

Project Investment Justification

MES Mainframe Refactor

HC24014

Arizona Health Care Cost Containment System

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1. GENERAL INFORMATION

PIJ ID: HC24014

PIJ Name: MES Mainframe Refactor

Account: Arizona Health Care Cost Containment System

Business Unit Requesting: AHCCCS - ISD

Sponsor: Anthony Flot

Sponsor Title: CTO

Sponsor Email: anthony.flot@azahcccs.gov

Sponsor Phone: (602) 427-4831

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...):

AHCCCS is currently utilizing a mainframe-based application to support their core business operations. This mainframe is shared with other agencies, but AHCCCS accounts for over 90% of its total capacity usage. AHCCCS intends to discontinue their reliance on the mainframe to reduce the operational costs associated with maintaining the application on this platform.

Due to the mainframe technologies supporting PMMIS/HPMMIS, based on IDEAL code and the DATACOM database, changes to the system are time consuming and complicated. Limited configuration capabilities exist within the system, and many of the business rules are hard coded. Web portals and commercial software packages have been layered on top of PMMIS/HPMMIS to overcome limitations within the mainframe framework, both for external and internal users.

Additionally, PMMIS/HPMMIS being based on IDEAL code and DATACOM database has made hiring of qualified staff challenging. The ability to hire and retain staff has created a burden on being able to maintain the system, and improving and enhancing nearly impossible.

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

This project will refactor the PMMIS and HPMMIS to current technologies that are sustainable into the future and significantly reduce the financial impacts of maintenance and operations on AHCCCS and MQD. With the newer technology AHCCCS will be able to hire and retain staff and if necessary supplement with experienced vendors.

2.3 Describe the proposed solution to this business need.

The primary objective of this project is to migrate these mainframe systems to the Azure cloud platform. This migration process involves translating the mainframe systems into C#/.NET code and transferring the DATACOM database to SQL Server on Azure. The desired outcome is to replicate the existing user interface (UI) experience while transitioning to Microsoft technologies hosted on Azure.

- Mainframe Modernization: Modernization of mainframe to a Customer managed Azure environment.
- Azure Cloud Design: Design the components of the Azure platform to support the Mainframe Modernization Program.
- Testing: Support test development activities and testing on the applications migrated to Azure.
- Postproduction Support: Resolve defects associated with the Mainframe Modernization Program and provide informal knowledge transfer assistance to the Customer team.

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).

The Vendor will: Migrate PMMIS and HPMMIS within the AHCCCS Azure tenancy, establish the devops environment, and deliver training to AHCCCS ISD.

AHCCCS will: Supply the technology environment and network connectivity needed by the software solution. Provide contract oversight to ensure project milestones are met by the vendor, participate in project meetings to fully communicate project requirements, provide SME as needed, complete data exports and imports, complete user acceptance testing, review and acceptance of the milestone deliverables. The Agency will also be responsible for acquisition of required licenses.

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

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?

Yes

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

4/1/2024 12:00:00 AM

1/19/2027 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
submit a signed IV&V contract to ADOA-ASET	02/22/24	03/04/24
Kick off meeting	04/01/24	04/01/24
Planning (Mainframe Assessment)	04/02/24	04/30/24
Schedule baseline	04/02/24	05/31/24
Pilot	04/02/24	05/31/24
Infrastructure design	04/02/24	05/31/24
Database design	04/02/24	05/31/24
AHCCCS to provide detailed project details (Milestones) after initial assessment	05/01/24	05/17/24
Migration - Convert DATACOM to SQL Objects	06/03/24	05/14/26
Migration-Regression/Security/Performance testing	06/03/24	05/14/26
Migration - Ideal/COBOL to C# .Net/Angular/HTML	06/03/24	05/14/26
Migration - Source batch control language to destination batch control language	06/03/24	05/14/26
Payment for first 10 months	03/03/25	03/24/25
UAT	12/15/25	03/30/26
Payment for month 11-22	01/01/26	01/22/26
training	04/01/26	05/31/26
Deploy	04/01/26	05/14/26
Operational Readiness Report	05/01/26	05/31/26
go live	06/01/26	06/01/26
cms certificatoin	06/02/26	12/29/26
Final payment	12/01/26	12/25/26
Lessons Learned	12/30/26	01/05/27
close out report	01/06/27	01/19/27

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?

No

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

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

Yes

6.2a Please identify the projects or procurements.

Systems Integration and ServiceNow - both active projects in good standing

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?

Yes

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

Yes

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.

There is not a statewide enterprise solution available

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?

No

8.3a Describe how the software was selected below:

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?

No

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?

Yes

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

1992 - Developed inhouse at AHCCS

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

System is hosted as a service on Z-Cloud. Contract will not be renewed

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?

Vendor performing the migration will determine that through the assessment and performance testing. A preliminary assessment was performed to develop the Azure hosting requirements by the selected vendor

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?

Yes

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

No

8.16b Describe who will be customizing the solution below:

AHCCCS - ISD

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

Yes

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

Agile/Scrum

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:

100% - this is an AHCCCS developed and managed application.

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

Yes

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?

No

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

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

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

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

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

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?

