ADOA-ASET

Project Investment Justification

Version 03.31.15

A Statewide Standard Document for Information Technology Projects

Project Title:

Security and Infrastructure Enhancement

Agency Name:	**AHCCCS**
Date:	**April 7, 2015, revised 4/13/2015, revised 4/28/2015**
Agency Contact Name:	**Joanne Obenour**
Agency Contact Phone:	
Agency Contact Email:	

Hover for Instructions

I. 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?

II. Business Case

*A. Business Problem**

AHCCCS has two infrastructure issues that need to be resolved:

1. There are 2 shelves of old disks (14 disks on each shelf) in our NetApp system that is EOL. If we operate these shelves beyond their EOL date we would run the risk of not being able to replace the equipment should it fail.
2. AHCCCS has identified a single point of failure in the Data Center switches as a result of our consolidation of our Datacenters to ADOA. When the Datacenters were consolidated the switches were needed for capacity rather than redundancy. If the switches fail, there will be limited or no access to the AHCCCS network and/or services.

AHCCCS has successfully completed the 2-factor authentication pilot in ISD and wants to expand the use of this security credential tool to the rest of the Agency to further strengthen agency security.

*B. Proposed Business Solution**

Infrastructure:

1. Replace both disk selves with newer supported equipment. The 2 new shelves contain 24 disks @ 2TB each. This will also give us increased capacity for future growth. The increase is allocated to two different systems, one will have an increase of 34TB RAW and the other will have an increase of 38TB RAW.
2. Add 2 additional switches to create a redundant mesh network within the datacenter.

Security:

3. Purchase additional tokens for 2-factor authentication to expand deployment to remainder of the agency.

*C. Quantified Benefits**

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

Explain:

The infrastructure changes provide new equipment which is under warranty to avoid the risk of potential failure and long term outage in the future.

The expansion of the 2-factor authentication enhances our security posture by forcing users to use multiple separate forms of authentication. The user will need to know their Domain credentials as well as a one-time 6 digit pin produced by the security token. A hacker would have to possess both the domain credentials as well as the security token in order to login. The Security Token changes the PIN every 60 seconds so the hacker must have access to the actual token that is assigned to the user.

III. Technology Approach

*A. Proposed Technology Solution**

Add two Net filer shelves (NetApp)
Add one-pair Data Center Switch (Nexus 53128P 2RU Chassis 48x10G)
Add 900 hardware Security Credential Tokens (Defender with GO-6 Token Hardware)
Add 100 soft tokens, 50 for Windows and 50 for Android devices

The two Net filer shelves will replace the end of life disks which are no longer supported.

The new Data Center switch pair will be added to the network giving us a redundant/meshed Core and Distribution layer along with increased capacity in the Data Center.

The Security Tokens will be issued to the remaining staff so that all AHCCCS users access the network with two-factor identification.

B. Existing Technology Environment

The new additions to the AHCCCS infrastructure augment similar existing configuration.

The existing NetApp filer shelves that are EOL consist of 2 disk shelves containing 14 500GB drives each on one system and 1 disk shelf containing 14 750GB drives on the other system. Due to the shelves being end of life we are unable to continue to get parts replacement on them should a drive or shelf fail. It also limits our ability to

upgrade the software on the systems because NetApp does not support the older technology with the latest software releases.

The existing Data Center Switches consist of 2 Cisco Nexus 5000's. Currently one of the two switches handles all of the Layer 2 (switching) and Layer 3(routing). The second switch is only adding Layer 2(switching) capacity for the Data Center. The two switches are not redundant to each other.

Currently AHCCCS has deployed 200 2-Factor tokens to the AHCCCS ISD Division in order to add 2-factor authentication to remote access through Citrix. This deployment is limited in protection as it still requires us to maintain a way for other users to authenticate without 2-factor authentication. This leaves AHCCCS vulnerable to compromise.

