ADOA-ASET
Arizona Strategic Enterprise Technology

Project Investment Justification

Version 01.02

A Statewide Standard Document for Information Technology Projects

Project Title: Digital Airware Software

Agency Name:	**Arizona Department Of Public Safety**
Date:	**March 14, 2014**
Agency Contact Name:	**Sergeant Marty Fink**
Agency Contact Phone:	
Agency Contact Email:	

Hover for Instructions

I. Management Summary*

Arizona Department of Public Safety (DPS) Aviation Bureau currently uses custom built Microsoft Access programs written in 1999 for Air Rescue and Air Support mission data entry tracking (Rotor), flight scheduling, and a separate program called Computrack for maintenance tracking. Digital Airware is a Microsoft SQL based program that offers a comprehensive Aviation Management system and would replace the aging (1999) Microsoft Access program as well as Computrack. The Digital Airware program consolidates several separate management and tracking systems into one. This consolidation will reduce errors caused by repetitious entries of the same information into multiple systems, ensuring a higher level of accuracy.

II. Project Investment Justification (PIJ) Type*

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

If Yes,

Identify any cost to be incurred during the Assessment phase.	None
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** ☒ **No** Will a Request for Proposal (RFP) be issued as part of the Pre-PIJ or PIJ?

III. Business Case

*A. Business Problem **

The MS Access programs currently used in DPS' Aviation group are out of date, difficult to maintain, and not written for a distributed environment with multiple concurrent users in several different airports/offices around the state. This current system is a custom solution developed in the MS Access platform which forces us to rely on the contractor who originally developed it to address support issues and new requirements. We are unable to access the programs remotely. They can only be accessed on DPS computers. Currently, data is not being reliably backed up for maintenance tracking and each airport/office has its own copy of the Access program/Database and it needs to be manually merged periodically.

Reports in our Access programs are specific and must be purpose-built prior to the time of use, which limits the timeliness and type of information available to be retrieved – even if it is data that is being tracked. For instance, Access does not have a report to see how many times a specific person (i.e. the Governor) has flown in the previous year which requires a manual, visual inspection of all applicable records to generate the information.

*B. Proposed Business Solution**

The business solution is to replace the 1999 Microsoft Access programs with Digital Airware, which is a secure, cloud based, hosted solution that facilitates information exchange, permitting changes and updates to be made while not necessarily sitting at a DPS computer, but instead from any computer with intranet access. This is especially helpful for making schedule changes as they occur. Pilot currency and aircraft availability (including forecasting maintenance downtime or verifying there is enough time remaining on the aircraft to perform a given flight) can be reviewed in real time, ensuring flight requests are handled accurately and rapidly, from anywhere an internet connection is available. With the included

notification system, notices, reminders and other communications are automatically generated and distributed to the affected parties, as assigned by various levels of customizable administrative permissions.

Many reports are provided automatically such as Aircraft Activity, TU/Mods performed, FAA registration compliance, low quantity inventory, maintenance forecaster, and many more. The custom reports section will allow DPS Aviation to create its own reports and have these reports scheduled and delivered via email. Reports will encompass a summary of activities over a period of time, graphs of data trends, fuel usage, statistics etc.

With Digital AirWare, DPS Aviation will have forms specifically designed for our operation which will have the information we need. This information will include updating aircraft times, pilot currencies and fuel farm gauges. Aircraft fields automatically pull the latest aircraft Hobbs time, number of start cycles, and landings, ensuring appropriate and accurate data entry.

Digital Airware is hosted by the vendor and will be available to our Aviation employees no matter where they are located whether at a DPS Aviation facility or anywhere else with an internet connection.

Major features:

- Microsoft SQL based system – permits multiple users at the same time.
- Cloud based – use from any computer with an internet connection.
- Cloud based backup – data is never lost and always available.
- Communications – automatic email notices.
- Immediate aircraft status upon login.
    - Maintenance downtime reflected on the flight schedule (precludes overbooking aircraft).
    - Immediate notification of aircraft discrepancies.
- One source for all information: flight, maintenance, pilot currency, etc.
    - Flight Schedule.
    - Flight Logs.
    - Availability of Spidertracks flight tracking data from within Airware.
    - Pilot Logs.
    - Pilot Currency Tracking.
- Automatic email notification related to aircraft maintenance and pilot currency nearing expiration.
- Customization – ability to customize reports and forms through an end-user tool. This is nearly limitless and can be performed by Digital Airware and/or DPS.
- Mission specific tracking information.
- Various other reports.

Quantified Benefits

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

Service enhancement – Digital Airware consolidates several multi step processes into one and provides additional capabilities and information.

Problem avoidance – eliminates multiple data entry steps thereby improving reliability of the data.

Risk avoidance – tracks both maintenance and non-maintenance items for replacement and overhaul prior to component failure. Moving from a custom system to a hosted/packaged solution eliminates support risk.

