ADOA – ASET

Arizona Strategic Enterprise Technology

Project Investment Justification

Version 01.01

A Statewide Standard Document for Information Technology Projects

Project Title:

Mainframe Catalog Software Purchase

Agency Name:	ADOA – ASET--SDC
Date:	June 6, 2014
Agency Contact Name:	Patrick Cravens
Agency Contact Phone:	
Agency Contact Email:	

Hover for Instructions

I. Management Summary*

The State Data Center (SDC) operated by the Arizona Department of Administration's (ADOA), Arizona Strategic Enterprise Technology (ASET) office in Phoenix uses catalog management software on its IBM mainframe to track and provide access to customer data files stored on disk and tape. The catalog system contains information regarding the location, "last update" status and usage metrics of each file. It is used to support backup and recovery processes and has grown in size and complexity. The capabilities of the current software limit the ability to support the backup and recovery processes necessary to meet customer needs. Should a catalog become corrupted, access to customer data is prevented until the catalog is reconstructed. ADOA-ASET is planning to acquire a more efficient catalog management solution to streamline the backup and recovery processes.

II. Project Investment Justification (PIJ) Type*

[ ] **Yes** [X] **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:
Click here to enter text.

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

III. Business Case

A. Business Problem*

The mainframe catalog environment at the SDC has grown in size and complexity and now exceeds the capabilities of the standard tool set that comes with the operating system that is currently in use. These tools track and provide access to customer data files on disk and tape. The time required for daily data backups and recovery time to restore the data after a failure is extended. The current solution takes significant hands-on monitoring and management due to large catalog sizes. The increased complexity of the catalog environment, not anticipated when the current solution was implemented, has increased the risk of a corrupted catalog. A corrupted catalog would compromise the integrity of the data and would greatly increase the recovery time required to reconstruct the catalog structures, thereby significantly extending the downtime. In addition, the current technology requires downtime for catalog maintenance and operational reporting.

B. Proposed Business Solution*

The ADOA's Arizona Strategic Enterprise Technology (ADOA-ASET) Office proposes the purchase and implementation of a new catalog management software tool specifically designed to address the increased catalog size and complexity not supported by the current solution.

The new software tool will be used to restructure the catalogs, thereby significantly improving the efficiency of the catalog management processes. Based on information received from the vendor, this will greatly reduce the time required for backups (Please refer to Appendix B.). The cleaned up, restructured catalogs will also reduce the risk of catalog corruption.

C.   Quantified Benefits*

X	Service enhancement
	Increased revenue
	Cost reduction
X	Problem avoidance
X	Risk avoidance

Explain:

The new software tool will allow for real-time maintenance and reporting which will allow the SDC to manage the catalogs with increased efficiency and effectiveness. The SDC and its customers, such as AHCCCS, ADOT, DPS and DHS, will benefit from more timely and accurate "on demand" reporting, and a reduction in overhead expenses, i.e. reduced Central Procession Unit (CPU) cycles.

Additional benefits include:
- Enhanced service through reduced backup time and overall downtime for catalog maintenance.
- Improved operational efficiency through real-time reporting on catalog structures.
- Reduced daily CPU processing resources will be required for catalog management and data backups.
- Enhanced problem and risk avoidance through increased software stability designed to manage the increasing size and complexity of the catalog system.

IV.   Technology Approach

A.   Proposed Technology Solution*

This PIJ recommends the purchase of Rocket Software Catalog Recovery Plus (CR+) software as the most effective solution to address current catalog capacity and complexity issues. This software will be installed by SDC staff on the mainframe system.

B.   Technology Environment

In the current catalog environment at the SDC, system and user catalogs contain entries for data residing on primary disk Direct Access Storage Device (DASD), compressed disk Hierarchical Storage management (HSM), Fast Dump Restore (FDR)/Automatic Backup and Restore (ABR), and tape. Should a catalog become corrupted fail, access to customer data in a corrupted catalog would be prevented until the catalog is reconstructed. This risk will be exacerbated as customer data continues to grow and additional entries are created in the catalog structure. A need exists for a software tool to more effectively manage the current catalog structure.

C. Selection Process

Vendors on State contract were researched to determine the best alternative to leverage available technology to address this issue. Rocket Software Catalog Recovery Plus (CR+) and Dino Software's T-Rex were identified as potential solutions. A proof-of-concept from required criteria was developed and executed. Based on the results, the SDC staff determined that CR+ would effectively address the identified issues.

V.   Project Approach

A. Project Schedule*

Project Start Date: 06/16/2014   **Project End Date**: 07/11/2014

B. Project Milestones

Major Milestones	Start Date	Finish Date	
Purchase Software	6/16/14	06/09/14	06/10/14
Receive Delivery of Software	6/20/14	06/10/14	06/11/14
Install and Configure Software	6/23/14	6/25/14	
Test Software	06/26/14	07/03/14	
Project Acceptance and Sign-Off	07/07/14	07/08/14	
Creation of Lessons Learned	07/08/14	07/11/14	

VI.   Roles and Responsibilities

A. Project Roles and Responsibilities

Agency Director: Brian C. McNeil, ADOA Director
Chief Information Officer: Aaron V. Sandeen, ADOA Deputy Director, State CIO
Project Sponsor: Donald L. Hennington, Chief Operating Officer, Assistant Director, ADOA-ASET
Project Manager (PM): Ken Roundtree, Project Manager, ADOA-ASET
Technical PM: Patrick H. Cravens, Manager, Mainframe Systems Administration, ADOA-ASET
Technical Support: Howard Banks, Linda Kepner - Mainframe Systems Administration staff

B. Project Manager Certification

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

C. Full-Time Employee (FTE) Project Hours

Total Full-Time Employee Hours	60
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 **(if applicable for Pre-PIJ)**	II. PIJ Type - Pre-PIJ Assessment Cost	$
Total Development Cost	VII. PIJ Financials tab	$59,135
Total Project Cost	VII. PIJ Financials tab	$99,349
FTE Hours	VI. Roles and Responsibilities	60

C.   Agency Approvals*

Contact	Printed Name	Signature	Email and Phone
Project Manager:	Ken Roundtree		
Agency Information Security Officer:	Mike Lettman		
Agency CIO:	Aaron V. Sandeen		
Project Sponsor:	Don Hennington		
Agency Director:	Brian C. McNeil		

IX.   Optional Attachments

A.   *Vendor Quote*

B.   **Chart with Results of Comparison Study with T-Rex Catalog Software**

X.   Glossary

Terms and definitions:

- *CR+   - (Catalog Recovery Plus) Rocket Software Catalog Maintenance Tool*
- *T-Rex - Dino Software Catalog Maintenance Tool*
- *BCS   - Basic Catalog Structure*
- *CDS   - Control Data Set*
- *DSN   – Dataset Name*
- *HSM   – Hierarchical Storage Management*
- *ICFRU – Integrated Catalog Facility Recovery Utility*
- *SMF   – System Managed Facility collects and records system and job-related information*
- *Volser - Volume Serial Number*
- *VSAM – Virtual Storage Access Method*
- *VVDS – VSAM volume dataset. Resides on every volume and contains volume related information pertinent to the VSAM datasets in a BCS.*

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