide a configurable, Commercial Off the Shelf (COTS) product and supply professional and outside services to install, enhance and deploy our final product.

The preferred vendor demonstrated that its product will remedy the above mentioned business problems by:

- Enabling comprehensive searches of data concerning firms and individuals because the data will be contained in one fully integrated system
- Eliminating or substantially reducing redundant data entry and information silos
- Performing complex calculations automatically through functionality embedded in the new system
- Supporting automated case management functionality including case assignment, monitoring, tracking, and reporting
- Accepting electronic filings and payments in a manner that updates the database automatically without the need of manual data entry
- Enabling the manipulation, coding and analysis of accounting data in tables housed in the database while reducing manual data entry
- Generating restitution lists as well as tracking payments, accrued interest, balance due and related information without the need of manual calculations or reference to multiple spreadsheets

- Offering enhanced standard and ad hoc reporting capabilities for improved management monitoring
- Tracking subpoenas, filings, deadlines, case events, and renewals automatically
- Managing documents and templates, including pre-filing information contained in the database
- Facilitating electronic mutual fund filings
- Introducing a public web portal for the filing of documents and payment of fees
- Providing time management ticklers/reminders

The database solution proposed will afford the Division the opportunity to streamline its workflows for greater efficiency and effectiveness.

C. Quantified Benefits*

X	Service enhancement
<input type="checkbox"/>	Increased revenue
X	Cost reduction
X	Problem avoidance
X	Risk avoidance

Explain:

The Division handles 25,000 active mutual fund filers each year. Each mutual fund makes multiple filings throughout the year. Mutual fund filing fees account for approximately \$14 million of the Division’s annual revenues of \$26 million. Moving the mutual fund filings and fee payments to a fully automated electronic process would reduce the administrative burden on staff, reduce storage costs attributable to massive amounts of paper filings, and represent a service enhancement to mutual fund filers who would no longer be required to prepare a paper documents package and check for Arizona.

As stated above, both legacy databases are over thirteen years old with limited functionality. In particular, the vendor-created database used by the registration section is no longer supported by the vendor. The database is incompatible with the Division’s operating system and currently runs in a virtual environment relying on products that will not be furnished indefinitely by Microsoft. The risk of system failure exists; replacing this outdated database is mission critical.

Offering the public the ability to make filings and pay fees over a public web portal 24/7 would represent a significant service enhancement, reduce data entry time by staff, and receipt fees in the most expeditious manner possible.

IV. Technology Approach

A. Proposed Technology Solution*

The Division’s proposed technology solution consists of a highly-configurable, commercial off-the-shelf product. The project envisions the purchase of the necessary database software, services to install, configure, and test the software, training, as well as services to migrate data

from legacy databases and standalone spreadsheets into the new database. The purchase and design of application program interfaces will also be required to facilitate the exchange of data between the Division and third parties. Cost will also be incurred to establish the public web portal. Additional hardware will not be purchased as part of the project costs. Costs are broken out in the PIJ Financials section of the embedded matrix.

B. Technology Environment

The software acquired through this project will entirely replace the 13 year old legacy databases and standalone spreadsheets currently used to house the Division's data. As discussed above the Division's current databases are extremely limited in their functionality and are not integrated. Because the product to be purchased is highly configurable, the Division will be able to make many of the future modifications deemed necessary to accommodate changes in the law and business processes without incurring additional vendor costs. In addition to replacing existing databases, the project will feature enhancements such as the public web portal for e-filing and payment and application program interfaces ("API") to facilitate electronic mutual fund filings. The public web portal and API are fully integrated with the selected vendor's database management system. The project costs set forth in this PIJ reflect the fact that the replacement database will be hosted by the Arizona Corporation Commission's (ACC) technology department. Additional hardware costs are not expected as the application will fit within the current ACC data center capacity/plans for services and storage (SANs). ACC's storage capacity was updated last year. The vendor solution is a web-based smart client application launched from a browser URL, so Windows 7/8 compatibility is not an issue. The product is compatible with IE8 or higher and ACC is in the process of moving to IE11.

