Access Voter Information Database ("AVID")				
Agency Requesting The Project:				
Secretary of State				
Business Unit Requesting The Project	:t:			
Election Services Division				
Sponsor Of the Project:				
Michele Reagan				
Sponsor Title:				
Arizona Secretary of State				
Sponsor Phone Number:	Extension:			
(602) 542-4285				
Sponsor Email Address:				
mreagan@azsos.gov				

Has a Project Request been completed for this PIJ?

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...)

Υ

The Arizona Secretary of State (AZSOS) is operating its current voter registration system, VRAZ-II, on an aging platform that is based on a core technology (PowerBuilder) provided by Election Systems & Software (ES&S), a technology that reached its peak use in the late 1990's. Within this context, it is critical to note that the Department of Homeland Security has designated all States' elections and voter registration systems as critical national infrastructure. The State's voter registration system was also the recipient of an aggressive foreign intrusion attempt in 2016. Given the need to address a system that is based on decades-old technology and no longer able to meet the current and emerging needs of our County partners and citizens, combined with the need to ensure Arizona is operating a modern and secure voter registration system, the Secretary of State is seeking to replace the current VRAZ II system.

Additionally, Secretary of State contracted with an independent and objective outside party to assess the current capabilities of VRAZ II and the underlying technology. This contractor also noted that the base platform of the current VRAZ II system (written in PowerBuilder code base) could be considered viable for another 3 years, but after that, would be increasingly difficult to maintain and not meet the growing cybersecurity and business requirements of a 21st century Arizona.

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

An updated voter registration system would reduce user frustration in the Counties and achieve efficiencies such as a platform that will continue to be stable past 3 years, more efficient integration with county partners, reduce duplicate voter registrations, and provide a smart frontend system that will perform data checks.

Describe the proposed solution to this business need:

The landscape of current vendors capable of implementing a Commercial Off the Shelf (COTS) Voter Registration solution is quite small. The Secretary of State determined that it was not an acceptable risk to procure the services of a technology vendor with limited experience in this arena, thus we did not seek bids from the system integrator community. Through a deliberative, 9-month long process, Secretary of State identified current-state challenges and inefficiencies, followed by assessing solution alternatives, and then completed future-state business and technical requirements for the new voter registration solution. This led to the development and release of an RFP to procure a new solution - this solution will be a modern and secure VR system that is cloud-based (consistent with the State CIO's 'Cloud First' policy) and the new solution will be the future voter registration solution for the next two decades. It is based on a flexible N-tier architecture that will be able to more easily meet emerging needs and legislative changes in the years ahead.

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

Y

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Indicate where that documentation can be found, or provide the information under separate cover before the meeting, otherwise describe below:

Document attached titled: AVID Current State Assessment - Final

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

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?

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

Will you be completing an assessment/Pilot/RFP phase, i.e., an evaluation by a vendor, third party or your agency, of the current state, needs, and desired future state, in order to determine the cost, effort, approach (RFP or otherwise) and/or feasibility of a project before submitting the full PIJ?

Describe the reason for completing the assessment/Pilot/RFP and the expected deliverable(s) below:

The reason for completing the RFP is to ensure that all vendors that are applicable to this field have an opportunity to submit a proposal. The more vendors that are competing for the State of Arizona, the higher likelihood of a high quality product that meets the future state requirements at a reasonable cost.

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

\$675,000.00

Provide the estimated start and finish date for conducting the assessment/Pilot/RFP					
solicitation:					
Estimated Start 07/31/16 Estimated Finish 11/01/1					

Provide a projected start and finish date for implementing the final solution.

Estimated Start 11/01/17

Estimated Finish 06/30/19

Ν

Ν

Based on research to date, provide a high-level cost estimate to implement the final solution below:

\$4,000,000.00

Does the project fall into one of the following categories:

- hardware technology refresh/expansion, e.g., replacement/more laptops, radios, peripherals, etc.?

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

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

Does your agency have a formal project methodology in place?

Describe the high level make-up and roles/responsibilities of the Agency, Vendor(s), and other third parties below: (i.e. ...agency will do...vendor wil do...other third parties will do...)

Agency = Provide subject matter experts Vendor = Implementation, Training, Software Procedures Third Party = Project Management, Contract oversight

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

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

The PM focused on the Department's needs will contracted through Gartner Consulting to ensure continuity through the process (Gartner Consulting has handled all of the pre-RFP work). The Department has not engaged with Gartner for PM services as of yet but will ensure that the individual assigned to the project meets the certification needs.

Is a project plan available that reflects the estimated start date and end date of the project, and the supporting milestones for the project?

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

Estimated Start 11/01/17

Estimated Finish 06/30/19

Ν

Ν

Ν

Υ

How were the start and end dates determined: sed on current estimated award date of the RFP in conjunction with the end date of current syste

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

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

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

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

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

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

	Y
Will the proposed solution result in a change to a public-facing application or system?] Y
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.?] Ү
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.?	 Y
Have all required funding sources for the project and ongoing support costs been identified?] Y
Will the funding for this project expire on a specific date, regardless of project timelines?] N
Will the funding allocated for this project include any contingency, in the event of cost over-runs or potential changes in scope?] Ү
Please indicate whether a statewide enterprise solution will be used or select the primar reason for not choosing an enterprise solution: No Statewide Enterprise Solution Available	У
Will the technology and all required services be acquired off existing State contract(s)?	γ
Will any software be acquired through the current State value-added reseller contract?	N
Does the project involve any technology that is new and/or unfamiliar to your agency, e.g., software tool never used before, virtualized server environment?	Y
Does your agency have experience with the vendor (if known)?	N
Does the vendor (if known) have professional experience with similar projects?] Ү

Does the project involve any coordination across multiple vendors?

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

Υ

Υ

Υ

Y

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?

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

The compatibility issues identified do not involve ADOA-ASET; the issues lie with the current voter registrations system integrating with those systems of Pima and Maricopa County. The interfaces required were identified in the future state analysis and have been integrated into the RFP. It is anticipated that there will be some changes required (such as table names, etc.) if migrating to a new system.

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

Is this replacing an existing solution?

Indicate below when the solution being replaced was originally acquired?

The original solution (VRAZ) was acquired through RFP on 11/10/2005.

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

The hardware has almost met the end of useful life and will be retired through surplus once all proper 'cleaning' has occurred.

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?

N/A

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

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

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

Will any application development or customization of the proposed solution be required for the agency to use the product in the current/planned technology environment, e.g., a COTS application that will require custom programming, an agency application that will be entirely custom developed?

Υ

Υ

Ν

Υ

Υ

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

Describe who will be customizing the solution below:

The awarded vendor will be customizing the solution and providing updates during the life of the system.

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

Please select the application development methodology that will be used: TBD based on the awarded vendor

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:

The percentage of customization will depend on the awarded vendor's solution meeting the needs of Arizona.

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

Have you determined that this project is in compliance with all applicable statutes,	
regulations, policies, standards, and procedures, including those for network, security,	
platform, software/application, and/or data/information found at	
https://aset.az.gov/resources/psp?	γ

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

Ν

γ

ΙY

Υ

Ν

Υ

Ν

Will the proposed solution be vendor-hosted?

Please select from the following vendor-hosted options: Commercial Data Center

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

The rationale for selecting the vendor-hosted option was the greater security provided, less exposure to liability, and wanting a cloud based solution.

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

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

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

Has the spreadsheet located at https://aset.az.gov/arizona-baseline-security-controlsexcel already been completed by the vendor and approved by ASET-SPR?

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

Where will the on-premise solution be located: Cloud Solution Were vendor-hosted options available and reviewed? Describe the rationale for selecting an on-premise option below:

The information has always been kept at the state/county level to ensure integrity and security.

Ν

Υ

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

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

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

The security controls required have been outlined in the RFP.

What help could ASET offer to increase the probability of project success?

Provide support and insight as needed as the project continues.

Areas of Impact

1 Application Systems

- Application Enhancements
- X Internal Use Web Application
- Mobile Application Development
- Arizona Enterprise Solution Platform (AESP) based Application
- X New Application Development
- az.gov Web Portal Application
- Other: (Please specify below)

2 Database Systems

 Data Warehouse/Mart

 Database Consolidation/Migration/Extract Transform and Load Data

 Database Products and Tools:

 Oracle

 MySQL

 DB2

 MS SQL Server

 Other: (Please specify below)

3 Software

- X COTS Application Customization
- X COTS Application Acquisition
- Mainframe Systems Software
- Open Source
- PC/LAN Systems Software
- Virtualization
 - Other: (Please specify below)

4 Hardware

- LAN/WAN Infrastructure
- Mainframe Infrastructure
- Storage Area Network Devices
- Public Safety Radios, Systems
- PC Purchases, Peripherals
- Tape Libraries/Silos
- UPS Devices
- Other: (Please specify below)

5 Hosted Solution (Cloud Implementation)

		State Data Center
2	х	Commercially Hosted:
2	x	Amazon (AWS) GovCloud Century Link - I/O Data Center
		AWS (non-government) cloud
2	х	Microsoft Azure
		Vendor Hosted
L		Other: (Please explain below)

6 Security

 X Encryption X Security Appliances: X Firewall X Intrusion Detection System (IDS) X Intrusion Prevention System (IPS) 	
XSecurity Appliances:XFirewallXIntrusion Detection System (IDS)XIntrusion Prevention System (IPS)	
XFirewallXIntrusion Detection System (IDS)XIntrusion Prevention System (IPS)	
XIntrusion Detection System (IDS)XIntrusion Prevention System (IPS)	
X Intrusion Prevention System (IPS)	
SecurityControls/Systems - Other: (Please specify below)	
Physical Controls (Badging Systems, Iris Scanners, Other: (Please specify	below
X Other: (Please specify below) Two-Factor authentication	

7 Telecommunications

- Network Communications Infrastructure

 Telephone Upgrade-Business-Specific

 Cabling

 Wireless Access Points
- Telephony Upgrade-EIC Solution

Trenching

Videoconferencing

Other: (Please specify below)

8 Enterprise Solutions

	Business Intelligence System
	E-Signatures
х	Geographic Information Systems
	Other Imaging - Photos, Fingerprints, etc.
х	Document Management/Imaging
	eLicensing
	Management Systems - Financial, Grants, Asset
х	Disaster Recovery/Business Continuity
	Other: (Please specify below)

9 Contract Services/Procurement

Contracted Project Management
Contractor Support Services
Install/Configuration Contract Services
State Contract
Vendor provided
Procurement (RFP, IFB, DPR, etc.)
Other: (Please specify below)

Summary of PIJ Financi	als	
Total of Development Cost:	\$	4,656,640
Total of Operational Cost:		2,652,000
Total Costs:	\$	7,308,640

Project Co	rroject Cost - Itemized									
Item	Description	Category	Development (Implementation) or Operational (Ongoing)	Fiscal Year Spend	Qty or Hours	Unit Cost	Extended Cost	Enter Tax Rate if Applicable (Generally 8.6% for PHX)	Тах	Total Cost
1	Implemntation - Project Management	Prof & Outside Services	Development	1	1698	\$128	\$217,344		\$0	\$217,344
2	Implemntation - Project Management	Prof & Outside Services	Development	2	2547	\$128	\$326,016		\$0	\$326,016
3	Implemntation - Development and Validation	Prof & Outside Services	Development	1	1696	\$128	\$217,088		\$0	\$217,088
4	Implemntation - Development and Validation	Prof & Outside Services	Development	2	2544	\$128	\$325,632		\$0	\$325,632
5	Implementation - System Design	Prof & Outside Services	Development	1	1718	\$128	\$219,904		\$0	\$219,904
6	Implementation - System Design	Prof & Outside Services	Development	2	2577	\$128	\$329,856		\$0	\$329,856
7	Implementation - System Development and Config.	Software	Development	1	4004	\$128	\$512,512		\$0	\$512,512
8	Implementation - System Development and Config.	Software	Development	2	6006	\$128	\$768,768		\$0	\$768,768
9	Implementation - Data Migration	Software	Development	1	2136	\$128	\$273,408		\$0	\$273,408
10	Implementation - Data Migration	Software	Development	2	3204	\$128	\$410,112		\$0	\$410,112
11	Implementation -Testing	Software	Development	1	1636	\$128	\$209,408		\$0	\$209,408
12	Implementation -Testing	Software	Development	1	2454	\$128	\$314,112		\$0	\$314,112
13	Implementation - Deployment	Prof & Outside Services	Development	2	4160	\$128	\$532,480		\$0	\$532,480
14	Ongoing - Maintainence and Operations	License & Maint Fees	Operational	FY2-5	1	\$577,000	\$577,000		\$0	\$2,308,000
15	Ongoing - Hosting	License & Maint Fees	Operational	FY2-5	1	\$86,000	\$86,000		\$0	\$344,000
16		[Select]	[Select]	[Select]						
17		[Select]	[Select]	[Select]						
								Total Develo	pment Cost	\$4,656,640

Total Itemization of Costs:	\$7,308,64
Total Operational Cost	\$2,652,00
Total Development Cost	\$4,656,64

	S	ummary of Funding Sources	
Fund Type	% of Project	\$ of Project (Available)	\$ of Project (To Be Requested)
Base Budget	44.65%		\$3,263,000.00
APF	0.00%		
Other Appropriated	27.36%	\$2,000,000.00	
Federal	0.00%		
Other Non-Appropriated	27.99%		\$2,045,640.00

PIJ Development & Operational Cost Summary

Description	Туре	Year 1	Year 2	Year 3	Year 4	Year 5	Extended Cost
Professional &	Development	\$654,336	\$1,513,984	\$0	\$0	\$0	\$2,168,320
Outside Services	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Hardware	Development	\$0	\$0	\$0	\$0	\$0	\$0
naruware	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Softwara	Development	\$1,309,440	\$1,178,880	\$0	\$0	\$0	\$2,488,320
SULWARE	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Communications	Development	\$0	\$0	\$0	\$0	\$0	\$0
communications	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Facilities	Development	\$0	\$0	\$0	\$0	\$0	\$0
racintics	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Licensing &	Development	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance Fees	Operational	\$0	\$663,000	\$663,000	\$663,000	\$663,000	\$2,652,000
Other	Development	\$0	\$0	\$0	\$0	\$0	\$0
other	Operational	\$0	\$0	\$0	\$0	\$0	\$0
	Development Cost:	\$1,963,776	\$2,692,864	\$0	\$0	\$0	\$4,656,640
	Operational Cost:	\$0	\$663,000	\$663,000	\$663,000	\$663,000	\$2,652,000
Total Cost:				\$7,308,640			

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PIJ Review Checklist

Role	Name	Email Address	Date Reviewed
Access: Droiest Croncov*			Kevieweu
		mreagan@azsos.gov	10/13/17
Agency Chief Information Officer (CIO) (or designee)*	Bill Maaske	bmaaske@azsos.gov	10/13/17
Agency Information Security Officer (ISO) (or designee)*			
	Micaela Larkin	mlarkin@azleg.gov	10/13/17
	Fletcher Montizingo	fmontizingo@az.gov	10/13/17
ADOA-ASET Engagement Manager *	Reem Prendiville	Reem.Prendiville@azdoa.gov	10/16/17
ADOA-ASET Security, Privacy & Risk (ASET-SPR) representative	Owen Zorge	<u>Owen.Zorge@azdoa.gov</u>	10/16/17
Agency CPO or State Procurement Office (SPO) representative	Cori Masters	Cori.Masters@azdoa.gov	10/16/17
Agency CFO or Finance representative (if different from CPO)	Liz Atkinson	latkinson@azsos.gov	10/13/17
	Others to Review (if applicable):		
Consultant	Mark Lennon	mark.lennon@gartner.com	10/13/17
Project Manager	Garrett Archer	garcher@azsos.gov	10/13/17

* Required Attendee

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Х	Has the value of the IT project to the public and the State been identified?
Х	Does the proposed solution address the stated problem or situation?
Х	Has the budget unit demonstrated competency to carry out the project successfully?
Х	Have all applicable questions in the PIJ been addressed?
Х	Have the Areas of Impact associated with the project been identified?
Х	Is sufficient sponsorship and support by budget unit leadership evidenced in the meeting?
Х	Has the compatibility of the proposed solution with other budget unit solutions been addressed?
Х	Has a reasonable Project Plan been provided?
Х	Has the compliance of the proposed solution with all applicable statewide standards been confirmed?
х	Have any potential risks or issues associated with the project or the proposed solution been identified and appropriately addressed to minimize unintended consequences?
Х	Have the cost estimates for the project been vetted for accuracy?
Х	Have the PIJ Financials been completed?
x	Have any/all of the following startup costs to implement the project been included under Development in the financial tables, if applicable - tax; shipping; upfront maintenance and support; professional services (P&OS); ancillary software to run on equipment; ancillary hardware to install equipment, e.g., cables; other associated costs, e.g., training, travel, documentation, etc.?
x	Have any/all of the following ongoing/5-year support costs, once the project is implemented, been included under Operational in the financial tables, if applicable - ongoing vendor hosting costs, including any projected increase over time; annual maintenance and support not acquired upfront; extended costs after warranty expiration; P&OS commitments beyond implementation?
х	Have you confirmed that no Full Time Employee (FTE) related costs have been included in the project costs?
х	Have quotes been provided for all itemized costs in the PIJ, e.g., professional services, hardware, software, licensing, etc.?
х	Do the quotes match the itemized list and only reflect those items and costs (within 5%) associated with this project?
	If not, describe below how the costs in the PIJ differ from the quotes, e.g., if quantities are different, costs are comprised of portions of multiple quotes provided, etc.:

PIJ Disposition

Approved

Approved with conditions

Not Approved

Strategic Program Manager Analysis

Background: The Arizona Secretary of State (AZSOS) is operating its current voter registration system, VRAZ-II, on an aging platform that is based on a core technology (PowerBuilder) provided by Election Systems & Software (ES&S), a technology that reached its peak use in the late 1990's. Within this context, it is critical to note that the Department of Homeland Security has designated all States' elections and voter registration systems as critical national infrastructure. The State's voter registration system was also the recipient of an aggressive foreign intrusion attempt in 2016. Given the need to address a system that is based on decadesold technology and no longer able to meet the current and emerging needs of our County partners and citizens, combined with the need to ensure Arizona is operating a modern and secure voter registration system, the Secretary of State is seeking to replace the current VRAZ II system. Justification: An updated voter registration system would reduce user frustration in the Counties and achieve efficiencies such as a platform that will continue to be stable past 3 years, more efficient integration with county partners, reduce duplicate voter registrations, and provide a smart front-end system that will perform data checks. Implementation Methodology: Gartner Consulting will be contracted to provide overall Project management to ensure continuity through the process (Gartner Consulting has handled all of the pre-RFP work). The implementation will be undertaken by the party awarded as a result of the RFP process. Both vendors (Gartner and the awarded party) will work togather with the Agency and the counties to implement the new Voter Registeration System. Budget or Funding Considerations: This project is from To be requested FY19 Base Budget (44.65%), Other Appropriated (27.36%%), and Other Non-Appropriated (27.99%) Funds in the amount of \$4,656 thousand development and \$2,652 thousand operational for ther total estimated five-year life cycle cost for the project.

Authorized Approver:

Approval Date:

Condition (If Applicable)

Should the final costs exceed the estimated costs 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 for review and approval prior to further expenditure of funds.

The Arizona Baseline Security Controls document must be approved by the ADOA-ASET Security, Privacy & Risk officer, prior to any State information being hosted by the Awarded vendor, in order to ensure that the selected solution will provide an appropriate level of protection for State data, or a Risk Acceptance form must be completed by the Agency.

Once the Award for the Request for Proposal (RFP) is issued for the proposed solution, the Agency may not proceed with further development efforts until a change request for the PIJ reflecting the final costs, scope of work, technology, and implementation schedule for the proposed solution has been submitted to ADOA-ASET for review.

Х

AZSOS Access Voter Information Database (AVID) RFP RFP Functional Requirements Matrix

Instructions:

This workbook contains functional requirements for the AVID system desired by Arizona Department of State (Office of the Secretary of State). The response codes in Tables 1 and 2 below are to be used by Proposers to indicate the fit of their solution to the State Requirements specified in this workbook. This template must be completed and submitted as an MS Excel file as part of the response to this RFP.

Requirement Area:

Each requirement has been assigned to a high-level requirement group and provided a "Requirement Area". Proposers may not alter this column.

Requirement Number:

Each requirement has been provided a unique "Requirement Number." When referring to a specific requirement in proposal materials, Proposers should use the appropriate requirement number. Proposers may not alter this column.

Requirement:

Each requirement is fully described in the "Requirement" column. Proposers may not alter this column.

Use Case:

Each requirement has a reference corresponding to the Use Case Document.

Response Code:

The Requirements Response Matrices must be completed indicating the status of the requirement(s) at the time of submission of the Proposal, using a combination response code that describes whether and how the Proposer's solution meets the requirement. Permissible response codes are listed in Tables 1 and 2 below:

Table 1:	
Response Code	Definition
F – Fully met	Requirement will be fully and completely met.
N – Not met	Requirement will not be met.
P – Partially met	Requirement will be partially met. Please indicate in the comments field an explanation as to which part is met and which part is not.
Table 2:	
Response Code	Definition
O - Out of the box	Requirement met out-of-the-box without additional configuration
G - GUI Configuration	Requirement met via core GUI configuration capabilities, technical and/or scripting measures within the system.
C - Customization	Requirement will be met via customization of source code and components

Note:

If a requirement is satisfied by more than one of the response codes, Proposers should select the response code that most appropriately reflects their solution's capability to the highest benefit of the State. Comment fields should be used to provide additional information in addition to the response code. In all cases, Proposers must select one and only one, response code for any given requirement.

be used out of the box, configured, or customized.

Comments:

T - Third Party

Any requirement may be explained by the Proposer, at the Proposer's option, and must include a cross reference from the Proposal Reference Section column back to the Proposal section where the requirement is addressed. Proposers are encouraged to take time to explain features and functions of their proposed solution that provide additional value to the State. However, the Proposer shall refrain from comments that could be considered conditional.

Requirement met through integration with 3rd party software product. Please indicate in the comments field whether or not the 3rd party product will

AZSOS Access Voter Information Database (AVID) R RFP Functional Requirements Matrix

1.0 Voter Registration

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Voter Registration	1.01	The system shall present a list of common services that may include but are not limited to: i. Verifying voter registration ii. Find my polling place iii. Find any polling place iv. View my sample ballot v. Verify my early (absentee) ballot status vi. Verify provisional ballot vii. Request early ballot viii. Cancel Registration ix. Apply or Update Voter Registration x. Respond to Notice xi. Create Petition xii. Sign Up to be Poll Worker xiii. Request Voter Registration Data xiv. Candidate Portal xv. E-QUAL (State website) xvi. View State-wide election information xvii. View Voter Registration Data	3.1 Perform Self- Service Inquiry		
Voter Registration	1.02	The system shall require the user to enter required information in order to find the voter registration record. This could include but is not limited to: County, last name, date of birth, voter ID or MVD number.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.03	The system shall attempt to find a hard match of the voter personal information entered with current voter registration information.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.04	If the system finds a hard match, the system shall display at least the following information: i. The voter registration information of the voter. ii. A link for the user to update the voter registration information iii. The option to reprint the receipt from the voter's last voter registration application or update the voter's voter registration card	3.1 Perform Self- Service Inquiry		
Voter Registration	1.05	If the system cannot find a hard match, the system shall display at least the following information: i. Notice to the user that no match was found. ii. The option to apply for or update the voter's voter registration	3.1 Perform Self- Service Inquiry		
Voter Registration	1.06	The system shall require the user to enter required information in order to find the voter's polling place. This could include but is not limited to: County, last name, address, date of birth, voter ID or MVD number.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.07	The system shall display the voter's polling place if a hard match is made with the entered personal information.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.08	The system shall notify the user that voter's polling place information is based on the voter's current voter registration and shall provide the option to update the voter's voter registration	3.1 Perform Self- Service Inquiry		
Voter Registration	1.09	If the system cannot find a match, the system shall display an error message to the user that no match was found.	3.1 Perform Self- Service Inquiry		

