ADOA-ASET

Project Investment Justification

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A Statewide Standard Document for Information Technology Projects

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Project Title:

Arizona Industries for the Blind – Retail Management System Upgrade 2015

Agency Name:	Department of Economic Security
Date:	June 2015
Agency Contact Name:	Kim Hartleroad
Agency Contact Phone:	
Agency Contact Email:	

Hover for Instructions

I. 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.	$
Based on research done to date, provide a high-level estimate or range of development costs anticipated for the full PIJ.	$

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? |

II. Business Case

A. *Business Problem*

Arizona Industries for the Blind (AIB) Base Services Unit (BSU) operates three retail stores. The stores are located at Luke Air Force Base in Glendale, Davis-Monthan Air Force Base, in Tucson, and the Yuma Marine Corps Air Station. AIB BSU operates these stores as part of its affiliation with National Industries for the Blind (NIB) through the AbilityOne Program. AIB BSU sells office and cleaning supplies, tools, military uniforms, furniture, and other specialty items to military personnel and other government entities. Many of these items are AbilityOne products. Products that carry the AbilityOne name are made by people who are blind or have other significant disabilities. Stores like the ones operated by AIB BSU comprise a major distribution channel of AbilityOne products whose sales help create jobs around the country. AIB BSU has over a thousand active customers in Arizona, and has average annual sales of over 9.2 million dollars per year from its stores.

AIB BSU's current Retail Management System, CounterPoint v7 (CPv7), provides both back office functionality (inventory management, customer relationship management, etc.) and Point-Of-Sale (POS) functionality. CPv7 also has specialized assistive technology software that reads data elements displayed on the screen of wireless handheld terminals. This assistive technology software allows someone who is blind to operate it. It also allows people who are blind to independently perform a wider variety of functions throughout the store.

CPv7 runs on the Microsoft Windows Server 2003 platform. Microsoft is set to discontinue providing security updates for Windows Server 2003. In order to ensure proper system operation and a high level of data security, it is necessary to migrate to a supported Windows Server platform (Server 2008 R2 or newer). Unfortunately, the server components of CPv7 will not run on Microsoft Windows Server 2008 or newer.

In order to upgrade the server components, AIB BSU must upgrade the CPv7 application to the newest version – CounterPoint SQL (CP SQL).

B.   *Proposed Business Solution*

AIB proposes the purchase and implementation of CP SQL. This implementation includes:

- New servers (to replace the existing servers AIB's retail store locations)
- Upgraded assistive technology software
- New wireless handhelds (required for compatibility with CP SQL)
- New Point of Sale (POS) peripherals (printers, scanners, etc. which are also required for compatibility with CP SQL)
- Migration of needed data in CPv7 to CP SQL

C.   *Quantified Benefits*

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

Explain:

Service Enhancement - While CPv7 is functional and meets AIB's business needs, an update is necessary. The new software will allow AIB to continue to employ people who are blind and provide excellent customer service.

Problem avoidance/Risk Avoidance - The servers that run CPv7 are Windows Server 2003-based, which will no longer receive security-related updates from Microsoft. This leaves the environment vulnerable to unpatched security vulnerabilities that have not yet been discovered or disclosed. To ensure the security and integrity of the data in the system, it is essential for AIB to upgrade the server infrastructure to a supported version of Microsoft's Server Operating system.

III.   Technology Approach

A.   *Proposed Technology Solution**

CounterPoint SQL (CP SQL) – The latest version of the CounterPoint Retail Management Software will be installed and implemented. This software provides back office management (inventory management and customer relationship management) as well as POS functionality that is required for the operation of the AIB BSU. CP SQL has gone through the Payment Application Data Security Standards (PA-DSS) Validation process, and has been approved by the PCI Security Standards Council (PCI-SSC). Sensitive data is automatically encrypted by the application.

As CPv7 is today, CP SQL will be installed on a server that resides at each of its stores, as well as the Hub Server (a virtual server in AIB's existing virtualized farm) which is accessed by AIB's Accounting and other Management staff. Daily, at time(s) specified by AIB, data from each of the store servers is transferred to the Hub Server and aggregated within the Hub Server's dedicated database. Changes in inventory, customer records, sales, and store configuration are then pushed back out to each of the store servers. (The transmission files are generally less than 10 MB in size, as only changed data is transmitted between the servers.) This ensures that store staff (with the appropriate access level) can view inventory and other pertinent information for other locations so that they can work as a team to make

intelligent business decisions. The data is encrypted while it is in transit between the servers. No network changes need to be made as a result of this upgrade.

Microsoft SQL Server 2012 – Microsoft SQL Server 2012 is the Relational Database Management System (RDBMS) that stores all of the data used in CP SQL. Microsoft SQL Server is installed on each of the servers running CP SQL.