Supporting software and hardware architecture

The following components comprise the architecture of the preferred product:

- **Database Server** - This is an Enterprise level, SQL Server platform normalized database server. The database server may be titled by the customer upon installation. This data file houses all primary data for the system including user data, code tables, security settings, application settings, user settings, custom screen definitions and business rules.
- **Web Server** – The vendor solution is an ASP.NET application on Microsoft SQL 2012 database server platform. It receives and answers requests from the client over HTTP using the SOAP 1.2 Web service protocol. It includes the following components that manage client requests:
 - **Document Server** - Located on a file server accessible only by the Web service, the document directory houses all documents stored in the product's filing cabinet. This includes documents generated by the system and any externally attached file. The Web service accesses documents from the document directory and passes them to the client.
 - **Smart Client** - Smart Client is the hybrid that combines the best of both the rich clients (high performing desktop applications) and thin clients (low-maintenance browser-based applications). It is a rich Windows application that uses IIS and .NET technologies. Smart Client can be launched from a URL, checking for a new version and automatically updating each time it is launched. Smart Clients are built on .NET framework, which allows Click Once deployment.

With the .NET framework, users click a link to a URL, and only the necessary code downloads to their machine. If any of the code gets updated, it is immediately distributed to all clients.

- **Document Automation 2.0:** This uses the product's Smart Client and Web service architecture to request read-only information from the database, insert the information into a document template, and post the final document to the document directory. Document generation is treated the same as any other Smart Client request.

Document Automation 2.0 also includes a document template editor that is a separate Smart Client application, can be launched from a URL, and uses the product application's Web server the same way the Smart Client does.

- **Microsoft SQL Server 2008/2012** - This is a relational database management system (RDBMS) backend of the system. Microsoft SQL Server supports client connectivity via the Web services SOAP protocol.

- **SQL Server Reporting Services (SSRS)** - SSRS generates read-only HTML reports from live data and returns them to the client.

- **SQL Reporting Services Report Builder:** SSRS includes a Report Builder application.

Configurability of Solution

The preferred product is a highly configurable, off the shelf system. Administrator training is provided on-site early in the implementation process to teach the administrators how to modify code tables, control security and data partitioning rules, and configure the system. All system configurations can be accomplished without needing access to the source code.

Tools and scripts for data migration

Vendor will develop and provide the tools and scripts necessary to migrate the data into the new system using an API. All tools developed by and for the vendor will use Microsoft standard tools such as SQL Server and C# .NET.

Scalability of product

The product uses n-tier/SOA-based architecture that enables it to distribute processing across multiple tiers and platforms to the appropriate place. Because of the way it distributes processing, the solution is scalable to a virtually unlimited number of users.

C. Selection Process

The Division has engaged in a careful, thoughtfully-considered selection process. Starting in Q4 2012, the Division's project team began identifying all work performed by the Division and categorizing such work by functional areas. In January 2013, the project team undertook a comprehensive needs assessment which generated suggestions for system and process improvements. The project team conducted substantial research concerning contemporary solutions available in the marketplace. The project team spoke with other state agencies and state securities administrators to identify technology solutions implemented by them and assess the level of satisfaction with the solution chosen. While some state agencies expressed a high degree of satisfaction with custom products, those custom products were the most time-

consuming to develop and install, the most expensive, and lacked flexibility due to the reliance on hard coding. Other agencies expressed satisfaction with the cost, flexibility and ease of installation of COTS solutions. Based on the information considered, the Division determined that a COTS product would offer the most flexibility, proven functionality, and reasonable cost.

In Q2 2013, the Division’s project team prepared a request for information (“RFI”); it was placed on the State’s procurement website in June 2013. Responses to the RFI were due in August 2013. The Division received and reviewed seven RFI submission packages from vendors. As a next step, the Division began drafting its RFP in Q3 and Q4 2013. The Division’s final RFP draft was provided to the State procurement office on February 28, 2014. The RFP was placed on the procurement website in June 2014; responses were due July 15, 2014. The Division received responses to its RFP from four vendors. The evaluation committee invited two vendors to provide on-site demonstrations according to a script provided by the Division. Based on those demonstrations, responses to written questions and the vendors’ best and final offers, the evaluation committee selected a preferred vendor.