Requirement Area	Requirement	Requirement	Use Case	Response Code	Response Code
Voter Registration	1.10	The system shall require the user to enter an address, cross street or click on a map to find a polling place.	3.1 Perform Self- Service Inquiry	Wiletitei	HOW
Voter Registration	1.11	The system shall provide the nearest polling place associated with the entered location. If vote centers are being used the system will provide the closest vote center and a list of the next closer polling place locations. If vote centers are not used the system will provide the polling place for the registrant.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.12	The system shall require the user to enter certain information in order to find their sample ballot. This could include but is not limited to: County, last name, date of birth, voter ID or MVD number.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.13	If the system finds a hard match, the system shall display the sample ballot of the user, including the contests on that ballot and the qualified candidates of each contest.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.14	If the system cannot find a hard match, the system shall display: i. Information to the user that no match was found. ii. The option to apply for or update the voter's voter registration	3.1 Perform Self- Service Inquiry		
Voter Registration	1.15	The system shall require the user to enter certain information in order to find the voter's Early Ballot status. This could include but is not limited to: County, election, last name, date of birth, voter ID or MVD number and (optionally) remaining portions of the voter's full name.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.16	The system shall display the Early Ballot Status information that matches the information entered-by- into the system. i. When early ballot was sent/mailed ii. When early ballot was received iii. Status (e.g. accepted by Recorder (submitted for counting), rejected, pending) iv. If Early Ballot was rejected, the system shall display a reason for rejection.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.17	If the system cannot find a match, the system shall display a message to the user that no match was found.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.18	The system shall require the user to enter required information in order to find the voter's voter registration record. This could include but is not limited to: County, election, last name, date of birth, voter ID or MVD number and (optionally) remaining portions of full name.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.19	The system shall allow a Public user to make the following Early Ballot requests online, including but not limited to: i. Request to be on PEVL ii. One-time request for early ballot iii. One-time request for early ballots just in this election cycle (e.g., primary and general) iv. One-time request to not receive an early ballot for voters on PEVL v. Early Primary Ballot for an independent voter not on PEVL vi. Early Primary Ballot for an independent voter on PEVL vi. Early Primary Ballot for an independent voter on PEVL vii. Second or third Early Ballot request viii. Request for early ballot to go to alternate mailing address	3.1 Perform Self- Service Inquiry		
Voter Registration	1.20	The system shall provide a warning or some message to the user prior to requesting a third Early Ballot, for example, the message may include information that only three Early Ballot requests are allowed or to contact their County Recorder directly for third Early Ballot requests.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.21	The system shall queue requests for early ballots received online for the corresponding County Staff to process.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.22	The system shall require the user to enter certain information in order to find the voter's Provisional Ballot. This could include but is not limited to: County, election, last name and (optionally) remaining portions of full name, voter ID, Provisional Ballot PIN or receipt number.	3.1 Perform Self- Service Inquiry		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Voter Registration	1.23	The system shall display voter registration information that matches the information entered in the system. i. Status (e.g. accepted by Recorder (may not be counted), rejected, pending). ii. If Provisional Ballot was rejected, the system shall display a reason for rejection.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.24	The system shall produce printer-friendly pages of inquiry results for Public to be able to print a well- formatted document.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.25	The system shall have data persist from one screen to another when data fields are the same so the user does not have to do the same data input on multiple screens.	3.1 Perform Self- Service Inquiry		
Voter Registration	1.26	The system shall present a list of fields that can be used to search for voter information. These voter identification fields include but are not limited to: i. Voter ID ii. Voter name, including a phonetic match or "sounds like" name iii. Date of birth iv. Arizona driver license or non-operating Identification Card number (MVD number) v. Last 4-digits of Social Security Number vi. PIN vii. Residence or mailing address viii. Telephone number ixi. Email address x. County (provide note that this will restrict results to this County)	3.2 View & Manage Voter Information		
Voter Registration	1.27	The system shall allow wildcard characters (an asterisk "*" or percent sign "%") to be used in text fields to search for text that begin or end with specific characters.	3.2 View & Manage Voter Information		
Voter Registration	1.28	The system shall allow searches to be restricted to a specific status, so that Staff can restrict the list of records that are displayed for a search.	3.2 View & Manage Voter Information		
Voter Registration	1.29	The system will search for the county of the user but has the option to expand the search to 1 or more other counties if the user requests a wider search.	3.2 View & Manage Voter Information		
Voter Registration	1.30	The system shall display a list of possible voter matches to the search criteria.	3.2 View & Manage Voter Information		
Voter Registration	1.31	If a voter's record is flagged as confidential, then nothing should show for users set up with "public access"	3.2 View & Manage Voter Information		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Voter Registration	1.32	The system shall display information about voters. For example, voter information may include: i. All search criteria where there is voter information ii. Effective date of registration change iii. Voter ID iv. Voter status v. Precinct number vi. Polling place vii. If poll worker or not viii. Provisional ballot status ix. Early ballot status x. Name of voter xi. Voting history of the voter xii. Activity (e.g., name or address changes performed on the voter record) xiii. Notes (narrative or attached image files) xiv. Party affiliation xv. Citizenship xvi. Source of registration (e.g., MVD, internet, counter, drive) xviii. Attached documents xviii. Valid from date xix. Registration date xx. Voter districts (e.g., answers to the questions: which house/senate district am I in?)	3.2 View & Manage Voter Information		
Voter Registration	1.33	The system shall display tasks associated with a voter record such as but not limited to: i. NVRA status ii. Pending tasks associated with the voter that require Staff interaction to resolve	3.2 View & Manage Voter Information		
Voter Registration	1.34	The system shall allow the authorized user to update any information on a potential voter's registration and history.	3.2 View & Manage Voter Information		
Voter Registration	1.35	The system shall allow the authorized user to print labels, including but not limited to: voter mailing address labels and ballot label.	3.2 View & Manage Voter Information		
Voter Registration	1.36	The system shall accept EZVoter transactions from MVD and process them. These transactions will include a new voter registration application and an update to an existing voter registration record.	3.3 Apply for or Update Voter Registration		
Voter Registration	1.37	The system shall have the capability to handle non-standard addresses such as but not limited to narrative descriptions of location.	3.3 Apply for or Update Voter Registration		
Voter Registration	1.38	The system shall verify with the Arizona Department of Health Services (DHS) that the user is not deceased.	3.3 Apply for or Update Voter Registration		
Voter Registration	1.39	The system shall verify that the user's given date of birth makes the user 18 years old or 18 years old by the next Election Day.	3.3 Apply for or Update Voter Registration		
Voter Registration	1.40	The system shall verify that the user's given residence is within the State of Arizona.	3.3 Apply for or Update Voter Registration		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Voter Registration	1.41	If the system determines the user is ineligible to vote, the system shall update the potential voter's record to indicate that they are ineligible to vote and generate a notice for the ineligible reason.	3.3 Apply for or Update Voter Registration		
Voter Registration	1.42	The system shall identify the source of the voter registration applications, including but not limited to other State departments or community based organizations.	3.3 Apply for or Update Voter Registration		
Voter Registration	1.43	The system shall display a home page to the user with a dashboard of summary information relevant to the user's role.	3.4 Process Application for Voter Registration		
Voter Registration	1.44	The system shall have an option for an authorized user to process an application for voter registration.	3.4 Process Application for Voter Registration		
Voter Registration	1.45	The system shall allow the user to identify the type of document that they are scanning such as but not limited to an application or response to a notice.	3.4 Process Application for Voter Registration		
Voter Registration	1.46	The system shall have the capability to record a scanned copy of a paper voter registration form.	3.4 Process Application for Voter Registration		
Voter Registration	1.47	The system shall have the capability to record a scanned copy of the applicant's proof of citizenship, if provided.	3.4 Process Application for Voter Registration		
Voter Registration	1.48	The system shall have the capability to recognize barcodes on scanned documents in order to attach it to the corresponding record.	3.4 Process Application for Voter Registration		
Voter Registration	1.49	The system shall have the capability to recognize characters, signatures and geographic location of residence information on scanned copies of paper State voter registration forms and record the information in a structured format as if the information was entered by a user into the system.	3.4 Process Application for Voter Registration		
Voter Registration	1.50	The system shall allow keyboard shortcuts, tabbing, and functions to enter information efficiently.	3.4 Process Application for Voter Registration		
Voter Registration	1.51	The system shall allow user to enter in the information provided on an AZSOS Voter Registration Form.	3.4 Process Application for Voter Registration		
Voter Registration	1.52	The system shall verify if the user has already applied or is registered.	3.4 Process Application for Voter Registration		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Voter Registration	1.53	If the system finds a potential match (or duplicate) with an existing record, the system will give the user the option to update the existing record or complete processing of the new application and then resolve the potential duplicate.	3.4 Process Application for Voter Registration		
Voter Registration	1.54	If the system finds a hard match with the personal identifying information on an application, the system shall display the applicant's existing voter registration record in the system and give the user the option to update the information.	3.4 Process Application for Voter Registration		
Voter Registration	1.55	The system shall allow the authorized user to add a new person to the system.	3.4 Process Application for Voter Registration		
Voter Registration	1.56	The system shall attempt to match the personal information with MVD's records and retrieve any proof of citizenship, addresses, MVD's record of last four digits of SSN and signature, in real-time.	3.4 Process Application for Voter Registration		
Voter Registration	1.57	If the application does not have an MVD number or does not find a hard match with MVD's information, the system shall check with the Help America Vote Verification (HAVV) system to verify the accuracy of name, date of birth, Last 4 Digits of SSN and whether SSA has a record of the individual's death.	3.4 Process Application for Voter Registration		
Voter Registration	1.58	The system shall display the proof of citizenship number and any supporting documents provided to establish proof of citizenship.	3.4 Process Application for Voter Registration		
Voter Registration	1.59	If the user enters an alien verification number, the system shall check with the SAVE (Systematic Alien Verification for Entitlements Program) system administered by U.S. Citizenship & Immigration Services (USCIS) to determine citizenship status and inform the user of the response.	3.4 Process Application for Voter Registration		
Voter Registration	1.60	If the SAVE System returns that the applicant is a citizen, then the system shall update the applicant's record as being a citizen.	3.4 Process Application for Voter Registration		
Voter Registration	1.61	If the SAVE System returns that the applicant is not a citizen, then the system shall update the applicant's record as not being a citizen.	3.4 Process Application for Voter Registration		
Voter Registration	1.62	If the SAVE System returns "Institute Additional Verification", then the system shall update the applicant's records as needing additional Alien Verification information.	3.4 Process Application for Voter Registration		
Voter Registration	1.63	If the SAVE System returns no match, then the system shall update applicant's alien verification with the corresponding status and keep the applicant's citizenship status as pending.	3.4 Process Application for Voter Registration		
Voter Registration	1.64	The system shall allow user to indicate their determination of whether the applicant is a citizen or not, or if proof of citizenship is still required for a determination.	3.4 Process Application for Voter Registration		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Voter Registration	1.65	The system shall display the voter's most recent hand written signature from their MVD records.	3.4 Process Application for Voter Registration		
Voter Registration	1.66	The system shall display any scanned and cropped image of an applicant's signature from a paper State voter registration form.	3.4 Process Application for Voter Registration		
Voter Registration	1.67	The system shall have the capability to sort signatures on the date they were received.	3.4 Process Application for Voter Registration		
Voter Registration	1.68	The system shall verify the age of the signature on file and if the signature is deemed to be old then the system shall allow a notice to be sent to the user to request a new voter registration signature. Age parameter shall be configurable.	3.4 Process Application for Voter Registration		
Voter Registration	1.69	The system shall allow user to make a determination if the signature is not readable.	3.4 Process Application for Voter Registration		
Voter Registration	1.70	The system shall allow user to indicate what signature will be the initial signature of record for the voter registration record.	3.4 Process Application for Voter Registration		
Voter Registration	1.71	The system shall allow user to enter in all address information provided.	3.4 Process Application for Voter Registration		
Voter Registration	1.72	The system shall display the applicant's indication of their residence on a map for the case in which they do not provide a street address.	3.4 Process Application for Voter Registration		
Voter Registration	1.73	The system shall attempt to identify the applicant's street address of their residence from the applicant's indication of their residence on a map and display the potential residential street address to the authorized user.	3.4 Process Application for Voter Registration		
Voter Registration	1.74	The system shall be able to store residential addresses based on geographic location that do not have street addresses.	3.4 Process Application for Voter Registration		
Voter Registration	1.75	The system shall attempt to identify a district and precinct for each residential address.	3.4 Process Application for Voter Registration		
Voter Registration	1.76	The system shall provide user with the system's current record of the applicant's eligibility to vote, if any, and the reason associated with that determination.	3.4 Process Application for Voter Registration		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Voter Registration	1.77	The system shall record user's determination of an applicant's eligibility to register to vote in Arizona and reason for that determination.	3.4 Process Application for Voter Registration		
Voter Registration	1.78	The system shall allow user to record the date the paper form was filled out by the applicant.	3.4 Process Application for Voter Registration		
Voter Registration	1.79	The system shall save the date on which an applicant's voter registration eligibility status was determined.	3.4 Process Application for Voter Registration		
Voter Registration	1.80	The system shall accept user's manual entry for the "Effective Date of Change".	3.4 Process Application for Voter Registration		
Voter Registration	1.81	The system shall allow user to indicate if the applicant is a secured voter.	3.4 Process Application for Voter Registration		
Voter Registration	1.82	The system shall allow the authorized user to indicate if the applicant is a UOCAVA eligible voter.	3.4 Process Application for Voter Registration		
Voter Registration	1.83	The system shall have the capability to recognize characters, signatures and geographic location of residence information on scanned copies of paper Federal voter registration applications and record the information in a structured format as if the information was entered directly into the system online or over the counter.	3.4 Process Application for Voter Registration		
Voter Registration	1.84	The system shall allow user to enter whatever information may be provided on a Federal voter registration application, except race or ethnic group.	3.4 Process Application for Voter Registration		
Voter Registration	1.85	The system shall not allow the recording of race or ethnic group from a Federal voter registration application.	3.4 Process Application for Voter Registration		
Voter Registration	1.86	The system shall allow user to indicate that an applicant is only eligible to vote in Federal elections and add the applicant to the register of eligible voters in only Federal elections.	3.4 Process Application for Voter Registration		
Voter Registration	1.87	The system shall allow user to indicate whether a Federal-only voter has provided proof of citizenship.	3.4 Process Application for Voter Registration		
Voter Registration	1.88	The system shall add Address Confidentiality Program (ACP) secured voters to PEVL.	3.4 Process Application for Voter Registration		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Voter Registration	1.89	The system shall notify user that an update to a voter registration record may satisfy a response to a notice if the voter registration record has an outstanding notice.	3.4 Process Application for Voter Registration		
Voter Registration	1.90	The system shall have the capability of uploading to and downloading information from the national Electronic Registration Information Center (ERIC).	3.4 Process Application for Voter Registration		
Response Comments					

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AZSOS Access Voter Information Database (AVID) R RFP Functional Requirements Matrix

UOCAVA Process

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
UOCAVA Process	2.01	The system shall allow users to apply online to be a military or overseas voter.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.02	The system shall display important information that may be relevant to the user at the time of starting a UOCAVA voter registration application, including but not limited to: i. State-wide Election Definition information including title, date, and deadlines for new registration applications or updates such as address, political party preference and Permanent Early Voter status changes ii. Link to obtain voter's current registration information iii. Overview of the UOCAVA voter registration application process including eligibility criteria to register to vote iv. Link to FVAP.gov to fill out their online assessment tool to pre-populate a PDF FPCA to mail in v. Links to apply with a paper Federal Post Card Application (FPCA) form	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.03	The system shall allow users to indicate if they want to register to vote.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.04	The system shall allow users to indicate if they want to request an early ballot.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.05	The system shall allow users to indicate if they want to receive information on the upcoming election.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.06	The system should allow a UOCAVA voter to choose how they would like to receive their ballot and election information (i.e. mail, email, fax, etc.)	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.07	The system shall allow users to enter their full name and date of birth.	4.1 Apply as		
UOCAVA Process	2.08	The system shall allow the user to enter their Arizona residential addresses.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.09	The system shall determine their Arizona County based on their Arizona address.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.10	The system shall allow mailing addresses to be formatted for military or overseas addresses.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.11	The system shall send the request to the appropriate County Recorder.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.12	The system shall allow user to indicate the determination for a request from a military or overseas voter.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.13	The system shall allow user to establish secured electronic communication with a military or overseas voter to receive an electronic copy of a voter registration application or early ballot.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.14	If the system determines the user has already applied or is already registered to vote, then the system shall allow the user to update their previous voter registration information as needed.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.15	The system shall display the user's current voter registration information and status.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.16	The system shall direct UOCAVA voters interested in obtaining information on upcoming elections to the online self-service information first.	4.1 Apply as UOCAVA Voter		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
UOCAVA Process	2.17	The system shall allow the user to request information be sent to them about the upcoming election.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.18	The system shall allow applicants deemed to be U.S. citizens who never resided in the U.S. to indicate they have a parent or legal guardian that is currently registered to vote in Arizona and become eligible to vote in Arizona.	4.1 Apply as UOCAVA Voter		
UOCAVA Process	2.19	The system shall display a home page to user with a dashboard of summary information relevant to the user's role.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.20	The system shall have an option for user to process a FPCA for voter registration.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.21	The system shall have the capability to record a scanned copy of a paper voter registration form s .	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.22	The system shall have the capability to recognize characters, signatures, unstructured mailing address response in Box 8, and additional responses in Box 9 on scanned copies of paper FPCA voter registration forms and record the information in a structured format as if the information was entered by a user into the system.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.23	The system shall allow user to enter the information that may be provided on a paper FPCA form.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.24	If user enters in applicant's personal identification information: i. The system shall verify if the applicant has already applied or is registered. ii. The system shall attempt to match the information and validate proof of citizenship, addresses and signature.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.25	The system shall display the proof of citizenship number and any supporting documents provided to establish proof of citizenship.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.26	The system shall display the voter's hand written signature from their MVD records.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
UOCAVA Process	2.27	The system shall display any scanned and cropped image of an applicant's signature from a paper State voter registration form.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.28	The system shall display the applicant's residential address.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.29	The system shall allow user to review and update an applicant's preference for "ballot receipt", for example; Email/Online, Mail, or Fax.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.30	The system shall provide user with the system's current record of the applicant's eligibility to register to vote, if any, and the reason associated with that determination.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.31	The system shall record user's determination of an applicant's eligibility to vote in Arizona and reason for that determination.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.32	The system shall identify applicants for UOCAVA as a UOCAVA voter.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.33	The system shall save the date on which a UOCAVA applicant's voter eligibility status was determined.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.34	If the applicant was determined to be eligible to vote, then the system shall add the applicant to the registry of eligible voters.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.35	The system shall allow users to indicate that an applicant is only eligible to vote in Federal elections and add the applicant to the register of eligible voters in only Federal election.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		

Requirement Area	Requirement	Requirement	Use Case	Response Code	Response Code
UOCAVA Process	2.36	The system shall allow users to indicate that voter is military domestic, military overseas or overseas citizen / non-military.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration	Wildligh	TIOW
UOCAVA Process	2.37	The system shall allow applicants deemed to be U.S. citizens who never resided in the U.S. to indicate they have a parent or legal guardian that was last registered to vote in Arizona and become eligible to vote in Arizona.	4.2 Process Federal Postcard Application (FPCA) for Voter Registration		
UOCAVA Process	2.38	The system shall have an option for user to process a Federal Write-in Absentee Ballot (FWAB).	4.3 Receive Federal Write-in Absentee Ballot (FWAB)		
UOCAVA Process	2.39	The system shall allow user to update a voter's history that a FWAB ballot was received, the manner in which the ballot was received (email, mail, drop off, etc.) and the time frame of the vote (early, on Election Day, late, etc.)	4.3 Receive Federal Write-in Absentee Ballot (FWAB)		
UOCAVA Process	2.40	The system shall allow user to process UOCAVA ballots received electronically such as by email or fax server.	4.3 Receive Federal Write-in Absentee Ballot (FWAB)		

Response Comments

Response Comments

Response Comments

Response Comments

AZSOS Access Voter Information Database (AVII RFP Functional Requirements Matrix

Notices

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Notices	3.01	The system shall have an option for user to issue a notice.	5.1 Issue		
Notices	3.02	The system shall display a queue of records for which notices need to be created.	5.1 Issue		
Notices	3.03	The system shall have the capability to prioritize requirements to issue notices.	5.1 Issue Notices		
Notices	3.04	The system shall allow user to modify the priority of requirements to issue notices.	5.1 Issue Notices		
Notices	3.05	The system shall create various types of notices for various reasons.	5.1 Issue Notices		
Notices	3.06	The system shall record what notice template and version was used to create the potential voter specific notice.	5.1 Issue Notices		
Notices	3.07	The system shall allow the user to print notices to be mailed to potential voters.	5.1 Issue Notices		
Notices	3.08	The system shall have the capability to export a mail merge file.	5.1 Issue Notices		
Notices	3.09	The system shall allow user to issue second notices in the case first notices were returned as undelivered or the time since the first notice without any update has exceeded a defined period.	5.1 Issue Notices		
Notices	3.10	The system shall have the capability to send a text message (SMS) to voters.	5.1 Issue Notices		
Notices	3.11	The system shall allow user notices to be sent to potential voter's email address on file based on notice type.	5.1 Issue Notices		
Notices	3.12	The system shall be capable of producing notices tailored to County specific requirements such as but not limited to including local County Recorder name, and office location based on system parameters.	5.1 Issue Notices		
Notices	3.13	The system shall allow user to produce notices to be generated in PDF, or MS Word format based on the notice.	5.1 Issue Notices		
Notices	3.14	The system shall allow user to manage notices as described in the Manage Notices use case.	5.2 Manage Notices		
Notices	3.15	The system shall allow user to create notice templates.	5.2 Manage Notices		
Notices	3.16	The system shall allow user to update notice templates.	5.2 Manage Notices		
Notices	3.17	The system shall allow user to manage the format and content of standard notice templates.	5.2 Manage Notices		
Notices	3.18	The system shall allow user to manage the County specific format and content of notice templates.	5.2 Manage Notices		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code	Response Code
		The system shall allow user to set review time periods for notices to generate a second notice once	5.2 Manage	Whether	HOW
Notices	3.19	the time period has lapsed with no response to the first notice.	Notices		
Nuclear	0.00		5.2 Manage		
Notices	3.20	i ne system shall de adie to create notices template with static content.	Notices		
Noticos	2 21	The system shall be able to create notices template with dynamic content based on data from specific	5.2 Manage		
Notices	3.21	voter records.	Notices		
Notices	3.22	The system shall allow user with appropriate user access rights to delete notice templates.	5.2 Manage		
	0.22		Notices		
Notices	3.23	The system shall have the ability to uniquely identify notices including versions of each notice and	5.2 Manage		
		retain older versions.	Notices		
Notices	3.24	The system shall allow the user to apply or update their voter registration to respond to a notice.	5.5 Respond to		
		The system shall update the corresponding outstanding notice status when a new voter registration	5.3 Respond to		
Notices	3.25	application or update is received for the given potential voter.	Notice		
Nuclear	0.00		5.3 Respond to		
Notices	3.26	The system shall have the capability for users to upload images to satisfy their response to a notice.	Notice		
Notices	3.27	The system shall direct the user to contact their local County Recorder if the notice requires the user to respond in a fashion other than updating their voter registration information online, for example by filling out a paper voter application in-person or by mail with their proof of citizenship.	5.3 Respond to Notice		
	3.28	The system shall allow users to process responses to notices.	5.4 Process		
Notices			Responses to		
			Notices		
	3.29 The sys	The system shall update the corresponding outstanding notice status when a new voter registration record or update is received for the given potential voter, for example NVRA notices.	5.4 Process		
Notices			Responses to		
			Notices		
Nationa	2.20	The system shall allow user to indicate receipt of a response to a notice and the information provided	5.4 Process		
Notices	3.30	3.30 in the response.	Responses to		
			5 / Process		
Notices	3 31	The system shall allow user to close an outstanding or pending notice when a response to a notice is received.	Responses to		
	5.51		Notices		
Notices		The system shall capture responses to NVRA notices for statistical purposes.	5.4 Process		
	3.32		Responses to		
			Notices		
			5.4 Process		
Notices	3.33	3.33 The system shall allow user to reverse the last change of any change made in the system.	Responses to		
			Notices		

D) RFP

Response Comments

Response Comments

AZSOS Access Voter Information Database (AVID) I RFP Functional Requirements Matrix

