ADOA-ASET
Arizona Strategic Enterprise Technology

Project Investment Justification

Version 01.02

A Statewide Standard Document for Information Technology Projects

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Project Title:

DES Infrastructure & Disaster Recovery Expansion

Agency Name:	**Department of Economic Security (DES)**
Date:	**February 2014**
Agency Contact Name:	**Kim Hartleroad**
Agency Contact Phone:	
Agency Contact Email:	

Hover for Instructions

I.   Management Summary*

The Department of Economic Security (DES) is seeking approval to procure hardware, software, and professional services to address pressing needs for additional processing capacity and operational performance. The current DES server environment is running at near maximum capacity resulting in the inability of the environment to meet increasing demands for processing and storage capacity. The overall processing system is being taxed to the point where end-user performance is being negatively impacted, resulting in a reduction in worker productivity.

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**

During the past few years budgetary restrictions have prevented the DES from purchasing critical infrastructure hardware and software item needed in support of current production and disaster recovery operational functions. The DES has not been able to procure additional disc storage space and disaster recovery capabilities to address Federal and State requirements of data retention and backup/recovery operations. The inability to obtain the needed hardware and software products to address defined requirements has placed the DES at a high level of risk in the event of a serious system failure or outage requiring recovery actions. The DES is also on the verge of running out of disc storage space to meet the growth of current operational mission critical application systems. In addition, the current server/storage infrastructure was not designed and configured to meet the performance demands of the DES user community which has resulted in poor system performance with negative impacts on worker productivity.

B.   *Proposed Business Solution**

The DES is requesting approval for the procurement of hardware (data storage units and server blades), software (backup and system management tools), and professional services to address the following operational problems:

- Operational System Performance
- Disaster Recovery and Data Backup
- SAN Storage Space with High Performance Capabilities

- Environmental Management Capabilities

The installation of the hardware and software, configuration of the software, and training of the DES DTS staff on the new environment will be performed by contract personnel (professional services).

With the approval of this procurement request the DES will be able to address the processing requirements needed by the DES workforce and address Federal and State requirements for data backup and recovery (DR).

C.   *Quantified Benefits**

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

Explain:

Service Enhancement – The requested hardware products will improve end-user response times when accessing mission critical application systems and improve worker productivity.
Problem Avoidance – Problems associated to operational performance and data backup/recovery functions will be eliminated.
Risk Avoidance – The risk associated with potential system failures related to insufficient storage space, system/data recovery functions will be eliminated.

IV.   Technology Approach

A.   *Proposed Technology Solution**

The proposed solution will involve installing additional Cisco UCS blade servers to run Microsoft Hyper-V, which will host the servers to run Microsoft System Center Data Protection Manager (SCDPM), Operations Manager (SCOP), and Virtual Machine Manager (SCVMM). The software will be configured to manage the new Hyper-V environment as well as provide backup services for the entire DES server environment.

The new NetApp filer hardware will provide the additional storage needed to house the backup data and new servers, as well as providing additional production storage to alleviate existing processing bottle-necks in the environment. In addition, NetApp storage units will be installed in the ADOA data center which will be used to house off-site backup data for disaster recovery.

B.   Technology Environment

System/Storage Performance:
>   NetApp Filer High Availability 8060HA SAN w 113 TB raw storage
>   NetApp Filer High Availability 8040HA SAN w 348 TB raw storage

Backup/Recovery:
>   Microsoft System Center Data Protection Manager
>   NetApp Filer High Availability 8020HA SAN w 288 TB raw storage
>   Additional 288 TB raw storage for the 8040HA SAN

Infrastructure Management:
>   Microsoft System Center Operations Manager

VM Multi-Tenancy Provisioning:
>   Microsoft System Center Virtual Machine Manager

The existing backup solution (CommVault) uses magnetic tape for the backup storage medium, which will be replaced and retired.

