ADOA-ASET
Arizona Strategic Enterprise Technology

Project Investment Justification

Version 01.01

A Statewide Standard Document for Information Technology Projects

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Project Title:

Load Balancer Replacement

Agency Name:	Arizona Department of Education
Date:	5/1/2014
Agency Contact Name:	Suresh Pallamreddy
Agency Contact Phone:	
Agency Contact Email:	

Hover for Instructions

I.   Management Summary*

ADE is seeking a hardware refresh for its current F5 Load Balancers for which maintenance and support can no longer be renewed. The new load balancers must support about 80 servers and about 8000 connections at the time of installation. In about 2 years, the load balancers must scale to about 240 servers and support at least 50,000 connections

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:
Click here to enter text.

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

III.   Business Case

A.   *Business Problem**

ADE currently has two F5 load balancers which currently support about 80 servers and about 8000 concurrent connections. The load balancer is over 6 years old and hardware and software maintenance can no longer be renewed. The load balancer is being replaced to avoid downtime due to failure of obsolete and unsupported equipment.

B.   *Proposed Business Solution**

ADE is seeking to replace the current load balancers with two new F5 5000 series load balancers. The rules in the current load balancers can be migrated to the new load balancers with minimal changes. Two team member will send for vendor training on the configuration and administration of the load balancers.

C.   *Quantified Benefits**

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

Explain:

The proposed load balancers will have manufacturer support for 5 years. The rules from the current load balancers can be migrated to the new load balancers with minimal changes. The new hardware provides better performance, scalability and security.

IV. Technology Approach

A. Proposed Technology Solution*

The proposed technology solution consists of two BIG-IP Switch: LOCAL TRAFFIC MANAGER 5000S (32G, MAX SSL & COMP) load balancers.

B. Technology Environment

ADE currently has two End of Life F5 load balancers supporting about 80 servers and about 8,000 concurrent connections and plans to scale to about 240 servers and about 50,000 concurrent connections.

C. Selection Process

ADE reviewed solutions from F5, Citrix and A10 networks and selected F5 based on technology leadership, Total Cost of Ownership, ease of migration, avoiding service interruption during migration, performance, scalability and security.

Gartner "Magic Quadrant for Application Delivery Controllers" by Mark Fabbi, Neil Rickard, Bjarne Munch, and Andrew Lerner, 30 October 2013.

V. Project Approach

A. Project Schedule*

Project Start Date: 5/1/2014   **Project End Date**: 9/15/2014

B. Project Milestones

Major Milestones	Start Date	Finish Date
Procure Hardware	5/1/2014	7/31/2014
Install Load Balancers in Data Center	7/15/2014	8/15/2014
Migrate configuration	7/1/2014	8/31/2014
Project Closeout	9/1/2014	9/15/2014

VI.   Roles and Responsibilities

A. Project Roles and Responsibilities

Project Manager – Suresh Pallamreddy
Network Engineer – Michael Holmes

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	200
Total Full-Time Employee Cost	$11,000

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	$
Total Development Cost	VII. PIJ Financials tab	$140,926.72
Total Project Cost	VII. PIJ Financials tab	$140,926.72
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:	Mark Masterson		

Agency Director:			

IX.   Optional Attachments

A.   *Vendor Quotes*

X.   Glossary

GSA - General Services Administration

XI.   Additional Information

The Load Balancers will use SSL with 128-bit encryption for access to confidential data/information.

Links:

ADOA-ASET Website

ADOA-ASET Project Investment Justification Information Templates and Contacts

Email Addresses:

Strategic Oversight

ADOA-ASET_Webmaster@azdoa.gov