



ADOA-ASET

Project Investment Justification

Version 01.01

A Statewide Standard Document for Information Technology Projects

Project Title:

Oversight Automation Project

Agency Name:	Arizona Department of Administration (ADOA)
Date:	October 15, 2014
Agency Contact Name:	Christine Starr
Agency Contact Phone:	
Agency Contact Email:	

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I. Management Summary*

The goal of the Oversight Automation Project is to develop a robust, automated application to streamline the Arizona Department of Administration (ADOA), Arizona Strategic Enterprise Technology (ASET) Oversight operational processes. This solution will improve speed and quality of service delivery to ADOA, ASET, the Oversight team, Information Technology Authorization Committee (ITAC), and all other agencies, boards, and commissions (customers) of the State of Arizona that submit PIJs or engage ASET Oversight for strategic planning and technology-related consultation.

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.	\$
Based on research done to date, provide a high-level estimate or range of development costs anticipated for the full PIJ.	\$

Explain:

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

III. Business Case

A. *Business Problem**

The current Oversight operational processes are driven by numerous electronic and paper documents which require manual edits, e-mail collaboration, paper files, and wet signatures. These processes include but are not limited to the Pre-PIJ (Assessment), Pre-PIJ (RFP), PIJ, Change Request, and Project Monitoring processes (PIJ process). PIJ data and other information is trapped in text documents and e-mail messages and is not readily available for tracking operations, decision-making, and public reporting purposes. The process includes many redundant, manual activities resulting in unnecessary process delays. There is an existing application used to track a limited amount of data associated with the PIJ process only. This tool uses an unsupported version of Computer Associates Clarity (version 12), is too rigid to adequately enable existing and planned Oversight processes, poses a long-term data security risk, and does not meet long term architectural design targets of the Arizona State IT Strategic Plan.

In the existing process there are approximately 190 individual fields of data. However, nearly 600 manual entries of that same information are performed to enable the PIJ Process across all stakeholders. During the PIJ and ensuing project monitoring processes, multiple iterations of documents are produced including:

- **Draft PIJ** (Word file) – drafted, edited, and submitted for internal agency approval

- **Agency-Approved PIJ** (physical document) – hand-signed by all agency stakeholders/approvers
- **Agency-Approved PIJ** (scanned to Portable Document Format (PDF) file) – submitted to Oversight (with Word file)
- **Reviewed PIJ** (Word file) – returned to Agency with questions, comments, and recommended edits from Oversight.
- **Updated-Agency-Approved PIJ** (physical document) – re-signed by all agency stakeholders/approvers
- **Updated-Agency-Approved PIJ** (scanned to PDF file) – re-submitted to Oversight (with Word file)
- **Approval Letter with Summary (physical document)** – for State Chief Information Officer (CIO) Signature
- **Memo to File** (physical document)
- **ITAC Recommendation Letter with Summary** (Word and scanned files) – for State CIO Signature and ITAC Review/Approval
- **ITAC PowerPoint presentation** – for ITAC Meeting
- **Project Status update spreadsheet** (monthly or quarterly) with schedule, financial, and milestone updates.
- **Physical File Folder** with physical copies and history of all documents above.
- **Electronic folder** with all electronic versions of all documents above.

Customers and non-oversight stakeholders are unable to obtain status information at-will on their PIJ or other related documents, or on requests that have been submitted to Oversight. Agencies are forced to use paper documents and manipulate, scan, and provide additional electronic files to create, edit, and submit a PIJ and provide unnecessary (not statutorily required) hand-written signatures by stakeholders. Other entities like ASET management, ASET Enterprise Architecture, the State Procurement Office, and ASET Security Privacy and Risk cannot take advantage of the opportunities to piggy-back the gathering of additional important decision-making and planning data during this process. Trends in buying habits, technologies, methodologies, hardware, software, and services which are occurring directly with third-party vendors and within the infrastructure are not tracked and cannot be easily compiled or reported. In order to increase government transparency, ASET seeks to provide improved public access to PIJ and Project related data.

