Enterprise Directory Services (Single Sign-on)	
Agency Requesting The Project:	
Administration Department	
Business Unit Requesting The Project:	
ASET-SPR	
Sponsor Of the Project:	
Darrell Davis	
Sponsor Title:	
State Chief Privacy Officer	
Sponsor Phone Number:	**Extension:**
602-542-5409	
Sponsor Email Address:	
Darrell.davis@azdoa.gov	

Has a Project Request been completed for this PIJ?	
	Y

What is the operational issue or business need that the Agency is trying to solve?

Most State agencies use a separate directory infrastructure to authenticate their employees and users. This results in unnecessary redundancy and duplicated cost, lack of a centralized provisioning and de-provisioning of personnel, and inconsistent standards and security controls. Additionally, disparate directory systems increase security risks to the State IT systems.

How will solving this issue or addressing this need benefit the State or the Agency?

The implementation of an Enterprise Directory Services solution will significantly decrease cost by eliminating the redundancy and duplication of systems, services, and human resources required to support the current 100+ disparate directory services system within the State. It also allows for seamless provisioning and de-provisioning of resources from a single interface. It further allows for consistent standards and security controls to be applied to Statewide systems and services. Additionally, a unified Directory Services will improve IT Security.

Describe the proposed solution to this business need:

The proposed Enterprise Directory Service solution will be Microsoft Active Directory, Azure Active Directory Premium, and Azure Identity Manager, utilizing single forest / single domain with Agency resource forests, as required. This unified approach provides the opportunity to significantly decrease the total cost of operation to State.

In the future, this framework will become the core system facilitating other Enterprise/Statewide services and will allow readily available services that will provide a convenient method to integrate the IT directories of other State Agencies and Boards to the Statewide Directory.

A unified Directory Services will allow a central point to implement and manage comprehensive security and auditing process and procedures, standards and controls for Statewide IT.

Has the existing technology environment, into which the proposed solution will be implemented, been documented?	Y

Indicate where that documentation can be found, or provide the information under separate cover before the meeting, otherwise describe below:

The current ADOA Active Directory system will be enhanced to the new Statewide Directory Services. This system is fully documented and managed by ADOA-ASET. All documentation is stored on the ADOA shared file server, and updated regularly.

Have the business requirements been gathered, along with any technology requirements that have been identified?	Y

Are you submitting this as a Pre-PIJ in order to issue a Request for Proposal (RFP) to evaluate options and select a solution that meets the project requirements?	N

Will you be completing an assessment phase, i.e., an evaluation by a vendor, third party or your agency, of the current state, needs, and desired future state, in order to determine the cost, effort, approach (RFP or otherwise) and/or feasibility of a project before submitting the full PIJ?	N

Does the project fall into one of the following categories: - hardware technology refresh/expansion, e.g., replacement/more laptops, radios, peripherals, etc.? - software version refresh/additional licenses, e.g., MS Office 2013 replacing 2010, extra software licenses needed for additional PCs?	N

Is there any possibility that project implementation costs could reach $1 million or more?	N

Is the proposed procurement the result of an RFP solicitation process?	N

Is this project referenced in your agency's Strategic IT Plan?	Y

Does your agency have a formal project methodology in place?	Y

Describe the make-up and roles/responsibilities of the project team, e.g. participants, sponsors, stakeholders, etc. below: ADOA: Strategic plan, design, project management, executive sponsorship, vendor management, and implementation Microsoft: Product and services [licensing], consulting Vendor: consulting, design, implementation

Will a PM be assigned to manage the project, regardless of whether internal or vendor provided?	Y

If the PM is credentialed, e.g., PMP, CPM, etc., please provide certification information below:
MBA, PMP, PMI-ACP, CSM, ITIL-SAO,

Is a project plan available that reflects the estimated start date and end date of the project, and the supporting milestones for the project?	Y

Has a test/pilot phase been incorporated?	N

Have steps needed to roll-out to all impacted parties been incorporated, e.g. communications, planned outages, deployment plan?	Y

Will the implementation require any physical infrastructure improvements, e.g., building reconstruction, major re-wiring, etc.?	N