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

Yes

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

Agency's data center

9.2b Were vendor-hosted options available and reviewed?

No

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

The AHCCCS Azure Cloud Tenant is a secure, cloud-based solution that the agency manages.

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

Yes

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?

Yes

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

The solution will be housed in the AHCCCS Azure cloud tenant and adhere to Federal and State privacy and security requirements, including MARS-E, HIPAA, SSA, and ADoHS Statewide Security Policies. In addition, the solution itself will be compliant with these privacy and security regulatory requirements.

10. AREAS OF IMPACT

Application Systems

Database Systems

Database Consolidation/Migration/Extract Transform and Load Data

Software

Mainframe Systems Software

Hardware

Mainframe Infrastructure

Hosted Solution (Cloud Implementation)

Microsoft Azure

Security

Telecommunications

Enterprise Solutions

Contract Services/Procurements

11. FINANCIALS

Description	PIJ Category	Cost Type	Fiscal Year Spend	Quantity	Unit Cost	Extended Cost	Tax Rate	Tax	Total Cost
MMIS Refactor	Professional & Outside Services	Development	1	1	\$26,839,296	\$26,839,296	0.00%	\$0	\$26,839,296
IV&V	Professional & Outside Services	Development	1	1	\$16,500	\$16,500	0.00%	\$0	\$16,500
Staff Augment (PM, SME, Test, Dev)	Professional & Outside Services	Development	1	4	\$62,400	\$249,600	0.00%	\$0	\$249,600
MMIS Refactor	Professional & Outside Services	Development	1	1	\$1,412,595	\$1,412,595	0.00%	\$0	\$1,412,595
IV&V	Professional & Outside Services	Development	1	1	\$313,500	\$313,500	0.00%	\$0	\$313,500
Staff Augment (PM, SME, Test, Dev)	Professional & Outside Services	Development	1	4	\$249,600	\$998,400	0.00%	\$0	\$998,400
MMIS Refactor	Professional & Outside Services	Development	2	1	\$19,676,345	\$19,676,345	0.00%	\$0	\$19,676,345
IV&V	Professional & Outside Services	Development	2	1	\$16,500	\$16,500	0.00%	\$0	\$16,500
Staff Augment (PM, SME, Test, Dev)	Professional & Outside Services	Development	2	4	\$62,400	\$249,600	0.00%	\$0	\$249,600
Azure Hosting	License & Maintenance Fees	Development	2	1	\$108,600	\$108,600	860.00%	\$9,340	\$117,940
Refactor Support	Professional & Outside Services	Development	2	1	\$100,000	\$100,000	0.00%	\$0	\$100,000
MMIS Refactor	Professional & Outside Services	Development	2	1	\$1,035,597	\$1,035,597	0.00%	\$0	\$1,035,597
IV&V	Professional & Outside Services	Development	2	1	\$313,500	\$313,500	0.00%	\$0	\$313,500

Staff Augment (PM, SME, Test, Dev)	Professional & Outside Services	Development	2	4	\$249,600	\$998,400	0.00%	\$0	\$998,400
Refactor Support	Professional & Outside Services	Development	2	1	\$1,900,000	\$1,900,000	0.00%	\$0	\$1,900,000
Azure Hosting	License & Maintenance Fees	Development	2	1	\$1,891,400	\$1,891,400	860.00%	\$162,660	\$2,054,060
Refactor support	Professional & Outside Services	Operational	3	1	\$15,000,000	\$15,000,000	0.00%	\$0	\$15,000,000
Azure Hosting	License & Maintenance Fees	Operational	3	1	\$4,000,000	\$4,000,000	860.00%	\$344,000	\$4,344,000
Refactored Support	Professional & Outside Services	Operational	4	1	\$15,000,000	\$15,000,000	0.00%	\$0	\$15,000,000
Azure Hosting	License & Maintenance Fees	Operational	4	1	\$4,000,000	\$4,000,000	860.00%	\$344,000	\$4,344,000
Refactored Support	Professional & Outside Services	Operational	5	1	\$15,000,000	\$15,000,000	0.00%	\$0	\$15,000,000
Azure Hosting	License & Maintenance Fees	Operational	5	1	\$4,000,000	\$4,000,000	860.00%	\$344,000	\$4,344,000

Base Budget (Available)	Base Budget (To Be Req)	Base Budget % of Project
\$0	\$10,590,840	9%
APF (Available)	APF (To Be Req)	APF % of Project
\$2,814,592	\$0	2%
Other Appropriated (Available)	Other Appropriated (To Be Req)	Other Appropriated % of Project
\$0	\$0	0%
Federal (Available)	Federal (To Be Req)	Federal % of Project
\$50,662,650	\$43,524,000	82%
Other Non-Appropriated (Available)	Other Non-Appropriated (To Be Req)	Other Non-Appropriated % of Project
\$2,814,592	\$3,917,160	6%

Total Budget Available	Total Development Cost
\$56,291,833	\$56,291,833
Total Budget To Be Req	Total Operational Cost
\$58,032,000	\$58,032,000
Total Budget	Total Cost
\$114,323,833	\$114,323,833

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

- Move from CA Datacom. The database software has not had updates in years and the talent pool is shrinking every year to the point where it is near impossible to find additional staffing. Moving to a SQL database structure solves both issues.