B. Proposed Business Solution*

ASET proposes to develop a robust, web-accessible automated management application to enable and streamline the ASET Oversight operational processes and improve speed and quality of service delivery to ADOA, ASET, Oversight, ITAC, customers, and the public. The proposed application will improve workflow, process, and information access across all Oversight operational processes. The application will include a single repository of data accessible by a number of methods.

The application will include automation of Pre-PIJ and PIJ creation and submittals, automation of approvals/recommendations from agency stakeholders, agency CIOs and/or directors, Oversight, the State CIO, ITAC, Joint Legislative Budget Committee (JLBC), and third parties. Additional capabilities include project initiation, project change requests, monthly status

reporting, project closure, internal reporting, enterprise architecture and trend reports, and public reporting via MyAZ.gov.

Government transparency will be achieved by providing the public with web-accessible historical and real-time information about technology projects. Dashboards, reports, alerts, and notifications will give an improved picture of what activities are taking place and when. Quality will be ensured via business rules and checks performed by the application. Escalations will be managed if preset document quality parameters are not met. ASET Enterprise Architecture will benefit from the collection and reporting of survey and infrastructure data not currently gathered.

The time required for PIJ approval will be reduced by streamlining work, eliminating redundant manual data entry, eliminating document production and handling (where allowed by Statute), and availing data currently trapped in documents and e-mail. All data will be entered one time, eliminating as much as 70% of current data entry activity. This data will be stored in a MySQL relational database which can be queried by users and other applications. All relevant communications, comments, record history, edits, workflow, and audit trail metadata will be captured. Integration between this application and Arizona Enterprise Services Platform (AESP) will enable data lookup functions (see "Identity Server" in the "Technology Environment" section). The Oversight Administrator will have the ability to allocate resources based upon actual workload data. Process and security roles and responsibilities can be assigned by an appropriate authority.

Customizable approval routing will enable required and desired approval flows for the customer. Wet signatures will be eliminated and digital signatures will be utilized where mandated by State statutes.

The application will reduce the need for scanned documents and physical files (unless required by Statute) thereby reducing consumption, storage, management, and archival of paper records. The application will be able to generate files such as a standard PowerPoint presentation or a project charter utilizing established templates populated with PIJ data. Such file generation will speed up preparation time for meetings and provide the customer with a tool to consistently create startup documents for their ensuing projects.

C. Quantified Benefits*

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

Explain:

Service enhancement will be achieved by enabling state agencies, boards, and commissions to reduce the time required for PIJ/project approval through an automated application rather than through a tedious manual process. Status of approvals will be available online for review.