Manage Rolls

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Manage Rolls	4.01	The system shall identify soft matching records as potential duplicates if only part of the personal identification information matches based on a configurable set of fields and thresholds such as name, date of birth, MVD number or last 4 digits of SSN.	6.1 Manage Duplicates		
Manage Rolls	4.02	The system shall identify hard matching records based on a configurable set of fields and thresholds such as full last name, first 5 characters of first name, DOB, MVD & last 4 digits of SSN.	6.1 Manage Duplicates		
Manage Rolls	4.03	If the system identifies a hard match with a new voter registration application that would cause the voter's registration to change counties, then the system shall update the voter's registration in the new County, cancel the voter's registration in the old County and notify the old County of the cancelation.	6.1 Manage Duplicates		
Manage Rolls	4.04	The system shall display a queue of potential duplicate records, filtered for existing records with the oldest Registration Date State-wide, and registered within the County that County Staff is working so County Staff can cancel the voter first.	6.1 Manage Duplicates		
Manage Rolls	4.05	The system shall allow authorized users to configure and define the registration date, such as define the registration date as the date and time the initial voter registration application is determined to be eligible.	6.1 Manage Duplicates		
Manage Rolls	4.06	The system shall identify potential matches within a County.	6.1 Manage Duplicates		
Manage Rolls	4.07	The system shall identify potential matches State-wide.	6.1 Manage Duplicates		
Manage Rolls	4.08	The system shall allow authorized users to turn off the State-wide duplicate checking.	6.1 Manage Duplicates		
Manage Rolls	4.09	The system shall display the details of all potential matches of multiple voter records for the same voter in the system, including but are not limited to: i. All voter record details in the system ii. Full name details including previous names and aliases iii. Identification numbers such as MVD number, Last 4 digits of SSN, etc. iv. Residential addresses v. Mailing addresses vi. Signatures vii. All optional voter registration details.	6.1 Manage Duplicates		
Manage Rolls	4.10	The system shall have an option for users to indicate their determination of whether potential duplicate records match or not.	6.1 Manage Duplicates		
Manage Rolls	4.11	The system shall maintain a history of all previous voter registration information for the new voter record as defined by the system's record retention policy.	6.1 Manage Duplicates		
Manage Rolls	4.12	The system shall add the record to the queue of records for which notices need to be generated. For example, a cancelation notice may need to be generated.	6.1 Manage		
Manage Rolls	4.13	The system shall maintain the records separately if the user indicates that the records do not match.	6.1 Manage		
Manage Rolls	4.14	The system shall allow user to update a potential duplicate case with the action they took short of resolving the duplicate.	6.1 Manage Duplicates		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Manage Rolls	4.15	The system shall remove the records from the queue of potential duplicates to be processed	6.1 Manage Duplicates		
Manage Rolls	4.16	The system shall update the queue of potential matches with what has been worked on or not.	6.1 Manage Duplicates		
Manage Rolls	4.17	The system shall identify hard matches at time of data entry between potential new voter records and	6.1 Manage		
Manage Rolls	4.18	The system shall automatically merge hard match duplicate records and provide a record of the merge activity.	6.1 Manage Duplicates		
Manage Rolls	4.19	The system shall accept information from the counties that duplicate records within counties have been merged and that the person is still registered within the County.	6.1 Manage Duplicates		
Manage Rolls	4.20	When duplicate records are merged, the system shall reduce the number of registered voters but not increase the number of canceled voters.	6.1 Manage Duplicates		
Manage Rolls	4.21	The system shall receive updates from Arizona & U.S. District Courts on convicted felons or those judged incapacitated.	6.2 Process Felon or Incapacitated		
Manage Rolls	4.22	The system shall attempt to identify hard matches between potential voters and the convicted felons and incapacitated.	6.2 Process Felon or Incapacitated		
Manage Rolls	4.23	If the system finds a hard match been a potential voter and a convicted felon or incapacitated, the system shall automatically update the potential voter's record as being a felon or incapacitated, add any additional information to the voter's record from the courts' information, automatically remove the voter from the roll of voters and add them to the queue for records that need to be processed for notice generation	6.2 Process Felon or Incapacitated		
Manage Rolls	4.24	The system shall identify soft matching records as potential duplicates if only part of the personal identification information matches such as: Name, date of birth, MVD number or last 4 digits of SSN.	6.2 Process Felon or Incapacitated		
Manage Rolls	4.25	The system shall display a queue of felon or incapacitated records that need to be processed.	6.2 Process Felon or Incapacitated		
Manage Rolls	4.26	If a potential duplicate or soft match is identified from the felon or incapacitated information, when the duplicate is determined to match by the user then the system shall automatically update the record with the judgment information and the record will be added to the queue for notices to be generated	6.2 Process Felon or Incapacitated		
Manage Rolls	4.27	The system shall remove the records from the queue of felons or incapacitated to be processed after the user processes the felon or incapacitated information.	6.2 Process Felon or Incapacitated		
Manage Rolls	4.28	The system shall allow the user to manually enter a record of a felon or incapacitated.	6.2 Process Felon or Incapacitated		
Manage Rolls	4.29	The system shall attempt to identify hard matches, cancel voters and notify user to work the queue of notices to be issued when felon records are added to the system.	6.2 Process Felon or Incapacitated		
Manage Rolls	4.30	If the system does not find a hard match, the system shall add new records of felon or incapacitated to the queue of felons or incapacitated for user to work.	6.2 Process Felon or Incapacitated		
Manage Rolls	4.31	The system shall receive updates from Arizona DHS on deceased individuals.	6.3 Processed Deceased		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Manage Rolls	4.32	The system shall have the capability to record the date of death.	6.3 Processed		
Manage Rolls	4.33	The system shall attempt to identify hard matches between potential voters and information on deceased individuals.	6.3 Processed Deceased		
Manage Rolls	4.34	If the system finds a hard match between a potential voter and a deceased individual, the system shall automatically update the potential voter's record as being deceased, add any additional information to the voter's record from DHS' information, automatically remove the voter from the roll of voters and add them to the queue for records that need to be processed for notice generation	6.3 Processed Deceased		
Manage Rolls	4.35	The system shall identify soft matching records as potential duplicates if only part of the personal identification information matches such as: Name, date of birth, MVD number or last 4 digits of SSN.	6.3 Processed Deceased		
Manage Rolls	4.36	The system shall display a queue of deceased records that need to be processed.	6.3 Processed Deceased		
Manage Rolls	4.37	The system shall allow the authorized user to manually enter a record of a deceased individual.	6.3 Processed Deceased		
Manage Rolls	4.38	The system shall attempt to identify hard matches, cancel voters and notify user to work the queue of notices to issue when deceased records are added to the system.	6.3 Processed Deceased		
Manage Rolls	4.39	If the system does not find a hard match, the system shall add new records of deceased to the queue of deceased for user to work.	6.3 Processed Deceased		
Manage Rolls	4.40	The system shall allow the user to verify voter registration in the case of checking secured voter registration prior to submitting a new ACP voter registration application to County Staff or updating a non-ACP voter as a secured vote.	6.4 Manage Secured Voter		
Manage Rolls	4.41	The system shall allow the user to indicate an existing voter registration record as new ACP secured voters prior to sending the new voter registration form to County Staff or a new non-ACP voter registration record as a non-ACP secured voter.	6.4 Manage Secured Voter		
Manage Rolls	4.42	The system shall consider the voter as a secured voter once the user flags an existing voter registration as a secured voter.	6.4 Manage Secured Voter		
Manage Rolls	4.43	The system shall restrict access to secured voters' information, such as residence addresses, from the public and user's with public access rights.	6.4 Manage Secured Voter		
Manage Rolls	4.44	The system shall not include confidential information on non-statistical reports, however, mailing addresses will be included for mailings such as publicity panphlets and early ballots.	6.4 Manage Secured Voter		
Manage Rolls	4.45	The system shall add registered potential voters that are indicated as ACP voters to PEVL. Note: non-ACP voters do not go on to PEVL automatically.	6.4 Manage Secured Voter		
Manage Rolls	4.46	The system shall allow the users to indicate they have flagged a new ACP voter.	6.4 Manage Secured Voter		
Manage Rolls	4.47	The system shall allow users to indicate they have sent a paper voter registration form to County Staff for a potential voter.	6.4 Manage Secured Voter		
Manage Rolls	4.48	The system shall track an expiration date for secured voters based on the date they became a secured voter.	6.4 Manage Secured Voter		
Manage Rolls	4.49	The system shall identify secured voters that are about to expire based on a configurable timeframe prior to them expiring.	6.4 Manage Secured Voter		
Manage Rolls	4.50	The system shall add secured voter records whose secured voter status is about to expire to the queue of notices to be sent.	6.4 Manage Secured Voter		
Manage Rolls	4.51	The system shall send an email to particular users to notify the users that a particular set of voters status as a secured voter is about to expire.	6.4 Manage Secured Voter		
Manage Rolls	4.52	The system shall expire ACP voters as being secured voters after a configurable time period, such as after 5 years of being a secured voter.	6.4 Manage Secured Voter		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
Manage Rolls	4.53	The system shall expire non-ACP Secured voters after a configurable timeframe, such as on Jan 5th after 5 years of being a secured voters.	6.4 Manage Secured Voter		
Manage Rolls	4.54	The system shall automatically remove people from being secured voters after their expiration date.	6.4 Manage Secured Voter		
Manage Rolls	4.55	The system shall check new voter registration applications from MVD to identify if they are flagged as being an ACP member.	6.4 Manage Secured Voter		
Manage Rolls	4.56	The system shall only allow certain users with authorized access rights to view the residential addresses of secured voters.	6.4 Manage Secured Voter		
Manage Rolls	4.57	The system shall display an indication that ACP voters are a Secured-ACP voter to users.	6.4 Manage Secured Voter		
Manage Rolls	4.58	The system shall allow the authorized user to cancel voter registration.	6.5 Cancel Voter		
Manage Rolls	4.59	The system shall allow the authorized user to indicate a reason for voter registration cancellation.	6.5 Cancel Voter		
Manage Rolls	4.60	The system shall remove the potential voter from the list of eligible voters.	6.5 Cancel Voter		
Manage Rolls	4.61	The system shall allow the authorized user to add cancelled voters to the queue for notice generation.	6.5 Cancel Voter		

Response Comments

Response Comments

Response Comments

Response Comments

AZSOS Access Voter Information Database (AVID) RFP RFP Functional Requirements Matrix

Petitions

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"	Response Comments
Petitions	5.01	The system shall provide an option for the user to process an application for a petition.	7.1 Create Petition			
Petitions	5.02	The system shall have the capability to recognize circled selections, characters, and signatures on scanned copies of paper applications for petitions and record the information in a structured format as if the information was entered by a user into the system (see Application for Initiative of Referendum Petition Serial Number, last revised 11/92 and Application for Recall Petition Serial Number, last revised 04/2005), both published by AZSOS.	7.1 Create Petition			
Petitions	5.03	The system shall have the capability to verify information entered on an application for State-wide petitions and accompanying documents with AZSOS' Campaign Finance system.	7.1 Create Petition			
Petitions	5.04	The system shall allow the user to enter in the information which may be provided on either of the two AZSOS applications for petition forms (see Application for Initiative of Referendum Petition Serial Number, last revised 11/92 and Application for Recall Petition Serial Number, last revised 04/2005), both published by AZSOS.	7.1 Create Petition			
Petitions	5.05	The system shall allow the user to indicate whether the application is for an initiative, referendum, new party, party continuation, recall, or some other type of petition, based on information entered by the user or directly obtained from the scanned application.	7.1 Create Petition			
Petitions	5.06	The system shall allow the user to identify whether the application is for a Measure to change the Arizona Revised Statues or a Constitutional Amendment to the AZ Constitution based on information entered by the user or directly obtained from the scanned application, if the application is for an Initiative.	7.1 Create Petition			
Petitions	5.07	The system shall allow the user to indicate the existing law that may be amended, if the Initiative is to amend an existing law.	7.1 Create Petition			
Petitions	5.08	The system shall identify the application as a Measure to be Referred that was passed by the legislature based on information entered by the user or directly obtained from the scanned application, if the application for petition is for a Referendum.	7.1 Create Petition			
Petitions	5.09	The system shall allow the user to indicate the new or existing law passed by the legislature that is being referred, if the application for petition is for a Referendum.	7.1 Create Petition			
Petitions	5.10	The system shall identify the Name and Title of Office Held of the recall demand based on information entered by the user or directly obtained from the scanned application, if the application for petition is for a Recall.	7.1 Create Petition			
Petitions	5.11	The system shall allow the user to enter the 100-word summary for Initiatives or Referenda and the 200 word summary for Recalls.	7.1 Create Petition			

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"	Response Comments
Petitions	5.12	The system shall allow the user to modify the word limit on summary on petitions.	7.1 Create Petition			
Petitions	5.13	The system shall allow the user to export the summary text in order to upload to an external Election Management System.	7.1 Create Petition			
Petitions	5.14	The system shall allow the user to import the summary text into the petition application.	7.1 Create Petition			
Petitions	5.15	The system shall have the capability to check the word count of petition summaries and determine if the word count is equal to or less than the limit for the corresponding petition.	7.1 Create Petition			
Petitions	5.16	The system shall allow the user to scan and attach any maps, charts or other graphics provided with the application for petition.	7.1 Create Petition			
Petitions	5.17	The system shall allow the user to enter the title, short title and text of the petition.	7.1 Create Petition			
Petitions	5.18	The system shall allow the user to enter the name of the organization for a petition.	7.1 Create Petition			
Petitions	5.19	The system shall have the capability to attempt to make a hard match of the organization information with AZSOS' Campaign Finance system and allow the user to select the corresponding organization in the Campaign Finance system as the organization submitting the application for petition.	7.1 Create Petition			
Petitions	5.20	The system shall allow the user to submit an application for petition.	7.1 Create Petition			
Petitions	5.21	The system shall create a unique number or serial number for the petition.	7.1 Create Petition			
Petitions	5.22	The system shall have the capability to send the serial number of State-wide petitions to AZSOS' Campaign Finance system to add the serial number to the record of the Political Committee.	7.1 Create Petition			
Petitions	5.23	The system shall allow the user to indicate if the application for petition is approved.	7.1 Create Petition			
Petitions	5.24	The system shall record the date of the application.	7.1 Create Petition			
Petitions	5.25	The system shall determine the deadline for filing the circulated Initiative petitions based on the date of the next election.	7.1 Create Petition			
Petitions	5.26	The system shall allow the user to create and modify the filing deadline of circulated petitions.	7.1 Create Petition			
Petitions	5.27	The system shall allow the user to set the deadline for filing circulated Referendum and Recall petitions.	7.1 Create Petition			
Petitions	5.28	The system shall determine the number of signatures required for the initiative, referendum, or recall.	7.1 Create Petition			
Petitions	5.29	The system shall allow the user to create and modify the signatures required for petitions.	7.1 Create Petition			
Petitions	5.30	The system shall allow the user to issue a receipt to the applicant of application for petition.	7.1 Create Petition			

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"	Response Comments
Petitions	5.31	The system shall include on the receipt for an application for petition: the disposition of the application (approved or not), the date of the application, the number of signatures required for the petition, the deadline for filing circulated petitions, and the serial number issued for the petition.	7.1 Create Petition			
Petitions	5.32	The system shall have an option for the user to receive a circulated petition.	7.2 Receive Petition & Signature Logs			
Petitions	5.33	The system shall allow the user to select and retrieve the specific petition that was previously created in the system.	7.2 Receive Petition & Signature Logs			
Petitions	5.34	The system shall allow the user to receive petitions that were not previously set up in the system, for example in the case of local nominating petitions.	7.2 Receive Petition & Signature Logs			
Petitions	5.35	The system shall have the capability to record a scanned copy of a petitions including all signature logs as submitted.	7.2 Receive Petition & Signature Logs			
Petitions	5.36	The system shall have the capability to recognize characters, signatures and addresses on scanned copies of circulated petitions along with the associated completed signature logs and record the information in a structured format as if the information was entered by a user into the system (see Initiative Petition template, last revised 07/09/2015, and published by AZSOS).	7.2 Receive Petition & Signature Logs			
Petitions	5.37	The system shall be capable of determining whole sheets to be disqualified based on scanned copies.	7.2 Receive Petition & Signature Logs			
Petitions	5.38	The system shall determine the total number of signature sheets and signature lines submitted based on scanned copies.	7.2 Receive Petition & Signature Logs			
Petitions	5.39	The system shall be capable of determining signature lines to be disqualified on remaining sheets, based on scanned copies.	7.2 Receive Petition & Signature Logs			
Petitions	5.40	The system shall identify the remaining signature lines of eligible electors after determining the whole sheets and signature lines on remaining sheets that are disgualified.	7.2 Receive Petition & Signature Logs			
Petitions	5.41	The system shall allow the user to document the political committee's estimate of the number of sheets and signatures filed, and record the date the petition was filed.	7.2 Receive Petition & Signature Logs			
Petitions	5.42	The system shall allow the user to generate a receipt for the committee of the circulated petition filing with information recorded at the time of filing.	7.2 Receive Petition & Signature Logs			
Petitions	5.43	The system shall have the capability to record a scanned copy of a signed "Permission to Destroy Text" form from a political committee and associate this record to the record of the petition.	7.2 Receive Petition & Signature Logs			
Petitions	5.44	The system shall create a deadline of 20 business days after the receipt of the sheets for a State-wide initiative & referendum petition for AZSOS to select a 5% random sample of signature lines to be processed.	7.2 Receive Petition & Signature Logs			

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"	Response Comments
Petitions	5.45	The system shall allow the user to create and modify deadlines for selecting the random sample.	7.2 Receive Petition & Signature Logs			
Petitions	5.46	The system shall allow the user to create and modify the percentage for random sample of signature lines.	7.2 Receive Petition & Signature Logs			
Petitions	5.47	The system shall allow the user to enter in the total number of petition sheets received.	7.2 Receive Petition & Signature Logs			
Petitions	5.48	The system shall allow the user to assign sheet number to all the initial signature log sheets received.	7.2 Receive Petition & Signature Logs			
Petitions	5.49	The system shall allow the user to view a list of registered out-of-State and paid in-State circulators.	7.2 Receive Petition & Signature Logs			
Petitions	5.50	The system shall allow the user to view scanned images of the sheets and any automatic determination made by the system regarding each sheet.	7.2 Receive Petition & Signature Logs			
Petitions	5.51	The system shall allow the user to disqualify petition sheets, indicate the specific sheet number disqualified and a reason for sheet disqualification.	7.2 Receive Petition & Signature Logs			
Petitions	5.52	The system shall update the number of remaining petition sheets based on the sheets that have been disqualified.	7.2 Receive Petition & Signature Logs			
Petitions	5.53	The system shall allow the user to view scanned images of the sheets and any automatic determination made by the system regarding each sheet, including any automatic determination of the County majority for the sheet.	7.2 Receive Petition & Signature Logs			
Petitions	5.54	The system shall allow the user to indicate the County for each sheet from which most signature were gathered for that sheet.	7.2 Receive Petition & Signature Logs			
Petitions	5.55	The system shall allow the user to view scanned images of each signature line of the remaining sheets and any automatic determination made by the system regarding each signature line.	7.2 Receive Petition & Signature Logs			
Petitions	5.56	The system shall allow the user to indicate in the system that specific signature lines are disqualified and indicate a reason for signature line disqualification.	7.2 Receive Petition & Signature Logs			
Petitions	5.57	The system shall allow the user to indicate the number of remaining signature lines and disqualified signature lines per sheet.	7.2 Receive Petition & Signature Logs			
Petitions	5.58	The system shall determine the total number of remaining signatures for the petition from all the remaining sheets.	7.2 Receive Petition & Signature Logs			
Petitions	5.59	The system shall compare the total number of signatures remaining to the number required for the petition.	7.2 Receive Petition & Signature Logs			

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"	Response Comments
Petitions	5.60	The system shall deem the petition still valid pending the random sampling of the remaining signatures, if the system determines the total number of signatures remaining is greater than or equal to the number required for the petition.	7.2 Receive Petition & Signature Logs			
Petitions	5.61	The system shall deem the petition failed for not having enough signatures after receiving petition, if the system determines the total number of signatures remaining is less than the number required for the petition.	7.2 Receive Petition & Signature Logs			
Petitions	5.62	The system shall allow the user to generate a receipt of the failed petition for the committee.	7.2 Receive Petition & Signature Logs			
Petitions	5.63	The system shall allow the user to update the status of the petition.	7.2 Receive Petition & Signature Logs			
Petitions	5.64	The system shall allow the user to indicate the petition sheets have been reviewed and are ready for the creation of random a sample of eligible signatures.	7.2 Receive Petition & Signature Logs			
Petitions	5.65	The system shall allow the user to record key information from any communication with petitioners in regards to a specific petition, including but not limited to, the approximate date of when petition sheets will be delivered, and the number of sheets and signature lines in each batch.	7.2 Receive Petition & Signature Logs			
Petitions	5.66	The system shall allow the user to create a random sample for signature verification for a specific petition.	7.3 Create Random Sample for Signature Verification			
Petitions	5.67	The system shall create a random list of remaining eligible signature lines for verification based on the require percentage of the total number of remaining eligible signatures for verification.	7.3 Create Random Sample for Signature Verification			
Petitions	5.68	The system shall generate a report for what sheet number and line number needs to be marked by the user for the random sample verification.	7.3 Create Random Sample for Signature Verification			
Petitions	5.69	The system shall indicate the signature lines for verification.	7.3 Create Random Sample for Signature Verification			
Petitions	5.70	The system shall allow the user to indicate the sheets that contain signature lines and the signature lines for verification.	7.3 Create Random Sample for Signature Verification			

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	Petitions	5.80	signatory with the history that the voter signed the given potition	Verification			
L Findings			אינו עוב וואנטיץ אינו ער איני אינו איני א	Findings			

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"	Response Comments
			7.4 Record			
Detitiona	E 01	The system shall allow the user to indicate a reason that the signature line is	Signature			
Pelilions	0.01	disqualified if the signature line is disqualified.	Verification			
			Findings			
			7.4 Record			
Potitions	5 92	The system shall allow the user to indicate that a signature verification is pending	Signature			
F CutiONS	5.62	based on a review.	Verification			
			Findings			
			7.4 Record			
Potitions	5.83	The system shall allow the user to double or triple check signature lines	Signature			
Fellions	5.65	The system shall allow the user to double of thple check signature lines.	Verification			
			Findings			
			7.4 Record			
Potitions	E 94	The system shall allow the user to require a different user for double or triple	Signature			
Pelilions	5.64	checks.	Verification			
			Findings			
			7.4 Record			
Detitions	5.05	The system shall allow the user to limit the potential double or triple check to disqualified or pending signature lines.	Signature			
Petitions	5.85		Verification			
			Findinas			
			7.4 Record			
	5.86	The system shall allow the user to certify or finalize the results of line item signature verification.	Signature			
Petitions			Verification			
			Findings			
			7.4 Record			
	5.87	The system shall indicate to the user how many signature lines have been	Signature			
Petitions		verified, and how many have been disqualified, pending or are assigned any	Verification			
		other status.	Findings			
			7.4 Record			
		The system shall determine the total number of disgualified signatures from each	Signature			
Petitions	5.88	set of line item signature verifications.	Verification			
			Findings			
			7 4 Record			
		The system shall allow the user to certify his or her signature verification findings	Signature			
Petitions	5.89	and transmit that certification to AZSOS for State-wide petitions and the political	Verification			
		committee.	Findings			
			7 4 Record			
		The system shall allow the user to "lock down" petitions after the challenge	Signature			
Petitions	5.90	period has been completed and the jurisdiction has certified the petition for local	Verification			
		petitions.	Findings			
			7 4 Pocord			
		The system shall allow the user to report on signature verification findings during	Signaturo			
Petitions	5.91	the challenge period for potitions	Vorification			
			Findings			
<u> </u>	+		7 4 Decord		ļ	
		The system shall allow the user to electronically return results of signature	A RECOLU			
Petitions	5.92	choots that have been verified and the eartification of the verification to AZCOC	Vorification			
		Sheets that have been vernied and the certification of the vernication to AZSOS.	Findings			
1	1		Findings	1		
Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"	Response Comments
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Petitions	5.93	The system shall set a configurable deadline such as 72 hours from the current date, excluding Saturdays, Sundays and legal holidays, to determine the total number of valid signatures from the certifications, if the County is the last County to return a certification of a petition to AZSOS.	7.4 Record Signature Verification Findings			
Petitions	5.94	The system shall allow the user to determine the final disposition of a petition.	7.5 Close Petition & Report Findings			
Petitions	5.95	The system shall determine the percentage of signatures found to be invalid from the random sample of all counties and for the whole State-wide petition.	7.5 Close Petition & Report Findings			
Petitions	5.96	The system shall apply the percentage of signatures found to be invalid from the random sample to all the remaining signatures and determine the number of signatures for the whole petition that are likely valid.	7.5 Close Petition & Report Findings			
Petitions	5.97	The system shall compare the total number of signatures that are likely to be valid from for the whole petition to the number of signatures required for the petition.	7.5 Close Petition & Report Findings			
Petitions	5.98	The system shall allow the user to close or finalize a petition and report the results.	7.5 Close Petition & Report Findings			
Petitions	5.99	The system shall deem the petition as having a sufficient number of signatures for the matter to be placed on the ballot, if the system determines that the likely number of remaining valid signatures is greater than or equal to the number required for the petition.	7.5 Close Petition & Report Findings			
Petitions	5.100	The system shall generate a notice to the Governor if a petition is deemed to have a sufficient number of signatures for the matter to be placed on the ballot.	7.5 Close Petition & Report Findings			
Petitions	5.101	The system shall allow the user to record the rebuttal Statement from the recall, if the system determines a recall can be placed on a ballot.	7.5 Close Petition & Report Findings			
Petitions	5.102	The system shall deem the petition as not having a sufficient number of signatures for the matter to be placed on the ballot, if the system determines that the likely number of remaining valid signatures is less than the number required for the petition.	7.5 Close Petition & Report Findings			
Petitions	5.103	The system shall generate a notice if a petition is deemed to have a sufficient number of signatures for the matter to be placed on the ballot.	7.5 Close Petition & Report Findings			
Petitions	5.104	The system shall generate a notice to the political committee that applied for the petition with the final counts and results of the signature verification as compared to the number of signatures required for the petition and final disposition of the petition.	7.5 Close Petition & Report Findings			

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"	Response Comments
Petitions	5.105	The system shall allow the authorized user to process a request to withdraw a signature from a petition.	7.6 Close Petition & Report Findings			
Petitions	5.106	The system shall have the capability to record a scanned copy of a Statement of Intent to withdraw a signature and attach it to the petition.	7.6 Close Petition & Report Findings			
Petitions	5.107	The system shall allow the authorized user to indicate the name of the elector to be removed from the petition.	7.6 Close Petition & Report Findings			
Petitions	5.108	The system shall remove the signature lines associated with any electors that have requested their signature be withdrawn from the petition, if the system identifies the electors in the signature log.	7.6 Close Petition & Report Findings			
Petitions	5.109	The system shall not allow the authorized user to record an elector as having signed a petition if the elector has requested in the system for their signature to be withdrawn from the petition.	7.6 Close Petition & Report Findings			

AZSOS Access Voter Information Database (AV RFP Functional Requirements Matrix

Election Management

Requirement	Requirement		Use Case	Response Code	Response Code
Area	Number			"Whether"	"How"
Election			8.1 Manage		
Management	6.01	The system shall allow the authorized user to define State-wide elections.	Election		
wanagement			Definition		
Flection			8.1 Manage		
Management	6.02	The system shall allow the authorized user to define a name and description for an election.	Election		
Management			Definition		
Election		The system shall allow the authorized user to define a generic calendar in the system and	8.1 Manage		
Management	6.03	update it with Arizona holidays.	Election		
managomon			Definition		
Election		The system shall allow the authorized user to define, copy and modify an election specific	8.1 Manage		
Management	6.04	calendar including but not limited to election date & time, early voting dates, and deadlines	Election		
management		for registrations and early ballots.	Definition		
Flection		The system shall allow the authorized user to view a combined calendar for the system	8.1 Manage		
Management	6.05	including but not limited to Arizona holidays, dates, times, and deadlines for all elections	Election		
		defined in the system.	Definition		
Election		The system shall allow the authorized user to define what districts are included in an election	8.1 Manage		
Management	6.06	definition.	Election		
			Definition		
Election	0.07	The system shall allow the authorized user to define what Counties are included in an	8.1 Manage		
Management	6.07	election definition.	Election		
			Definition		
Election	0.00	The system shall allow the authorized user to view precincts included in an election definition	8.1 Manage		
Management	6.08	and notify a County that a possible change or update is needed.	Election		
			Definition		
Election	C 00	The system shall identify the precincts to be included in an election based on the district and	8.1 Manage		
Management	6.09	counties included in the election.	Definition		
Election	6 10	The system shall allow the authorized user to select what parties are participating in the	6.1 Manage		
Management	0.10	election for partisan elections.	Definition		
			8 1 Manage		
Election	6 11	The system shall allow the authorized user to define what type of State-wide election (e.g.,	Election		
Management	0.11	general, primary, special election, special congressional district election, recall election).	Definition		
			8.1 Manage		
Election	6.12	The system shall allow the authorized user to define whether the election is vote by mail.	Election		
Management	0		Definition		
			8.1 Manage		
Election	6.13	The system shall propagate State-wide election definitions to all counties.	Election		
Management	-		Definition		