C.   Selection Process

The DES will procure the required products in compliance with current State contracts and purchasing policies. Hardware products will be procured that are compatible with the current DES infrastructure and as identified to enhance system performance.

V.   Project Approach

A.   Project Schedule*

Project Start Date: 3/1/2014   **Project End Date**: 7/31/2014

B.   Project Milestones

Major Milestones	Start Date	Finish Date
Acquire, Install, Initial configuration of SAN related Hardware	3/1/2014	3/31/2014
Acquire, Install, Initial configuration of backup related software	3/1/2014	3/31/2014
Acquire, Install, Initial configuration of monitoring related software	3/1/2014	3/31/2014
Migration of existing backup infrastructure to new backup infrastructure	4/1/2014	5/31/2014
Migration of existing monitoring infrastructure to new monitoring infrastructure	4/1/2014	5/31/2014
Knowledge transfer and operationalization of new backup infrastructure	6/1/2014	6/30/2014
Knowledge transfer and operationalization of new monitoring infrastructure	6/1/2014	6/30/2014
Post Implementation Review	7/1/2014	7/31/2014

VI.   Roles and Responsibilities

A. Project Roles and Responsibilities

Sponsor	Executive	Initiate project, obtain funding, champion project, team staffing	Mike Dellner, DTS AD
Project Governance	DTS Enterprise Architecture	Manage overall project	Albert A. Barbieri – DTS Todd B. Templeton – DTS
Project Manager	DTS Project Manager	Manage project schedule and tasks to include test and acceptance	Dwayne Carter - DTS
Manager, Division of Technology Services	Project Finance and Budgeting	Manage project budgeting and expenditures	Robert Navarro – DTS
Manager, Division of Technology Services	Hardware Coordinator	Project Manager, works with Hardware Vendor Project Manager and DCSO to install and setup SAN hardware	Alan Platt – DTS
Manager, Division of Technology Services	Software Coordinator	Project Manager, works with Hardware Vendor Project Manager and DCSO to install and setup Microsoft System Center software	DeAnn Seneff – DTS
SAN engineers	Configuration and deployment; testing and evaluation	Provide staff to install, configure, deploy, and coordinate setup and verification of SAN hardware	Vendor Staff - CStor
Microsoft System Center engineers	Configuration and deployment; testing and evaluation	Provide staff to install, configure, deploy, and coordinate setup and verification of software	Vendor Staff - Microsoft

B. Project Manager Certification

X	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	800
Total Full-Time Employee Cost	$40,000

