ADOA-ASET
Arizona Strategic Enterprise Technology

Project Investment Justification

Version 01.01

A Statewide Standard Document for Information Technology Projects

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Project Title:

Adult Inmate Management System (AIMS) Replacement Project

Agency Name:	Arizona Department of Corrections
Date:	Original - May 08, 2013 Amended - June 09, 2014
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Hover for Instructions

I.   Management Summary*

The Arizona Department of Corrections (ADC) Adult Information Management System (AIMS) provides "critical" information and business services to the Department, and is essential to daily operations. Due to its 30 year age, and outdated technology, it is paramount that ADC replaces AIMS for a new system which can provide accurate, day-to-day management of inmates, and can meet the growing data demands place upon it.

II.   Project Investment Justification (PIJ) Type*

☐ **Yes** x **No**   Is this document being provided for a Pre-PIJ / Assessment phase?

If Yes,

Identify any cost to be incurred during the Assessment phase.	$0.00
Based on research done to date, provide a high-level estimate or range of development costs anticipated for the full PIJ.	$0.00

Explain:
Click here to enter text.

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

III.   Business Case

A.   Business Problem*

The Adult Information Management System (AIMS) provides "critical" information and public safety business services to the Department. Its core business functions: Inmate Identification, Movement, Location, Count, Sentencing, Disciplinary actions, Trust Accounting, and Time computation, form the mainstay of the Department's operations. Without access and availability to AIMS, the activities of various offices within the Department would stop. AIMS is essential to the daily operations of the Department. However due to its 30 year age, complexity, and outdated technology (programming language, database, reporting), AIMS is unable to reasonably meet the growing data demands placed upon it, or take advantage of the newer technologies being deployed by other organizations. In its present state, AIMS faces failure on two fronts, the data front and the technology front as its technologies are dated and "old", and in every respect unsustainable. It is paramount that ADC replaces AIMS for both the accurate, day-to-day management of Inmates and the long-term effective utilization of ADC's limited resources.

B.   Proposed Business Solution*

It is paramount that ADC replaces AIMS for the accurate day-to-day management of offenders and the long-term effective and efficient utilization of ADC's limited resources. With use of a new web based Offender Management System (OMS), a single sign-on capability could be provided. A single sign-on establishes users rights based on their directory assigned security settings, centrally managed with roles defining access levels.

The Enterprise Architecture (EA) proposed is a comprehensive framework for information technology and business that supports the Arizona State government strategic plan. Additionally, the interfaces to external systems and to exchange data will use industry-standard web service technologies such as XML wherever possible. ADC has reviewed similar systems implemented in California, Virginia and Maryland, in order to gain a better understanding of the scope, high level requirements and estimated cost of replacing AIMS. In addition, onsite visit to all three Public Safety & Correctional state entities engaging key executives, staff and subject matter experts.

Once the new system is implemented, ADC plans to maintain the current AIMS to run in parallel mode, in order to ensure all programs, functions and data records are in the new system accurately and maintained before closure and archiving of the AIMS system by the project end date.

C.   *Quantified Benefits**

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

Explain:

A new replacement system for AIMS would provide security, public safety, records and efficiency benefits, both at the time of implementation and over the life of the system. ADC expends over $2.0 million dollars annually for maintenance and support of this legacy system at the ADOA Data Center. Business benefits as a result of replacing this system would be realized in three major areas:

Service enhancement

- Benefits related to the technology the new system has been built upon;

- Benefits accruing from specific systems functionality; including but not limited to automation of business processes to provide efficiency and effectiveness to numerous manual processes currently in place throughout ADC;

Risk and Problem avoidance

- Business benefits of risk mitigation for inmate releases, outdated technology and limited available future resources.

IV. Technology Approach

A. *Proposed Technology Solution**

The Winning Offeror solution is a fully integrated, multi-agency Offender Case Management System (OCMS), enabling full offender lifecycle management from the initial "Arrest", through "Pre-Trial Supervision", "Corrections" and onto "Community Monitoring or Supervision", enabling full visibility to all users and agencies throughout the process. Specifically, the Arizona Department of Corrections will utilize the Winning Offeror's core components from Intake through Parole and Probations however existing expanded capabilities are built in.

The Winning Offeror will utilize 3 "high" level modules for their solution: a) Foundation, b) Corrections and c) Parole & Probation.

Foundation Module

The Winning Offeror Foundation module is the heart of the enterprise class case management system that is the Winning Offeror solution. Often described as the "engine" of the Winning Offeror solution, the Foundation module provides the common bond between all of the modules of the solution. Unlike many other offender management solutions, it provides the user with the power to see a full end-to-end view of the offender and the confidence that the data recorded on an offender in one module is identical to another module. The Foundation module governs a number of common standards and services that the other modules of the Winning Offeror solution must adhere to. Such things include, a standardized security model, an email based workflow "notifier," overall system administration, data input and export methods, and data storage methods to name just a few.