Are there any known resource availability conflicts that could impact the project?	N

Have the identified conflicts been taken into account in the project plan?	Y

Does your schedule have dependencies on any other projects or procurements?	N

Will the implementation involve major end user view or functionality changes?	N

Will the proposed solution result in a change to a public-facing application or system?	N

Is a detailed project budget reflecting all of the up-front/startup costs to implement the project available, e.g., hardware, initial software licenses, training, taxes, P&OS, etc.?	Y

Have the ongoing support costs for sustaining the proposed solution over a 5-year lifecycle, once the project is complete, been determined, e.g., ongoing vendor hosting costs, annual maintenance and support not acquired upfront, etc.?	Y

Have all required funding sources for the project and ongoing support costs been identified?	Y

Will the funding for this project expire on a specific date, regardless of project timelines?	Y

Provide the dates for the funding availability below:			
Estimated Start	07/01/15	Estimated Finish	06/30/16

Will the funding allocated for this project include any contingency, in the event of cost over-runs or potential changes in scope?	
	N

Please indicate whether a statewide enterprise solution will be used or select the primary reason for not choosing an enterprise solution:
The implementation will become the Statewide Solution

Will the technology and all required services be acquired off existing State contract(s)?	
	Y

Will any software be acquired through the current State value-added reseller contract?	
	Y

Describe how the software was selected below:
Because the current directory services in use is Microsoft and this was determined to be the State Standard

Does the project involve any technology that is new and/or unfamiliar to your agency, e.g., software tool never used before, virtualized server environment?	
	N

Does your agency have experience with the vendor (if known)?	
	Y

Does the vendor (if known) have professional experience with similar projects?	
	Y

Does the project involve any coordination across multiple vendors?	
	N

Does this project require multiple system interfaces, e.g., APIs, data exchange with other external application systems/agencies or other internal systems/divisions?	
	Y

Have any compatibility issues been identified between the proposed solution and the existing environment, e.g., upgrade to server needed before new COTS solution can be installed?	
	N

Describe below the issues that were identified and how they have been/will be resolved, or whether an ADOA-ASET representative should contact you:
Microsoft AZURE and AD Premium will provide the Federation Trust connections between the ADOA (consolidated) AD and the other State Agencies' and Boards' directory services

Will a migration/conversion step be required, i.e., data extract, transformation and load?	
	Y

Is this replacing an existing solution?	Y

Indicate below when the solution being replaced was originally acquired?
Disparate directory services will be consolidated into this Enterprise Directory Services system

Describe the planned disposition of the existing technology below, e.g., surplused, retired, used as backup, used for another purpose:
existing AD systems can be decommissioned, surplused, retired, or repurposed as appropriate.

Describe how the agency determined the quantities reflected in the PIJ, e.g., number of hours of P&OS, disk capacity required, etc. for the proposed solution?
Internal technical SMEs and presales engineers from Microsoft have made the recommendations based on quantitative analysis

Does the proposed solution and associated costs reflect any assumptions regarding projected growth, e.g., more users over time, increases in the amount of data to be stored over 5 years?	Y

Does the proposed solution and associated costs include failover and disaster recovery contingencies?	Y

Will the vendor need to configure the proposed solution for use by your agency?	Y

Are the costs associated with that configuration included in the PIJ financials?	Y

Will any application development or customization of the proposed solution be required for the agency to use the product in the current/planned technology environment, e.g., a COTS application that will require custom programming, an agency application that will be entirely custom developed?	N

Have you determined that this project is in compliance with all applicable statutes, regulations, policies, standards, and procedures, including those for network, security, platform, software/application, and/or data/information found at https://aset.az.gov/resources/psp?	Y

Are there other high risk project items not identified?	N

Please explain all unidentified high risk project items below:
A major risk of lack of cooperation from the other State Agencies and Boards - Mitigation is a directive from the Governor's office to the Agencies and Boards

Will the proposed solution be vendor-hosted?	Y

Please select from the following vendor-hosted options:
Commercial Data Center

Describe the rationale for selecting the vendor-hosted option below:
Vendor's solution runs on their cloud platform

Has the agency been able to confirm the long-term viability of the vendor-hosted environment?	Y