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	$2,354,084
Total Project Cost	VII. PIJ Financials tab	$3,350,884
FTE Hours	VI. Roles and Responsibilities	800
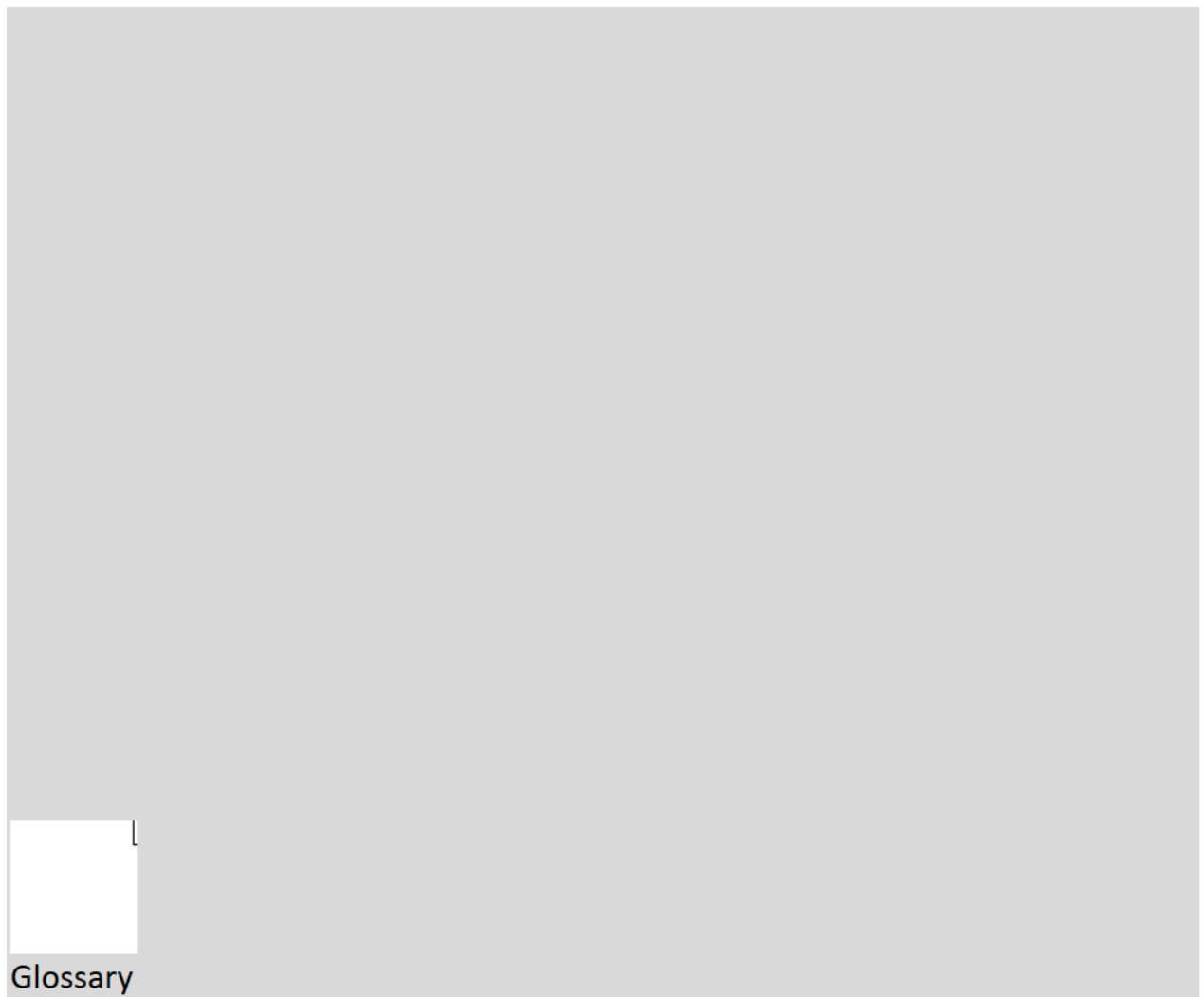
C.　Agency Approvals*

Contact	Printed Name	Signature	Email and Phone
Agency CIO:	Mike Dellner		
Agency Director:	Clarence H Carter		

IX. Optional Attachments

    A.   Vendor Quotes – Sent under separate

    B.   Technology Overview Diagrams

Glossary

AZ – Arizona

DES – Department of Economic Security

DPM – Microsoft System Center Data Protection Manager

DTS – Division of Technology Services

FTE – Full Time Employee

SAN – Storage Area Network

SCOM – Microsoft System Center Operations Manager

SCVMM – Microsoft System Center Virtual Machine Manager

VM – Virtual Machine

X.   Additional Information

Components of this procurement request will allow the DES to comply with Federal and State requirements for data backup, recovery, and encryption. The DES currently has a multi-level security environment that ensures the protection of PHI from unauthorized access.

The DES Chief Information Security Officer (CISO) will ensure that the recommended solution is in compliance with all State and Federal data security requirements (NIST, HIPAA, etc.) and addresses any outstanding audit issues related to the management and backup of Agency data.

Links:

ADOA-ASET Website

ADOA-ASET Project Investment Justification Information Templates and Contacts

Email Addresses:

Strategic Oversight

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