Corrections Module

The Winning Offeror Corrections module, which is often referred to as the ADC or Arizona Department of Corrections module, is a full and comprehensive set of functional and technical solutions to many of the common, and some not so common, business needs of a busy Department of Corrections. All of the key operations of a facility, the offender and the staff that manage the processes of an ADC have been carefully modeled in line with industry best practice, to deliver a rich set of sub modules that allow the users to do more in less time while maintaining compliance with standards.

Parole & Probation

The Winning Offeror Parole and Probation builds upon a detailed analysis of a standard parole and probation process. This analysis, combined with in-depth knowledge of the criminal justice system has contributed to the Winning Offeror's Parole & Probation

module. The module gives system users the confidence that they are in full control of their Parole and Probation caseload

B.   *Technology Environment*

The Arizona Department of Corrections utilizes a highly customized technology platform called Adult Inmate Management System (AIMS). The technology is based on a mainframe application with multiple subsystems. The development language is COBOL II, which is outdated and has been implemented without needed documentation of the system design, processing, and relationships. The implemented programming techniques do not support timely maintenance or enhancement, creating a high degree of risk that errors may result in catastrophic system failure with serious impacts on operational capabilities within the Department. The DL/I database utilized in AIMS is hierarchical in design which results in significant costs of maintenance and difficulty in retrieving data compared to modern relational design databases. The presentation layer of the system, which utilizes text-based inputs and outputs, does not allow the efficiencies and user-friendliness of the graphical user interface presentation approach now standard in the industry.

The current system design prohibits ADC from utilizing high-speed communication links and appropriate distributed processing models to ensure maximum performance, flexibility, and reliability. AIMS is written in an obsolete programming language which is becoming more difficult to maintain combined with challenges in the mainframe-based support work force which is retiring. Training in this technology is no longer considered "leading-edge" to technical schools providing entry-level training nor to being providing potential recruits with advanced classes. Difficulty adapting release calculations to legislative updates has very serious consequences and legal impacts. Lack of automation in the system, incompatibility to easily exchange data, and inefficiencies with processes cause extra verification and double work throughout the Agency.

C.   *Selection Process*

As part of a prior Pre-PIJ, the Department has contracted with an independent consultant to assist in the development of an RFP to replace AIMS. The Department has released an RFP to the vendor community. In the RFP, the Department is seeking to replace AIMS with current, contemporary technology. The key items addressed in the RFP included Vendor Staffing, Hosting, Work Planning, Testing, Training, and Data Conversion, to name just a few.

The objective of the RFP was the acquisition and development of an Offender Management System that provides data and information that is highly useful and definitive in the practice and management of both institutional and community corrections. The AIMS Replacement project will produce a comprehensive database and data structure to serve the expanding needs of the Arizona Department of Corrections, and its customers. The "New" OMS will provide a wider and deeper view of corrections data, facilitate user navigation work, and be flexible in its ability to provide for data integration and system access. The ADC user community will be better served by applications that provide ease of navigation, and an efficient, uncomplicated work environment.

Post RFP Evaluation Process

ADC Procurement assembled a dedicated and cross functional team of subject matter experts who currently work day to day with the existing offender management system. The evaluation team invested a total of (60) meetings (356 + hours) that were attended by the AIMS Evaluation Committee members for this solicitation. The Evaluation Committee consisted of (5) voting members and (3) non-voting members comprising a combined total in excess of 2,800 hours dedicated to the in-depth review and analysis of the proposals received in response to this solicitation. In addition, there were approximately 48 subject matter experts that attended events when appropriate.

During the month of March 2014, each of the (3) Offerors visited ADC to conduct their product presentation of their proposed system. Day 1 consisted of a full day company and solution presentation overview; days 2 and 3 consisted of functional demonstrations of the Offeror's modules and features; and day 3 contained an actual lab (hands on) environment allowing ADC end users to "test-drive," utilize and test specific areas of interest, concerns and/or knowledge enhancement.

Subsequent to the Offeror's product presentations and demonstrations, four of the Evaluation Committee members went on travel status to one of each Offeror's site references provided in their Offer. During the week of March 24, 2014, the committee members conducted a site visit and tour of the operation of the system of Business & Decision from the Maryland Department of Public Safety and Correctional Services. During the same week, the committee members also conducted a site visit and tour of the operation of the system of Abilis Solutions from the State of Virginia Department of Corrections. During the week of March 31, 2014, the committee members conducted a site visit and tour of the operation of the system of HPES from the California Department of Corrections and Rehabilitation.