Has the agency addressed contract termination contingencies, e.g., solution ownership, data ownership, application portability, migration plans upon contract/support termination?	Y

Has a Conceptual Design / Network Diagram been provided and reviewed by ASET-SPR?	Y

Has the spreadsheet located at https://aset.az.gov/arizona-baseline-security-controls-excel already been completed by the vendor and approved by ASET-SPR?	Y

Will the proposed solution be hosted on-premise in a state agency?	Y

Please select from the following in-house options:
State Data Center (SDC)

Describe the rationale for selecting an in-house option below:
Currently, the ADOA Active Directory is housed within the State Data Center and replicated to AWS and Microsoft Azure. The proposed solution will use the same methodology to facilitate the new service.

Will any data be transmitted into or out of the agency's in-house environment or the State Data Center?	Y

Will any PII, PHI, or other Protected Information as defined in the 8110 Statewide Data Classification Policy be transmitted, stored, or processed with this project?	N

Summary of PIJ Financials

Total of Development Cost:	$ 910,790
Total of Operational Cost:	$ 3,323,160
Total Costs:	$ 4,233,950

Project Cost - Itemized

Item	Description	Category	Development (Implementation) or Operational (Ongoing)	Fiscal Year Spend	Qty or Hours	Unit Cost	Extended Cost	Enter Tax Rate if Applicable (Generally 8.3% for PHX)	Tax	Total Cost
1	[SHI Pricing Quotation #11114572] Microsoft Enterprise Mobility Suite (license bundle - includes AD Premium) - Subscription License (12 month) - 1 year - hosted - EA Subscription - Microsoft Part # AAA-10732 (per user annual cost)	License & Maint Fees	Development	1	8500	$90	$765,000	8.60%	$65,790	$830,790
2	Professional Services (Active Directory SME) to integrate and configure AD Premium, AZURE, and directory federation - 6 mo contract	Prof & Outside Services	Development	1	1000	$80	$80,000		$0	$80,000
3	Ongoing license renewal years 2-5	License & Maint Fees	Operational	FY2-5	8500	$90	$765,000	8.60%	$65,790	$3,323,160
4		[--Select--]	[--Select--]	[--Select--]						
5		[--Select--]	[--Select--]	[--Select--]						
6		[--Select--]	[--Select--]	[--Select--]						
7		[--Select--]	[--Select--]	[--Select--]						
8		[--Select--]	[--Select--]	[--Select--]						
9		[--Select--]	[--Select--]	[--Select--]						
10		[--Select--]	[--Select--]	[--Select--]						
11		[--Select--]	[--Select--]	[--Select--]						
12		[--Select--]	[--Select--]	[--Select--]						
13		[--Select--]	[--Select--]	[--Select--]						
14		[--Select--]	[--Select--]	[--Select--]						
15		[--Select--]	[--Select--]	[--Select--]						
16		[--Select--]	[--Select--]	[--Select--]						
17		[--Select--]	[--Select--]	[--Select--]						

Total Development Cost	$910,790
Total Operational Cost	$3,323,160
Total Itemization of Costs:	**$4,233,950**

Summary of Funding Sources

Fund Type	% of Project	$ of Project (Available)	$ of Project (To Be Requested)
Base Budget			
APF	100.00%	$910,790.00	
Other Appropriated	Web Portal Fund		$3,323,160.00
Federal			
Other Non-Appropriated			