Hub Server – The existing Hub Server is a physical server which will be decommissioned. A new Virtual Server will be created in AIB's existing virtual server environment, and this server will act as the Hub Server. The physical servers that comprise AIB's virtual server environment are less than three years old. The virtual server environment's dedicated storage hardware is also less than three years old. The virtual server environment has capacity for the new virtualized Hub Server, including anticipated growth for the next five years. The entire virtual server environment is backed up to disk via snapshots, and a full backup to tape is performed nightly. Test restores are performed monthly to ensure that backup jobs are successful. Tapes are stored in a secure, off-site location.

AIB Store Servers – AIB will purchase new physical servers for each of the store locations. The proposed physical servers are manufactured by Dell and will be configured in a manner that not only exceeds the current CP SQL system requirements, but also will allow for data storage and processing growth for at least five years. If at any point in time, a store server were to suffer a catastrophic failure, data for that particular server can be restored to the server from the Hub Server.

Handheld Terminals – The handheld terminals proposed for this project are Datalogic Falcon X3 devices. These devices were recommended by Accelerando, the maker of the speech-enabled assistive technology software. The assistive technology software was specifically designed for use on these handheld terminals.

Desktop Computers – The desktop computers that run CP v7 are less than one year old, and exceed the minimum system requirements of CP SQL. They will be reused for this project. New Receipt Printers will be purchased to replace the old ones. While the old ones are functional, they are dot matrix and print on two-part NCR paper. The new ones with either be thermal print or laser print technology. Additionally, AIB may have the need to purchase EMV card readers as part of this project to meet changing customer requirements. The EMV card readers will connect to the desktop computers via USB, in the same manner that the magnetic stripe card readers currently connect.

B.   *Existing Technology Environment*

CP v7 – AIB originally implemented CP v7 in 2007. While its functionality currently meets AIB's business needs, the CP v7 platform is aging, and has been designated end-of-life, and the manufacturer has released CP SQL as a direct replacement. It will be replaced by CP SQL, and pertinent data from CP v7 will be migrated to CP SQL.

Assistive Technology Software – AIB currently uses a variety of assistive technology software products: ZoomText v10, JAWS, and CPSpeak. ZoomText v10 is used to magnify the screen elements. JAWS and/or CPSpeak are used to read elements on the screen to staff. While ZoomText and JAWS are commercial off the shelf software packages, CPSpeak was designed specifically for use with CP v7. It also provides screen reader functionality on the wireless handheld terminals.

Hub and Store Servers – Currently, CP v7 is installed on a physical server that resides at each of the stores and on a "Hub" server at AIB's main location. All of the servers are physical

servers that are over five years old. The hardware is still functional and processing power is more than adequate to run CP v7. The servers currently run Microsoft Windows Server 2003.

Handheld Terminals – The handheld terminals currently being used are Intermec 700C units. They were originally implemented in 2007 and run the CPSpeak software. They will be replaced with new devices as part of this project.

Disposal of Existing Equipment – State Standards will be followed for the disposal and surplus of the servers and handheld devices that are going to be replaced as part of this project.

C.   *Selection Process*

AIB BSU and the AIB Information Technology (IT) staff reviewed several options when determining the best approach for moving forward. While reviewing potential software upgrade/replacement options, AIB considered the following items:

- System Architecture
  - o Windows Based
  - o Compatible with existing server, client, and network infrastructure
  - o Compatible with assistive technology software (used by AIB's employees who are blind or visually impaired)
- Required Functionality
  - o Point of Sale
  - o Inventory Management
  - o Purchasing Management
  - o Customer Management
  - o Multi-Site Enabled
    - ▪ Ability to operate with a server at each location, and exchange data seamlessly and automatically between each location
  - o Natively Speech-Enabled
  - o Essentially the Same (ETS) Product Identification and Blocking
- PCI-DSS Compliant

After compiling the list of requirements, AIB BSU and AIB IT staff performed research to identify commercially available applications. Research included internet-based searches and discussions with current partner organizations (other non-profit agencies affiliated with National Industries for the Blind). AIB was especially interested in the applications utilized by its partner organizations, as they have similar business requirements and they also employ people who are blind that use their respective systems.

Some of the commercially available alternatives that AIB considered were QuickBooks Point of Sale, Sage Pro ERP, and Microsoft Dynamics Retail Management System. AIB also considered expanding its current Enterprise Resource Planning (ERP) software, VISUAL Enterprise, but could not find a commercially available point of sale interface/module that would provide AIB with the required functionality. Additionally, this option would have required purchasing additional server components.

After conducting the research and analysis, AIB determined that CP SQL has Assistive Technology integration better suited for AIB's needs than other available software. Additionally, Essentially the Same (ETS) Item Identification and Blocking functionality has been developed for CounterPoint and has proven to be successful in past implementations of both CP v7 and CP SQL. Also, less work will need to be done to migrate data from CP v7 to CP SQL

than from CP v7 to a software application developed by a different company. It also minimizes the amount of training that will need to be done for staff. (Even though there are some changes to the user interface, all of the underlying principals are the same.)

After careful consideration, AIB BSU and AIB IT Staff determined that the best course of action is to upgrade to CP SQL.