Notable Accomplishments & Risk Mitigations of the Successful Offer selected

- Offer is for a firm, fixed priced contract, which includes all travel costs.
- The key project team committed by the Offeror will be in place for 90 days following the "go-live" date.
- Offeror has agreed to a ten percent (10%) retainage to be paid upon completion of the project.
- The performance/payment bond will be in effect for one year following the "go-live" date.
- Offeror has accepted all Service Level Agreements (SLA) without any exceptions, preconditions or limitations after final ADC and Offeror negotiations.
- ADC mitigated an operational risk for unplanned
- Aside from standard technical and physical security provisions; expanded security policy and definition to include coverage requirement effective 7/24, 365 days a year including $10 Million per annum liability insurance (not part of performance bond) covering key areas:

D. Project Schedule*

Project Start Date: 7/1/2014   **Project End Date**: 1/17/2018

E. Project Milestones

Major Milestones	Start Date	Finish Date
Planning & Initiation Phase	07/02/14	07/24/14
Definition & Initiation Phase	07/24/14	12/11/14
Design & Configuration Phase	07/31/14	03/05/15
Build Phase	03/06/14	06/15/15
System Integration & Testing Phase	11/09/15	09/05/16
Transition & Implementation Phase	02/01/16	01/16/17
Production Phase	09/06/16	01/18/17
Maintenance & Operations/Steady State	01/18/17	07/01/24

V. Roles and Responsibilities

A. Project Roles and Responsibilities

ADC Information Technology (I.T.) and Offender Operations Division staff will partner with Vendor staff to define the business requirements and rules of system operation.

1. I.T. Chief Information Officer (CIO) and Program Manager (PM) will be responsible for overall project management of Vendor to install the new system as well as the design and ongoing support of the data storage approach needed to support it.

2. State, ADC and Vendor staff experienced in large-scale systems projects will be assigned to the project in various roles as needed to meet project objectives and deadlines.

3. Knowledgeable State, ADC and Vendor staff members will supplement in-house members assigned to the project for design, development, and implementation activities.

4. Formal change management procedures will be followed to control design changes and to reduce scope creep.

Winning Offeror/Vendor will have responsibility to provide experienced and knowledgeable staff to perform the necessary roles in support of the project with a Manager of decision making authority and Program Manager along with appropriate staff in contact with ADC CIO, PM and teams during project.

Stephen Welsh, The Department's CIO will have the overall responsibility for the design and implementation of this project and will supervise staff and consultants for the project. The CIO is familiar with the technical design and operations of the Department's current IT infrastructure, including the current end user access model and systems. He has 15 years' experience in managing and designing multi-server, multi-application networks. He also has significant experience in the design and operations of centralized storage, backup and recovery, network architecture design as well as user access control and network security.

Robert Allen, Program Manager will perform overall Program Management Office (PMO), project management, scheduling and performance monitoring and controlling of the project team to ensure all resources are utilized and the project is successfully completed, on time, in accordance with state requirements and with the highest level of quality and customer satisfaction. He has over 22 years of experience in planning for the expansion, enhancement and replacement of telecommunications and network infrastructure and communications systems; applicable information systems, applications or specialized software products for PC, mainframe and network for the purpose of installation, deployments and support of the business needs of the organization.

Infrastructure Management will be performed by multiple subject matter experts working in the IT division. Based on the current scope and concurrent projects, a dedicated lead will not be assigned initially. Work associated with installation, configuration and virtualization of servers and developing and managing the virtualized client applications for this project will be performed by the network team. They are the administrators of the Department's network/server and security Cisco and Microsoft directory services, user work space and applications provisioning functions, and administer the Department's network storage system and data backup system. They are thoroughly familiar with configurations and requirements for expanded capabilities. They have 20 years of experience in information technology, computer systems operations and in systems and network administration.

Andrew Dean, Applications Manager and Jim Tarantino, ITS, Program Specialist will perform as leads on work with AIMS mainframe. They currently program the Department's AIMS services, applications, provisioning and functions. Combined, they have a considerable number of years of experience in information technology and mainframe, COBOL and CICS programming including experience in IMS and DB2 databases.

Chuck Manning and Diana Harrison, Offender Operations Division's Administration will perform as leads on work associated with Offender Operations, AIMS, functions, programs, policies and procedures, users and teams throughout project. They have a combined 61 years correctional experience and 24 years working directly with IT user related issues and project development, management and implementation.