Total costs available to distribute between funding sources
$0.00

PIJ Development & Operational Cost Summary

Description	Type	Year 1	Year 2	Year 3	Year 4	Year 5	Extended Cost
Professional & Outside Services	Development	$80,000	$0	$0	$0	$0	$80,000
	Operational	$0	$0	$0	$0	$0	$0
Hardware	Development	$0	$0	$0	$0	$0	$0
	Operational	$0	$0	$0	$0	$0	$0
Software	Development	$0	$0	$0	$0	$0	$0
	Operational	$0	$0	$0	$0	$0	$0
Communications	Development	$0	$0	$0	$0	$0	$0
	Operational	$0	$0	$0	$0	$0	$0
Facilities	Development	$0	$0	$0	$0	$0	$0
	Operational	$0	$0	$0	$0	$0	$0
Licensing & Maintenance Fees	Development	$830,790	$0	$0	$0	$0	$830,790
	Operational	$0	$830,790	$830,790	$830,790	$830,790	$3,323,160
Other	Development	$0	$0	$0	$0	$0	$0
	Operational	$0	$0	$0	$0	$0	$0
	Development Cost:	$910,790	$0	$0	$0	$0	$910,790
	Operational Cost:	$0	$830,790	$830,790	$830,790	$830,790	$3,323,160
	Total Cost:						$4,233,950

Areas of Impact

1 **Application Systems**

- [ ] Application Enhancements
- [ ] Internal Use Web Application
- [ ] Mobile Application Development
- [ ] Arizona Enterprise Solution Platform (AESP) based Application
- [ ] New Application Development
- [ ] az.gov Web Portal Application
- [ ] Other: (Please specify below)

2 **Database Systems**

- [ ] Data Warehouse/Mart
- [ ] Database Consolidation/Migration/Extract Transform and Load Data
- [ ] Database Products and Tools:
- [ ] Oracle
- [ ] MySQL
- [ ] DB2
- [ ] MS SQL Server
- [ ] Other: (Please specify below)

3 **Software**

- [ ] COTS Application Customization
- [ ] COTS Application Acquisition
- [ ] Mainframe Systems Software
- [ ] Open Source
- [ ] PC/LAN Systems Software
- [ ] Virtualization
- [ ] Other: (Please specify below)

4 **Hardware**

- [ ] LAN/WAN Infrastructure
- [ ] Mainframe Infrastructure
- [ ] Storage Area Network Devices
- [ ] Public Safety Radios, Systems
- [ ] PC Purchases, Peripherals
- [ ] Tape Libraries/Silos
- [ ] UPS Devices
- [ ] Other: (Please specify below)

5 **Hosted Solution (Cloud Implementation)**

X	State Data Center
X	Commercially Hosted:
	Amazon (AWS) GovCloud
	Century Link - I/O Data Center
X	AWS (non-government) cloud
X	Microsoft Azure
X	Vendor Hosted
X	Other: (Please explain below) Microsoft Enterprise Directory Services - Active Directory

6 **Security**

	Encryption
X	Security Appliances:
X	Firewall
	Intrusion Detection System (IDS)
	Intrusion Prevention System (IPS)
X	SecurityControls/Systems - Other: (Please specify below)
	Physical Controls (Badging Systems, Iris Scanners, Other: (Please specify below)
X	Other: (Please specify below) Mobility Management as part of the licensing bundle

7 **Telecommunications**

	Network Communications Infrastructure
	Telephone Upgrade-Business-Specific
	Cabling
	Wireless Access Points
	Telephony Upgrade-EIC Solution
	Trenching
	Videoconferencing
	Other: (Please specify below)

8 **Enterprise Solutions**

☐	Business Intelligence System
☐	E-Signatures
☐	Geographic Information Systems
☐	Other Imaging - Photos, Fingerprints, etc.
☐	Document Management/Imaging
☐	eLicensing
☐	Management Systems - Financial, Grants, Asset
☐	Disaster Recovery/Business Continuity
X	Other: (Please specify below) HRIS, AFIS, and an other Business applications will authenticate against this

9 **Contract Services/Procurement**

☐	Contracted Project Management
☐	Contractor Support Services
☐	Install/Configuration Contract Services
☐	State Contract
☐	Vendor provided
☐	Procurement (RFP, IFB, DPR, etc.)
☐	Other: (Please specify below)

Microsoft Licenses to be procured via SHI (on State Contract)