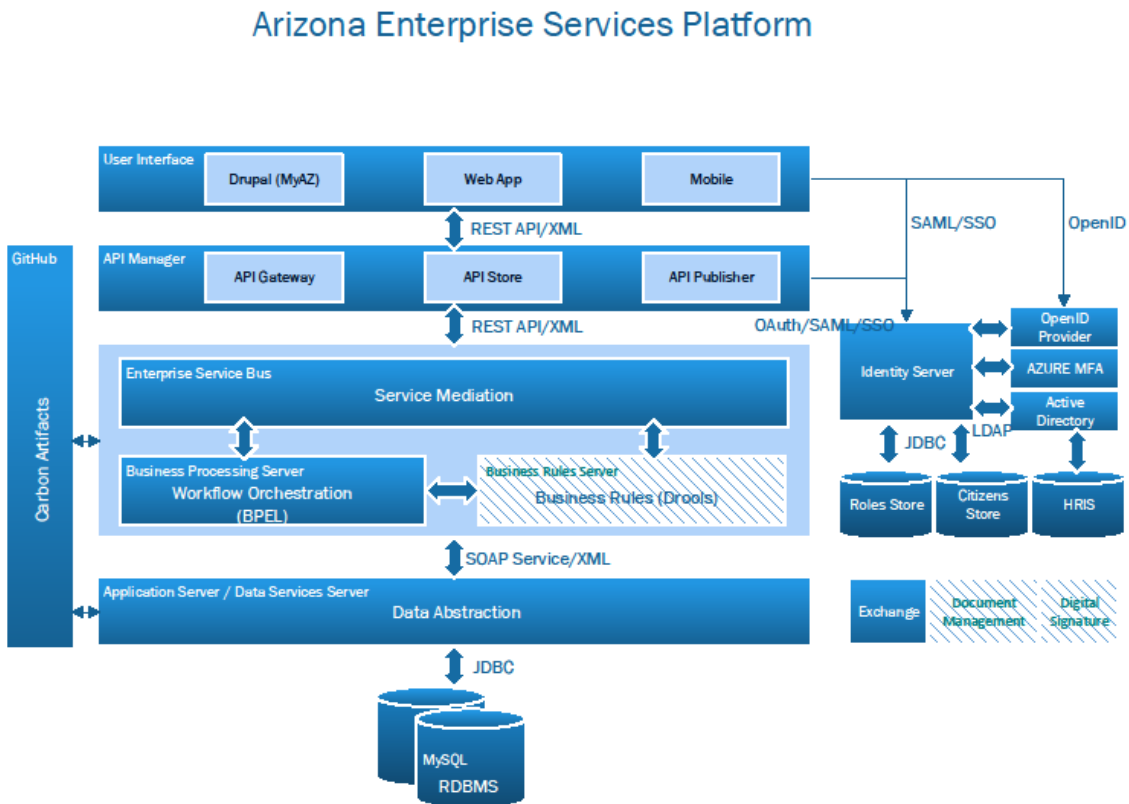
Cost reduction is achieved by reducing the amount of time required by agency personnel requesting project approvals and time spent by oversight in reviewing project justification forms and providing feedback.

IV. Technology Approach

A. Proposed Technology Solution*

The Automated Project Services Application (APSA) will be built on the State’s AESP. Using this platform will allow the application to leverage various existing technologies and services as well as provide flexibility for future integration opportunities. The components of the solution and its related customization to support the Business Solution are provided in the “Technology Environment” section below.

B. Technology Environment



The APSA will be built on the AESP, leveraging the inherent capabilities. Using this platform will allow the application to use various existing technologies and services as well as provide flexibility for future integration opportunities.

These are the elements of the Solution architecture:

User Interface (UI) – The UI is the visible portion of the application and provides the user with access to all functions required to find, create, edit, and report on records in the database. The APSA will be web-enabled and transacting with the Application Programming Interface (API) manager via Representational State Transfer (REST) API and Extensible Markup Language (XML) web services. The UI will be made available through MyAZ.gov and will have limited mobile device functionality.

My Structured Query Language (MySQL) – MySQL is an open-source Relational Database Management application (RDBMS). It stores data in the form of related tables. A dedicated MySQL database will be developed for this solution inclusive of instances for development, testing, and production.

Application Server/Data Services Server (AS/DSS) – The WSO2 (Web Service Oxygen: an open source application development software company) application server is a lean, open source, high-performance application server with Web application and Web services deployment and management capabilities. This serves as a data abstraction layer and provides isolation between the RDBMS and the rest of the platform. The application server connects to the underlying database using Java Database Connectivity (JDBC) and exposes the data as a Simple Object Access Protocol (SOAP) web service to the platform. This will prevent any dependency between the platform and the database technology. The application server will be customized appropriately to manage the interaction between the RDBMS and other layers of the solution.

Business Processing Server (BPS) – A customization of the BPS will be created specific to the application. It will be responsible for execution of business processes and workflows. The business processes orchestration will be written using the Business Process Execution Language (BPEL) standard and will be deployed on the BPS.