Name	Agency	Responsibility
Vendor	Vendor	Contract Manager
Vendor	Vendor	PM
Robert Allen/ADC Procurement	ADC IT	Contract Management
Robert Allen	ADC IT	Program Management
Network Team	ADC IT	Infrastructure Management
Andrew Dean	ADC IT	Applications Management
Jim Tarantino	ADC IT	Mainframe

Name	Agency	Responsibility
Mike Roa	ADC IT	Infrastructure Support
Chuck Manning	ADC Offender Operations	Operations
Diana Harrison	ADC Offender Operations	Operations
James Dean	ASET	Project Oversight

B. *Project Manager Certification*

x	Project Management Professional (PMP) Certified
	State of Arizona Certified
	Project Management Certification not required

C. *Full-Time Employee (FTE) Project Hours*

Total Full-Time Employee Hours	24,961
Total Full-Time Employee Cost	$1,548,987.00

VI.   Risk Matrix, Areas of Impact, Itemized List, PIJ Financials

Project Investment
Justification.xlsx

VII.   Project Approvals

*A.   Agency CIO Review**

Key Management Information	Yes	No
1. Is this project for a mission-critical application system?	Y	
2. Is this project referenced in your agency's Strategic IT Plan?	Y	
3. Is this project in compliance with all agency and State standards and policies for network, security, platform, software/application, and/or data/information as defined in http://aset.azdoa.gov/security/policies-standards-and-procedures, and applicable to this project? If **NO**, explain in detail in the "XI. Additional Information" section below.	Y	
4. Will this project transmit, store, or process sensitive, confidential or Personally Identifiable Information (PII) data? If **YES,** in the "XI. Additional Information" section below, describe what security controls are being put in place to protect the data.	Y	
5. Is this project in compliance with the Arizona Revised Statutes (A.R.S.) and GRRC rules?	Y	
6. Is this project in compliance with the statewide policy regarding the accessibility to equipment and information technology for citizens with disabilities?	Y	

*B.   Project Values**

The following table should be populated with summary information from other sections of the PIJ.

Description	Section	Number or Cost
Assessment Cost (if applicable for Pre-PIJ)	II. PIJ Type - Pre-PIJ Assessment Cost	$0.00
Total Development Cost	VII. PIJ Financials tab	$24,000,000.00
Total Project Cost	VII. PIJ Financials tab	$24,000,000.00
FTE Hours	VI. Roles and Responsibilities	24,961

C.   Agency Approvals*

Contact	Printed Name	Signature	Email and Phone
Program Manager:	Robert Allen		rallen4@azcorrections.gov (602) 542-8467
Network Security Manager	Randy Newman		rnewman@azcorrections.gov 602-364-3016
Agency CIO:	Stephen Welsh		swelsh@azcorrections.gov (602) 364-0600
Project Sponsor:	Michael Kearns, Administrative Services Division Director		mkearns@azcorrections.gov (602) 542-1160
Agency Director:	Charles L. Ryan		cryan@azcorrections.gov (602) 542-5225

VIII.   Optional Attachments

A.   Executive Schedule update

IX.   Glossary

X.   Additional Information

VII.A.4 Personally Identifiable Information (PII) data

The Winning Offeror's proposed solution includes all areas internally and externally to the proposed Hosted Data Center which will house all hardware, software and network capabilities supporting the ADC solution. The security definition includes all security requirements which will be in effect 7/24, 365 days a year.

The security coverage and management includes ensuring ADC's Personally Identifiable Information (PII) data is protected leveraging best in class technology and data center operations. Failure of the Winning Offeror to notify ADC of security breaches (physical, technical, data or unauthorized access) will incur liability by the Winning Offeror set forth in the RFP ADOC14-00003350. The Winning Offeror agrees to ADC's requirement to maintain network (Cyber) and privacy insurance of $10 million annually.

The Winning Offeror certifies that the following items are included under Section P in the RFP ADOC14-00003350 "Insurance" on page 146 "Network Security (Cyber) and Privacy liability:

- Crisis management and customer notification expenses
- Credit/identity theft monitoring
- Privacy and security liability
- Privacy regulatory defense and penalties
- Computer forensics investigation
- Cyber extortion
- Network interruption
- Data loss and reconstruction
- **A** "Data Breach Coach" (aka "Privacy" attorney...)

Additional Security Management:

NIST 800-53 Security Control Mapping: Winning Offeror agrees to develop, deliver, maintain and execute a map of all implemented security controls against the NIST 800-53 Security Control Catalog identifying the source of the requirement and whether the requirement is fully or partially implemented, or is planned to be implemented.

