Hosted Mainframe

Agency Requesting The Project:
Administration Department

Business Unit Requesting The Project:
ASET

Sponsor Of the Project:
Morgan Reed

Sponsor Title:
CIO, State of Arizona

Sponsor Phone Number:	**Extension:**

Sponsor Email Address:
Morgan.Reed@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? (i.e. …current process is manual, which increases resource time/costs to the State/Agency, and leads to errors...)
ADOA currently utilizes an IBM Mainframe system to process business data for various state agencies. The current configuration consists of a z/12 processor, and for data storage a DS8100 disk and TS7740 Virtual tape subsystems. ADOA maintains a staff of approximately 32 FTE's in support of the mainframe Administration and 24x7 Operations. •Mainframe assets are aging and would need to be replaced at a considerable cost to the state •Increasingly difficult to recruit and retain Mainframe systems personnel. •Third party software contracts are up for renewal and are increasingly expensive, these vendors are often inflexible when it comes to negotiate lowering costs. •The state data center is facing expensive facility upgrades to supply the necessary resilient infrastructure and power. •Lack of robust Business Continuity solution. •A Disaster Recovery process is in place but may not work in a real disaster. Because of not having a definitive plan for providing a comprehensive Business Recovery plan there can be no target Recovery Time and Recovery Point Objectives much less a return to home strategy. •The current direction for managing State IT assets is to leverage a cloud solution when possible, eliminating expensive assets. Currently all Mainframe refresh's come at the cost of Capital outlaw. •Inability to adjust for increased or decreased workloads in a cost-effective manner. •Providing state of the art technologies can sometime only be gained by refreshing the Mainframe environment which can be costly to embrace a new technology.

•Managing the large number of vendor contracts, PO's, invoicing creates undesirable costly overhead taking resources from addressing state IT goals.
•Inability to provide continuous uptime for critical applications during scheduled monthly maintenance.

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

Describe the proposed solution to this business need:
ADOA will contract with Managed Services vendor to migrate the ADOA Mainframe system to a Cloud environment providing enhanced capabilities; consisting enhanced uptime during system maintenance and a robust Disaster Recovery/Business Continuity capability.

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

Please describe the existing technology environment into which the proposed solution will be implemented.	
IBM will migrate the ADOA Mainframe agencies to run on IBM's zCloud solution.	

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/Pilot/RFP 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?	Y

Describe the reason for completing the assessment/Pilot/RFP and the expected deliverable(s) below:
An RFP was previously awarded to qualify vendors for Managing the ADOA Mainframe System. Subsequently   ADOA/ASET has issues a Task Order to those qualified vendors for technical qualifications and pricing.

Provide the estimated cost, if any, to conduct the assessment phase and/or Pilot and/or RFP/solicitation process:	
$0.00	

Provide the estimated start and finish date for conducting the assessment/Pilot/RFP solicitation:				
Estimated Start	01/02/17		Estimated Finish	04/28/17

Provide a projected start and finish date for implementing the final solution.				
Estimated Start	05/01/17		Estimated Finish	08/01/17

Based on research to date, provide a high-level cost estimate to implement the final solution below:
$86,000,000.00

Does the project fall into one of the following categories: - hardware technology refresh/expansion, e.g., replacement/more laptops, radios, peripherals, etc.?	N

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

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 high level make-up and roles/responsibilities of the Agency, Vendor(s), and other third parties below: (i.e. …agency will do…vendor wil do…other third parties will do..)
Vendor will provide Managed services for the ADOA Mainframe System for associated Hardware, Software, Administration and 24x7 Operations.

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, State certification etc., please provide certification information below:
PMP and State Certified

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

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

Will any phyciscal infrastructure improvements be required prior to the implementation of the proposed solution. e.g., building reconstruction, cabling, etc.?	N

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

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?	N

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:
Statewide Enterprise 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?	N

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?	N

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

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?

The ADOA on-site Mainframe system will be migrated to an IBM zCloud solution, the existing ADOA Mainframe environment has existed for 20+ years. The current Mainframe processor was upgraded during November, 2014.

Describe the planned disposition of the existing technology below, e.g., surplused, retired, used as backup, used for another purpose:

Assets will be turned over to IBM.

Describe how the agency determined the quantities reflected in the PIJ, e.g., number of hours of P&OS, disk capacity required, number of licenses, etc. for the proposed solution?
IBM will assume the ADOA Hardware/Software resources and will provide the same or better capacity for processing agency systems.

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 issues that have not been identified as part of this PIJ?	N

Will the proposed solution be vendor-hosted?	Y

Please select from the following vendor-hosted options:
Vendor Hosted

Describe the rationale for selecting the vendor-hosted option below:
The Task Order responses have been reviewed by a selection committee assembled by the State Procurement Office. The financial review was completed by a Financial Sub-Committee.

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?	N

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?	Y

Describe below what security infrastructure/controls are/will be put in place to safeguard this data:
ADOA/ASET SPR staff will review.

What help could ASET offer to increase the probability of project success?
This is an ASET initiated project.