Business Rules Server (BRS) – BRS functionality will be developed for this solution and will provide capability for defining, deploying, monitoring, and maintaining Oversight’s business decisions—exposing them as secure, reliable web services. The BRS will support the Drools rule engine which will enable customized rules authoring.

Enterprise Service Bus (ESB) – The ESB will serve as a single point of communication for web applications and handles transforming, filtering, routing and mediation of SOAP or REST message requests to the platform.

API Manager (APIM) - APIM will provide a solution for creating, publishing and managing all aspects of an API and its life cycle. The APIM consists of the API Gateway, API Store, and API Publisher.

Identity Server (IS) – IS will provide secure identity management for enterprise web applications, services, and APIs by managing identity and entitlements of the users, securely and efficiently, with access control and Single-Sign-On (SSO) capability.

In addition to the solution-related items above, the application will be secure and fault tolerant. The AESP resides within State infrastructure and is secure in accordance with current requirements. Further, business continuity will be ensured by employing established solution architectures and services.

C. Selection Process

The selection process will be a competitive bid after the project business requirements have been submitted to the four vendors associated with the Web Portal and Enterprise Services Platform State contract. These vendors have performed work successfully in the past on many state software projects.

V. Project Approach

A. Project Schedule*

Project Start Date: 11/24/2014 **Project End Date:** 6/30/2015

B. Project Milestones

Major Milestones	Start Date	Finish Date
Phase 1 Development (PIJ creation, submittal, approvals, change requests, reporting)	11/24/2014	12/19/2014
Phase 1 Release	12/19/2014	12/31/2014
Phase 2 Development (Project tracking, status reports, EA reports, trend reports, public reports)	01/02/2015	05/01/2015
Phase 2 Full Application Rollout	05/01/2015	05/30/2015

VI. Roles and Responsibilities

A. Project Roles and Responsibilities

Agency Director: Kathy Peckardt, ADOA Interim Director
Chief Information Officer: Aaron V. Sandeen, ADOA Deputy Director, State CIO
Project Sponsor: Aaron V. Sandeen, ADOA Deputy Director, State CIO
Co-Project Sponsor: Philip Manfredi, Chief Strategy Officer and Deputy State CIO
Project Managers (PM): Christine Starr, Project Manager, ADOA-ASET
Security Manager: Hector Virgen, Information Security Manager, ADOA-ASET
Business Analysts: Rico Cruz, Business Analyst, ADOA-ASET

B. Project Manager Certification

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

C. Full-Time Employee (FTE) Project Hours

Total Full-Time Employee Hours	1,800
Total Full-Time Employee Cost	\$

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 (Only If Pre-PIJ)	II. PIJ Type - Pre-PIJ Assessment Cost	N/A
Total Development Cost	VII. PIJ Financials tab	\$875,800.00
Total Project Cost	VII. PIJ Financials tab	\$3,500,000.00
FTE Hours	VI. Roles and Responsibilities	1800

C. Agency Approvals*

Contact	Printed Name	Signature	Email and Phone
Project Manager	Christine Starr		
Agency Information Security Officer	Mike Lettman		
Agency CIO & Sponsor	Aaron V. Sandeen		
Agency Director:	Kathy Peckardt		

IX. Optional Attachments

X. Glossary

AD = Active Directory
AS = Application Service
BEPL = Business Execution Processing Language
BPS = Business Processing Server
BRS = Business Rules Server
Drools = language for creating rules
DSS = Data Services Server
ESB = Enterprise Service Bus
HRIS = HR Identity server
IS = Identity server
JDBC = Java Database connector
MySQL = database
JSON = JavaScript Object notation
SOAP - Simple Object Access Protocol
SSO = Single Sign On
XML = Extensible markup language

XI. Additional Information

Links:

[ADOA-ASET Website](#)

[ADOA-ASET Project Investment Justification Information Templates and Contacts](#)

Email Addresses:

[Strategic Oversight](#)

ADOA-ASET_Webmaster@azdoa.gov