C. Selection Process

All items are current models of existing hardware which will be selected from existing State Contracts

IV. Project Approach

*A. Project Schedule**

Project Start Date: 5/1/2015 **Project End Date**: 10/31/2015

B. Project Milestones

Major Milestones	Start Date	Finish Date
Purchase Equipment and Tokens	5/1/2015	6/1/2015
Install Disk Shelves and Test	6/1/2015	7/1/2015
Migrate data to new disk shelves	7/1/2015	8/31/2015
Install Switch and Test	6/1/2015	7/1/2015
Implement Switch	7/1/2015	10/31/2015
Rollout Tokens by Division	5/15/2015	8/31/2015

C. Project Roles and Responsibilities

Network Services is responsible for this project

Network Engineer Install, test, and implement the equipment

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

VI. Project Approvals

A. *Agency CIO/ISO Review and Initials Required**

Key Management Information	Yes	No	Inits
1. Is this project for a mission-critical application system?	**Y**		
2. Is this project referenced in your agency's Strategic IT Plan?	**Y**		
3. Have you reviewed and is this project in compliance with all applicable Statewide policies and standards for network, security, platform, software/application, and/or data/information located at https://aset.az.gov/resources/psp? If **NO**, explain in detail in section **"VIII. Additional Information"** below.	**Y**		
4. Will any PII, PHI, or other Protected Information as defined in the 8110 Statewide Data Classification Policy located at https://aset.az.gov/resources/psp be transmitted, stored, or processed with this project? If **YES, the Protected Data section under "VII. Security Controls" below will need to be completed.**		**N**	
5. Will this project migrate, transmit, or store data outside of the agency's in-house environment or the State Data Center? If **YES**, **the Hosted Data section under "VII. Security Controls" below will need to be completed.**		**N**	
6. Is this project in compliance with the Arizona Revised Statutes and GRRC rules?	**Y**		
7. Is this project in compliance with the Statewide policy regarding the accessibility to equipment and information technology for citizens with disabilities?	**Y**		

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)	I. PIJ Type - Pre-PIJ Assessment Cost	**$**
Total Development Cost	V. PIJ Financials tab	**$147,626.88**
Total Project Cost	V. PIJ Financials tab	**$218,076.32**
FTE Hours	See Hover text for FTE Hours	**500**

C. *Agency Approvals**

Approver	Printed Name	Signature	Email and Phone
Project Manager:	Mike Upchurch		
Agency Information Security Officer:	Jim Wang		
Agency CIO:	Dan Lippert, Acting		
Project Sponsor:	Dan Lippert		
Agency Director:	Tom Betlach		

VII. Security Controls

Collaboration with the ADOA-ASET Security, Privacy and Risk (SPR) team may be needed to complete this section, which is only required for those projects that involve data that is Protected or Hosted outside of the Agency or State Data Center. Additional information can be found in the NIST FRAMEWORK section under RESOURCES at https://aset.az.gov/resources/psp or you may wish to contact ASET-SPR directly at secadm@azdoa.gov for assistance.

A. Protected Data

The disk storage being replaced contains user profiles for accessing and using systems which does not include PHI or PII

B. Hosted Data

☐ Check here if the https://aset.az.gov/arizona-baseline-security-controls-excel spreadsheet is attached. Otherwise explain below what information/ support is needed to complete the spreadsheet and/or why no sheet is attached:

Click here to enter text.

☐ Check here if a Conceptual Design / Network Diagram is attached. Otherwise explain below what information/support is needed to complete the diagram and/or why no diagram is attached:

Click here to enter text.

VIII. Additional Information

IX. Attachments

The following are examples of supporting documents that should be sent as email attachments when required:

A. Vendor Quotes

B. Arizona Baseline Security Controls spreadsheet

C. Conceptual Design / Network Diagram

D. Other

X. Glossary

Other Links:

ADOA-ASET Website

ADOA-ASET Project Investment Justification Information Templates and Contacts

Email Addresses:
Strategic Oversight
ADOA-ASET_Webmaster@azdoa.gov