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
- [X] Other: (Please specify below)   Disaster Recovery / Business Continuity

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
- [X] Mainframe Systems Software
- [ ] Open Source
- [ ] PC/LAN Systems Software
- [ ] Virtualization
- [ ] Other: (Please specify below)

4 **Hardware**

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

5 Hosted Solution (Cloud Implementation)

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

6 Security

	Encryption
	Security Appliances:
	Firewall
	Intrusion Detection System (IDS)
	Intrusion Prevention System (IPS)
	SecurityControls/Systems - Other: (Please specify below)
	Physical Controls (Badging Systems, Iris Scanners, Other: (Please specify below)
	Other: (Please specify below)

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
X	Disaster Recovery/Business Continuity
	Other: (Please specify below)

9 **Contract Services/Procurement**

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

PIJ Review Checklist

Role	Name	Email Address	Date Reviewed
Agency Project Sponsor*	**Morgan Reed**	Morgan.Reed@azdoa.gov	
Agency Chief Information Officer (CIO) (or designee)*	**Morgan Reed**	Morgan.Reed@azdoa.gov	
Agency Information Security Officer (ISO) (or designee)*	**Mike Lettman**	Mike.Lettman@azdoa.gov	
ADOA-ASET Engagement Manager *	**David Tischler**	David.Tischler@azdoa.gov	
ADOA-ASET Security, Privacy & Risk (ASET-SPR) representative	**Tim Guerriero**	Tim.Guerriero@azdoa.gov	
Agency CPO or State Procurement Office (SPO) representative	**Reem Prendiville**	Reem.Prendiville@azdoa.gov	
Agency CFO or Finance representative (if different from CPO)	**Joe Whitmer**	Joe.Whitmer@azdoa.gov	
Others to Review (if applicable):			
ADOA-ASET Chief Operating Officer	**Gary Hensley**	Gary.Hensley@azdoa.gov	
ADOA-ASET, Managed Services	**Suzan Tasvibi-tanha**	Suzan.Tasvibi@azdoa.gov	
ADOA-ASET, Mainframe Operations	**Patrick Cravens**	Patrick.Cravens@azdoa.gov	

* Required Attendee

Summary of PIJ Financials

Total of Development Cost:	$	4,202,074
Total of Operational Cost:	$	106,019,202
Total Costs:	$	110,221,276

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 8.6% for PHX)	Tax	Total Cost
1	One-time transition/Startup Costs	Prof & Outside Services	Development	1	1	$4,202,074	$4,202,074		$0	$4,202,074
2	ASET-MF operations, Vendor management, overhead, and Print Services (remaining in ASET)	Other	Operational	5	1	$26,235,870	$26,235,870		$0	$26,235,870
3	Mainframe Services	License & Maint Fees	Operational	1	1	$19,163,760	$19,163,760		$0	$19,163,760
4	Mainframe Services	License & Maint Fees	Operational	2	1	$16,863,228	$16,863,228		$0	$16,863,228
5	Mainframe Services	License & Maint Fees	Operational	3	1	$14,585,448	$14,585,448		$0	$14,585,448
6	Mainframe Services	License & Maint Fees	Operational	4	1	$14,585,448	$14,585,448		$0	$14,585,448
7	Mainframe Services	License & Maint Fees	Operational	5	1	$14,585,448	$14,585,448		$0	$14,585,448
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	$4,202,074
Total Operational Cost	$106,019,202
Total Itemization of Costs:	**$110,221,276**

Summary of Funding Sources

Fund Type	% of Project	$ of Project (Available)	$ of Project (To Be Requested)
Base Budget			
APF			
Other Appropriated	100.00%	$110,221,276.00	
Federal			
Other Non-Appropriated			

PIJ Development & Operational Cost Summary

Description	Type	Year 1	Year 2	Year 3	Year 4	Year 5	Extended Cost
Professional & Outside Services	Development	$4,202,074	$0	$0	$0	$0	$4,202,074
	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	$0	$0	$0	$0	$0	$0
	Operational	$19,163,760	$16,863,228	$14,585,448	$14,585,448	$14,585,448	$79,783,332
Other	Development	$0	$0	$0	$0	$0	$0
	Operational	$0	$0	$0	$0	$26,235,870	$26,235,870
	Development Cost:	$4,202,074	$0	$0	$0	$0	**$4,202,074**
	Operational Cost:	$19,163,760	$16,863,228	$14,585,448	$14,585,448	$40,821,318	**$106,019,202**
	Total Cost:						**$110,221,276**

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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?
	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.:

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

PIJ Disposition

	Approved
x	Approved with conditions
	Not Approved

Strategic Program Manager Analysis

Project Background: ADOA-ASET is seeking to move to a Managed Services model for Mainframe Operations. ADOA does not want to own, maintain, and manage the hardware and aging facility associated with operating its current mainframe, but does want to retain ownership and control of the State's applications and data.

Business Solution Justification: ADOA-ASET's proposal indicates there will be increased uptime, and reduced risk by moving critical processing out of the State Datacenter. Additionally, ASET seeks to reduce Mainframe Operation costs by 3% to 5% in years 2 through 5 of this project, generating additional savings for the state.

Vendor Selection: ADOA-ASET has demonstrated that they evaluated the marketplace, and solicited responses from interested parties via their RFP process. The selected vendort meets their needs, and multiple vendors were evaluated as part of the process.

Implementation Methodology: ADOA-ASET has a dedicated Project Management Office, that will provide a state certified Project Manager. The selected vendor has provided a Scope of Work and Timeline, so adequate controls and monitoring are in place to help guide a successful implementation.

Budget or Funding Considerations: First year development funding for this project is coming from current budget allocations, and then additional years are paid by Operations Fund (Agencies already pay ASET for Mainframe processing).

Authorized Approver:	David Tischler	Approval Date:	4/20/17

Condition (If Applicable)

Should the final costs exceed the estimated costs by 10% or more, or should there be significant changes to the proposed technology, scope of work or implementation schedule, the Agency must amend the PIJ to reflect the changes and submit it to ADOA-ASET for review and approval prior to further expenditure of funds.