- Move from CA IDEAL. The programming language is in the same scenario as Datacom. The software is no longer updated and the talent pool is making it impossible to find staff. Moving to C# solves both of these issues.

The average time to fill developer and Datacom DBA positions is 8 months. Generally unable to fill them with experience, we find someone close enough and try to train them. Time to fill SQL and C# developers is to 4-6 weeks.

13. CONDITIONS

Conditions for Approval

1. 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.
2. 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 April 15, 2023.
3. The agency shall select an Independent Verification & Validation (IV&V) vendor, provide the contract to ADOA-ASET and provide an informational update to ITAC that all the necessary requirements have been met for the Federal approval within 90 days of ITAC approval.
4. The agency shall provide the quarterly Independent Verification & Validation (IV&V) report, via email communication, to ADOA-ASET 90 days following the start of the project. IV&V vendor to submit separate IV&V reports for each individual project every quarter.
5. The agency shall provide the detailed project plan and Work Breakdown Structure after the initial assessment is performed and attend the June 2024 ITAC meeting to update the committee.
6. The agency shall work with ADOA-ASET EIC to establish a plan on how to exit the Enterprise platform (Mainframe) and to provide the plan to ITAC committee in December 2024 ITAC meeting. In addition, the agency validates with ADOA ASET EIC for resource allocation to support the development activities and legacy system decommissioning efforts.

14. OVERSIGHT SUMMARY

Project Background

The Arizona Health Care Cost Containment System (AHCCCS) operates on a health maintenance organization model in which contracted providers receive a predetermined monthly capitation payment for the medical services cost of

enrolled members. AHCCCS is the state's federally matched Medicaid program and provides acute and long term care services.

Arizona Health Care Cost Containment System (AHCCCS) is Arizona's Medicaid agency that offers health care programs to serve Arizona residents. Individuals must meet certain income and other requirements to obtain services.

The Information Services Division (ISD) is responsible for a full range of Information Technology services, including application development, production support, systems architecture, networking, and enterprise security. ISD provides and secures all information technology services necessary to support the administrative and programmatic functions of the agency, and safeguards agency data, technical infrastructure, communications networks, and application systems.

Business Justification

AHCCCS is currently utilizing a mainframe-based application to support their core business operations. This mainframe is shared with other agencies, but AHCCCS accounts for over 90% of its total capacity usage. AHCCCS intends to discontinue their reliance on the mainframe to reduce the operational costs associated with maintaining the application on this platform.

Due to the mainframe technologies supporting PMMIS/HPMMIS (Prepaid Medical Management Information System), based on IDEAL code and the DATACOM database, changes to the system are time consuming and complicated. Limited configuration capabilities exist within the system, and many of the business rules are hard coded. Web portals and commercial software packages have been layered on top of PMMIS/HPMMIS to overcome limitations within the mainframe framework, both for external and internal users. Additionally, PMMIS/HPMMIS being based on IDEAL code and DATACOM database has made hiring of qualified staff challenging. The ability to hire and retain staff has created a burden on being able to maintain the system, and improving and enhancing nearly impossible.

This project will refactor the PMMIS and HPMMIS to current technologies that are sustainable into the future and significantly reduce the financial impacts of maintenance and operations on AHCCCS and MQD (Hawaii Medicaid department). With the newer technology AHCCCS will be able to hire and retain staff and if necessary supplement with experienced vendors.

Implementation Plan

The solution will be hosted on-premise AHCCCS Azure cloud Tenant managed by the agency & is secure. No AZRAMP or SSP is required.

PM: Mitch Friedman

Agency Responsibilities:

- Supply the technology environment and network connectivity needed by the software solution.
- Provide contract oversight to ensure project milestones are met by the vendor,
- Participate in project meetings to fully communicate project requirements,
- Provide SME as needed,
- Complete data exports and imports,
- Complete user acceptance testing,
- Review and acceptance of the milestone deliverables.

The Agency will also be responsible for acquisition of required licenses

Vendor Responsibilities:

Migrate PMMIS and HPMMIS within the AHCCCS Azure tenancy,

Establish the devops environment,
Deliver training to AHCCCS ISD.

Vendor Selection

SHI(Microsoft) - A letter from procurement related to the vendor selection through an existing state contract is already submitted

Budget or Funding Considerations

The budget will be available through the following sources:

9.26% Base Budget

82.39% Federal

2.46% Other Appropriated

5.89% Other Non-Appropriated

(CMS approves the overall project and then approves funding yearly. This is a normal part of the process that proves a level of oversight at the federal level since they pay the largest sum of the project. This funding is rarely denied and never if the project is on track)

15. PIJ REVIEW CHECKLIST

Agency Project Sponsor

Anthony Flot

Agency CIO (or Designee)

Dan Lippert

Agency ISO (or designee)

Michael Heiser

OSPB Representative

ASET Engagement Manager

ASET SPR Representative

Emily Gross

Agency SPO Representative

Katie Morris

Agency CFO

Joshua Worley