V. Project Approach

A. *Project Schedule**

Project Start Date: 1/1/2015 **Project End Date:** 9/14/2015*

254.63 days is vendor’s maximum estimated time to complete project

B. *Project Milestones*

Major Milestones	Start Date	Finish Date
Initiation phase – 34.13 days total: Server & hardware setup 29 days; information/workbook completion and assignments 24 days; installation of software 4.63 days install software, select Division’s project team, complete initial spreadsheets on system, have kick-off meeting	1/1/15	2/04/15
Planning phase – 14.75 days total: designing new system, develop project timeline with goals, responsibilities and priorities, create project plan; gather requirements	2/05/15	02/19/15
Executing phase - 196.63 total: (a) Build configurations, build reports, build custom screens - 115.63 days	02/20/15	06/15/15
(b) Test – validate configurations – 14 days	06/16/15	06/29/15
(c) Data migration – 52 days	06/30/15	8/20/15
(d) Move to production (final prep for go live), training – 15 days	08/21/15	09/04/15
Closing phase – 9 days total: resolve issues, project closure meeting, turnover	09/05/15	09/14/15

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VI. Roles and Responsibilities

A. *Project Roles and Responsibilities*

The Arizona Corporation Commission, Securities Division is sponsoring this legacy database replacement project. The Division anticipates assigning an internal project team comprised of 10 staff members who are subject matter experts in their respective areas. The Division's project team will work closely with the selected vendor's project team throughout the project. The Division's project team will be responsible for completing all assigned tasks in a timely manner consistent with the project timeline and goals. In particular, the subject matter experts will play a key role in assisting the vendor in configuring the COTS to accommodate and update work flows. The designated business lead for the project is Sharleen Day, Chief Counsel of Registration for the Division. The designated technical lead is Letty Butner, the Agency CIO. The Division's project coordinator between the Division's project team and the vendor's project team is Cathryn Mayers. The program oversight manager from ADOA-ASET is Chuck Revenew. Two Division staff and two IT staff will receive system administrator training in addition to standard end user training.

The selected vendor has committed to provide at least one PMP-certified staff to its project team. The vendor's project team will be comprised of at least a project manager, a project implementer, and a business intelligence specialist. The selected vendor is responsible for leading the implementation, system configuration, data migration, testing, and training.

B. *Project Manager Certification*

- Project Management Professional (PMP) Certified **
- State of Arizona Certified
- Project Management Certification not required

** At least one PMP certified member will be included in vendor's project team

C. *Full-Time Employee (FTE) Project Hours*

Total Full-Time Employee Hours [10 staff x 12 hrs per week x 28 weeks = 3,360]	3,360
Total Full-Time Employee Cost [3,360 hrs x \$45/hr blended rate]	\$151,200

VII. Risk Matrix, Areas of Impact, Itemized List, PIJ Financials

VIII. Project Approvals

A. Agency CIO Review*

Key Management Information	Yes	No
1. Is this project for a mission-critical application system?	X	
2. Is this project referenced in your agency's Strategic IT Plan?	X	
3. Is this project in compliance with all agency and State standards and policies for network, security, platform, software/application, and/or data/information as defined in http://aset.azdoa.gov/security/policies-standards-and-procedures , and applicable to this project? If NO , explain in detail in the "XI. Additional Information" section below.	X	
4. Will this project transmit, store, or process sensitive, confidential or Personally Identifiable Information (PII) data? If YES , in the "XI. Additional Information" section below, describe what security controls are being put in place to protect the data.	X	
5. Is this project in compliance with the Arizona Revised Statutes (A.R.S.) and GRRC rules?	X	
6. Is this project in compliance with the statewide policy regarding the accessibility to equipment and information technology for citizens with disabilities?	X	

B. Project Values*

The following table should be populated with summary information from other sections of the PIJ.

Description	Section	Number or Cost
Assessment Cost (if applicable for Pre-PIJ)	II. PIJ Type - Pre-PIJ Assessment Cost	\$-0-
Total Development Cost	VII. PIJ Financials tab	\$573,000
Total Project Cost	VII. PIJ Financials tab	\$936,893
FTE Hours	VI. Roles and Responsibilities	3,360

C. Agency Approvals*

Contact	Printed Name	Signature	Email and Phone
Project Manager:	Cathryn Mayers		
Agency Information Security Officer:	Letty Butner		
Agency CIO:	Letty Butner		
Project Sponsor:	Matthew Neubert		
Agency Director:	Jodi Jerich		

IX. Optional Attachments

A. *Vendor Quotes – attached*

X. Glossary – N/A

XI. Additional Information