Requirement Area	Requirement Number		Use Case	Response Code "Whether"	Response Code "How"
Election Management	6.14	The system shall allow the authorized user to define local-only elections.	8.1 Manage Election	Wildhei	now
Election Management	6.15	The system shall allow the authorized user to define election details of local-only elections such as but not limited to: name, date, time, early voting dates, and deadlines for registrations.	8.1 Manage Election Definition		
Election Management	6.16	The system shall allow the authorized user to define the districts for a local election.	8.1 Manage Election Definition		
Election Management	6.17	The system shall identify precincts for a local election based on districts for the election.	8.1 Manage Election Definition		
Election Management	6.18	The system shall allow the authorized user to define precincts for a local election.	8.1 Manage Election Definition		
Election Management	6.19	The system shall allow the authorized user to define the type of election and if a partisan election, pick the parties participating in the election.	8.1 Manage Election Definition		
Election Management	6.20	The system shall allow the authorized user to define whether the election is vote by mail for the whole election area, for certain precincts or precinct parts.	8.1 Manage Election Definition		
Election Management	6.21	The system shall allow the authorized user to define polling locations or vote centers for the election.	8.1 Manage Election		
Election Management	6.22	The system shall allow the authorized user to define early voting sites for the election.	8.1 Manage Election Definition		
Election Management	6.23	The system shall allow the authorized user to define precincts that are only vote by mail based on the number of registered voters and type of election.	8.1 Manage Election Definition		
Election Management	6.24	The system shall allow the authorized user to define how the pollbooks or rosters will be created and in what format.	8.1 Manage Election Definition		
Election Management	6.25	The system shall identify all the unique ballot styles for the election based on the election definition, districts or jurisdictions and precincts.	8.1 Manage Election Definition		
Election Management	6.26	The system shall allow the authorized user to close an election after the end of a challenge period.	8.1 Manage Election Definition		
Election Management	6.27	The system shall allow the authorized user users to further define the definition of all elections, except they will not be able to modify what AZSOS defines.	8.1 Manage Election Definition		
Election Management	6.28	If a County defines a local election that includes a district that goes into another County, the system shall notify the other County of the election set up and allow the other County to further define the local election in that County.	8.1 Manage Election Definition		

Requirement Area	Requirement Number		Use Case	Response Code "Whether"	Response Code "How"
Election Management	6.29	The system shall only propagate State-called elections to counties that have some part of a district or jurisdiction defined in the State-wide election.	8.1 Manage Election Definition		
Election Management	6.30	The system shall allow the authorized user to process requests to be added to PEVL or requests to otherwise receive an Early Ballot.	8.2 Process Request for Early Ballot		
Election Management	6.31	The system shall allow the authorized user to record information provided on paper PEVL requests in the system.	8.2 Process Request for Early Ballot		
Election Management	6.32	The system shall have the capability to record a scanned copy of a paper request to be added to PEVL.	8.2 Process Request for Early Ballot		
Election Management	6.33	The system shall have the capability to recognize characters, check boxes, and signatures on scanned copies of paper requests to be added to PEVL and record the information in a structured format as if the information was entered by a user into the system.	8.2 Process Request for Early Ballot		
Election Management	6.34	The system shall have the capability to record scanned copies of paper requests for an Early Ballot.	8.2 Process Request for Early Ballot		
Election Management	6.35	The system shall have the capability of searching for voter registration records based on a scan of a barcode on a PEVL request.	8.2 Process Request for Early Ballot		
Election Management	6.36	The system shall verify if the applicant for the early ballot request has already applied or is registered.	8.2 Process Request for Early Ballot		
Election Management	6.37	The system shall give the authorized user the option to update the existing record, if the system finds a potential match (or duplicate) with an existing record.	8.2 Process Request for Early Ballot		
Election Management	6.38	The system shall display the applicant's existing voter registration record in the system and give the authorized user the option to update the information, if the system finds a hard match with the personal identifying information on an application.	8.2 Process Request for Early Ballot		
Election Management	6.39	The system shall allow the authorized user to update a voter registration record as permanently wanting an early ballot or requesting to be added to PEVL and shall add the potential voter to PEVL.	8.2 Process Request for Early Ballot		
Election Management	6.40	The system shall allow the authorized user to update a voter registration record to indicate that the applicant requests an early ballot for multiple elections in the same election cycle, for example the primary and general elections.	8.2 Process Request for Early Ballot		
Election Management	6.41	The system shall allow the authorized user to update a voter registration record to indicate the applicant's request for an early ballot for the next election	8.2 Process Request for Early Ballot		
Election Management	6.42	The system shall allow the authorized user to update a voter registration record to indicate the applicant's request for a one-time early ballot to be sent to an alternate mailing address.	8.2 Process Request for Early Ballot		
Election Management	6.43	The system shall remove the need for a one-time early ballot for the next election and remove any alternate mailing address for the early ballot request, after the election for which there was a one-time early ballot.	8.2 Process Request for Early Ballot		

Requirement	Requirement		Use Case	Response Code	Response Code
Alea	Number			"Whether"	"How"
Flection		The system shall allow the authorized user to update a voter registration record as not	8.2 Process		
Management	6.44	wanting an early ballot for the next election for PEVL voters.	Request for		
			Early Ballot		
Election	0.45	The system shall allow the authorized user to update a voter registration record as wanting	8.2 Process		
Management	6.45	an Early Primary Ballot for an independent voter that is not on PEVL for a partisan election.	Request for		
		The system shall allow an authorized user to undate the visitor resistantian respirit for the party	Early Ballot		
Election	C 4C	I ne system shall allow an authorized user to update the voter registration record for the party	8.2 Process		
Management	0.40	parior this voter requested when the independent voter requests an early ballot for a partisan	Request for		
Election	6 47	The system shall allow the authorized user to update a voter registration record as wanting	0.2 FIUCESS		
Management	0.47	an Early Primary Ballot for an independent voter that is on PEVL for a partisan election.	Farly Ballot		
		The system shall allow the authorized user to undate the voter registration record for what	8 2 Process		
Election	6 48	party ballot this voter requested when the independent voter requested an early ballot for a	Request for		
Management	0.40	partisan election and the voter was on PEVL.	Farly Ballot		
			8.2 Process		
Election	6.49	The system shall record how many requests a voter has for an early ballot (e.g., first request,	Request for		
Management		second request).	Early Ballot		
Floriday		The state of the Hamiltonian device the state of the state of the Hamiltonian based	8.2 Process		
Election	6.50	I he system shall allow the authorized user to generate various lists in order to send early	Request for		
Management		danots.	Early Ballot		
		The system shall allow the authorized user to record details on early ballots sent including	8.2 Process		
Election	6 51	but not limited to: what ballot style was sent including party and what iteration of early ballot	8.2 FIDLESS		
Management	0.01	was sent to each voter (first second or third time an Early Ballot was sent etc.)	Farly Ballot		
			Early Ballot		
Flection		The system shall allow the authorized user to record details on early ballots sent based on	8.2 Process		
Management	6.52	lists of early ballot requests generated from the system.	Request for		
			Early Ballot		
Election	0.50	The system shall allow the authorized user to upload a list of early ballots sent in order to	8.2 Process		
Management	6.53	record details regarding early ballots sent.	Request for		
			Early Ballot		
Election	6 54	The system shall direct Public users interested in requesting an early ballot to update his or	Bequest for		
Management	0.04	her voter registration online to be added to PEVL if they desire	Farly Ballot		
			8 2 Process		
Election	6.55	The system shall allow Public users to make the various requests for early ballots outlined in	Request for		
Management	0.00	the use case through the online self-service function .	Early Ballot		

Requirement Area	Requirement Number		Use Case	Response Code "Whether"	Response Code "How"
Election Management	6.56	 The system shall allow Public users to make early ballot requests online including but not limited to: 1. Add to PEVL 2. One-time request for an early ballot 3. One-time request for early ballots just in this election cycle, for example primary and general 4. One-time request to not receive an early ballot for voters on PEVL 5. Early Primary Ballot from an independent voter not on PEVL 6. Early Primary Ballot from an independent voter on PEVL 7. Second or third Early Ballot request 8. Request for early ballot to go to alternate mailing address 	8.2 Process Request for Early Ballot		
Election Management	6.57	The system shall allow users to indicate that a request for PEVL has been received but that the request was incomplete.	8.2 Process Request for Early Ballot		
Election Management	6.58	The system shall allow users to generate a notice of incomplete information from a request to be on PEVL	8.2 Process Request for Early Ballot		
Election Management	6.59	The system shall remove registered voters from PEVL based on specific status changes.	8.2 Process Request for Early Ballot		
Election Management	6.60	The system shall identify voters with out-of-State mailing addresses that are requesting to be added to PEVL and notify the authorized user that the voter has an out-of-State mailing address.	8.2 Process Request for Early Ballot		
Election Management	6.61	The system shall allow users to indicate that a request for PEVL has been received but that the request contains information that does not match the voter's current voter registration record.	8.2 Process Request for Early Ballot		
Election Management	6.62	The system shall allow users to generate a notice of incomplete information from a request to be on PEVL.	8.2 Process Request for Early Ballot		
Election Management	6.63	The system shall allow the authorized user to update a potential voter's residential address when processing a request to be added to PEVL.	8.2 Process Request for Early Ballot		
Election Management	6.64	The system shall have the capability to identify multiple early ballots going to the same mailing or email address based on a configurable threshold limit.	8.2 Process Request for Early Ballot		
Election Management	6.65	Record shall have the capability to indicate that an early ballot was sent (sent to vendor before close of registration), update voter residence address, send second ballot to updated address, the system should reflect first issue to original precinct, second issue to updated precinct and the ballot style.	8.2 Process Request for Early Ballot		
Election Management	6.66	The system shall allow the authorized user to process receipt of an early ballot.	8.3 Receive Early Ballot		
Election Management	6.67	The system shall allow the authorized user to scan a barcode on an early ballot to identify receipt of an early ballot.	8.3 Receive Early Ballot		
Election Management	6.68	The system shall allow the authorized user to record in the system the manner in which an early ballot was received (e.g., email, mail, drop off) and the time frame of the vote (e.g., early, on Election Day, late).	8.3 Receive Early Ballot		

Requirement	Requirement			Response	Response
Area	Number		Use Case	Code	Code
Election		The system shall allow the systemized user to record information provided on the systemide of	8 2 Possivo	"Whether"	"How"
Management	6.69	an early ballot	Farly Ballot		
Election		The system shall have the capability to record a scanned copy of the outside of the early	8.3 Receive		
Management	6.70	ballot.	Early Ballot		
		The system shall have the capability to recognize characters, check boxes, and signatures			
Election	6.71	on scanned copies of the outside of early ballots and record the information in a structured	8.3 Receive		
Management		format as if the information was entered by a user into the system.	Lany Ballot		
Election	6.72	The system shall identify the registered voter associated with the early ballot.	8.3 Receive		
Management		The system shall display the veter's hand written signature from the veter registration record	Early Ballot		
Management	6.73	of the voter.	8.3 Receive		
Election	0.74		8.3 Receive		
Management	6.74	The system shall display an image of the signature from the voter's early ballot.	Early Ballot		
Election		The system shall have the capability of comparing a hand written signature from a voter's	8.3 Receive		
Management	6.75	registration to a voter's early ballot, determine if the signatures match and provide	Early Ballot		
Floation		Information on the potential match to the authorized user.			
Election	6.76	The system shall allow the authorized user to manually indicate it a hand written signature	8.3 Receive		
Flection		The system shall allow the authorized user to indicate a disposition of the received early	8 3 Receive		
Management	6.77	ballot in the system and if rejected include a rejection reason	Early Ballot		
Election	0.70	The system shall have the capability to alert staff that a ballot has already been accepted and	8.3 Receive		
Management	6.78	ability to override, along with being able to check activity.	Early Ballot		
Election		The system shall allow the authorized user to add voter records to the queue to issue	8.3 Receive		
Management	6.79	notices, for example to send notices for early ballot issues (see Issue Notices use case).	Early Ballot		
Election		The system shall give an indication to the systemized user that the hollet is for an ACP	9 2 Pagaiya		
Management	6.80	Secured voter, when the authorized user receives an ACP Farly Ballot	6.5 Receive		
			8.4 Receive		
Election	6.81	The system shall allow the authorized user to process receipt of a provisional ballot.	Provisional		
Management			Ballots		
Election		The system shall allow the authorized user to record information provided on the outside of a	8.4 Receive		
Management	6.82	provisional ballot, such as recording what polling location the provisional ballot came from.	Provisional		
			Ballots		
Election	6.83	The system shall have the capability to record a scanned copy of the outside of a provisional	0.4 Receive		
Management	0.00	ballots.	Ballots		
		The system shall have the canability to recognize characters, check haves, and signatures	8 / Receive		
Election	6 84	on scanned conies of the outside of provisional ballots and record the information in a	Provisional		
Management	0.04	structured format as if the information was entered by a user into the system.	Ballots		
		, ,	8 / Receive		
Election	6 85	The system shall identify the registered voter associated with a provisional ballot	Provisional		
Management	0.00		Ballots		
Floction			8.4 Receive		
Election	6.86	The system shall display the voter's hand written signature from the voter's voter registration.	Provisional		
wanayement			Ballots		

Requirement	Requirement		Use Case	Response Code	Response Code
Alea	Number			"Whether"	"How"
Election			8.4 Receive		
Management	6.87	The system shall display an image of the signature from the voter's provisional ballot.	Provisional		
management			Ballots		
Election		The system shall have the capability of comparing a hand written signature from a voter's	8.4 Receive		
Management	6.88	registration and from a voter's provisional ballot, determine if the signatures match and	Provisional		
5		provide information on the potential match to the authorized user.	Ballots		
Election	C 00	The system shall allow the authorized user to manually indicate if a hand written signature	8.4 Receive		
Management	6.89	matches between a voter's registration and the voter's provisional ballot.	Provisional		
			Ballots		
Election	6.00	The system shall allow the authorized user to verify addresses that are allowed to vote in a	0.4 Receive		
Management	0.90	precinct when processing a provisional ballot.	Ballote		
			8 4 Receive		
Election	6 91	The system shall verify if a voter that submits a provisional ballot has already submitted and	Provisional		
Management	0.01	accepted an early ballot	Ballots		
Election		The system shall allow the authorized user to indicate the disposition of the provisional ballot	8.4 Receive		
Management	6.92	that was received with the appropriate disposition code and associated reason, if the system	Provisional		
0		determines that a voter submitting a provisional ballot has already submitted an early ballot.	Ballots		
Floation		The system shall display to the sytherized user whether an early hallot has been accepted	8.4 Receive		
Monogomont	6.93	when receiving a provisional ballet	Provisional		
Management			Ballots		
Flection		The system shall allow the authorized user to manually indicate a disposition of the received	8.4 Receive		
Management	6.94	provisional ballot in the system, the receipt number on the provisional ballot and a reason for	Provisional		
Management		a rejected provisional ballot.	Ballots		
		The system shall allow the authorized user to manually indicate a disposition of the received	8.4 Receive		
Election	6.95	provisional ballot in the system, the receipt number on the provisional ballot and a reason for	Provisional		
Management		a rejected provisional ballot, such a snot registered/not eligible, wrong voting area, voted	Ballots		
		early ballot, etc.	8 4 Pagaina		
Election	6.06	The system shall allow the authorized user to manually indicate a disposition of the received	0.4 Receive		
Management	0.90	provisional ballot in the system, the receipt number on the provisional ballot and a reason for	Ballote		
			8 4 Receive		
Election	6.97	The system shall have the capability to track the reasons why provisional ballot is being	Provisional		
Management	5.07	submitted (for example: early ballot sent, wrong precinct, not registered, etc.)	Ballots		
Election	0.00		8.5 Manage		
Management	6.98	I ne system shall allow the authorized user to manage polling places.	Polling Places		
Election	6.00	The system shall allow the systemized upor to odd a nelling place to the system.	8.5 Manage		
Management	0.99	The system shall allow the authorized user to add a polling place to the system.	Polling Places		

Requirement Area	Requirement Number		Use Case	Response Code "Whether"	Response Code "How"
Election Management	6.100	The system shall require the authorized user to enter various information to create a polling place such as but not limited to: i. Polling place's name or identification (the location's address) ii. Type of location and in what phase of the election the location can be used (could be one or multiple) (e.g. polling location, vote center, County office, early, election day, both, replace ballot site for ballot by mail election, drop boxes) iii. Contact information such as contact person, phone number and email address iv. Attach contracts for polling locations and set archive date for contract v. Accessibility such as American's with Disability Act (ADA) compliant locations 1. If location is not ADA compliant, include details to make the site ADA compliant 2. Upload images and be able to print them	8.5 Manage Polling Places		
Election Management	6.101	The system shall automatically identify what precincts and districts the polling place is located within and associate them with the location.	8.5 Manage Polling Places		
Election Management	6.102	The system shall allow the authorized user to create a voting area by combining multiple precincts into a single polling location	8.5 Manage Polling Places		
Election Management	6.103	The system shall automatically assign the Election Day schedule to all polling places assigned to that election.	8.5 Manage Polling Places		
Election Management	6.104	The system shall allow the authorized user to view all information associated with a polling place including but not limited to: polling place location information, precincts, district, poll workers and ballot styles associated with the location, and voting history of the location.	8.5 Manage Polling Places		
Election Management	6.105	The system shall allow the authorized user to modify, delete or deactivate whole polling locations or vote centers.	8.5 Manage Polling Places		
Election Management	6.106	The system shall allow the authorized user to manage ballot styles.	8.6 Manage Ballot Styles		
Election Management	6.107	The system shall automatically generate a list of unique ballot styles that are needed in order to have the correct contests appear on the ballot for every given precinct, and election (and party for partisan elections).	8.6 Manage Ballot Styles		
Election Management	6.108	The system shall allow the authorized user to generate a report of all the ballot styles in the election.	8.6 Manage Ballot Styles		
Election Management	6.109	The system shall define ballot styles with a unique identifier, the precincts that are valid for the ballot style, the districts on the ballot style, and the party for the ballot style.	8.6 Manage Ballot Styles		
Election Management	6.110	The system shall allow the authorized user to view a list of unique ballot styles.	8.6 Manage Ballot Styles		
Election Management	6.111	The system shall allow the authorized user to add, modify, merge or delete ballot styles.	8.6 Manage Ballot Styles		
Election Management	6.112	The system shall validate that all the precincts for an election have assigned ballot styles.	8.6 Manage Ballot Styles		
Election Management	6.113	The system shall allow the authorized user to associate and update the ballot styles unique identifiers generated from the system to the ballot style identifiers used for printing.	8.6 Manage Ballot Styles		
Election Management	6.114	The system shall allow the authorized user to indicate that the list of ballot styles has been verified or is valid.	8.6 Manage Ballot Styles		
Election Management	6.115	The system shall automatically mark the list of ballot styles as invalid or needing to be verified whenever geographic information, polling locations, or districts are modified in the system.	8.6 Manage Ballot Styles		

Requirement Area	Requirement Number		Use Case	Response Code "Whether"	Response Code "How"
Election Management	6.116	The system shall allow the authorized user to "lock down" an election definition and ballot styles so that no further changes can occur to districts or precincts that would affect ballots styles.	8.6 Manage Ballot Styles		
Election Management	6.117	The system shall allow the authorized user to import a list of ballots styles for an election that also may include the unique identifiers from the Election Director.	8.6 Manage Ballot Styles		
Election Management	6.118	The system shall update the list of ballot styles for an election based on an imported list of ballot styles.	8.6 Manage Ballot Styles		
Election Management	6.119	The system shall create Federal-only ballot styles that will only include federal races or contests based on election type.	8.6 Manage Ballot Styles		
Election Management	6.120	The system shall create Precinct Committee Person ballots styles for partisan party elections with contested precinct committee races.	8.6 Manage Ballot Styles		
Election	6.121	The system shall create City/Town only ballot styles for partisan party elections with only City / Town races or contests.	8.6 Manage Ballot Styles		
Election	6.122	The system shall allow the authorized user to manage poll workers.	8.7 Manage Poll Workers		
Election Management	6.123	The system shall allow the authorized user to view all potential and previous poll workers for a given precinct or polling locations.	8.7 Manage Poll Workers		
Election Management	6.124	The system shall allow the authorized user to view all voter registration information for registered voters that indicated they want to be poll workers on their application.	8.7 Manage Poll Workers		
Election Management	6.125	The system shall allow the authorized user to view the detailed information associated with a poll worker.	8.7 Manage Poll Workers		
Election Management	6.126	The system shall display detailed information for poll workers, including but not limited to: i. Poll worker ID, MVD number or Voter ID ii. Name, date of birth, last 4 digits of SSN iii. Residential & mailing address iv. Phone numbers, email address v. Party vi. Skills, training, certifications, whether a translator or not vii. Languages fluent viii. Whether the poll worker has been terminated or not ix. Whether the poll worker is disabled or uses a service animal X. Roles (e.g. previously assigned role, current assignment) xi. Preferred precinct xii. Preferred city xiii. Whether the poll worker wants to be paid or not xiv. Notes xv. Poll worker history xvi. Status (e.g. potential, active/confirmed, previous) xviii. Election assignment (of previous and future assignment) xviii. Rates of pay for different roles or certifications xix. Mileage traveled xx. Related to another poll worker xxii. Other information	8.7 Manage Poll Workers 8.7 Manage Poll		
Management	6.127	The system shall allow the authorized user to add potential poll workers.	Workers		

Requirement Area	Requirement Number		Use Case	Response Code "Whether"	Response Code "How"
Election Management	6.128	The system shall attempt to match new potential poll workers with applicants for voter registration and allow the authorized user to edit their information including updating the willingness to be a poll worker on Election Day.	8.7 Manage Poll Workers		
Election Management	6.129	The system shall allow the authorized user to view a list of potential poll workers not already assigned to a polling location that are available to work the particular election.	8.7 Manage Poll Workers		
Election Management	6.130	The system shall have an option for the authorized user to create a roster or epollbook.	8.8 Create Pollbook or Paper Roster		
Election Management	6.131	The system shall allow the authorized user to sort a roster to be printed for inactive or active voters.	8.8 Create Pollbook or Paper Roster		
Election Management	6.132	The system shall allow the authorized user to specify where page breaks will be inserted into paper roster print outs based on rules such as inserting page breaks between the first letters of last name.	8.8 Create Pollbook or Paper Roster		
Election Management	6.133	The system shall allow the authorized user to filter pollbooks or rosters based on certain criteria such as but not limited to a precinct.	8.8 Create Pollbook or Paper Roster		
Election Management	6.134	The system shall allow the authorized user to create a roster in paper format by first creating it in an electronic format such as PDF.	8.8 Create Pollbook or Paper Roster		
Election Management	6.135	The system shall include on a roster or pollbook, including but not limited to: Voters name, residential address, mailing address, VR ID and also VR ID in barcode format, year of birth (for example different voters not indicating suffix), ballot style, early ballot status, registration date, signature box, party preference.	8.8 Create Pollbook or Paper Roster		
Election Management	6.136	The system shall save a file based on selected criteria for the specific paper roster.	8.8 Create Pollbook or Paper Roster		
Election Management	6.137	The system shall make a log of what rosters have been created including but not limited to: date and time, user, filter criteria, export format.	8.8 Create Pollbook or Paper Roster		
Election Management	6.138	The system shall allow the authorized user to indicate what type of the roster was created such as final or supplemental roster.	8.8 Create Pollbook or Paper Roster		
Election Management	6.139	The system shall generate electronic pollbook files with standard format and content.	8.8 Create Pollbook or Paper Roster		
Election Management	6.140	The system shall allow the authorized user to sort an electronic pollbook file for inactive or active voters.	8.8 Create Pollbook or Paper Roster		
Election Management	6.141	The system shall allow the authorized user to create an electronic roster for export to an epollbook in a format suitable to most epollbooks.	8.8 Create Pollbook or Paper Roster		
Election Management	6.142	The system shall save a file based on selected criteria for the pollbook.	8.8 Create Pollbook or Paper Roster		

Requirement Area	Requirement Number		Use Case	Response Code "Whether"	Response Code "How"
			8.8 Create	mether	110W
Election Management	6.143	The system shall make a log of what pollbooks or rosters have been created including but	Pollbook or		
	0.140	not limited to: date and time, user, filter criteria, export format.	Paper Roster		
			8.9 Record		
Election	6.144	The system shall have an option for the authorized user to process a signature roster or epollbook.	Pollbook or		
Management			Paper Roster		
Flection	6.145	The system shall have the capability to record a scanned copy of a paper roster.	8.9 Record		
Election			Pollbook or		
Management			Paper Roster		
Floation		The system shall have the capability to recognize characters and signatures from scanned	8.9 Record		
Monogoment	6.146	copies of paper rosters and record the information in a structured format as if the information	Pollbook or		
Management		was entered by a user into the system.	Paper Roster		
Floction			8.9 Record		
Management	6.147	The system shall have the capability to save an upload from an epollbook.	Pollbook or		
Management			Paper Roster		
Flection		The system shall save an image of a voter's signature from a paper roster or epollbook to a	8.9 Record		
Management	6.148	voter's history in the system.	Pollbook or		
Management			Paper Roster		
Election	6.149	The system shall update a voter's history based on whether they signed a paper roster or	8.9 Record		
Management			Pollbook or		
Management			Paper Roster		
Election	6.150	The system shall allow the authorized user to scan VR ID barcode from paper signature roster to update voter history from polls.	8.9 Record		
Management			Pollbook or		
management			Paper Roster		
Election	6.151	The system shall update the voter's history with the follow information, including but not limited to: Election voted in, party or if they are independent or non-affiliated, the fact that voter voted at a poll, and at what location voter voted.	8.9 Record		
Management			Pollbook or		
g=			Paper Roster		
Election	6.152	The system shall allow the authorized user to record what partisan ballot the voter voted for a partisan election based on the ballot that was selected. Determined by which ballot was sent.	8.9 Record		
Management			Pollbook or		
5			Paper Roster		
Election	6.153	The sustain shall import a standardinal completed on all file to undetermined bits.	8.9 Record		
Management		The system shall import a standardized completed epollbook file to update voter history.	POIIDOOK OF		
<u> </u>			Paper Roster		
Election Management	6.154	The system shall have the capability to save information from an epollbook, including signatures, in a structured format as if the information was entered by a user into the system.	0.9 Recuid		
			POIDUOK UI		
			raper Rusiel		
Flection	6.155	The system shall indicate to the authorized user the status and result of the epollbook upload and any conflicts that may be identified from the epollbook. Conflicts from an epollbook import may include potential double voting history for a single election.	8.9 Record		
Management			Pollbook or		
			Paper Roster		

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AZSOS Access Voter Information Database (AV RFP Functional Requirements Matrix

