ADOA-ASET
Arizona Strategic Enterprise Technology

Project Investment Justification

Version 01.01

A Statewide Standard Document for Information Technology Projects

Project Title: AELAS Production Services Backup solution

Agency Name:	ADE
Date:	11/18/2014
Agency Contact Name:	Suresh Pallamreddy
Agency Contact Phone:	
Agency Contact Email:	

I.   Management Summary*

Recovery of computer data and business continuity is crucial to any organization. As the Arizona Department of Education's (ADE) data environment grows and current backup solutions age, additional resources are required to maintain this continuity. ADE is planning to increase its capacity to back up SQL databases and its other information resources. ADE currently has 24 LiteSpeed licenses, which it uses to back up the most critical 24 of the 120+ servers used to store the agency's data. ADE is planning to buy an additional 100 LiteSpeed licenses in order to provide the same level of protection to all agency databases. ADE currently relies on native SQL backups for the majority of its database backups, which do not provide the same level of restore capability as the LiteSpeed solution. ADE's current file-level backup solution is aging, as it relies on HP StoreOnce appliances, which are nearing the end of their lifecycle. ADE plans to upgrade its file-level backup solution by purchasing EMC Data Domain appliances with accompanying Networker backup software and a five-year maintenance plan.

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.	$0
Based on research done to date, provide a high-level estimate or range of development costs anticipated for the full PIJ.	$354,436.69

Explain:
6T

| | 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*

As ADE's data environment grows and current backup solutions age, additional resources are required to maintain this continuity. ADE has only 24 LiteSpeed SQL backup licenses for its 120+ SQL servers. In order to make up the difference, the not-as-critical SQL servers are backed up using native SQL backup scripts, which do not provide object-level recovery. Non-database information is backed up on two aging HP StoreOnce appliances. These appliances are nearing the end of their lifecycle, which puts the agency's file infrastructure at risk.

B.   Proposed Business Solution*

ADE plans to purchase 100 additional LiteSpeed backup licenses to provide object-level restoration of the agency's SQL databases. This will provide the features necessary to ensure business continuity. ADE

plans to upgrade its file-level backup solution by purchasing a single EMC Data Domain appliance and accompanying Networker backup software with a five-year maintenance plan. The upgraded file backup solution will provide long-term continuity for five years for all ADE data.

C.   *Quantified Benefits**

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

Explain: below

1) Service Enhancement

    a. A total of 124 LiteSpeed licenses will allow ADE to back up all ADE SQL databases with object-level restoration capability, which saves time and increases business continuity

        1. Additional functionality

    b. Migrating to the single, current-generation EMC Data Domain appliance will consolidate and stabilize ADE's file backup solution. The new appliance enhances service with:

        1. Higher de-duplication rates

        2. Lower network bandwidth consumption

        3. Longer lifecycle

    c. Networker backup software brings additional functionality which streamlines the file backup and restoration process and minimizes business interruptions

2) Problem Avoidance

    a. Native SQL restoration requires the full restoration of a database even when only one object needs to be found for the business, which incurs extra time and resources; LiteSpeed SQL restoration is possible at the object level.

    b. By upgrading to EMC Data Domain appliance proactively, ADE avoids business disruption caused by unsupported hardware

    c. Transitioning to Networker backup software with the purchase of the EMC Data Domain appliance ensures solution compatibility

3) Risk Avoidance

    a. Transition to EMC Data Domain and Networker backup software together preempts compatibility issues caused by upgrading only one-half of the backup solution (i.e. appliance and not software)

    b. Additional LiteSpeed licenses extends an ADE-proven SQL backup solution to the remaining SQL databases

IV.   Technology Approach

A. **Proposed Technology Solution***

B. **Technology Environment**

Selection Process

The ADE backup team selected the LiteSpeed and EMC/Networker solutions after reviewing the agency's current needs and available solutions. The LiteSpeed SQL backup solution is working well and the team determined that it would be in the agency's interests to extend the LiteSpeed solution to all SQL databases. After researching available file backup solutions (see Gartner chart below) and obtaining vendor quotes, the team evaluated the EMC Data Domain/Networker package. The combination of features, reliability, and available discounts made EMC/Networker the best value for the agency.

V.   Project Approach

A. **Project Schedule***

Project Start Date: 11/18/2014   **Project End Date**: 4/30/2015

B. **Project Milestones**

Major Milestones	Start Date	Finish Date
Procure Hardware and software	11/18/2014	1/15/2015
Deploy hardware and software	1/15/2015	2/28/2015
Backup and Restore Testing	3/1/2015	3/31/2015
Project Closeout	4/1/2015	4/30/2015

VI.   Roles and Responsibilities

A. **Project Roles and Responsibilities**

Eric Merritt – Storage Administrator
Cliff Melheim – Backup Administrator
Jon Bucy – Sr. Database Administrator
Suresh Pallamreddy – Project Manager

B. **Project Manager Certification**

X   Project Management Professional (PMP) Certified
☐   State of Arizona Certified

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

Total Full-Time Employee Hours	200
Total Full-Time Employee Cost	$11,000

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

Please see attached quotes in Section IX for detailed quotes for hardware, software, services and maintenance from EMC and LiteSpeed.

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	$354,436.69
Total Project Cost	VII. PIJ Financials tab	$354,436.69
FTE Hours	VI. Roles and Responsibilities	200

C. Agency Approvals*

Contact	Printed Name	Signature	Email and Phone
Project Manager:	Suresh Pallamreddy		
Agency Information Security Officer:	Shyam Sunder		
Agency CIO:	Mark Masterson		
Project Sponsor:			
Agency Director:			

IX. Additional Information

Long-Term Storage

The proposed backup solutions will not alter ADE's long-term tape backup and storage/retention practices.

Security