ADOA-ASET
Arizona Strategic Enterprise Technology

Project Investment Justification

Tanium Government Cloud Migration

HL23002

Department of Homeland Security

Contents

1. GENERAL INFORMATION

PIJ ID: HL23002
PIJ Name: Tanium Government Cloud Migration
Account: Department of Homeland Security
Business Unit Requesting: Cyber Command
Sponsor: Ryan Murray
Sponsor Title: Deputy Director
Sponsor Email: rmurray@azdohs.gov
Sponsor Phone: (602) 625-8279

2. MEETING PRE-WORK

2.1 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…):

Agencies have the majority of their workforce working remotely and are currently using the existing Tanium platform to manage their devices. Currently Tanium is the enterprise solution for ADOA Asset Inventory & Management of hardware and/or software. With the sustained onslaught of cyber threats and the newly expanded threat surface (and the known vulnerabilities) posed from teleworking, the State cannot assume an elevated risk with the expiration of the Tanium licenses. The Department of Homeland Security, Cyber Command has an obligation to the citizens of the State of Arizona to safeguard and protect their information. Without understanding what is in your environment, it is impossible to accurately identify risks and successfully defend the enterprise against potential vulnerabilities. Additionally, the Department of Homeland Security will need to engage a Contractor to assist in the migration of state agencies from the Tanium on premises environment to a Government cloud environment.

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

With the completion of the project Tanium licenses will be extended ensuring transparency which allows coordinated responses to discovered risks and increased security. The continuation of Tanium licenses will continue to provide visibility into assets and the network while accurately identifying risks and continuing to successfully defend the enterprise against potential vulnerabilities. The Tanium tool also provides automation of tasks thereby expanding existing staff capacity and identifying opportunities for cost savings through software license reclamation. The Department of Homeland Security continues to identify licenses of applications that have not been used in 90+ days and are eligible for removal or re-allocation.

In addition to the extension of Tanium licenses, Department of Homeland Security will engage a Contractor to provide a Tanium Subject Matter Expert ("SME") and Project Manager ("PM") to assist in the migration of 70+ state agencies from the Tanium on premises environment to a fully-hosted Cloud based SaaS solution in the Tanium Cloud for U.S. Government environment which will decrease infrastructure support costs, improve performance, and ensure the tool is operational in a timely fashion.

2.3 Describe the proposed solution to this business need.

Tanium tool is the result of the Enterprise Security Program Advisory Council (ESPAC) - Asset and Patch Management Committee and recommendation to full ESPAC board. The Tanium Client is a service installed on endpoint devices. There are multiple modules within Tanium that discover and report both static and dynamic real-time data pertaining to the endpoint. Tanium satisfies several of the Center for Internet Security (CIS) Top 18 Critical Security Controls. The CIS Top 18 is the framework that ESPAC approved as the measurement standard for Enterprise cybersecurity. The CIS Top 18 are best practices and guidance to implement and improve an organization's cyber defenses. The first five controls are considered basic and critical due to its ability to automate inventory of hardware and software (CIS #1 and #2). The tool provides an understanding of what is in an environment to accurately identify risks and successfully defend the enterprise against potential vulnerabilities. Tanium can patch vulnerabilities from Operating System and 3rd party applications, (CIS #3), both on and off the State's network which current agency-based tools do not. Tanium identifies the users with administrative rights and device access that can represent a risk if compromised (CIS #4). Tanium ensures compliance and secure configurations of hardware (CIS #5) and provides automation of tasks thereby expanding existing staff capacity.

The renewal of licenses will ensure continued uninterrupted support. The migration to the Tanium US government cloud environment is in alignment with the P1100 - Cloud First Policy and will increase regulatory compliance in a FedRAMP authorized and protected cloud environment to better support agencies that are required to be in alignment with Federal regulations. Continuous Quarterly Monitoring/Reporting by FedRAMP/StateRAMP. Platform updates are fully tested, and rapidly deployed.

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

Yes

2.4a Please describe the existing technology environment into which the proposed solution will be implemented.

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

Yes

2.5a Please explain below why the requirements are not available.

3. PRE-PIJ/ASSESSMENT

3.1 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?

No

3.1a Is the final Statement of Work (SOW) for the RFP available for review?

3.2 Will you be completing an assessment/Pilot/RFP phase, i.e. an evaluation by a vendor, 3rd party or your agency, of the current state, needs, & desired future state, in order to determine the cost, effort, approach and/or feasibility of a project?

No

3.2a Describe the reason for completing the assessment/pilot/RFP and the expected deliverables.