System Administration

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
System Administration	7.01	The system shall allow the authorized user to manage geographic information in the system, that may include but is not limited to; an index of streets, parcels, zip codes, addresses, latitude and longitude information, legal description such as section / township and range.	9.1 Manage Geographic Information		
System Administration	7.02	The system shall display a summary of geographic information in the system including but not limited to: information that has been uploaded or modified, and the date, time and user that uploaded or modified data.	9.1 Manage Geographic Information		
System Administration	7.03	The system shall allow the authorized user to update base geographic information such as latitude and longitude.	9.1 Manage Geographic Information		
System Administration	7.04	The system shall allow the authorized user to update parcel information.	9.1 Manage Geographic Information		
System Administration	7.05	The system shall allow the authorized user to update zip code information including addition of the plus 4 zip code.	9.1 Manage Geographic Information		
System Administration	7.06	The system shall allow the authorized user to update the index of streets.	9.1 Manage Geographic Information		
System Administration	7.07	The system shall allow the authorized user to update street alias information.	9.1 Manage Geographic Information		
System Administration	7.08	The system shall allow the authorized user to update valid addresses in the geographic information.	9.1 Manage Geographic Information		
System Administration	7.09	The system shall have the capability to identify and associate Census block tracks in the geographic information.	9.1 Manage Geographic Information		
System Administration	7.10	The system shall validate that all the geographic information in an election includes all the precincts defined for an election.	9.1 Manage Geographic Information		
System Administration	7.11	The system shall allow the authorized user to manage geographic information based on street file formats, including uploading street files to make updates and downloading geographic information in a street file format.	9.1 Manage Geographic Information		
System Administration	7.12	The system shall allow the authorized user to manage geographic information based on geographic information system (GIS) formats, such as but not limited to: Shapefile (SHP), Keyhole Markup Language (KML), File Geodatabase (GDB) or GeoPackage, Layers (LYR), OpenStreetMap (OSM), ArcGIS, and roster formats such as ESRI Grid.	9.1 Manage Geographic Information		
System Administration	7.13	The system shall allow the authorized user to upload GIS files to make updates and download geographic information in GIS formats.	9.1 Manage Geographic Information		

Requirement	Requirement	Poguiromont		Response	Response
Area	Number		Use case	Uode "Whether"	"How"
System		The system shall have the capability to identify residential addresses as valid residences based	9.1 Manage		
Administration 7.14		on County information of assigned addresses and planned zoned for residences.	Geographic		
			9.1 Manage		
System	7.15	The system shall have the capability to identify residential addresses as commercial addresses.	Geographic		
Auministration			Information		
			9 1 Manage		
System	7.16	The system shall have the capability to validate zip codes against valid zip codes including plus	Geographic		
Administration		4 zip codes.	Information		
System	7 17	The system shall allow the systemized uper to manage districts in the system	9.2 Manage		
Administration	7.17		Districts		
System	7 10	The system shall display a summary of districts in the system including but not limited to:	9.2 Manage		
Administration	7.10	data.	Districts		
System		The system shall allow the authorized user to manage districts, define district name, type and	9 2 Manage		
Administration	7.19	any associated jurisdictions, for example jurisdictions that may have a parent-child relationship	Districts		
System		or that share some jurisdiction or geography in some way.	9 2 Manage		
Administration	7.20	The system shall allow the authorized user to define all the counties associated with that district.	Districts		
System	7.21	The system shall allow the authorized user to define a rank or order for the districts, such as for	9.2 Manage		
Administration		their appearance on voter ID cards.	0 2 Manage		
Administration	7.22	environment.	Districts		
System	7.23	The system shall allow the authorized user to import test districts to the production environment.	9.2 Manage		
Administration			9 3 Manage		
Administration	7.24	The system shall allow the authorized user to manage precincts in the system.	Precincts		
System	7.05	The system shall display a summary of precincts in the system including but not limited to:	9.3 Manage		
Administration	7.25	number of precincts by County, information that has been uploaded or modified, date, time and user that uploaded or modified data	Precincts		
System	7.26	The system shall allow the authorized user to manage precincts, such as subdivide or merge	9.3 Manage		
Auministration			Frecincis		
System	7.27	The system shall allow the authorized user to define precinct name, type and any associated	9.3 Manage		
System			9.3 Manage		
Administration	7.28	The system shall associate precincts to jurisdiction or districts based on geographic information.	Precincts		
System	7.29	The system shall allow the authorized user to define the geographical boundaries of a precinct.	9.3 Manage		
System			9.3 Manage		
Administration	7.30	The system shall allow the authorized user to associate polling locations to precincts.	Precincts		
System	7.31	The system shall associate precincts to polling locations based on geographic information.	9.3 Manage		
System		The system shall validate that all the precincts included in an election cover all the geographic	9.3 Manage		
Administration	7.32	area for an election.	Precincts		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
System Administration	7.33	The system shall allow the authorized user to review precinct updates prior to saving them.	9.3 Manage Precincts		
System Administration	7.34	The system shall allow the authorized user to undo or reverse changes that have been made to precincts.	9.3 Manage Precincts		
System Administration	7.35	The system shall allow the authorized user to indicate a precinct is inactive and to archive the precinct.	9.3 Manage Precincts		
System Administration	7.36	The system shall have the capability to assign visual indicators such as color or shape coding to indicate status or potential priority.	9.3 Manage Precincts		
System Administration	7.37	The system shall have the capability to create precinct parts or any sub parts thereof, for example, creating sub parts of sub parts.	9.3 Manage Precincts		
System Administration	7.38	The system shall allow the authorized user to manage precinct parts or sub-parts of a precinct like a whole precinct.	9.3 Manage Precincts		
System Administration	7.39	The system shall have the capability to have different polling locations for different elections.	9.3 Manage Precincts		
System Administration	7.40	The system shall allow the authorized user to make mass updates.	9.4 Manage Mass Updates		
System Administration	7.41	The system shall provide the authorized user with multiple types or options of mass updates such as but not limited to: i. Cancelling all voter registrations for individuals that have not voted in the last two federal elections and are in inactive status ii. Canceling outstanding tasks and updating application status for applicants that have been issued a Notice of Incompleteness and no response has been received within a given time period. iii. Applying Redistricting iv. Applying Zip code changes v. Applying Precinct changes	9.4 Manage Mass Updates		
System Administration	7.42	The system shall allow the user to verify the mass update prior to making it in the system such as through previewing the changes or testing the update in a test database.	9.4 Manage Mass Updates		
System Administration	7.43	The system shall allow the authorized user to make mass updates to multiple records at one time.	9.4 Manage Mass Updates		
System Administration	7.44	The system shall allow the authorized user to generate new notices based on mass updates.	9.4 Manage Mass Updates		
System Administration	7.45	The system shall allow the authorized user to undo any mass update that has been previously made in the system.	9.4 Manage Mass Updates		
System Administration	7.46	The system shall allow the authorized user to manage data requests.	9.5 Manage Requests for Data		
System Administration	7.47	The system shall allow the authorized user to create a data request in the system and include initial set up data such as but not limited to: Name of request, description of request, requestor, requestor contact information, where to send information (if different than the requestor), date and time of request, whether the request has been approved by legal or not or is pending (Attorney General, County Counsel), whether the request form or information already provided.	9.5 Manage Requests for Data		
System Administration	7.48	The system shall have the capability of estimating the cost of fulfilling the request to the requestor, including but not limited to minimum flat fees or variable fees based on the data request.	9.5 Manage Requests for Data		

Requirement Area	Requirement Number	Requirement		Response Code "Whether"	Response Code "How"
System Administration	7.49	The system shall allow the authorized user to indicate money was received prior to working on the data request.	9.5 Manage Requests for Data		
System Administration	7.50	The system shall allow the authorized user to view public records requests that have not yet been fulfilled, their current status, how long the request has been open and any notes made by the authorized user on the request.	9.5 Manage Requests for Data		
System Administration	7.51	The system shall allow the authorized user to generate a summary, description, or legend for the report.			
System Administration	7.52	The system shall allow the authorized user to indicate that public records requests were fulfilled but indicating certain disposition information including but not limited to: i. Date and time of fulfillment, description of records provided, method of delivery, address delivered to, and upload of file provided.			
System Administration	7.53	The system shall allow the authorized user to fulfill public records requests by using previous public records requests.	9.5 Manage Requests for Data		
System Administration	7.54	The system shall include secured voters in counts or other statistics on the system but shall not allow the authorized user to include detailed secured voter information such as address.	9.5 Manage Requests for Data		
System Administration	7.55	The system shall allow different confidentiality rules for different Secured Voters such as ACP Secured Voter or non-ACP Secured Voter.	9.5 Manage Requests for Data		
System Administration	7.56	The system shall allow the authorized user to pull images from voter registration information and electronically redact certain information.	9.5 Manage Requests for Data		
System Administration	7.57	The system shall allow the authorized user to manage the system parameters.	9.6 Manage System Parameters		
System Administration	7.58	The system shall display various system parameters to manage.	9.6 Manage System Parameters		
System Administration	7.59	The system shall allow the authorized user to make changes to system parameters and save the changes.	9.6 Manage System Parameters		
System Administration	7.60	The system shall allow the authorized user to define what system parameters apply to all counties versus certain counties.	9.6 Manage System Parameters		
System Administration	7.61	The system shall only include system parameters and configuration that is only applicable to Arizona.	9.6 Manage System Parameters		
System Administration	7.62	The system shall allow certain authorized users to manage the user roles.	9.7 Manage User Roles		
System Administration	7.63	The system shall allow certain authorized users to manage different user permissions between State & County the authorized user, user roles or groups.	9.7 Manage User Roles		

Requirement Area	Requirement Number	Requirement	Use Case	Response Code "Whether"	Response Code "How"
System Administration	7.64	The system shall allow the authorized user to manage different user permissions between counter, supervisor the authorized user, seasonal and other user roles or groups.	9.7 Manage User Roles		
System Administration	7.65	The system shall allow certain authorized users to manage the different access and permissions per user role.	9.7 Manage User Roles		
System Administration	7.66	The system shall allow the authorized user to remove all access to the system for certain users.	9.7 Manage User Roles		
System Administration	7.67	The system shall allow the authorized user to archive old users that no longer have access to the system.	9.7 Manage User Roles		
System Administration	7.68	The system shall allow the authorized user to limit the access for certain users to view only access.	9.7 Manage User Roles		
System Administration	7.69	7.69 The system shall allow the authorized user to limit the access for Public users.			
System Administration	7.70	The system shall have the capability to generate a report on all activities a user has conducted in the system.	9.7 Manage User Roles		
System Administration	7.71	The system shall display options to the user to run reports on all information in the system.	9.8 Generate Report		
System Administration	7.72	The system shall allow the user to filter the report to a subset of the data based on any information in the system.	9.8 Generate Report		
System Administration	7.73	The system shall provide multiple "canned" or pre-built reports for the user to select from and run or modify prior to running.	9.8 Generate Report		
System Administration	7.74	The system shall allow the user to build his or her own "ad-hoc" reports based on any information in the system.	9.8 Generate Report		
System Administration	7.75	The system shall allow the user to schedule the time of day when a report runs and the reoccurrence frequency of the report.	9.8 Generate Report		
System Administration	7.76	The system shall provide the selected report in a graphical display and data table for export from the system.	9.8 Generate Report		
System Administration	7.77	The system shall export report data in a format specified by the user such as but not limited to: .csv, .xlsx, .docx, .pdf, .xml, .html, .txt.	9.8 Generate Report		
System Administration	7.78	The system shall have the capability to define, use and calculate based on business days or calendar days			

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ERIC
FPCA
FWAB
HAVV
MVD
PEVL
SAVE
UOCAVA
USCIS

OS Access Voter Information Database FP Functional Requirements Matrix

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Description		
Arizona Address Confidentiality Program		
Access Voter Information Database		
Arizona		
Arizona Department of Transportation		
Arizona Secretary of State		
Address Confidentiality Program		
Arizona Department of Health Services		
Electronic Registration Information Center		
Federal Postcard Application		
Federal Write-in Absentee Ballot		
Help America Vote Verification		
Arizona Motor Vehicle Division of the Arizona Department of Transportation		
Permanent Early Voter List		
Systematic Alien Verification for Entitlements Program		
Uniformed and Overseas Citizens Absentee Voting Act		
U.S. Citizenship & Immigration Services		


Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration State Procurement Office 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

Arizona Department of State, Office of the Secretary of State



Access Voter Information Database (AVID)

Section 7

General Assumptions

Instructions for RFP Response

RFP #ADSPO17-00007130

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Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration **State Procurement Office** 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

1.0 Instructions

The Offeror must list all their project assumptions in this template. It has been organized into the following categories:

- General
- Offeror Experience
- Offeror Organization and Staffing
- Functional Requirements Approach
- Non-Technical Requirements Approach
- Liquidated Damages, Warranty, Software Maintenance and Support
- Work Plan

Table 1.

2.0 Assumptions

General

AZSOS reserves the right to accept or reject any assumptions. All assumptions not expressly identified and incorporated into the contract resulting from this RFP are deemed rejected by AZSOS. Do not include any cost information in the table below. Add more lines as needed.

ltem #	Reference (Section, Page, Paragraph)	Description	Rationale
1.			
2.			
3.			

<Offeror may add rows as appropriate>

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Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration State Procurement Office 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

Table 2.Offeror Experience

ltem #	Reference (Section, Page, Paragraph)	Description	Rationale
1.			
2.			
3.			

<Offeror may add rows as appropriate>

Table 3. Offeror Organization and Staffing

ltem #	Reference (Section, Page, Paragraph)	Description	Rationale
1.			
2.			
3.			

<Offeror may add rows as appropriate>

Table 4. Functional Requirements Approach

ITEM #	Reference (Section, Page, Paragraph)	Description	Rationale
1.			
2.			
3.			

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Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration **State Procurement Office** 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

<Offeror may add rows as appropriate>

Table 5. Non-Functional Requirements Approach

ltem #	Reference (Section, Page, Paragraph)	Description	Rationale
1.			
2.			
3.			

<Offeror may add rows as appropriate>

Table 6. Liquidated Damages, Warranty, Software Maintenance and Support

ltem #	Reference (Section, Page, Paragraph)	Description	Rationale
1.			
2.			
3.			

<Offeror may add rows as appropriate>

Table 7. Work Plan

ltem #	Reference (Section, Page, Paragraph)	Description	Rationale
1.			
2.			

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Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration **State Procurement Office** 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

ltem #	Reference (Section, Page, Paragraph)	Description	Rationale
3.			

<Offeror may add rows as appropriate>

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AZSOS Access Voter Information Database (AVID) RFP RFP Non-Functional Requirements Matrix

Instructions:

This workbook contains non-functional requirements for the system desired by Arizona Department of State (Office of the Secretary of State). The response codes in Tables 1 and 2 below should be used by Proposers to indicate the fit of their solution to the State Requirements specified in this workbook. This template must be completed and submitted as an MS Excel file as part of the response to this RFP.

Requirement Area:

Each requirements has been assigned to a high-level requirement group and provided a "Requirement Area". Proposers may not alter this column.

Requirement Number:

Each requirement has been provided a unique "Requirement Number." When referring to a specific requirement in proposal materials, Proposers should use the appropriate requirement number. Proposers may not alter this column.

Requirement:

Each requirement is fully described in the "Requirement" column. Proposers may not alter this column.

Use Case:

Each requirement has a reference corresponding to the Use Case Document.

Response Code:

The Requirements Response Matrices must be completed indicating the status of the requirement(s) at the time of submission of the Proposal, using a combination response code that describes whether and how the Proposer's solution meets the requirement. Permissible response codes are listed in Tables 1 and 2 below:

Table 1:	
Response Code	Definition
C – Completely met	Requirement will be completely met.
N – Not met	Requirement will not be met.
P – Partially met	Requirement will be partially met. Please indicate in the comments field an explanation as to which part is met and which part is not.

Table 2:

Response Code	Definition
O - Out of the box	Requirement met out-of-the-box without additional configuration
G - GUI Configuration	Requirement met via core GUI configuration capabilities, technical and/or scripting measures within the system.
C - Customization	Requirement met via customization of source code and components
T - Third Party	Requirement met through integration with 3 rd party software product. Please indicate in the comments field whether or not the 3rd party product will be used out of the box, configured, or customized.

Note:

If a requirement is satisfied by more than one of the response codes, Proposers should select the response code that most appropriately reflects their solution's capability to the highest benefit of the State. Comment fields should be used to provide additional information in addition to the response code. In all cases, Proposers must select one response code only for any given requirement.

Comments:

Any requirement may be explained by the Proposer, at the Proposer's option, and must include a cross reference from the Proposal Reference Section column back to the Proposal section where the requirement is addressed. Proposers are encouraged to take time to explain features and functions of their proposed solutions that provide additional value to the State. However, the Proposer should refrain from comments that could be considered conditional.

AZSOS Access Voter Information Database (AVID RFP Non-Functional Requirements Matrix

General Requirements

Requirement Area	Requirement Number	Requirement	Response Code "Whether"	Response Code "How"
General	1	It is desirable for the system to have a Web interface through a standards-based browser environment without plug-ins.		
General	2	It is desirable for the system to have a user interface with tasked-based workflow capabilities to guide the user through required activities.		
General	3	The system shall have a user interface that allows the user to freely navigate to other parts of the system functionality, and return to complete the in-process task.		
General	4	The system shall allow the user to navigate to any voter registration function (i.e. create, modify, update, archive) from a centralized voter registration profile page.		
General	5	It is desirable for the system to have a "rule-based" workflow and/or engine that can be configured by an authorized user.		
General	6	The system shall have data persist from one screen to another when data fields are the same so the user does not have to do the same data input on multiple screens.		
General	7	The system shall allow keyboard shortcuts, tabbing, and functions to enter information efficiently.		
General	8	The system shall use the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms or terms more applicable to other states.		
General	9	The system shall allow the user to "undo" or reverse changes that were just previously made in the system.		
Mobile	10	The system shall have a mobile-friendly HTML5 responsive web version of the self-service portal.		
Geographic Data	11	The system shall allow the authorized user to manage geographic information based on street file formats, including uploading street files to make updates and downloading geographic information in a street file format.		
Geographic Data	12	The system shall allow the authorized user to manage geographic information based on geographic information system (GIS) formats, such as but not limited to; Shape file (SHP), Keyhole Markup Language (KML), File Geodatabase (GDB) or GeoPackage, Layers (LYR), OpenStreetMap (OSM),		
Web Traffic	13	The system shall provide secure electronic communication with military or overseas voters (for completed voter registration application and marked early ballot)		
Counties	14	The system shall manage data synchronization with offline counties.		
Counties	15	The system shall manage data synchronization, including administrative, set up, geographical, district or precinct data in addition to voter registration data, with counties that do not use the system and thus are always offline or external to the system.		
Counties	16	The system shall be capable of adding external counties to the system in the case additional counties will use the system directly.		
General - Interfaces	17	The system shall provide validation and exception reporting for data synchronization activities.		
General - Interfaces	18	The system shall allow the authorized user to send a text message (SMS) to voters.		
General - Interfaces	19	The system shall have the capability of maintaining two-way, real-time, web service or Application Programming Interface (API) based interfaces to external systems.		
General - Interfaces	20	The system shall have the capability of maintaining two-way batch file based interfaces to external systems.		

Requirement Area	Requirement Number	Requirement	Response Code "Whether"	Response Code "How"
General - Interfaces	21	The system shall have the capability of interfacing with external Agencies and systems as outlined in the RFP.		
MVD	22	The system shall maintain a two-way, real-time, web service or API based interface with Arizona's MVD system of record.		
Courts	23	The system shall maintain an interface with each Superior Court and Federal District Court in the State for felon or incapacitated records.		
DHS	24	The system shall maintain an interface with Arizona Department of Health Services for death records.		
HAVV	25	The system shall maintain an interface with the Help America Vote Verification (HAVV) system.		
SAVE	26	The system shall maintain an interface with the SAVE (Systematic Alien Verification for Entitlements Program) system administered by U.S. Citizenship & Immigration Services (USCIS) to determine citizenship status.		
ERIC	27	The system shall maintain a two-way interface with the national Electronic Registration Information Center (ERIC).		
Campaign Finance	28	The system shall maintain an interface with AZSOS' Campaign Finance system.		
Campaign Finance	29	The system shall have the capability to interface with local Campaign Finance systems.		
EMS	30	The system shall have the capability of searching for voter registration records based on barcode scans from PEVL requests.		
ePollbook	31	The system shall import a standardized completed epollbook file to update voter history.		
Address Validation	32	The system shall have the capability to identify residential addresses as commercial addresses.		
Address Validation	33	The system shall have the capability to validate zip codes against valid zip codes including plus 4 zip codes.		
Scanning/Imaging	34	The system shall allow the authorized user to attach supporting document images to voter registration records.	С	
Scanning/Imaging	35	The system shall allow the authorized user to retrieve document images from within the context of a voter registration record.	N	
Scanning/Imaging	36	The system shall allow the Staff to scan and attach any maps, charts or other graphics provided with the application for petition.		
Scanning/Imaging	37	The system shall have the capability of recording scanned copies of documents, including but not limited to; a. a paper Arizona voter registration form (see Voter Registration Form published by AZSOS, last revised on 7/20/2011) b. the National Mail Voter Registration Form published by the U.S. Election Assistance Commission, latest revision on 3/1/2006 c. applicant's proof of citizenship d. FPCA published by Federal Voting Assistance Program, last revised 08/2013 e. FWAB (federal form SF 186, last revised 08-2013) f. paper application for petition g. petitions including all signature logs as submitted h. Political Committee Statement of Organization i. Statement of intent to withdraw a signature and attach it to the petition. j. paper request to be added to PEVL k. outside of provisional ballots. l. paper poll or voter center roster m. Early Ballot n. returned envelope address		

Requirement Area	Requirement	Doquiromont	Response Code	Response Code
Requirement Area	Number	Keyünement	"Whether"	"How"
OCR	38	The system shall have the capability to recognize characters, addresses, circled selections, check boxes, geographic location of residence information, and signatures on scanned copies of documents and record the information in a structured format as if the information was entered by a user into the system, including but not limited to the following documents; a. a paper Arizona voter registration form (see Voter Registration Form published by AZSOS, last revised on 7/20/2011) b. the National Mail Voter Registration Form published by the U.S. Election Assistance Commission, latest revision on 3/1/2006 c. FPCA published by Federal Voting Assistance Program, last revised 08/2013 d. FWAB (federal form SF 186, last revised 08-2013) e. Paper applications for petitions (see Application for Initiative of Referendum Petition Serial Number, last revised 11/92 and Application for Recall Petition Serial Number, last revised 04/2005), both published by AZSOS f. Circulated petitions along with the associated completed signature logs(see Initiative Petition template, last revised 07/09/2015, and published by AZSOS g. Paper requests to be added to PEVL h. Outside of Early Ballots i. Outside of provisional ballots i. Poutside of provisional ballots		
Signature Capture & Com	39	The system shall record signature images from MVD's electronic records		
		The system shall be capable of capturing signature images that are not provided through MVD's		
Signature Capture & Com	40	electronic records or any paper record.		
Signature Capture & Com	41	The system shall have the capability of comparing a hand written signature from one instance of a voter's registration record to another, determining if the signatures matches and providing information on the potential match to an authorized user.		
Regulatory & Policy Comp	42	The system shall implement the Uniform and Nondiscriminatory Election Technology and Administration Requirements of the Help America Vote Act of 2002, specifically section 21083, Computerized Statewide Voter Registration List Requirements and Requirements for Voters Who Register by Mail.		
Regulatory & Policy Comp	43	The system shall be Americans with Disabilities Act (ADA) compliant. (see: 42 U.S.C. 12101 et seq.)		
Regulatory & Policy Comp	44	The system shall comply with AZ's accessibility policy. (see: Arizona Revised Statutes §41-3504(A (1)), and § 41-3504(A (1(a)).		
Regulatory & Policy Comp	45	The system shall have an integrated, context sensitive Help function or module.		
Technology	46	The system shall use a widely used programming platform, framework and runtime environment		
Technology	47	The system shall have an application deployment environment that uses a widely used Java application server (preferably limited to the Web Profile) or Microsoft .NET) environment		
Technology	48	The system shall use MS SQL and/or an Oracle based database management system.		
Technology	49	The system shall be capable of having an application server environment that can be deployed to commodity hardware using virtualization, and be able to scale out by adding server resources.		
Technology	50	The system shall be capable of having a database server environment that can be deployed to commodity hardware, and be able to scale up by adding server resources.		
Security	51	The system shall perform authentication through a security mechanism.		
Security	52	The system shall identify user's county affiliation and role.		
Security	53	The system shall allow authorized users to cancel user's sessions.		
Security	54	The system shall secure web service access to the solutions inbound web service.		

Requirement Area	Requirement Number	Requirement	Response Code "Whether"	Response Code "How"
Security	55	The system shall provide single sign-on across components of the solution.		
Security	56	The system shall secure and suppress access to certain information to certain users per Federal and Arizona laws and regulations.		
Availability	57	The system shall have the availability or uptime of at least 99.99% exclusive of planned downtime.		
Availability	58	The system shall have certain periods of greater than 99.99% availability including but not limited to; business hours outside of election timeframes, extended hours during Early Voting period, election morning and the subsequent 80 hours.		
Availability	59	The system shall have planned maintenance outside of periods of high availability.		
Disaster Recovery	60	The system shall be capable of supporting a Recovery Point Objective (RPO) of four (4) hours.		
Disaster Recovery	61	The system shall be capable of supporting a Recovery Time Objective (RTO) of two (2) hours.		
Data Retention and Archiv	62	The system shall comply with Federal and Arizona laws and regulations regarding data retention and archiving.		
Reporting	63	The system shall include an ad-hoc query capability.		
Reporting	64	The system shall include a reporting tool with access to all the system's data.		
Reporting	65	The system shall execute reports without diminishing overall performance of the system.		
Reporting	66	The system shall utilize a data warehouse.		
Reporting	67	The system shall be capable of scheduling or batching report generation.		
Data Conversion	68	The system shall allow for the import of a street file to update the system's geographic information.		
Data Conversion	69	The system shall allow for data extraction or electronic interfaces in various industry standard forms such as (i.e., MS SQL, Oracle, XML, Excel, OLEDB, JDBC, and other ODBC compliant sources, etc.).		