IV. Technology Approach

*A. Proposed Technology Solution**

Digital Airware employs a role-based access control where each user with in a service has an assigned role and these roles allow/dis-allow various portions of the software. I.e., a user role "Administrator" can add/edit users where as a user role "Mechanic" could not. Individual users can have those same permissions applied above and beyond their user roles also.

From a hardware point of view, the database and IIS servers use discretionary access control based on security groups with restrictions to DB from only development location and IIS servers. They are cloud hosted with AWS which is FedRamp compliant (https://aws.amazon.com/compliance/fedramp-faqs/).

B. Technology Environment

The Digital Airware solution is a vendor hosted, browser-based application that will work with the Microsoft Windows 7 computers with Internet Explorer that our DPS Aviation offices/airports currently have as well as with Apple iOS and Safari, used on the DPS Aviation iPads. It is not dependent upon any specific operating system. Digital Airware is compatible with the following internet browsers: Internet Explorer 9+, FireFox 22+, Chrome and Safari. This level of compatibility ensures that DPS has access to the Digital Airware system from almost any location.

Digital Airware uses Microsoft SQL 08R2 as its database engine (backend) and its web applications are written in ASP, PHP and Jquery (frontend).

Security measures include HTTPS encryption, individual users with discrete user names and passwords and customizable administrative rights. All Data will be stored in a secure Data Storage Facility. Brad Goodman, Senior IT Coordinator for Digital AirWare LLC is available to answer any additional security/technical questions, 704-701-2288.

C. Selection Process

A selection committee made up of DPS Aviation personnel reviewed Digital Airware and several similar products. The two that were the closest competitors to Digital Airware were AvConnect and Zululog. Digital Airware, AvConnect, and Zululog were reviewed through several months of full access trial subscriptions. It was determined that AvConnect does not include a scheduling calendar, or parts inventory, nor does it replace Computrack. AvConnect complicates flight scheduling, maintenance tracking and inventory control and is not easily modified to be user specific. The Zululog flight schedule has several limitations which minimize its utility. Zululog has limited tracking and reporting capabilities which require major modification. Maintenance tracking is rudimentary, lacking several time-saving functions.

The committee which was made up of Aviation Supervisor Cliff Brunsting, Pilot Mike Stein and Officer/Paramedic Shane Breeding also conducted reference checks on other Digital Airware customers, to include Maricopa County Sheriff's Office, Mesa Police Department, and Pima County Sheriffs' Office. Digital Airware is also being used by the Texas Department of Public Safety and Miami Dade Police Department.

V. Project Approach

A. *Project Schedule**

Project Start Date: 5/1/2014 **Project End Date**: 7/1/2014

B. *Project Milestones*

Major Milestones	Start Date	Finish Date
Initial setup	5/1/14	5/8/14
Data Transfer (1-3 weeks)	5/1/14	5/21/14
Test phase (1 months)	6/1/14	6/30/14
Full implementation – Go Live		7/1/2014

VI. Roles and Responsibilities

A. *Project Roles and Responsibilities*

Information Technology Manager, CIO - Gregg Hayes
Project Manager, SME – Marty Fink, Aviation Operations Sergeant
SME – Terry Miyauchi, Aviation Administrator
Vendor - Digital Airware will perform setup and data transfer, as well as ongoing product and technical support

B. *Project Manager Certification*

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

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

Total Full-Time Employee Hours	40
Total Full-Time Employee Cost	$

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

VIII. Project Approvals

A. *Agency CIO Review**

Key Management Information	Yes	No
1. Is this project for a mission-critical application system?	X	
2. Is this project referenced in your agency's Strategic IT Plan?		X
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.	X	
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.		X
5. Is this project in compliance with the Arizona Revised Statutes (A.R.S.) and GRRC rules?	X	
6. Is this project in compliance with the statewide policy regarding the accessibility to equipment and information technology for citizens with disabilities?	X	

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	**N/A**
Total Development Cost	VII. PIJ Financials tab	**$45,792**
Total Project Cost	VII. PIJ Financials tab	**$84,780**
FTE Hours	VI. Roles and Responsibilities	**40**

C. *Agency Approvals**

Contact	Printed Name	Signature	Email and Phone
Project Manager:	Marty Fink		
Agency Information Security Officer:	Graciano Cervantes		
Agency CIO:	Gregg Hayes		
Project Sponsor:	Terry Miyauchi		
Agency Director:	Not required for PIJ's cost level		

IX. Optional Attachments

A. *Vendor Quote attached*

X. Glossary

XI. Additional Information

Links:

ADOA-ASET Website

ADOA-ASET Project Investment Justification Information Templates and Contacts

Email Addresses:

Strategic Oversight

ADOA-ASET_Webmaster@azdoa.gov