IV.   Project Approach

A.   *Project Schedule*

Project Start Date: 6/8/2015   **Project End Date**: 10/31/2015

B.   *Project Milestones*

Major Milestones	Start Date	Finish Date
Requirements Gathering, Research, Application Review/Selection	12/01/2014	04/01/2015
DES and ASET Approvals	04/15/2015	06/03/2015
Procurement	06/08/2015	07/30/2015
Project Kick Off	07/30/2015	07/30/2015
Server Software: Install, Configure, Test	07/30/2015	09/01/2015
Client Software: Install, Configure, Test	09/01/2015	09/14/2015
Final Testing and Training	09/15/2015	09/30/2015
Go Live and Extended Support	10/01/2015	10/31/2015
Note: The timeframes listed above are subject to change based on the ASET approval date.		

C.   *Project Roles and Responsibilities*

AIB Project Manager – Larry Mann – AIB IT Manager
AIB Technical Lead – Paul Webster – Application Support
AIB Business Lead – April Lange – AIB BSU Business Unit Manager

Accelerando Sales Support – JoAnna Cravens – Sales Manager
Accelerando Project Manager – TBD
Accelerando Systems Engineer #1 – TBD
Accelerando Systems Engineer #2 – TBD

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

VI. Project Approvals

A. Agency CIO/ISO Review and Initials Required*

Key Management Information	Yes	No	Inits
1. Is this project for a mission-critical application system?		x	LM
2. Is this project referenced in your agency's Strategic IT Plan?		x	LM
3. Have you reviewed and is this project in compliance with all applicable Statewide policies and standards for network, security, platform, software/application, and/or data/information located at https://aset.az.gov/resources/psp? If **NO**, explain in detail in section **"VIII. Additional Information"** below.	x		LM
4. Will any PII, PHI, or other Protected Information as defined in the 8110 Statewide Data Classification Policy located at https://aset.az.gov/resources/psp be transmitted, stored, or processed with this project? If **YES, the Protected Data section under "VII. Security Controls" below will need to be completed.**	x		LM
5. Will this project migrate, transmit, or store data outside of the agency's in-house environment or the State Data Center? If **YES**, **the Hosted Data section under "VII. Security Controls" below will need to be completed.**	x		LM
6. Is this project in compliance with the Arizona Revised Statutes and GRRC rules?	x		LM
7. Is this project in compliance with the Statewide policy regarding the accessibility to equipment and information technology for citizens with disabilities?	x		LM

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)	I. PIJ Type - Pre-PIJ Assessment Cost	$0.00
Total Development Cost	V. PIJ Financials tab	$336,546.00
Total Project Cost	V. PIJ Financials tab	$394,086.00
FTE Hours	See Hover text for FTE Hours	480

C. Agency Approvals

Approver	Printed Name	Signature	Email and Phone
Project Manager:	Larry Mann	Provided via email	
Agency Information Security Officer:	Carl Carpenter	Provided via email	
Agency CIO:	Stephen Welsh	Provided in separate attachment	
Agency Chief Financial Officer:	Debra Peterson	Provided via email	
Project Sponsor:	Richard Monaco	Provided via email	

VII.   Security Controls

Collaboration with the ADOA-ASET Security, Privacy and Risk (SPR) team may be needed to complete this section, which is only required for those projects that involve data that is Protected or Hosted outside of the Agency or State Data Center. Additional information can be found in the NIST FRAMEWORK section under RESOURCES at https://aset.az.gov/resources/psp or you may wish to contact ASET-SPR directly at secadm@azdoa.gov for assistance.

A. *Protected Data*

- Customer Information (Personally Identifying Information – Name, Address, Telephone Number)
- Credit Card Data (Used for processing purposes – AIB does not store this data)

B. *Hosted Data*

☐ Check here if the https://aset.az.gov/arizona-baseline-security-controls-excel Spreadsheet is attached. Otherwise explain below what information/support is needed to complete the spreadsheet and/or why no sheet is attached:

Credit Card Data will be transmitted securely to the banking institution/credit card processor via the internet. (Traffic is encrypted via SSL and adheres to PCI-DSS standards.) The banking institution/credit card processor is compliant with PCI-DSS regulations.

All other information will be hosted by DES/AIB and will remain inside of the DES network.

☒ Check here if a Conceptual Design / Network Diagram is attached. Otherwise Explain below what information/support is needed to complete the diagram and/or why no diagram is attached:

A high level network diagram is attached.

VIII.   Additional Information

NA

IX.   Attachments

A. *Vendor Quotes*
Provided under another cover

B. *Arizona Baseline Security Controls spreadsheet*
NA

C. *Conceptual Design / Network Diagram*

X.   Glossary

Other Links:
[ADOA-ASET Website](#)
[ADOA-ASET Project Investment Justification Information Templates and Contacts](#)

Email Addresses:
[Strategic Oversight](#)
[ADOA-ASET_Webmaster@azdoa.gov](#)