Response Comments

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OS Access Voter Information Database Non-Functional Requirements Matrix

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Description
Arizona Secretary of State
Access Voter Information Database

Arizona Department of State, Office of the Secretary of State



Access Voter Information Database (AVID) VRAZ-II Current State Assessment

December 30, 2016 Engagement: 330037656

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1.0 Executive Summary

The Arizona Secretary of State (AZSOS) is operating its current voter registration system, VRAZ-II, on an aging platform that is based on a core technology (PowerBuilder) provided by Election Systems & Software (ES&S), a technology that reached its peak use in the late 1990's. In Gartner's 2013 'IT Market Clock for Programming Languages' we noted that PowerBuilder users could consider their investments to be safe for the next three to five years, but should prepare to migrate within the next five to eight years. AZSOS is approaching that window. With this said, VRAZ-II has added significant features and functionality since its original implementation and the underlying technology is stable, but there remain significant limitations in what the system can do, which negatively impacts AZSOS' and Counties' ability to effectively and efficiently conduct the business of statewide voter registration. While there are remedies AZSOS could put in place now that would address a number of the pain-points experienced today, reduce some user frustration in the Counties, and achieve some efficiencies, AZSOS should begin planning now to move away from VRAZ-II in the next three years and position itself to deliver future voter registration capabilities that would transform the way it does business internally, as well as how it delivers services to constituents.

1.1 Multiple Pain Points & Challenges Facing AZSOS

AZSOS and the Counties are currently taxing limited staff resources and engaging in a number of manual processes in order to perform their mandated mission of operating a statewide voter registration database. With year-over-year increases in the number of registered voters (currently 3.5M) and a historically high voter turnout for general elections (60-70%) the workload for the Counties will only increase, and the number and complexity of Records Requests to AZSOS is also expected to substantially increase.

Advances in technology in the 14 years since the implementation of VRAZ-I, coupled with increasing citizen expectations for how they obtain services from government, are stressing AZSOS and the Counties' capacity to achieve their mission with its aging infrastructure and cumbersome business processes. Moreover, with the two largest Counties maintaining their own databases and sending most of their corresponding data to AZSOS' centralized database (with data quality challenges) it is arguable that Arizona is not fully compliant with the Help America Vote Act of 2002, nor the Elections Assistance Commission guidance, which stipulates that "in order to meet HAVA's computerized list requirement, the State must define and have immediate, real-time access to all the data that serves as the State's official voter registration list".

The issues that are significantly impacting AZSOS' and the Counties' ability to maintain a consistent voter registration database are outlined in the following table. The full details are delineated in the report.



Pain-Point/Challenge	Impact to AZSOS and Counties
Insufficient Integration between Maricopa and Pima Counties	There are occasions when the interface between Maricopa and VRAZ- II has failed to indicate successful transmission and receipt of records causing technical staff to spend many hours resolving what and why a failure occurred. There is no end-to-end process to verify records imported into the statewide system make it to the appropriate county.
	Periodically batches are dropped, and there is significant effort expended on both the AZSOS and the County side to determine what, when and how the batch was dropped and to correct the batches to resume processing.
	In addition, the lack of key data elements from these counties in the VRAZ-II database severely inhibits the ability of AZSOS to respond to records requests and create detailed reports on voter registration.
Insufficient Integration between ADOT Motor Vehicle Division and AZSOS	This results in unnecessary work by requiring AZSOS and Counties to obtain complete and accurate information at the source; for example, frequently EZVoter records are not accurate because applicants insert invalid addresses, or do not correctly complete other fields that should be validated at the source before being submitted over to AZSOS.
Significant manual processes and 'workarounds' required by AZSOS and the Counties	At the 'Close of Election' data is purged regarding the details of the election. County 'work around' is to run numerous reports and save them as a PDFs just <u>prior to close</u> so they will have them. Many counties expressed the desire to be able to run these reports <u>after the close of an election</u> .
	This also severely limits AZSOS' ability to respond to records requests and fulfill other data needs. Specific historical data would need to be retained so that reporting could be requested after the election is closed. This would involve a significant enhancement to PowerProfile.
Substantial differences among the counties in what should be standardized processes	There are a number of differences in the ways in which counties use VRAZ-II, resulting in differences on how data is coded which can make reporting this data confusing and potentially inaccurate. Further, these differences could affect whether and what ballot a voter can cast. The following specific processes represented the greatest differences among Counties:
	Coding of 17 Year Olds - Some counties make the record status 'Suspense' while other counties make the status 'Not Eligible'.
	Notice of Incomplete Information - The Notice is fixed and cannot be annotated by Counties, so many Counties do not use it and instead perform a lengthy manual process.
	Voter Address Change After Election Deadline - If a voter submits a request for an address change in the remaining 29 days before an election, some counties process it and some hold it until after election. This will impact whether and what ballot a voter is allowed to cast.
Lack of training for County and AZSOS staff	Until September 2016, there had been only one set of formal training offered to the counties. The current user manual is as of 2014 and is only the generic manual for PowerProfile, so it does not reflect the many unique characteristics of VRAZ-II as implemented for Arizona.

Table 1. Summary of Identified Pain-Points and Their Impact



Pain-Point/Challenge	Impact to AZSOS and Counties
	County staff therefore must rely upon knowledge of key staff. Turn- over in staff can seriously impact accuracy and timeliness of voter registration processing.
Diminished system security, due to an outdated system architecture	AZSOS holds a repository of all the registered voters of the state, which includes their name, address, date of birth and driver's license number. This is sensitive information which, if disclosed, could be very disruptive to the lives of citizens and the confidence in AZSOS. VRAZ- II does not currently have all of the security protections that could be implemented, including two-factor authentication and encryption of the database.
Statewide policies which negatively impact serving constituents	There is a statewide policy, followed by the Counties, regarding how a previously 'Canceled' voter who submits an application for voter registration is recorded in VRAZ-II. The policy is to create a new voter record with a new voter registrant number, even though there is a complete match with a record in 'Canceled' status for that voter.
	This policy results in an inflation of 'new registered voters', since some of these are really old voters who have simply been away from the process for a time. Further, the old voter history of this voter is lost to the reporting process, and the voter receives a new voter number for no apparent good reason. Voters need to be reactivated while retaining their prior history.
Lack of ability to collect, analyze and report on performance metrics	AZSOS collects basic data about registered voters; however, there is no program in place that provides more business-focused metrics that provide insight on whether AZSOS and Counties are improving or if there are issues that must be addressed before they become visible problems. Sample metrics include:
	Number of Provisional Ballots Cast
	Incomplete Application
	Records in Suspense
	 Fulfillment time for records requests
	Duplicate voter records
	Cost Per Vote Per Election
	Calls/emails to AZSOS and County offices
	Without metrics such as these, neither AZSOS nor the Counties know whether business processes are improving or deteriorating over time. Further, AZSOS will have no way of documenting the improvement resulting from an AVID Project solution unless it has gathered current state data on metrics such as these.

1.2 Opportunities for Improvement

Beyond the pain-points of the current implementation of VRAZ-II, Gartner has identified needed requirements for any future statewide voter registration system, whether that is an enhanced version of VRAZ-II or a wholly new system. These opportunities are divided into two categories:



- 1. Intermediate and long-term opportunities for improvement with the current VRAZ-II System.
- 2. Transformational opportunities that would be either difficult or simply beyond the capabilities of VRAZ-II to accommodate, but should be requirements as AZSOS looks to fulfill the AVID Project objectives.

Table 2. Intermediate and Long Term Opportunities with Current VRAZ-II System

Immediate Opportunities to Improve VRAZ-II	Benefits to AZSOS, Counties and Stakeholders
Clean-up of System Tables	 Removes duplicate and confusing entries that are coded differently among the Counties, which impacts AZSOS' ability to report accurate data
 Standardize Business Processes Coding of Seventeen Year Olds Notice of Incomplete Information Procedure for Voter Address Change After Election Deadline New 'Canceled' Voter Policy 	 Increased consistency and accuracy of data across the counties Reduction in manual effort and 'work arounds' Consistency of policy among the Counties
Train AZSOS and Counties	 ✓ Reduction in staff errors ✓ Reduction in staff time to resolve issues and answer questions
Ensure MVD registrations are processed according to AZSOS-mandated business rules (e.g. registrant cannot leave party affiliation field blank)	 ✓ Increased consistency and accuracy of data across the counties ✓ Better reporting by AZSOS regarding voter profiles
Replace the ZIA messaging-based interfaces between VRAZ-II and Maricopa/Pima with VPN or an intranet based web service	 Simplify the architecture and ongoing maintenance Reduce database licensing fees by removing staging databases at Maricopa and Pima Reduce synchronization latency from hours to minutes
Longer-Term Opportunities to Improve VRAZ-II	Benefits to AZSOS, Counties and Stakeholders
Replace PowerScan with Scan Feature of PowerProfile	 ✓ Reduction in staff hours to complete scanning
Standardize Addresses for Electronic Pollbooks	 ✓ Reduce need for work-arounds to download non- standard addresses into pollbooks ✓ Reduction in staff hours to complete manual entry into the system
Use ES&S Pollbook Export Feature	 Reduction in staff hours required by using the generic extract function and then manually manipulating data
Reconcile Maricopa GIS and Pima Street File with Statewide Street File	 ✓ Significantly enhance AZSOS' ability to respond to public records requests ✓ Reduction in manual entry in VRAZ-II using the Street File



	 Ensure Maricopa's and Pima's address data is uploaded into VRAZ-II
Capture All Jurisdictional Boundaries in VRAZ-II	 Significantly reduce staff hours associated with manual effort to reconcile jurisdictional and county boundary overlap

Table 3. Transformational Opportunities

Transformational Opportunities with a New Voter Registration System	Benefits to AZSOS, Counties and Stakeholders
Implement a Data Warehouse to Enable full Reporting Capabilities: VRAZ-II is an On-line Transaction Processing (OLTP) System, which means the data changes second to second as work is being performed. Reports run in the morning will not have the same totals as reports run at noon.	Historical comparison reporting is beyond the capabilities of the present VRAZ-II System, but is necessary to provide the full complement of data needed to enable AZSOS (as well as the counties) to fulfill record requests. It would enable a set of reports requested for the same period to all report the same totals and would enable the ability to compare data from one period to another (such as this election vs. last similar election).
	With data captured and copied to a data warehouse, a report can be run anytime with date range parameters and it will produce the same totals.
Implement a System with Embedded Workflow Processes: VRAZ-II has no work flow streams to enable users to indicate the process they wish to complete and have the system take them step-by-step through the screens necessary to complete that process. PowerProfile is a complex system and users are required to learn the many screens (and the order in which they must use them) in order to achieve some business process.	Many modern systems, such as for planning and building permits, provide this capability and it is not uncommon in modern complex systems. Without this capability, users miss steps, performs steps that should not be done and have long learning curves to master the system. With such a system new users can be productive within days.
<i>Implement a VoteCenter Based System:</i> When PowerProfile was developed it was designed for precinct-based voting in which each voter is assigned to one and only one precinct and is instructed to go there to vote.	This is a key consideration for the future of voter registration system for Arizona and would require a substantial re-work of PowerProfile to enable it to perform votecenter operations.
Increasingly Arizona (and most other states) are moving toward voter center voting in which any voter can go to any (though fewer) voting location within the jurisdiction and the appropriate ballot for that voter will be available and can be cast.	
Implement Comprehensive Security Controls through Implementation of a Modern Multi-tier Architecture	By separating the solution into 1) user access 2) service interfaces to business logic and 3) data tiers, each of these tiers can be secured individually, and provide a stronger security model overall. There would be no direct access to the data outside the context of executing authorized business transactions. Different access points,



Transformational Opportunities with a New Voter Registration System	Benefits to AZSOS, Counties and Stakeholders
	whether user interfaces or data exchanges, would be secured in the same way.
	The AVID solution could leverage modern authentication and authorization mechanisms, combining ease of access with strong security.

1.3 What Comes Next

Armed with a full and shared understanding (among AZSOS, Counties, and Stakeholders) of how Arizona conducts the business of voter registration today, including what does and does not work well, AZSOS now must consider how to address the improvement opportunities identified in this document, determine what changes it must make, and what future capabilities it finds feasible to implement. Gartner will assist with this in the next phase of the project, where AZSOS identifies its vision for the future of voter registration in Arizona, key goals, and the detailed requirements for its future AVID Project system.

- Step 1: Work collectively with the Counties to identify future voter registration capabilities and requirements.
- Step 2: Conduct the market scan and receive RFI responses, where AZSOS will gain an understanding of what solutions are available, where they been implemented successfully in other states in the last three years, how they align with AZSOS' desired capabilities, and the costs and time to implement.
- Step 3: Revise what capabilities should be required in the future system for the State of Arizona, based on market scan and RFI responses and consideration of available budget (some desired capabilities may either not be feasible or prohibitively expensive to implement).
- <u>Step 4:</u> Define AVID use cases and future state business and technical requirements.



2.0 Introduction

2.1 Purpose of the Current State Assessment

This report is intended to document the current environment of voter registration in the State of Arizona so as to establish an understanding of the many dimensions of that environment and the facts surrounding them. Improvements cannot be made without an understanding of what currently exists. This report is intended to lay the foundation for decisions by the AZSOS, the Counties, and other involved state agencies on the future direction of voter registration in Arizona.

2.2 Objectives of the Current State Assessment

This report has the following objectives:

- Summarize:
 - □ The laws governing voter registration in Arizona
 - □ The development of voter registration systems in Arizona
- Describe:
 - □ The current voter registration system (VRAZ-II)
 - □ The integration of VRAZ-II with other county systems and state agencies
 - □ The Technologies underlying VRAZ-II
 - Current business processes
- Delineate:
 - □ Findings
 - D Pain-points & opportunities for improvement
 - Key metrics
- Determine high-level requirements for AVID

2.3 Document Overview

This document identifies the 'as-is' environment and processes of VRAZ-II. Included in this current state assessment are the following:

- Legislative background driving a centralized on-line voter registration system
- Overview of the business integrations
- Summary of the current technology used at the State and counties
- High-level descriptions of the current business processes
- Identification of 'pain-points' with VRAZ-II and remedies for them
- Identification of high-level requirements for AVID
- Identification of key business process metrics



2.4 Current State Analysis Approach & Methodology

Gartner developed this current state assessment following a structured proven methodology. The methodology includes a combination of reviewing documentation, discussions with AZSOS staff, and face-to-face interviews with relevant state agencies, ES&S staff and the staffs of all 15 counties. These activities have highlighted business process challenges, the condition of the current technology, and opportunities. These activities included:

- Review of documentation
 - Procedure documentation
 - □ Legislative documentation
 - **ES&S** diagrams and documentation
 - □ Technical diagrams and documentation
- External department discussion
 - Motor Vehicle Division
 - Department of Health Services
 - □ Representatives from AZ Courts
- Key stakeholder interviews
 - Representatives from AZSOS
 - Discussions with all 15 counties

These activities assisted Gartner in its development of this current environment report on the technology and high-level business processes of VRAZ-II.



3.0 Background

3.1 Background Legislation

Voter registration policies, practices and systems in Arizona derive their origin and direction from a series of federal and state laws. It is important to understand the content of those laws in order to understand what Arizona is striving to do. The relevant legislation is listed below; however, please reference Appendix A for specific details on this legislation.

- Voting Rights Act of 1965
- Supreme Court: Shelby County v. Holder (2013)
- Uniformed and Overseas Citizens Absentee Voting Act of 1986
- National Voter Registration Act (NVRA) of 1993
- Help American Vote Act (HAVA) of 2002
- State of Arizona Proposition 200 in 2004
- Arizona Election Procedures Manual

3.2 A Single, Uniform, Voter Registration List

Key among the legal provisions related to voter registration is the requirement by HAVA that the AZSOS must hold the database of record for voter registration data.

The Help America Vote Act of 2002 (HAVA) requires the Chief Election Official in each State to implement a 'single, uniform, official, centralized, interactive computerized statewide voter registration list.' That list is to be 'defined, maintained, and administered at the State level' and must contain the 'name and registration information' of every legally registered voter in the State.¹

Further, the Elections Assistance Commission clarifies this requirement:

Generally, in order to meet HAVA's computerized list requirement, the State must define and have immediate, real-time access to all the data that serves as the State's official voter registration list. Moreover, the State must be able to control access to this data and perform HAVA mandated action on the information (such as coordinating with other databases for the purpose of performing voter registration verification and list maintenance). Finally, local election officials must have immediate access to this official list. While HAVA requires that both State and local election officials have immediate access to the voter registration list, ultimately the State must direct the degree of access and control any one official or class of officials have over the list's data. A State database hosted on a single, central platform (e.g., mainframe and/or client servers) and connected to terminals



¹Voluntary Guidance on Implementation of Statewide Voter Registration Lists; U.S. Election Assistance Commission, Washington, DC, July 2005.

housed at the local level (often referred to as a 'top down' system) is most closely akin to the requirements of HAVA.²

Accordingly, the AZSOS must meet this imperative.

3.3 State Implementation Models for HAVA

As the states went about implementing these requirements of HAVA, three implementation models emerged:

- Top-Down The Top Down model involved complete centralization of voting records in the office of the secretary of state with on-line, real-time access to the records by each and all of the state's county registrars. This usually had significant impact on the registration processes of the counties. The Commonwealth of Kentucky was an early adopter of this approach, which tended to occur in medium and smaller states.
- Bottom Up The Bottom-Up Model involved a central database that was connected to each county voter database, either via nightly batches or some more real-time method. This had minimal impact to the business processes of the counties and tended to occur in medium and large states. The State of California initially adopted this approach.
- Hybrid The Hybrid Model was a combination of the other two models with some counties using a central database in real-time for voter registration while other counties of the state continued to use a local voter registration system with batch or more real-time interfaces to the statewide system. Many states adopted this approach, as did the State of Arizona.

3.4 Arizona VRAZ-I Implementation

In 2003, the AZSOS developed and implemented an in-house statewide voter registration system called Voter Registration Arizona (VRAZ), later known as VRAZ-I.

HAVA required that all states must comply with its provisions by January 1, 2004 or request extensions with an explanation of the circumstances. The AZSOS decided to meet the HAVA requirement for holding the 'Statewide Voter Registration List' by building a batch file based system. Each day, each county submitted a batch file containing its voter registration records to AZSOS. AZSOS then compiled these 'lists' and performed checks for the HAVA requirements, namely check for felons, incapacitated, deceased and duplicates among the counties and marked them as to 'hard' or 'soft' matches. AZSOS then submitted its findings back to the respective counties who processed them in their respective voter registration systems.

3.5 Overview of VRAZ-II

In 2004, the Arizona Secretary of State issued a request for proposal (RFP) for a more substantial and more closely compliant statewide voter registration system. The result of



² ibid

that procurement was an award of an implementation and maintenance contract to IBM for the ES&S voter registration system, PowerProfile.

In the initial implementation in 2006 and 2007, Maricopa and Pima counties retained their existing voter registration systems while each of the remaining 13 counties implemented an individual instance of PowerProfile with a central database intended to consolidate voter registration data from all 15 counties. This hybrid model of implementation was a major step forward, though it was less than ideal.

In 2015, the individual databases in the other 13 counties were consolidated into a single central database at the AZSOS. This resulted in a number of improvements in the integration of voter registration statewide, though there remained a number of critical shortcomings towards a full and seamless integration statewide.

Thus, Arizona has a hybrid model for an attempted HAVA compliant solution. This is the only state implementation nationally of PowerProfile that is in this model, as all other ES&S implementations of PowerProfile use the Top-Down Model. Though PowerProfile is implemented as a statewide voter registration system in other states (notably Alabama, Nebraska and Arkansas) Arizona is by far the largest state implementation of PowerProfile, making it both the largest and the most complex.

3.6 Integration of Maricopa and Pima County Voter Registration Systems

Maricopa and Pima Counties continue to conduct voter registration on their respective county systems with limited integration with the state PowerProfile database used by the other 13 counties.

Both Maricopa and Pima work at maintaining the existing two-way interface between their respective voter registration systems and VRAZ-II. These interfaces allow voter records and updates to move between and among all 15 counties. These interfaces primarily exchange information about the status of individual voter registration records. Besides voter registration records there are three other data items that are necessary to have a complete set of data for reporting purposes, namely:

- Street File Table of street address ranges
- Precincts and Precinct Parts The smallest geographic area in US voting subdivisions
- Jurisdictional Boundaries Geographic boundaries of governmental jurisdictions (i.e. Congressional, Assembly, school, water, etc.)

Pima uses a Street File that is similar to that used by the 13 counties in PowerProfile. However, the interface that was implemented between the Pima voter registration systems and VRAZ-II does not include data related to their 'street file', 'precincts' and 'precinct parts' or 'jurisdictional boundaries'.

Maricopa and Pima provides limited precinct information to VRAZ-II, but the interfaces as they were implemented places precinct in a user defined field (Optional Field 9) of the voter registration record and does not enable Maricopa to provide precinct part, a Street File, or Jurisdictional Boundaries to VRAZ-II.



Maricopa does not provide a Street File to VRAZ-II because Maricopa does not use a Street File but instead uses a more advanced technology namely, a Geographic Information System (GIS) by ESRI³. Without a Street File, precincts, precinct-parts, and jurisdictional boundaries statewide reports requested of AZSOS cannot be fulfilled without resorting to a piecemeal approach to piece together reports from two or more counties.

Further, PowerProfile produces standard reports that expect information to be found in certain locations. The precinct information in the user defined field is not one of those places, resulting in the belief that it is necessary to retain the skills of a SQL programmer in order to produce these needed reports. If the necessary data were transferred and placed in the standard fields in PowerProfile, standard reports could be successfully run against that information without the need for special programming skills.

3.7 Integration of the Other Thirteen Counties

In the current implementation of VRAZ-II, the other 13 counties conduct their petition management and voter registration processes directly in the central instance of PowerProfile and its associated database. This greatly simplifies duplicate voter registration processing across counties.

Voter registration records and updates move among these counties without leaving the same central database and remain under the control of the same software.

All 13 counties use the same Street File Table and each contributes its entries to it. They also all share the same table for precincts, precinct-parts, and jurisdictional boundaries.

3.8 Integration with MVD

There are 4 interfaces between VRAZ-II and the Motor Vehicle Department (MVD). They are:

- MVD Transfer of MVD Records to Secretary of State
- MVD Transfer of EZVoter Records to Secretary of State
- VRAZ-II Request for 4-Digit SSN Check to SSA via. MVD
- VRAZ-II Request for MVD Signature from MVD driver license records

3.8.1 MVD Transfer of MVD Records

Each night, a batch file is sent to VRAZ-II from MVD containing all the MVD driver's license records that were created, updated or deleted but containing only information pertinent to voter registration such as name, date of birth (DOB), address, driver's license (DL) number and the last four (4) digits of the SSN.

3.8.2 MVD Transfer of EZVoter Records

Voter registration applicants are obtained from EZVoter in one of two ways:



³ Environmental Systems Research Institute of Redlands, California

- Internet An applicant enters a request or an update to voter registration records online through ServiceArizona. This was implemented in 2002.
- Driver License An applicant checks the box on the driver's license application that he or she would like to register or update his or her voter registration record (with such items as party preference). This was implemented in 2005.

All EZVoter voter registration records are sent nightly in batch mode to VRAZ-II.

In addition to voter registration, the applicant can request Permanent Early Voting List (PEVL) status by which voter will be mailed a ballot in advance of the election and can vote absentee.

MVD is in the process of revamping its driver's license system in a project called Motor Vehicle Modernization (MVM) which is scheduled to be implemented in June 2020. The intent of MVM is to modernize the EZVoter interface so that the applicant performs the data entry (rather than a clerk) and directly marks desire to register to vote, enters pertinent information like party preference, and provides his or her signature via an electronic signature pad. This, along with data entry verification against the MVD database, will eliminate the few data entry errors that occur when MVD staff enters information from applicants.

3.8.3 VRAZ-II Request for 4-Digit SSN Check

In accordance with HAVA, AZSOS can check with the Social Security Administration (SSA) to check the validity of a voter registration record by providing name, DOB, and the last 4-digits of the SSN. This is done through MVD, as a real-time interface between MVD and SSA had been already established. This process for AZSOS, however, contains both a batch and a real-time process as follows:

- AZSOS sends a batch file to MVD with the 4-digit SSN for verification
- MVD receives the batch file from AZSOS and executes an on-line verification (realtime) against the Social Security Administration Help America Vote Verification (SSA HAVV) interface file
- MVD sends a batch file of the SSN verification results to AZSOS

3.8.4 VRAZ-II Request for MVD Signature

The purpose of this interface is for VRAZ-II to obtain the applicant's digitized signature from a registrant's driver license and place the digitized signature on the registrant' voter registration form.

3.9 Integration with Court System

Felon - In accordance with Arizona laws, a person convicted of a felony loses his or her right to vote, unless and until certain conditions are met. As a result, each Superior Court in the State sends a monthly e-mail to the AZSOS listing the court felony convictions of the previous month. This file from the Superior Courts is entered and processed by VRAZ-II. The system will automatically 'Canceled' a voter if there is a <u>hard match</u>. If there is a <u>soft match</u>, the Counties will determine whether or not to 'canceled' the voter. A.R.S.


§16-165(A)(4) states that the county recorder cancels the registration. Felony conviction notices are required to go to the AZSOS (ARS §16-165(C)) who in turn forward it to the appropriate county recorder.

Voting rights may be restored upon completion of the sentence and payment of all fines. This is the responsibility of the individual by re-registering to vote and that record is entered as a new registration.

For individuals convicted in the Maricopa County Superior Court, the Court sends the felony file to AZSOS. AZSOS runs the felon file against the statewide database in Microsoft Access. The AZSOS send the results back to the Court. The Court then sends a letter to ASOS informing them that certain individual's felonies have been reduced to misdemeanors. AZSOS removes those names from the original file sent by the Court and then runs the felony file against the statewide database.

In addition, AZSOS receives records of felony convictions from the federal District Courts as well as U.S. Department of Justice and U.S. Attorney General. The records sent by Arizona Federal District Court (in Phoenix) are sent as electronic 'flat files', while those sent by all other federal courts arrive on paper.