3.2b Provide the estimated cost, if any, to conduct the assessment phase and/or Pilot and/or RFP/solicitation process.

3.2e Based on research to date, provide a high-level cost estimate to implement the final solution.

4. PROJECT

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

Yes

4.2 Describe the high level makeup and roles/responsibilities of the Agency, Vendor(s) and other third parties (i.e. agency will do...vendor will do...third party will do).

Agency - Responsible for vendor management of the professional services and technology solution. Responsible for administration of the cloud instance. Responsible for the provisioning of accounts. Responsible for firewall change requests and AV exclusions.

Professional services provide hands on keyboard; participate in meetings where users, configurations, endpoints, and current use cases are migrated from on-premises to Tanium Cloud for U.S. Government; escalate especially complex issues directly to the Tanium Support Center and facilitate resolution for the customer; Create, manage, and track Tanium migration project plan

Vendor - Provide technical expertise and advice to the State and professional services teams. Support and manage the cloud instance. Providing the licenses to the state.

State Agencies - Responsible for validating their information, accounts, computer groups prior to migration. Responsible for opening firewalls and making AV exclusions.

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

Yes

4.3a If the PM is credentialed, e.g., PMP, CPM, State certification etc., please provide certification information.

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

No

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

Yes

5. SCHEDULE

5.1 Is a project plan available that reflects the estimated Start Date and End Date of the project, and the supporting Milestones of the project?

Yes

5.2 Provide an estimated start and finish date for implementing the proposed solution.

Est. Implementation Start Date	Est. Implementation End Date
11/28/2022 12:00:00 AM	3/1/2023 12:00:00 AM

5.3 How were the start and end dates determined?

Based on project plan

5.3a List the expected high level project tasks/milestones of the project, e.g., acquire new web server, develop software interfaces, deploy new application, production go live, and estimate start/finish dates for each, if known.

Milestone / Task	Estimated Start Date	Estimated Finish Date
Kick Off/Planning Phase - Detailed milestones can be found in the Adobe PDF SOW Draft Tanium Migration (4) attached to the PIJ	11/28/22	11/30/22
Pre-deployment Phase	12/01/22	12/07/22
Phase 1: Assessment and Preparation of Tanium Modules	12/08/22	12/23/22
Phase 2: Endpoint Migration Testing	12/28/22	01/06/23
Phase 3: Point Production Endpoints to Tanium-as-a-Service (Cloud)	01/07/23	01/31/23
Final Vendor Payment	02/01/23	03/01/23

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

Yes

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

No

5.5a Does the PIJ include the facilities costs associated with construction?

5.5b Does the project plan reflect the timeline associated with completing the construction?

6. IMPACT

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

Yes

6.1a Have the identified conflicts been taken into account in the project plan?

Yes

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

Yes

6.2a Please identify the projects or procurements.

Aware of potential impact to project schedule based on agency-specific project timelines and/or need to procure outside professional services.

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

No

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

No

7. BUDGET

7.1 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.?

Yes

7.2 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.?

Yes

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

Yes

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

No

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

No

8. TECHNOLOGY

8.1 Please indicate whether a statewide enterprise solution will be used or select the primary reason for not choosing an enterprise solution.

The project is using a statewide enterprise solution

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

Yes

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

Yes

8.3a Describe how the software was selected below:

Technical requirements were previously gathered and provided to vendors for the solution. This change is just to move the architecture from on-prem to cloud. Reviewed by ESPAC and Tanium Oversight Committee and approved for migration.

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

No

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

Yes

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

Yes

8.7 Does the project involve any coordination across multiple vendors?

Yes

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

No

8.9 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?

No

8.9a Describe below the issues that were identified and how they have been/will be resolved, or whether an ADOA-ASET representative should contact you.

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

Yes

8.11 Is this replacing an existing solution?

No

8.11a Indicate below when the solution being replaced was originally acquired.

8.11b Describe the planned disposition of the existing technology below, e.g., surplused, retired, used as backup, used for another purpose:

8.12 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?

Based on a project plan template provided by the vendor and in consultation with the professional services provider.

8.13 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?

No

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

Yes

8.14a Please select why failover and disaster recovery is not included in the proposed solution.

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

Yes

8.15a Are the costs associated with that configuration included in the PIJ financials?

Yes

8.16 Will any app dev or customization of the proposed solution be required for the agency to use the project in the current/planned tech environment, e.g. a COTS app that will req custom programming, an agency app that will be entirely custom developed?

No

8.16a Will the customizations inhibit the ability to implement regular product updates, or to move to future versions?