Meeting Invite Checklist

Role	Name	Email Address	Date Reviewed
Agency Project Sponsor*	**Darrell Davis**	darrell.davis@azdoa.gov	03/16/16
Agency Chief Information Officer (CIO) (or designee)*	**Morgan Reed**	morgan.reed@azdoa.gov	03/16/16
Agency Information Security Officer (ISO) (or designee)*	**Mike Lettman / Darrell Davis**	mike.lettman@azdoa.gov	03/16/16
Joint Legislative Budget Committee (JLBC) representative			
Office of Strategic Planning & Budgeting (OSPB) representative			
ADOA-ASET Strategic Program Manager *	**Jeff Crane**	jeffrey.crane@azdoa.gov	03/16/16
ADOA-ASET Security, Privacy & Risk (ASET-SPR) representative*	**Dan Wilkins / Darrell Davis**	dan.wilkins@azdoa.gov	03/16/16
Agency CPO or State Procurement Office (SPO) representative	**Terri Johnson**	terri.johnson@azdoa.gov	03/16/16
Agency CFO or Finance representative (if different from CPO)	**Kim McCullough / Annabelle Molina (Kim addressed ongoing operational funding questions with JR Sloan)**	kimberly.mccullough@azdoa.gov	03/14/16
Others to Invite (if applicable):			
Project Manager	**John Huls**	john.huls@azdoa.gov	03/16/16
ADOA Chief Technology Officer	**Jason Simpson / Morgan Reed**	jason.simpson@azdoa.gov	03/16/16
ADOA-ASET Strategic Program Manager *	**James Dean**	james.dean@azdoa.gov	03/16/16
ADOA-ASET Strategic Program Manager *	**Veronica Garcia**	veronica.garcia@azdoa.gov	03/16/16

* Required Atendee

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x	Has the value of the IT project to the public and the State been identified?
x	Does the proposed solution address the stated problem or situation?
x	Has the budget unit demonstrated competency to carry out the project successfully?
x	Have all applicable questions in the PIJ been addressed?
x	Have the Areas of Impact associated with the project been identified?
x	Is sufficient sponsorship and support by budget unit leadership evidenced in the meeting?
x	Has the compatibility of the proposed solution with other budget unit solutions been addressed?
x	Has a reasonable Project Plan been provided?
x	Has the compliance of the proposed solution with all applicable statewide standards been confirmed?
x	Have any potential risks or issues associated with the project or the proposed solution been identified and appropriately addressed to minimize unintended consequences?
x	Have the cost estimates for the project been vetted for accuracy?
x	Have the PIJ Financials been completed?
x	Have any/all of the following startup costs to implement the project been included under Development in the financial tables, if applicable - tax; shipping; upfront maintenance and support; professional services (P&OS); ancillary software to run on equipment; ancillary hardware to install equipment, e.g., cables; other associated costs, e.g., training, travel, documentation, etc.?
x	Have any/all of the following ongoing/5-year support costs, once the project is implemented, been included under Operational in the financial tables, if applicable - ongoing vendor hosting costs, including any projected increase over time; annual maintenance and support not acquired upfront; extended costs after warranty expiration; P&OS commitments beyond implementation?
x	Have you confirmed that no Full Time Employee (FTE) related costs have been included in the project costs?
x	Have quotes been provided for all itemized costs in the PIJ, e.g., professional services, hardware, software, licensing, etc.?
x	Do the quotes match the itemized list and only reflect those items and costs (within 5%) associated with this project?
x	If not, describe below how the costs in the PIJ differ from the quotes, e.g., if quantities are different, costs are comprised of portions of multiple quotes provided, etc.:
	N/A

If any of the above are not complete, the PIJ cannot be approved at this time…..

PIJ Disposition

x	Approved
	Approved with conditions
	Not Approved

Strategic Program Manager Analysis

This project was reviewed during a collaborative group meeting within ADOA-ASET and project stakeholders on 3/16/16. As a result, the project was approved to move forward with implementation pending favorable review by the JLBC. The initial implementation will include ADOA, ADOT, and 30+ boards and commissions. At a future date, pending additional funding allocations and agreements, a further roll-out to an expanded number of state agencies will be evaluated. At that time, it is likely that a PIJ amendment would be completed if the decision is made to expand this implementation, prior to any such expansion of project scope. There are no outstanding issues or concerns regarding approval of this project at this time. This project development budget is funded through FY16 APF funds. Approval is via delegated authority.

Authorized Approver:	Jeffrey Crane	Approval Date:	3/16/2016

Condition (If Applicable)

N/A