Incapacitated - In accordance with A.R.S §14-5101, an Arizona court may hear a case and render a judgment on the capacity of a resident of Arizona to manage his or her affairs. The records of all judgments of incapacity are provided monthly to the AZSOS as a 'flat file'. AZSOS retrieves this file and uses it to update voter registration records by determining if there is a voter registration record for the individual judged to be incapacitated, and if so, changing its status to 'Canceled' if certain conditions are met.

As a result of this process, monthly AZSOS receives 15 electronic files from Arizona Superior Courts, plus an electronic file from Arizona District Court for felonies, plus paper files from as many as 93 other federal district courts in the United States and territories.

3.10 Integration with Department of Health Services

In accordance with A.R.S. §16-165(D), the Arizona Department of Health Services (DHS) sends the AZSOS monthly and yearly, a file of every death record of residents of the State reported to it in the previous month/year. The records include:

- Decedent Name
- Decedent's date of birth
- Decedent's social security number, if available
- Decedent's address at the time of death
- Decedent's father's name or mother's maiden name (if available)

This is accomplished by depositing an electronic 'flat file' in a standard format on a file transfer protocol (FTP) server on the first Tuesday of each month with an agreed upon file name and location. AZSOS retrieves this file and uses it to update voter registration records by determining if there is a voter registration record for the decedent, and if so, changing its status to 'Canceled' if certain conditions are met. This process is completed



automatically if there is a <u>hard match</u> and if there is a <u>soft match</u> the county record will determine whether or not to change the states of the voter to 'Canceled'.

If the descendent resided in Pima or Maricopa counties, VRAZ-II sends an electronic update record to that county for update of its voter registration records.

In addition, each quarter, DHS updates the National Center of Health Statistics (NCHS) (part of the Center for Disease Control) with its records of deaths in Arizona in that quarter and at the same time obtains from NCHS the death records of Arizona residents that died outside of Arizona. That information is transmitted to AZSOS in the next month's electronic 'flat file'. This enables the AZSOS to capture all nationally reported deaths of Arizona registered voters and update the voter registration records accordingly.

DHS maintains an electronic death registry system which is updated by funeral homes within 7 days of death. Funeral homes are motivated to do this as they must obtain a permit to bury or cremate the body without which a cemetery will not accept the remains. About 80% of death records are obtained in this manner. Most of the remaining death records come from medical examiners who receive a body (usually from police or ambulance services). The medical examiner attempts to determine the identity of the descendent and creates a death certificate record.

For native populations residing on reservations, DHS has less control of the process of reporting, so it is not known if all deaths occurring there get reported to DHS.

Currently the DHS death registry system is called the Gold System, which has been operational since October 2007. DHS is planning to replace this system with the VitalChek Network's (a Lexis/Nexis company) system called DAVE (Database Application for Vital Events). DAVE is a cloud-based system currently being used by the health departments of 6 other states.

3.11 VoterView

VoterView is a site of the AZSOS' website that enables voters to:

- Query voter registration information/voting history
- Find voter's polling site
- View the status of the voter's provisional ballot
- View the status of the voter's early ballot

Maricopa and Pima counties connect to VoterView through a web service that pulls the data from the county for all 4 of these functions.

The site, however, was developed when poll sites were precinct-based and a voter was assigned to one and only one poll site (which was near the voters registration address). With the introduction of vote centers in some counties, the site no longer performs an adequate job of directing voters to a convenient vote center. The website suffers from other county deficiencies as well.



3.12 Integration for UOCAVA Citizens

The Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) provides for the support of voting by out-of-state military and overseas citizens. In accordance with that Act, the AZSOS provides a website:

https://apps.AZSOS.gov/apps/election/election/Military/RegisterVoter1.aspx

This website allows these citizens to register and request a ballot from the appropriate Arizona county. Once the citizen completes the web form, giving name, DOB, Arizona address, email address and county that information is directed to the Recorder of the appropriate Arizona county. Once that county verifies the eligibility of the citizen to vote and is registered, the county issues the citizen a user name and password to the AZSOS system. The Recorder will send the UOCAVA their appropriate ballot, typically as a pdf via email. The citizen may then complete the ballot and submit it either to the AZSOS or directly to the county. The Recorder staff then prints and seals the ballot and includes it in the ballots received for the election.

Yavapai County previously developed its own MS-Access database for their UOCAVA citizens and continues to use it, but still uses part of the AZSOS system for notification.

3.13 E-QUAL

The AZSOS designed and implemented the E-QUAL system. Currently, this is used at the state level to electronically collect petitions for nominating a candidate and for voters to contribute \$5.00 to qualify state and legislative candidates for public funding. There is a plan to expand the use of E-QUAL in 2017 to all types of candidate petitions.



4.0 Current Technology Environment

VRAZ-II is based upon the ES&S Voter Registration/Election Management System known as PowerProfile, but contains many additions and auxiliary components unique to the implementation for the State of Arizona.

Major technologies of the composite solution are outlined in the following table.

Table 4.VRAZ-II Major Technologies

Tier / Domain	PowerProfile (core Voter Registration app)	Voter View	HAVA Exception Interface	Maricopa / Pima Integration	Central Agency (interfaces)
Client Tier	Rich client, accessed through Citrix	HTML, JavaScript, JQuery	Rich client, accessed through Citrix	n/a	n/a
Application Environment	PowerBuilder	JBoss	.Net	JBoss	JBoss
Database	Oracle Enterprise (with Label Security option)	MySQL, replicated data from core Voter Registration database	Core Voter Registration database	Oracle Standard database	n/a
Integration	n/a	n/a	n/a	ZIA with local Poller (in and outbound)	Web Services and batch file exchanges



The following diagram describes the overall architecture.





The subsections further describe the technology.

4.1 Application Platforms of VRAZ-II

VRAZ-II has been built upon 3 technology platforms.

4.1.1 SAP PowerBuilder

PowerProfile is the core voter registration application, developed by ES&S as their premier voter registration/election management product. The solution was developed with the PowerBuilder rapid application development environment for client/server database-centric solutions.

The PowerBuilder environment and client/server architecture style reached its peak of popularity in the late '90s, before the onset of web-based development. After the initial acquisition of PowerBuilder by Sybase, the product is currently owned by SAP and continues to be supported, although popularity has dwindled significantly. A number of



organizations continue to maintain PowerBuilder applications, though primarily for inhouse developed systems.

PowerBuilder is both a development and runtime environment for desktop-based 'rich client' applications, in which the user interface and business logic are deployed to a PC, communicating to a shared database. For VRAZ-II, desktops are virtualized using Citrix, and the PowerProfile runs on virtual desktops accessed through Citrix infrastructure. The 13 counties use a PC-based Citrix receiver while Maricopa and Pima counties use a browser-based Citrix plug-in. This does not affect the core application architecture. This method of accessing increases security and eases deployment, but also adds additional cost.

4.1.2 Red Hat JBoss Application Server

A variety of specialized components were added to the base PowerProfile application using Java technologies, deployed to a JBoss Java application server. These include:

- Agency Central Agency Central is a Java module of VRAZ-II which supports interfaces with external systems. It has rules which determine how data is imported into VRAZ-II. There are only 'pulls' of data; there are no 'pushes'. Most interfaces are batch-oriented, and are controlled through a scheduler component. Agency Central supports connectivity to real-time interfaces, such as the DL/SSN check with MVD. Agency Central communicates with the PowerProfile database directly, bypassing the business logic tier of the PowerBuilder application.
- ZIA Messaging System Zia is a Java / J2EE / XAware application written by the ES&S development team and XAware to address the issue of synchronizing county voter registration systems with the centralized state (PowerProfile) system. In the original implementation, each county had its own PowerProfile instance and database, synchronized through ZIA. In the current model, ZIA supports the local voter registration systems used by Maricopa and Pima. ZIA is a complex custom solution, and depends on a scheduled polling process against local county staging databases to replicate changes.
- Web Services Web Services are Internet-oriented, XML-based technologies and as such are the most modern platform of VRAZ-II. Web Services enable real-time integration across multiple technology platforms and operating systems to enable seamless integration of diverse systems. Web Services are used in VRAZ-II for the following:
 - □ EZVoter, part of Service Arizona's constituent-facing online portal for voter registration
 - Get MVD Signature
 - □ Web Services are used to support VoterView. This is a 'push' only service to a read-only copy for access by online users, replicated from the PowerProfile database

The web services layer includes business logic and accesses the PowerProfile database directly. Note that the PowerProfile application itself does not expose an API layer for service integration.



Voter View – A constituent-facing site to look up voter registration, polling places, etc. Note that both Maricopa and Pima counties have a similar capability, supported by their respective county recorders.

4.1.3 .NET Application Framework

The HAVA Exceptions Interface (HEI) application is a custom solution developed in C#, using the Microsoft .NET framework. It accesses the PowerProfile database directly. Similar to PowerProfile, the application is accessed through Citrix for Maricopa and Pima.

HAVA requires processing of voter registration records against felon/courts, death records, and MVD to process matches. 'Soft match' exceptions are managed through the HEI application. It also contains additional functionality to allow Maricopa and Pima counties to have access to registrant data.

4.2 Databases

VRAZ-II is built upon an Oracle Enterprise database with Oracle Standard Edition as the foundation for the interfaces to the Maricopa and Pima voter registration systems.

The central database uses Oracle's Label Security technology to segment the data by each county, and provide appropriate access to users. Essentially, this approach allows logical partitioning of multiple counties' data into a single repository.

In the original deployment model, each county had its own PowerProfile instance and local database. As a cost trade-off and because county partitioning is not needed at the local level, the local databases were Oracle Standard edition. However, this version also lacked advanced replication technology, which became the driver for the ZIA messaging solution to synchronize data between the state and local county repositories. Today, only Maricopa and Pima counties have a local Oracle Standard Edition database that acts as a staging area between the local voter registration solutions and VRAZ-II.

4.3 Maricopa Voter Registration System

The following outlines the technology used for Maricopa's voter registration system.

- Architecture: Window-based/client/server. There are 4 locations. Use Network Share for Windows on the desktop (DFS distributed file system)
- Server Operating System: 2012 R2; client Win 8
- Workstation OS: Unknown
- *Database:* SQLServer
- Application Language: Initial project was ES9000 in Cobol, migrated in 1998 to Windows VB 6.0, migrated to Visual Studio .net Visual Basic (VB) in 2002, and currently migrating to C#
- Security: Windows Security Model for Windows and file system.
- Access Control: Application has roll-based security (with modifications)

4.4 Pima Voter Registration System



The following outlines the technology used for Pima's voter registration system.

- Architecture: .Net
- Server Operating System: Windows, Citrix; Linux for database
- *Workstation OS:* Windows Embedded, Citrix thin client
- Database: Oracle 12c
- Application Language: C#
- Security: Windows Authentication
- Access Control: Proprietary System

4.5 Security

4.5.1 Data In-flight Security

Access to the voter registration system and data outlined in the following table.

Table 5.Data In-Flight Security

Interface To	SSL	VPN
MVD	Х	Х
Maricopa	(only when Maricopa Logins in to HEI)	Х
Pima	(only when Pima Logins in to HEI)	Х
Death Files	SFTP	None
Court	None	

4.5.2 Data At Rest Security

Data at rest is not currently encrypted. However, encryption can be enabled through Oracle's Transparent Data Encryption (TDE), which is available within Oracle Advanced Security, a separately licensed option pack with Oracle Enterprise Edition.

Encryption of data at rest stops would-be attackers from bypassing the database access software and reading sensitive information directly from storage by enforcing encryption in the database layer. Oracle Advance Security also supports on-the-fly data redaction of sensitive data before it leaves the database, reducing the risk of unauthorized data exposure in applications.

Note that VRAZ-II does not store full social security numbers: only the last 4 digits are provided by MVD.

4.5.3 Data Access Security

There are two levels of user login and password for access to VRAZ-II. The first level is Citrix, which establishes a perimeter around the core application. The second level of



access security is built within the PowerProfile solution itself. Security administration is implemented through PowerLock.

Password requirements are:

- Citrix password must be changed 4 times per year; must be at least 8 characters in length, must be complex and cannot use the same password used in the past year.
- PowerProfile password must be changed 4 times per year; must be at least 8 characters in length, must be complex and cannot use the same password used in the past year.

4.5.4 Backup & Recovery

PowerProfile is backed up nightly including the day's log of transactions. In addition, the database is mirrored to a fail-over drive so that a power failure or other interruption can be recovered to within 15 minutes of failure, assuming the mirrored drive remains operational.

4.5.5 Modules of PowerProfile and Their Use in Arizona

There are many modules in the PowerProfile solution suite; however, not all modules are being utilized by the State.

Module	Function	Used by AZSOS	Used by 13	Used by 2	Not Used by AZ
Voter Registration Module	Searching for Adding/Updating Voters	X	Х		
Absentee Module	Processing Early Voters (AZ Terminology)	Х	Х		
HEI (HAVA Exceptions Interface)	HAVA required processing of voter registration records against felon/courts, vital stats, and MVD to process matches. Additional functionality to allow Maricopa and Pima counties to have access to registrant and street data.	X	X	X	
Election Worker Module	Election Worker Management/ Scheduling through payroll		Х		
NVRA	Processing of required address verification mailings and responses to determine validity of current registrant addresses – eventual removal from rolls, where applicable.	X	Х		

Table 6. PowerProfile Solution Modules



Module	Function	Used by AZSOS	Used by 13	Used by 2	Not Used by AZ
Election Management Module	Creation and maintenance of elections including definition of polling places, ballot styles, roster splits, posting voting credit/resolving conflicts, and updating voting history.	Х	X		
Polling Place Module	Maintaining Polling Places. Pinal uses many features such as, tracking pollworker contact		Х		
	information, class attendance, work assignment and payroll functions. Cochise County used to use this module and thought it was very good and useful but has since moved pollworker processing to another				
Street File Module	Management of political subdivisions associated with street segments – resolution of conflicts.		Х		
Mass Changes	Allows users to update (en mass) zip codes, area codes, precinct parts, and districts (where applicable)		Х		
Notices Module	Processing of various notices throughout the system (i.e. ID cards, absentee applications/ballots, election worker assignments, etc.) AZSOS manages the text of these notices.	X	X		
Image Indexing Module	Allows users to index scanned images to registrant records, polling places, petitions, and election worker locations.		Х		
Job Processor	Used to offset jobs on user's workstations to another area so the users can continue to work while larger processes are handled elsewhere.	Х	Х		
Petitions Module	Creation and processing of petitions at state and local levels.		Х		
Public Service Requests Module	Used to provide data to outside requestors – outputs include reports, labels, and export files	Х	Х		
Export Files	Used to allow users in centralized environments to pull files from the centralized environment to the local workstations/networks.	Х	Х		



Module	Function	Used by AZSOS	Used bv 13	Used bv 2	Not Used bv AZ
Voter View	Used by registrants to look up information about where they would vote, current status of absentee, provisional ballots, voter registration information, and history.	Х	Х		
Agency Central Interface Module	Voter Registrations records are compared to information provided by the various agencies and users make updates accordingly – see information in 3a and spreadsheet as well.	Х	X		
VRS - Voter Registration Services	Web services used for various purposes to validate/compile data – no user interface	Х	Х		
ZIA Messaging	Information about transactional interactions between PowerProfile and distributed counties (i.e. Maricopa and Pima)	Х		Х	
PowerLock	Security Administration – user setup/access to functionality	Х	Х	Х	
PowerScan	Used to scan documents that can be attached to registrant records, polling places, petitions, and election worker locations.		X		



5.0 Current Business Processes

5.1 Introduction

To understand the business functions that are necessary to maintain voter registration, the business processes have been organized into 5 categories:

- Petitioning
- Voter Registration
- Election Management
- System Administration
- Public Records Requests
 - 1. Petitioning These are the processes necessary to support petitioning from creating a petition, verifying signatures, reporting signature verification, through archiving historical petition data.

Figure 2. Petitioning Processes

Create a Petition	Remove name on Petition Upon Request	Track Verification of Petition Signature Check
Track Petition Timeline		Track Petition Signature Findings
Record Chief Petitioner Information		Report Petition Signature Verification
Check Duplicate Signature	Petitions	Track History of Petition and Generate Statistical Reports
Verify Address of Petition Signatory		Report on Voters Who Signed Petition
View Information on Voters Who Signed		Report on Signature Verification by Date Range
Create Random List for Verification of Signature	Archive Historical Petition Data	Close Down Petition

2. Voter Registration – These are the processes necessary to support and manage the database of registered voters and elections.



Figure 3.	Voter Registration Processes	

Find and View Information About a Voter	View Voter Registration Tasks (Public View)	Manage Felon/Incapacitated
Process an Application for Voter Registration	Perform Self-Service Inquiry	Manage Death Records
Modify Voter Information		Manage UOCAVA Voters
Manage Scanned Entries		Manage Secured Voters
Manage Duplicates		Issue Notices for Various Reasons
Resolve Data Integration Discrepancies	voter Registration	Process Response to Various Notices
Issue Notice of Incomplete Information		Perform NVRA Process
Process Responses to a Notice of Incomplete Information		Cancel Expired Inactive Voters
Resolve a Notice of Incomplete Information That Has Expired	Generate Reports for Voter Registration Management	Cancel a Voter
Create & Replace Voter Registration Cards	Manage Permanent Early Voter List	Re-instate a Voter

3. *Election Management* – These are the processes necessary to set up, support and manage elections as it relates to voter registration.

Figure 4. Election Management Processes

Set Up an Election	Manage UOCAVA, Early Ballot Requests and Returns	Manage Rosters and EPollbooks
Manage Polling Places		Process Provisional Ballots
Manage Poll Workers	Elections Management	Generate Election Reports
Manage Precincts	(not including ballot creation or tabulation)	Update VR History from Election Results
Manage Ballot Styles		Archive Election

4. System Administration – These are the processes necessary to maintain the system tables that contain 'drop-down' values, system-wide variables and content, and security.



Figure 5. System Administration Processes

Manage Access	Manage System Parameters	Manage System Security
Manage System Tables	System	Manage Precincts
Manage Street File	Administration	Manage Jurisdictional Boundaries

5. Public Records Requests – These are the processes followed to fulfill requests for information regarding voter registration records requested by campaigns, political parties, political organizations and others.

5.2 Process Actors

Actors interact with the system in order to accomplish business activities. The following are actors involved in the business processes listed in this document:

- County Voter Registration Staff County staff that performs a wide variety of voter registration related tasks
- Petition Staff County staff that is actively working with petitions
- Election Staff State and County staff that perform various tasks related to the conduct of an election
- AZSOS Refers to staff of the AZSOS
- MVD Staff of Motor Vehicle Department who enter voter registration information while processing a driver's license application
- Arizona Public These are Arizona residents who are voters or potential voters; these actors participate in voter registration, voting, and petitioning.

5.3 Current Petition Processes

5.3.1 Create a Petition

The user sets up a petition to track and report on the status of signature verification on the petition. The petition setup includes:

- The petition number or other petition identifier
- Petition type (initiative, referendum, recall, and candidate)
- A brief text description of the petition
- Number of signatures required
- Petition received date
- Circulation start/end date
- Other petition timelines



The valid jurisdiction for the petition

The user assigns a unique identifier for each type of petition by election year (at county, city, various district, and state levels).

The user enters identifying information concerning the candidate, office, initiative, or referendum that is the subject of the petition.

5.3.2 Track Petition Timeline

The user establishes a tracking schedule, a process checklist and a petition signature sheet as needed.

5.3.3 Record Chief Petitioner Information

The user enters chief petitioner information (name, address, and phone) for any sheet of petitions submitted by a chief petitioner. For example, a chief petitioner might deliver a section of petition signatures containing 30 sheets of petition signatures, each sheet containing up to 10 signatures. The user enters the chief petitioner's name (in the same format as a fully qualified name in the main voter registration system), address (in the same format as a fully qualified registered voter's mailing address, and telephone number (in the standard aaa-ppp-nnnn format).

5.3.4 Check Duplicate Signature

The user reviews the signature pages to check for duplicate signatures which are to be removed from the signature list and count.

5.3.5 Verify Address of Petition Signatory

The user verifies that the address provided by the petition signatory is accurate by checking the address recorded on the State's voter registration database. If the address does not match, the user indicates that address on the petition may be invalid or different than the address of record and marks the record for possible address update. If the address is different than the voter's voter registration address, the petition may be accepted depending on the scenario, but the voter will be sent a notice asking if voter wishes to change his or her voter registration address.

5.3.6 View Information on Voters who Have Signed a Petition

The user views the date of registration, name, address, digitized signature, date of digitized signature, party affiliation, registration status and qualified district for petition signers and candidates by petition.

5.3.7 Create Randomized List for Verification of Signatures

The user develops a randomized list that contains sheet and line numbers to verify the status of the registered voters' signatures on petitions. The user selects the percentage of the total number of sections, pages, and lines on the petitions. For example, the user may designate a randomized list containing 5%, 8.5%, 10%, or 12.5% of the total number of sections, pages, and lines on the petitions that have been delivered for checking by the AZSOS or a local election office.



The result of this process is a printed report that an authorized petition checker uses to verify the voter registration status of the person who signed that sheet on that page and on that line.

For petitions within a jurisdiction within a county, the county performs this process.

5.3.8 Remove Name on Petition Upon Request

Upon voter request, the user updates the voter record to reflect the request to remove voter's name from the petition, and to adjust the total of certified signatures on the petition accordingly.

5.3.9 Track Verification of Petition Signature Checking

The user tracks the verification of petition signatures and retains the findings of the checker.

5.3.10 Track Petition Signature Findings

The user records and reports signature findings (summary of verification).

5.3.11 Report Petition Signature Verification

The user prepares printed reports and export files containing petition signature verification statistics.

5.3.12 Track History of Petition, and Generate Statistical Reports

The user tracks the history of a petition and generates reports.

5.3.13 Report on Voters Who Have Signed Petition

The user generates a report containing information on all registered voters whose signatures were verified and accepted.

5.3.14 Report on Signature Verification by Date Range

The user generates a report on the number of petition signatures that have been verified by all petition checkers within a specified date range.

5.3.15 Finish Petition

The user finishes a petition when the user determines the petition is complete. Once finished, no records pertaining specifically to that petition, such as indication that a registered voter has signed a petition, are added, modified, or deleted.

5.3.16 Archive Historical Petition Data

An authorized user with system administrator or database administrator privileges:

- Deletes a petition and associated data for a petition from the database
- Removes the records of a petition from the database and archives the information from that petition to media external to the database



■ Prints reports needed, and then puts them in a box and puts box in storage

5.4 Current Voter Registration Processes

5.4.1 Find and View Information About a Voter

Search for a voter in order to:

- Find information about a county voter
- Find information about a voter registered outside the county
- Perform an Election Day look-up for voters in the county

5.4.2 **Process an Application for Voter Registration**

5.4.2.1 Process Paper Application

The county user normally accepts either of 2 paper voter registration forms: state and federal.

Process Federal Form - The user enters the application into PowerProfile and sends a notice informing the federal form registrant that they are registered but only eligible to vote for federal offices and if the voter wishes to vote for all candidates and issues on ballot they must register with proof of citizenship.

The notice should be sent after the MVD matching has occurred. If the registrant's information is sent to MVD and MVD can match based on name, date of birth, and last 4-digit of SSN and MVD provides a driver license that proves citizenship, the federal form registrant becomes a regular voter.

If a federal form registrant does not provide the proof of citizenship or identity, they are not eligible to vote an early ballot.

If a federal form registrant provides proof of identity but no proof of citizenship, they are legible to vote an early federal ballot.

■ *Process State Form* - The user enters the application into PowerProfile

Both of these forms are entered into PowerProfile by the VRAZ-II user. The federal form does not necessarily contain the driver's license information, and therefore does not have necessary proof of citizenship. Without proof of citizenship, the voter registration is accepted but is only active for Federal elections. The user will send a notice to the registrant requesting proof of citizenship, which is typically done by completing the state form.

When processing a voter registration application <u>with incomplete information</u>, the voter registration record is placed into 'Suspense – Registrant Waiting' status and an 'Incomplete Information' notice is sent to the applicant. If the applicant does not respond within 35 – 90 days, depending on the county, the voter registration record is placed into 'Not Registered – Pending Expired' status.



When processing the State voter registration application <u>without proof of citizenship</u>, the form will be sent back with a notice requesting proof of citizenship and the voter registration record is placed into 'Not Eligible - Invalid Citizenship Proof' status.

When processing the State Form occasionally the SSN will be incorrect or not all the information provided can be validated. In this instance, VRAZ-II sends these records to MVD, which routes the request to SSA with 4-digit SSN check. However, this process rarely proves worthwhile as the return information indicates all SSA records with the given name, DOB and last 4-digits of the SSN without indication if person is living or dead, so the result is inconclusive.

5.4.2.2 Process EZVoter Application

An Arizona resident may decide to obtain a driver's license or non-operating identification. The applicant is required to show proof of legal presence which includes US Citizenship if the application was completed after October 1, 1996. The <u>type</u> of license or non-operating identification card tells what type of proof of legal presence was provided to MVD and is maintained on the individual's MVD record. Additionally, the 9-digit SSN is obtained and held by MVD. MVD uses the 9-digit SSN to confirm identity with the Social Security Administration via the Help America Vote Verification (HAVV) system.

An Arizona resident may decide to apply for voter registration through EZVoter, an online feature of Service Arizona. Upon access to EZVoter, the resident enters name, date of birth, last 4-digit of SSN, and Arizona driver's License or ID number. EZVoter verifies with the MVD database the accuracy of this information and retrieves address and zip code of the applicant. EZVoter then sends the record over to VRAZ-II where it is compared with existing voter registration records.

- Hard Match If a 'hard match' occurs, VRAZ-II automatically updates the voter record. If the old record is in a 'Canceled' status, a new record is created with a new voter registrant number.
- Soft Match If a 'soft match' occurs, the two records are presented next to each other and a county user compares the records and makes a judgment as to whether the records refer to the same person or not.