8.16b Describe who will be customizing the solution below:

8.16c Do the resources that will be customizing the application have experience with the technology platform being used, e.g., .NET, Java, Drupal?

8.16d Please select the application development methodology that will be used:

8.16e Provide an estimate of the amount of customized development required, e.g., 25% for a COTS application, 100% for pure custom development, and describe how that estimate was determined below:

8.16f Are any/all Professional & Outside Services costs associated with the customized development included in the PIJ financials?

8.17 Have you determined that this project is in compliance with all applicable statutes, regulations, policies, standards & procedures, incl. those for network, security, platform, software/application &/or data/info found at aset.az.gov/resources/psp?

Yes

8.17a Describe below the compliance issues that were identified and how they have been/will be resolved, or whether an ADOA-ASET representative should contact you:

8.18 Are there other high risk project issues that have not been identified as part of this PIJ?

No

8.18a Please explain all unidentified high risk project issues below:

9. SECURITY

9.1 Will the proposed solution be vendor-hosted?

Yes

9.1a Please select from the following vendor-hosted options:

Commercial data center environment, e.g AWS, Azure

9.1b Describe the rationale for selecting the vendor-hosted option below:

To decrease overall cost of ownership and resources to support while increasing security.

Alignment with P1100 - Cloud First Policy. Migrating this service to a fully-hosted Cloud based SaaS solution. Decreased infrastructure support costs. Increased uptime and improved performance.

Increased regulatory compliance running in a FedRAMP authorized and protected cloud environment to better support agencies that require alignment to federal regulations. Continuous Quarterly Monitoring/Reporting by FedRAMP/StateRAMP

9.1c Has the agency been able to confirm the long-term viability of the vendor hosted environment?

Yes

9.1d Has the agency addressed contract termination contingencies, e.g., solution ownership, data ownership, application portability, migration plans upon contract/support termination?

Yes

9.1e Has a Conceptual Design/Network Diagram been provided and reviewed by ASET-SPR?

Yes

9.1f 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?

Yes

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

No

9.2a Where will the on-premise solution be located:

9.2b Were vendor-hosted options available and reviewed?

9.2c Describe the rationale for selecting an on-premise option below:

9.2d Will any data be transmitted into or out of the agency's on-premise environment or the State Data Center?

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

No

9.3a Describe below what security infrastructure/controls are/will be put in place to safeguard this data:

10. AREAS OF IMPACT

Application Systems

Database Systems

Software

Hardware

Hosted Solution (Cloud Implementation)

Amazon (AWS) GovCloud

Security

Other

Converged Endpoint Management

Telecommunications

Enterprise Solutions

Other

Contract Services/Procurements

11. FINANCIALS

Description	PIJ Category	Cost Type	Fiscal Year Spend	Quantity	Unit Cost	Extended Cost	Tax Rate	Tax	Total Cost
Tanium Cloud Migration Professional Services	Professional & Outside Services	Development	1	1	$69,135	$69,135	0.00 %	$0	$69,135
Tanium License renewal 7/30/22 - 09/29/23	License & Maintenance Fees	Development	1	1	$1,601,625	$1,601,625	860.00 %	$137,740	$1,739,365
Tanium License renewal 9/29/23 - 9/29/24	License & Maintenance Fees	Operational	2	1	$1,372,875	$1,372,875	860.00 %	$118,067	$1,490,942
Tanium License renewal 9/29/24 - 9/29/25	License & Maintenance Fees	Operational	3	1	$1,372,875	$1,372,875	860.00 %	$118,067	$1,490,942
Tanium License renewal 9/29/25 - 9/29/26	License & Maintenance Fees	Operational	4	1	$1,372,875	$1,372,875	860.00 %	$118,067	$1,490,942
Tanium License renewal 9/29/26 - 9/29/27	License & Maintenance Fees	Operational	5	1	$1,372,875	$1,372,875	860.00 %	$118,067	$1,490,942

Base Budget (Available)	Base Budget (To Be Req)	Base Budget % of Project
$7,772,269	$0	100%
APF (Available)	**APF (To Be Req)**	**APF % of Project**
$0	$0	0%
Other Appropriated (Available)	**Other Appropriated (To Be Req)**	**Other Appropriated % of Project**
$0	$0	0%
Federal (Available)	**Federal (To Be Req)**	**Federal % of Project**
$0	$0	0%
Other Non-Appropriated (Available)	**Other Non-Appropriated (To Be Req)**	**Other Non-Appropriated % of Project**
$0	$0	0%

Total Budget Available	Total Development Cost
$7,772,269	$1,808,500
Total Budget To Be Req	**Total Operational Cost**
$0	$5,963,769
Total Budget	**Total Cost**
$7,772,269	$7,772,269

12. PROJECT SUCCESS

Please specify what performance indicator(s) will be referenced in determining the success of the proposed project (e.g. increased productivity, improved customer service, etc.)? (A minimum of one performance indicator must be specified)

Please provide the performance objective as a quantifiable metric for each performance indicator specified.

