



# ADOA-ASET

## Project Investment Justification

Version 03.31.15

A Statewide Standard Document for Information Technology Projects

### Project Title:

**Internet Protocol Address Management (IPAM)**

Agency Name:	ADOA-ASET
Date:	April 29, 2015
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Agency Contact Phone:	
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**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.	\$ 0.0
Based on research done to date, provide a high-level estimate or range of development costs anticipated for the full PIJ.	\$ 0.0

Explain: N/A

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

**II. Business Case**

**A. Business Problem\***

The State of Arizona manages a large and complex Information Technology (IT) network. The Arizona Department of Administration (ADOA) Security, Privacy, and Risk (SPR) team currently manages the State’s Internet Protocol (IP) infrastructure manually. This is accomplished by means of spreadsheets and user-dependent scans to identify and track IP addresses. Manual management is time-consuming, error prone, and an inefficient use of resources.

IP address errors and conflicts, caused by manual provisioning, can result in widespread and prolonged network-service disruptions. These errors can be time-consuming to identify, and require additional engineering time to correct. A network administrator relying on a manual IP provisioning process could introduce additional delays in the process, as a result of having to identify and isolate network threats, and manually locate and remove potential cyber-threats, should an incorrect IP address be provisioned.

**B. Proposed Business Solution\***

ADOA proposes to procure and implement a commercial-off-the-shelf (COTS) IP Address Management (IPAM) solution. Use of an automated tool to control the IP address management and provisioning process will simplify IP address administration, increase security, and reduce the amount of time and resources required to support this process.

**C. Quantified Benefits\***

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

Explain:

**Service Enhancement:** More complete and accurate picture of the true state of the IP schema. Historical tracking and logging of changes showing what changed, and when. Shorter duration for everyday tasks and improved ability to quickly troubleshoot a problem around address conflicts.

**Cost Reduction:** Fewer resource hours spent managing and troubleshooting a manual methodology. Reduction of “downtime” costs caused by inadvertent duplication of IP address assignments. Increase in system provisioning efficiencies and productivity, reducing total cost of operations (TCO). This software is a “virtual” appliance application to be implemented on existing platforms; no additional physical hardware will be required. This will eliminate additional space requirements, and any additional costs for electrical and cooling while reliably providing a significant service.

**Problem Avoidance:** Through automated IP address management, this service will reduce instances of overwriting existing IP address assignments, or inadvertently assigning IP addresses already in use (causing address duplication).

**Risk Avoidance:** Reduction in unplanned downtime and/or service disruption caused by manual IP management inefficiencies and errors. Increase in network security by way of the automated IP address auditing – knowing what IP are assigned and in use.

### III. Technology Approach

#### A. *Proposed Technology Solution\**

The proposed technology solution consists of software, which act as a virtual appliance that will be loaded onto an existing ADOA Virtual Machine (VM) server located in the State Data Center (SDC). Two instances of this software application will be installed on existing hardware in order to provide for both redundancy and failover needs (High Availability). The SOLIDServer 500 software solution will allow for the automated collection, organization, segmentation, management, maintenance, and reporting of IP assignments on the State’s IT Infrastructure throughout Arizona. The solution will also allow delegation of secure administration rights to departments and agencies to update the IP domains under their control, and will auto update when computers change IP addresses.

#### B. *Existing Technology Environment*

The State currently manages IP addresses using a manual process of shared spreadsheets to track IP assignment information. This is handled by a designated network operations team. As a result, other IT infrastructure teams are dependent upon the network operations team to complete the task of assigning IP addresses. This constrained manual process can often delay other project teams’ efforts that are dependent on this task. Additionally, out of date or inaccurate information introduces further delays while the correct information is researched and implemented.

**C. Selection Process**

After research and review of potential solutions, the proposed software-only, virtual appliance solution is anticipated to meet current and future needs of the State in the most cost-effective manner. A virtual appliance solution also eliminates the need to install additional hardware in the SDC.

**IV. Project Approach**

**A. Project Schedule\***

**Project Start Date:** 5/1/2015      **Project End Date:** 7/1/2015

**B. Project Milestones**

Major Milestones	Start Date	Finish Date
Purchase Software and related services	5/8/2015	5/15/2015
Install Software on Server in SDC	5/18/2015	5/19/2015
Configure and Test Software	5/20/2015	5/29/2015
Roll-Out	6/01/2015	6/30/2015
Training	6/1/2015	6/30/2015
Project Closeout	7/1/2015	7/1/2015

**C. Project Roles and Responsibilities**

Project management will be performed by ADOA PM; Vendor members from Efficient IP will provide technical support to ADOA-SPR staff during installation via a remote terminal session, ADOA-SPR staff will install the software instances on ADOA VM servers located as State Data Center; and ADOA-SPR staff will be responsible for physical security during install and monitoring vendor activity. The Roll out will be performed by ADOA-SPR staff and tested by SPR and Enterprise Infrastructure and Communications / AZNet II resources.

**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	Initials
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. 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 <a href="https://aset.az.gov/resources/psp">https://aset.az.gov/resources/psp</a> ? If <b>NO</b> , explain in detail in section "VIII. Additional Information" below.	X		
4. Will any PII, PHI, or other Protected Information as defined in the 8110 Statewide Data Classification Policy located at <a href="https://aset.az.gov/resources/psp">https://aset.az.gov/resources/psp</a> be transmitted, stored, or processed with this project? If <b>YES</b> , the <b>Protected Data section under "VII. Security Controls" below will need to be completed.</b>		X	
5. Will this project migrate, transmit, or store data outside of the agency's in-house environment or the State Data Center? If <b>YES</b> , the <b>Hosted Data section under "VII. Security Controls" below will need to be completed.</b>		X	
6. Is this project in compliance with the Arizona Revised Statutes and GRRC rules?	X		
7. 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)	I. PIJ Type - Pre-PIJ Assessment Cost	\$ 0.0
Total Development Cost	V. PIJ Financials tab	\$ 32,027.91
Total Project Cost	V. PIJ Financials tab	\$ 32,027.91
FTE Hours	See Hover text for FTE Hours	16

### C. Agency Approvals\*

Approver	Printed Name	Signature	Email and Phone
Project Manager:	John Huls		
Agency Information Security Officer:	Darrell Davis (Acting)		
Agency CIO:	Mike Lettman (Acting)		
Project Sponsor:	Suzan Tasvibi-tanha		
Agency Director:	Kevin Donnellan (Acting)		

## 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](mailto:secadm@azdoa.gov) for assistance.

### A. Protected Data

N/A

### 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:

N/A

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:

N/A

## VIII. Additional Information

None

## 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](mailto:ADOA-ASET_Webmaster@azdoa.gov)