Post-Implementation Evaluation Report: The development and delivery of a Post-Implementation Evaluation Report is standard practice. Winning Offeror agrees to include the status of all functionality required to meet the requirements described in Attachment C, as finalized in the design and testing activities. It will also provide a CAP plan and a timeline for correction for any functionality that does not fully meet requirements.

Disaster Recovery Plan: Winning Offeror understands the importance of a robust Disaster Recovery Plan for the support and operation of the ADC AIMS replacement.

Post-Implementation Operational Monitoring Plan: Winning Offeror agree to develop a Post-Implementation Operational Monitoring Plan that includes methods and schedules for monitoring performance standards and access security once the Winning Offeror 's proposed solution is operational and see this task as part of the ongoing Quality Assurance and Service Review processes.

Service Level Agreements: As stated in the M & 0 communications Plan section, Winning Offeror require SLA agreements with ADC to ensure that Service Reviews can be undertaken objectively and to maintain open communications. Winning Offeror can provide a Service Level Agreement framework to establish key performance indicators and to start discussions on service goals, continuous analysis and improvement.

Privacy Impact Assessment: A Privacy Impact Assessment, for the Personally Identifiable Information (PII) that is contained within the solution, will be produced as a deliverable by Winning Offeror as defined by SISPO P900-E901, Data Classification Matrix, effective May 31st, 2011, and as detailed in the tender document. It will identify PII and how that information is used and protected according to State and Federal requirements and include in the assessment its approach and procedures for mitigation should PII and PHI be accessed inappropriately.

System Security & Privacy Plan: Winning Offeror will provide a System Security & Privacy Plan that will be reviewable annually under an agreed Service Review process. Previous implementations of Winning Offeror 's proposed have followed industry, State and Federal security standards, with special focus on unauthorized physical and network access. Winning Offeror agrees to comply with ADC's requirements for compliance to all the standards listed in the tender document including, but not limited to, those published by the Federal Information Process Standards (FIPS) and National Institute of Standards and Technology (NIST) and any other standards, regulations and publications required by ADC. Winning Offeror also agrees that all changes to security provisions to firewalls, client and server computers, user profiles and controls are only undertaken with written State approval.

Information Security Risk Assessments: Winning Offeror agree to provide Information Security Risk Assessments, which shall identify risks and possible mitigation strategies associated with information security components and supporting infrastructure. These assessments will be planned in throughout the project lifecycle and will be another key area of collaboration between Winning Offeror & ADC. Winning Offeror recommend that all such risks should feed into the Service Level Agreement, Post-Implementation Operational Monitoring and Quality Assurance processes to make sure that identified risks are mitigated and contingencies planned into the M & 0 Manual.

Security and Privacy Reports: All Security and Privacy reports requested by ADC will be delivered by Winning Offeror . Winning Offeror can provide standard process for periodically reviewing and updating access rights, associated audit reports for tracking users, associated security groups, roles, settings, passwords and duplicate IDs at a frequency requested by ADC. A report of incidents of intrusion and hacking will be delivered on a frequency requested by ADC. Any major intrusions will be alerted to ADC following an agreed escalation process defined in an M & 0 standard operating procedure. This standard operating procedure will also alert the appropriate staff authorities of potential violations of privacy safeguards including the attempt to access confidential information and shall initiate mitigating actions with timeframes requested by ADC.

*M*itigation of data breaches; Winning Offeror has recommended a number of key security measures that should be implemented by ADC and examples of these security measures include system encryption on passwords; placing controls on data storage and access; regulate the portable devices and storage media; have policies for media and equipment destruction; and a thorough back-up storage policy including off-site secure data storage. How many of these measures are implemented and where and when they are implemented need to be important areas of design consideration as the Winning Offeror 's proposed solution is designed, built and tested once ADC's requirements are identified.

IT disaster recovery control measures can be classified into the following three types:

- Preventive measures - Controls aimed at preventing an event from occurring.
- Detective measures - Controls aimed at detecting or discovering unwanted events.
- Corrective measures - Controls aimed at correcting or restoring the system after a disaster or an event.

Good disaster recovery plan measures dictate that these three types of controls be documented and tested regularly.

Winning Offeror accepts that the ADC requests that the DR plan put in place for the AIMS project will at a minimum achieve the following:

- Allow day to day activities to be resumed within 8 hrs.
- No more than 2 hrs of downtime within any normal business day
- Tested prior to implementation
- Test the DR plan on a regular basis

Winning Offeror will regularly revisit and update the DR plan throughout the project life.

Links:

ADOA-ASET Website

ADOA-ASET Project Investment Justification Information Templates and Contacts

Email Addresses:

Strategic Oversight

ADOA-ASET_Webmaster@azdoa.gov