Note: The performance objective should provide the current performance level, the performance goal, and the time period within which that performance goal is intended to be achieved. You should have an auditable means to measure and take corrective action to address any deviations.

Example: Within 6 months of project completion, the agency would hope to increase "Neighborhood Beautification" program registration by 20% (3,986 registrants) from the current registration count of 19,930 active participants.

Performance Indicators

100% of endpoints migrated to communicating with the cloud environment within 6 months of completion

13. CONDITIONS

Conditions for Approval

Should development costs exceed the approved estimates 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, and ITAC if required, for review and approval prior to further expenditure of funds.

Monthly reporting on the project status is due to ADOA-ASET no later than the 15th of the month following the start of the project. Failure to comply with timely project status reporting will affect the overall project health. The first status report for this project is due on January 15, 2022.

14. OVERSIGHT SUMMARY

Project Background

The Arizona Department Of Homeland Security (DOHS) was established to enhance the ability of the state to prevent and respond to acts of terrorism and other critical hazards. The Department provides strategic direction to develop regional capability and capacity to prevent terrorist attacks, enhance border security and reduce vulnerability to threats and hazards that affect the safety, well-being and economic security of Arizona citizens.

Currently DOHS is utilizing the Tanium Client tool to ensure state employees are taking the proper precautionary measures in securing state data on state issued devices. Tanium began being utilized when the pandemic forced state employees to work remotely and agencies began providing equipment without the ability to manage devices making state data vulnerable. As the number of employees working in virtual or telecommute environments increased, cyber threats and potential attacks also increased. The Tanium Client tool provides transparency into participating agencies' networks allowing DOHS the ability to identify and mitigate cyber threats and or potential attacks which drastically decrease vulnerability. The solution also provides an opportunity to identify unused license software that are eligible for removal and provide a cost savings to the state. Additionally, Tanium licenses are currently hosted on-premise at the State Data Center (SDC).

Business Justification

The extension of licenses will continue to provide transparency into participating agencies' networks allowing DOHS the ability to identify and mitigate cyber threats and or potential attacks resulting in the vulnerability drastically decreasing. The solution will continue to provide opportunities to identify unused license software that are eligible for removal resulting in a cost savings to the state. Additionally, DOHS will migrate the Tanium licenses to a cloud environment to support the Cloud first policy which encourages the use of cloud technologies wherever possible by migrating applications out of the state's aging data center and into a cloud or new Shared Hosted Data Center. Technical requirements were previously gathered and provided to vendors for the solution which was reviewed and approved by the ESPAC and Tanium Oversight Committee. The cloud migration will decrease infrastructure support costs, improve performance, and ensure the tool is operational in a timely fashion.

Implementation Plan

Agency - Responsible for vendor management of the professional services and technology solution. Responsible for administration of the cloud instance. Responsible for the provisioning of accounts. Responsible for firewall change requests and AV exclusions.

Professional Services - Hands on keyboard support to configure and create: accounts, users, computer groups, RBAC, and (is there anything else in the project plan)

Vendor - Provide technical expertise and advice to the State and professional services teams. Support and manage the cloud instance. Providing the licenses to the state.

State Agencies - Responsible for validating their information, accounts, computer groups prior to migration. Responsible for opening firewalls and making AV exclusions.

A risk has been identified with the non-managed agencies participating in the implementation and meeting the timeline around the holiday schedule. DOHS has a communication plan and has also provided the schedule of expectations to the non-managed agencies.

Vendor Selection

Tanium vendor selected due to being on an enterprise solution and current licenses are with this vendor.

The vendor True Zero Technologies was selected to provide a professional services engineer (Tanium SME), a project manager, an engagement manager, and migrate the solution to a cloud environment.

Budget or Funding Considerations

Budget for this project will consist of 100% base budget.

15. PIJ REVIEW CHECKLIST

Agency Project Sponsor

Ryan Murray

Agency CIO (or Designee)

JR Sloan

Agency ISO (or designee)

Ryan Murray

OSPB Representative

ASET Engagement Manager

ASET SPR Representative

Thomas Considine

Agency SPO Representative

Agency CFO

Terry Riordan

ADOA-ASET

Arizona Strategic Enterprise Technology