5.4.2.3 Manage Naturalized Citizen (SAVE) Records

A few of the Arizona counties have logons to the federal Systematic Alien Verification for Entitlements (SAVE) system by which they verify that an application for voter registration is from, and corresponds to, a naturalized citizen. This is not a part of VRAZ-II but simply an additional resource to the counties for verification when processing relevant voter registration records.

5.4.3 Modify Voter Information

A citizen requests a change to their voter registration by completing a paper form or accessing servicearizona.com. The county user makes changes requested from these forms and may also make updates to a voter registration record from an early ballot or permanent early voter request form containing the voter signature, which can be the tear



off portion of an ID card requesting to become a PEVL and/or indicates change of address which is signed by voter.

The county user may make changes to a voter registration record for a variety of updates.

5.4.4 Manage Scanned Entries

As paper voter registration applications or updates are processed, at minimum, the original document as well as a clip of the signature are scanned and attached to the respective voter registration record.

5.4.5 Manage Duplicates

A possible duplicate voter or a duplicate application is resolved under the following scenarios:

- A duplicate application is an <u>exact match</u> on an existing application/record within the county or among the 13 counties.
- A possible duplicate voter is a voter who may have multiple voter registrations.
 - 'Hard' match All criteria are matched: Name, DOB, Driver's License, and last 4 digits of SSN; or Name, DOB and (Driver's License or last 4-digit SSN) match
 - □ 'Soft' match Only part of the criteria is matched: Name, DOB, and Driver's License, <u>or</u> last 4 digits of SSN

HEI is used by all 15 counties to manage county to county duplicate checking, while incounty duplicate checking is done in PowerProfile by the 13 counties or by Maricopa and Pima in their respective voter registration systems.

5.4.6 Resolve Data Integration Discrepancies with Maricopa and Pima Counties

Data discrepancies between VRAZ-II and Maricopa and/or Pima County must be resolved to enable an official list of registered voters to be generated from VRAZ-II.

5.4.7 Issue Notice of Incomplete Information

When an application for registration does not contain all the information needed to register to vote, a 'Notice of Incomplete Information' is sent to the applicant requesting the needed information. The application is placed in a 'Suspense' status.

5.4.8 **Process Responses to a Notice of Incomplete Information**

A user must update VRAZ-II to reflect the response to a notice of a potential felon, deceased or Non U.S. Citizen match. A user must change status to 'Cancel' or 'Not Eligible' in the case of Non U.S. citizen match.

5.4.9 Resolve a Notice of Incomplete information That Has Expired

When a 'Notice of Incomplete Information' is generated, after 35 days have passed and a response to the 'Notice of Incomplete' has not been recorded, a task is created to resolve a 'Notice of Incomplete that Has Expired'.

■ A user must change status to 'Not Registered - Pending Expired'



■ This is done manually one at a time

5.4.10 Replace a Voter Registration Card

A user must generate a replacement voter registration card (Voter ID) for a voter.

5.4.11 View Voter Registration Tasks

A user must search and view voter registration tasks that need to be resolved. The following are task categories:

- Records in Suspense As per NVRA, after 35-90 days (depending on the county) of no activity, these records can be mass updated, changing their status from 'Suspense' to 'Expired'.
- *Inactive to Canceled* As per NVRA, voter records that have been 'Inactive' for 2 federal elections can be mass updated and moved to 'Canceled' status.
- Notice of Incomplete Voter records have been sent a 'Notice of Incomplete' without activity for 35-90 days (depending on the county) can be mass updated to change status to 'Not Registered Pending Expired'.
- UOCAVA Voters If UOCAVA voters are 'Inactive' for 2 federal elections but then vote, they are allowed to continue as a UOCAVA voter. They are recorded as <u>fixed</u> <u>date range</u> voters. PEVL (Permanent Early Voting List) voters are recorded in PowerProfile as <u>indefinite date range</u> voters.
- Voters on PEVL moved to 'Inactive' status need to be removed from PEVL. This could be done en mass.

5.4.12 Manage Felon/Incapacitated

A user must identify felons and incapacitated persons by matching voter records with data supplied to VRAZ-II by:

- Arizona Courts
- US District Courts

Records that are identified as a 'hard' match are updated by VRAZ-II automatically. 'Soft' match records will need to be updated through the Manage Duplicate Process.

5.4.13 Manage Death Records

A user must identify records of deceased voters by matching them with information provided by DHS. Records that are identified as a 'hard' match are updated by VRAZ-II automatically. 'Soft' match records will need to be updated through the Manage Duplicate Process.

5.4.14 Manage UOCAVA Voters

AZSOS maintains on its website a function which enables UOCAVA voters to register to vote, obtain the correct ballot and cast the ballot. The process is as follows:

County gets email from AZSOS that UOCAVA wants voter registration, ballot, etc.



- County tells AZSOS to give them a user name and password
- County sends them a ballot either by email or mail
- UOCAVA voter prints the ballot, marks it, scans it and uploads to AZSOS
- AZSOS notifies the county that a ballot has been received
- County goes to AZSOS site and pulls down ballot and places it in an envelope for tabulation

UOCAVA voters are entered as fixed date range PEVL voters, meaning that their status as PEVL is set for the duration of 2 federal elections, at which point they must reapply for PEVL status.

Yavapai County does not use the AZSOS FTP drop box. They created their own drop box and stored the UOCAVA registrants' FTP access id and password in a MS Access database. However, they still receive notices from AZSOS interested voters.

5.4.15 Manage Secured Voters

The AZSOS works with the County Recorders by overseeing the Address Confidentiality Program (ACP) program, which helps victims of domestic violence, sexual offenses, and/or stalking from being located by the perpetrator through public records. The program provides a substitute address and confidential mail forwarding services to individuals and families of Arizona. The eligibility criteria requires that a participant:

- Is a victim of domestic violence, sexual offense (such as rape, sexual assault, molestation), or stalking
- Is in fear of his or her safety
- Has moved in the past 90 days to a place unknown by the perpetrator or is planning to move to a place unknown to the perpetrator in the near future within Arizona
- Has documentation to support victimization
- Is an adult, or a parent or guardian acting on behalf of a minor or incapacitated person

In addition, persons who have occupations (such as a police officer, probation officer, judge, etc.) and other individuals may file an affidavit with the court requesting that their records be sealed. If granted, they will be given secured voter status. This ensures that their real address is never shown or provided yet mail for voting purposes is received. All Public Records Requests (PRRs) of PowerProfile may include Secured Voters in their totals, if proper security protocols are followed. A secured voter must provide the County Recorder with a copy of a court order of their need for confidentiality or are activated through ACP program.

When a participant in ACP would like to register to vote or change an address, the registrant registers through the ACP. The Election Director of ACP reviews the application for completeness. The Election Director forwards the confidential voter form to a dedicated staff member in the appropriate county for processing. The registration is listed as a 'Secured Voter' in VRAZ-II and is indicated as a PEVL. Only the substitute address is used for correspondence related to elections.



5.4.16 Issue Notices for Various Reasons

Based upon information received from courts and other State agencies, a notice is sent to confirm information received. This includes, but is not limited to:

- *Felony* Has been convicted of a felony
- Incapacitated Has been declared mentally incompetent/incapacitated by final judgment of a court of law
- Deceased Verification of Voter Status (confirming voter is living or dead); this often is done by sending a 'Registration Update Needed' notice
- Citizenship Verification Not a U.S. Citizen or citizenship information not provided or a juror questionnaire completed indicating 'not a U.S. Citizen'; results in sending out a new State Registration Form to be filled out
- Moved Voter If moved out of county, notice sent asking if they want to be canceled as per NVRA
- Notice of MVD Non-match The voter registration application found no match when checked against the MVD driver's license file
- 90 Day Notice for PEVL Notifying the voter that there is an election in 90 days, that they are shown as a PEVL (Permanent Early Voting List) voter and they will be sent a ballot by mail for the election. This notice also checks address and could initiate the NVRA process.
- Fed Only Notice A notice to the voter that they are registered as a Fed Only voter, meaning that they used a federal form for registration and have not provided proof of citizenship and therefore may only vote for federal offices. This notice is done outside of PowerProfile since only Arizona has Federal Only voters. This notice is accompanied with the state registration form which requires proof of citizenship and if completed, submitted and verified, will change voter status to vote for all contests in his or her precinct.

5.4.17 Process Response to Various Notices

Update VRAZ-II to reflect the response to a notice of a potential felon, incapacity, deceased or Non U.S. Citizen. Change status appropriately depending on the action needed: 'Active' or 'Canceled' or 'Not Eligible'.

5.4.18 *Perform NVRA Process*

If notice or mailing is sent to a registrant and is returned as undeliverable, a second notice is sent. Then after 35 days, the user changes the voter record status to 'Inactive'. If the voter fails to vote through the duration of 2 federal elections, the record status is changed to 'Canceled' as per NVRA.

5.4.19 Cancel Expired Inactive Voters

Voters in 'Inactive' status are moved to 'Canceled' status after failure to vote in 2 federal elections as per NVRA. This is done by a user initiating a job.



Counties are required by law to retain the original application of the voter along with other items associated with the voter's record (e.g. notices) in a file system, either physical or electronic.

5.4.20 Cancel a Voter

A user must update the voter record to indicate that the voter is canceled using the appropriate cancellation reason such as:

- Moved out of County
- Court/DHS
- After mail is returned undeliverable and a second notice is also undelivered, change status to 'Inactive'. After voter is 'Inactive' through two federal elections (as per NVRA), change voter status to 'Canceled'.

5.4.21 Re-instate a Voter

A user must reinstate a voter who has been cancelled by creating a new registration number and a new record, as per State policy. Voter history is not carried over to the new record.

When voter has been erroneously canceled, the original voter record is reinstated thus retaining the original registration number and all existing voter history.

5.4.22 Generate Reports for Voter Registration Management

A user must generate voter registration reports for download, print or save. The following are examples of a voter registration reports that are available:

- Early voters for the political parties
- Quarterly Report of statistics submitted to AZSOS
- Registered Voter List
- Suspense Voter Reports
- Official List of Registered Voters for local elections

5.4.23 Perform Self-Service Inquiry

The 13 counties provide a link to the AZSOS (VoterView) to allow registrants to perform one of the following searches, etc.

- Am I registered?
- What is My Polling Place/ Voter Center?
- Provisional and early ballot lookup



5.5 Current Election Management Processes

5.5.1 Set Up an Election

AZSOS initiates the process by 'setting up' the election information. The counties continue the process by 'setting up' local jurisdiction election information. The information includes:

- Type of election (i.e. general, primary, special, etc.)
- Dates of events for the election
 - Election day
 - UOCAVA deadline
 - □ Early ballot request cutoff date
 - Early ballot mailing date
 - □ Early voting begin and end dates
- Political subdivisions
- Jurisdictions included in the election

5.5.2 Manage Polling Places

County staff identifies and defines polling locations that will be used for each precinct and precinct part. The process in managing the polling places includes providing the following information:

- Identification of the Polling Place
- Polling Place location
- Polling Place address
- Polling Place contact
- Room logistics (size, ADA, parameters, capacity, tables available, etc.)

5.5.3 Manage Poll Workers

County staff identifies and maintains individuals that work elections in the polling places. The purpose is to identify and track the availability and history of a poll worker. Some of the information managed for poll workers includes the following:

- Poll Worker ID/VUID
- Name
- DOB
- SSN
- Address
- Phone numbers



- Remarks
- Party
- Email
- Skills
- Role (position within the polling place)
- Training and certification
- Preferred precinct
- Preferred city
- Donate pay to charity (yes/no)
- Notes
- Poll worker history (e.g., election, precinct, place, location, dates to/from)

5.5.4 Manage Precincts

Precinct management is critical to the whole voter registration process. Essentially every voter registration record must be assigned to a precinct (or precinct part) so that the voter is issued the correct ballot and directed to the correct voting location. This function is performed by each of the counties continuously as new voter registrations occur.

Precincts are defined as a list of street names and the range of street numbers on each street that are within the precinct. Precinct parts are subdivisions of a precinct. Jurisdictions are defined by a list of precincts (and if needed, a list of precinct parts).

5.5.5 Manage Ballot Styles

County defines the initial ballot by providing the federal, state, and local contests including candidates and statewide initiatives. If it is a partisan election (i.e. a primary), a given ballot style will need to be replicated for each party. Currently four parties are recognized in Arizona (Democratic, Republican, Green and Libertarian), so in partisan elections there are four times as many ballot styles as there are in non-partisan elections.

5.5.6 Manage UOCAVA and Early Ballot Requests and Returns

County staff receive requests for early ballots. County staff update the voter's registration record indicating that they have requested an early ballot and produce the correct ballot for the voter (either through an automated process or by single request).

There are 3 types of early ballot requests:

- One time' requests
- PEVL which are sent to the voter 27 days prior to the election
- UOCAVA which are sent to the voter 45 days prior to the election

As early ballots are returned, a county staff member verifies the signature on the affidavit envelope. If the signature is confirmed, VRAZ-II is updated indicating that the early ballot was received. The early ballot is placed in a queue for processing and tabulation.



During the process of sending and processing early ballots, the Counties may produce reports on the number of early ballots issued and processed. They do not report number of ballots received.

5.5.7 Manage Rosters and ePollbooks

Counties create a voter registration roster that is the list of valid registered voters for a given polling place. This roster in most cases is an epollbook but may be a paper roster. It is used to authorize a voter to vote.

For epollbooks, county staff generate the roster extract and send the extract file to the epollbook vendor that in turn transfers the voter information to the format needed for the specific type of epollbook. The vendor sends this translated file to the county which is then loaded to the epollbook.

For paper rosters, county staff generates the roster which is then printed and bound.

As voters enter the polling place, they sign the epollbook or roster and their signature is validated against the signature on file. If the voter is confirmed they are presented their correct blank ballot which is then voted, cast and then processed.

Voter history and signature is imported to VRAZ-II and attached to the voter record. To complete this process the Counties extract the roster data from the epollbook and send the extracted file to the epollbook vendor. The epollbook vender converts the file to the format required for the import to VRAZ-II. The vendor sends the converted file to the County which then import it into VRAZ-II.

5.5.8 Process Provisional Ballots

Provisional ballots are processed and counted last. County staff perform the following steps:

- Identify the voter of the provisional ballot
- Check VRAZ-II to verify if an early ballot was received; if an early ballot was received, then the provisional ballot is processed as a rejected ballot
- Verify the signature on the affidavit against the signature recorded in VRAZ-II; if the signature is not accepted, the provisional ballot is processed as a rejected ballot
- For Accepted provisional ballots:
 - □ The ballot is sent for tabulation
 - A snapshot of the provisional ballot envelope is attached to the voter record
- Reports on provisional ballots issued and processed may be generated

5.5.9 Generate Election Reports

County staff are required to, or may choose to, generate a report on various aspects of the Election Management process. The following are some examples of reports that may be generated:

Early ballots requested



- Early ballots sent
- Early ballots processed
- Number of registered voters voting early or at a polling place
- Number of provisional ballots issued and processed
- Number of accepted, rejected, and undeliverable ballots

5.5.10 Update Voter Registration History From Election Results

County staff update the voter registration database with election results. This records whether or not the registered voter submitted a ballot for this particular election. Information captured includes the election, date of the election, polling place visited, method (early/regular/provisional ballot) and voter identification information.

5.5.11 Archive Election

County staff may choose to archive an election after the voting history has been posted and reports are generated. Once the archive has been completed, voter history and election related reports are no longer available.

5.6 Current System Admin Processes

5.6.1 Manage Authentication and Authorization

PowerLock is a subsystem within PowerProfile to manage user accounts and access to system resources. The implementation follows a traditional role-based model to map users to roles to capabilities, which is persisted in a set of database tables. Administrators use PowerLock screens to manage accounts and access.

Additionally, users must be authenticated and authorized for Citrix access prior to launching the PowerProfile application, which runs on virtual desktops. This provides a second layer of security around the application⁴.

5.6.2 Manage System Tables

There are a number of system tables that define the choice that can be made such as the types of voter registration record statuses and similar items. AZSOS largely manages these tables.

5.6.3 Manage Street File

Street file maintenance is needed to assign or resolve precinct and street address issues. The need to resolve a precinct/street issue typically arises from a jurisdictionally unassigned voter registration application. The user will check with County Planning (GIS)



⁴ Gartner has not performed a security assessment, per se. This statement is from the perspective of endusers accessing the system. Gartner did not investigate how the Oracle database or the ZIA interface is protected.

to resolve the address, research the internet, or call the applicant. If still unresolved, the user will put subject voter record into 'Suspense' status until resolved.

5.6.4 Manage Precincts

Precinct management is critical to the voter registration process. Essentially every voter registration record must be assigned to a precinct in order to ensure that the voter is issued the correct ballot and directed to the correct voting location. This function is continuously performed by each of the counties as new voter registrations occur.

5.6.5 Manage Jurisdictional Boundaries

Each County continuously assigns precinct (and when necessary) precinct parts to create tables that indicate various jurisdictional boundaries, such as Congressional District, Legislative District, Municipal limits, Fire Districts, Water Districts, etc.

5.7 Fulfill A Public Records Request

Both counties and AZSOS receive requests for information regarding voter registration records. Campaigns, political parties, and political organizations all have an interest in this information and can request it. Typically, the request is received either by email or letter and may be reviewed by the appropriate legal authority (County Counsel, Attorney General) to determine if it should be fulfilled. If it should, staff produces the report using the PRR Reporting function of PowerProfile (for the 13 Counties and AZSOS). There are requests which under current information availability, AZSOS cannot fulfill and must request assistance from one or more counties.



6.0 Findings

6.1 New Record for Canceled Voters

There has been a statewide policy (which has been followed by the counties) of creating a new record when it is discovered that a voter who was 'Canceled' (due to inactivity) has now resurfaced. When that is done, the voter's prior voting history is not carried to the new record and the voter is given a new registration number. Additionally, when activity is reported, this voter will appear as a new registration. This policy skews data reporting, making it appear that there are more new registered voters than there are and inhibiting the ability to perform analysis based upon voter history. However, VRAZ-II can re-instate 'Canceled' voters and there is a policy of doing so when the cancelation was a clerical error.

6.2 Increase in Statewide Records Requests

There is an increasing demand for statewide information from AZSOS. There are 2 sources of this:

- Records Requests from a variety of entities and organizations
- Requests for information in litigations

Changes in Demographics - Arizona demographics are changing and Arizona is approaching the status of a 'Swing State' which may vote Republican or Democratic on any given election. As a result, both within the state and on a national level, Arizona is attracting much more attention than it was once did. That attention is typically in the form of information requests and often those requests require statewide information.

Changes in Records Request Fees - State statute stipulates that a charge of 1 cent per record is to be assessed for voter registration requests. This rate of charge has discouraged many requests in the past where there have been approximately one records request per month to AZSOS. The statute will be amended in 2017 which will encourage far more records requests than were seen in the past, with an expectation of as many as 3 to 10 records requests per month.

These developments will mean that AZSOS' requirement to produce reports that are comprehensive, detailed, seamless and cross-tabulated will be increasing. At minimum, this means significant changes to VRAZ-II and its interfaces will be necessary.

6.3 Trend Toward Vote Centers

Across Arizona and across the country, there is a trend toward voter centers.

'Vote centers are an alternative to traditional, neighborhood-based precincts. When a jurisdiction opts to use vote centers, voters may cast their ballots on



Election Day at any vote center in the jurisdiction, regardless of their residential address.³

There are three variations of the counties regarding polling locations.

- Vote Centers Any voter, any center. Yavapai is an example.
- Hybrid Vote Centers Provide super polling places as a result of consolidated poll sites and consolidated precincts. Mohave is an example.
- Do Not Use Vote Centers Pinal is an example.

PowerProfile was designed when only precinct-based voting existed and accordingly, Arizona counties are required to develop 'work-arounds' to enable them to provide voter centers or at least super-precincts in their respective jurisdictions.

6.4 Trend Toward Early Voting and Vote By Mail

Across Arizona and across the country, there is a trend toward early voting, no excuse absentee voting and even vote-by-mail. As shown in the figure⁶ below, Arizona is with the majority of Western and Mid-Western states in offering early voting and no excuse absentee voting.

The State of Oregon was the first (1998) to move to this model statewide and it has enjoyed wide support among the electorate there ever since. Oregon was followed in this by the States of Washington and Colorado as shown in the figure below.



⁵ National Conference of State Legislatures, October 2015 http://www.ncsl.org/research/elections-and-campaigns/votecenters.

⁶ National Conference of State Legislatures, May 2016. http://www.ncsl.org/research/elections-and-campaigns/absentee-and-early-voting.aspx

Figure 6. National Early Voting Trend



6.5 Integration of Maricopa and Pima Counties

Before the HAVA law in 2002, voter registration was entirely a county function, but it became increasingly clear that as electronic information was becoming more important to elections (especially state and federal), and as an expectation of highly accurate election data at those levels grew, that statewide information would be necessary.

Arizona moved along that path expeditiously, first with VRAZ-I and now with VRAZ-II, and each has been a major step toward fulfillment of the intent of HAVA. VRAZ-II fulfilled the need for felon/incapacitated, death, SSA checking, and most importantly, duplicate checking and resolution across counties.



Since the implementation of VRAZ-II in 2006 and 2007, 13 counties have been further consolidated (in 2015) from a decentralized environment to a centralized environment. This has further improved the quality, consistency and availability of voter registration data.

As good as these achievements have been, there is still room for improvement. In the integration of Maricopa and Pima, voter records checking was implemented, but the further consideration of statewide information reporting was simply beyond the expectations at that time. Therefore street file, precinct, jurisdictional boundaries, voter history, and voter activity were not transferred from those two counties (about 77% of voters in 2016) inhibiting statewide reporting. Further, jurisdictional boundaries in Arizona often do not align with county boundaries, making it imperative that reporting be at the state-level. This is specifically true of Congressional and Legislative District boundaries.

Accordingly, the integration of Maricopa and Pima county records needs to include street file, precinct, precinct parts, jurisdictional boundaries, voting history, and voter activity.

6.6 Differences In County Processes

6.6.1 17 Year Olds

When a 17 year old sends an application for voter registration prior to an election (by which time he will not be 18 and therefore will be ineligible to vote), some counties enter the application into VRAZ-II upon receipt while others hold the application until after the election. Yavapai and Navajo hold them, for example, while Pinal enters them and they are given the status of 'Ineligible - Too Young'. Counties usually monitor these records and manually change them to 'Active' status once the applicant reaches 18. Most do not use a recurring job to complete this function, as there have been issues with it not performing correctly in the past and there been no communication to them that this issue has been resolved.

6.6.2 Effective Date of Change

Counties differ on what should be used as the 'Effective Date of Change' for voter registration records. Potential dates are:

- Date Signed
- Date Postmarked
- Date Received
- Date Entered

Effective Date of Change controls decisions regarding which duplicate record should be kept.

6.6.3 Changes To Voter Registrations Before Election

Twenty-nine days prior to an election, voter registration is closed for eligibility to vote in that election. A voter request for a change of address during that period will change the effective date of the registration and may cause that voter to be ineligible to vote in the



upcoming election or, at minimum, change the voter's poll site and ballot. Accordingly, some counties hold change of voter registration requests received in this period and process them after the election.

6.6.4 Non-standard Addresses & Electronic Pollbooks

Non-standard addresses will not transfer to an electronic pollbook. Only standard addresses get transferred. Counties that are using electronic pollbooks have developed a 'work around'; however, it is not standard among the counties. For example, Pinal puts a 0 in the house number and district as the street name.

Additionally, a few towns (i.e. Florence and Arizona City) do not have local mail delivery so they need to record a physical address and a mailing address.

6.6.5 Felon Record Processing in Maricopa

For all counties, AZSOS receives an electronic flat file of felon records from Arizona courts and paper records from other US District courts. For all counties, these are entered into VRAZ-II and all counties are made aware of the change of status of any voter registered in their county who has been made ineligible to vote by virtue of a felony conviction. There is a difference, however, in the subsequent processing for Maricopa County. The Maricopa County Superior Court send a list of convicted felons. AZSOS process that file against the statewide database sending a list of registered voters that are listed as felons. Maricopa County will send letters to AZSOS indicating if the felony charge was reduced to a misdemeanor. AZSOS will review these individuals from the file of felons and process it against VRAZ-II.

6.6.6 Early Voters at Poll Sites

Nearly all counties in Arizona use electronic pollbooks at their respective poll sites to more quickly and easily process voters. A few counties have advanced their use of pollbooks by downloading to them not only that the voter received an early ballot but also if that ballot has already been received and processed. If so, they inform the voter of that fact and there is no need to vote with a provisional ballot. The rule is whichever ballot of a voter is first encountered in the tally of the election is used, and any subsequent ballot from that voter is discarded.

6.6.7 90 Day Notices

There is a '90 Day Notice', which each county must produce and issue to PEVL voters, notifying them of the election, that they are on the PEVL and will be mailed a ballot.

The text of this Notice was fixed in PowerProfile and cannot be altered or annotated by the counties. To change the text of Notices, there must be agreement among all counties and AZSOS and a request must be placed with ES&S. This was a policy that was established by prior Arizona Secretary of State and this policy could be easily changed. The counties find it necessary to at minimum to annotate the Notice with county specific information. It they could, they would simply use the PowerProfile functionality that would produce the mailers quickly and easily. Since they cannot annotate the Notice, they use the system to produce mailing addresses and then use MS-Word Mail-merge feature to



create the notice and produce the mailing. The process to create mailing labels requires 12 steps and 8 PowerProfile screens.

ES&S has indicated that PowerProfile has the ability and was originally designed to allow counties to make changes to the Notice, but a prior AZSOS administration requested that the Notice language be fixed and unalterable. Perhaps a portion of the Notice contains fixed text and a portion of the Notice that could be customized by the counties would be a good solution and would reduce work by all the 13 counties.

6.6.8 Matching Crystal, Quarterly Reports and Party Reports

There is a Crystal Report (created by IBM) that produces statistics which are submitted to the AZSOS by each county each quarter. At the same time, there is a PowerProfile set of Quarterly Reports also generated by the counties that contain information about early voting, registered voters and party affiliations. This is run as a PRR. The totals shown on these two sets of reports ought to match or at minimum be reconciled. The only way the counties can make that happen is to ban all of their users from entering anything into PowerProfile for the duration of the running of all of these reports.

A few counties do that, some are not aware of what is necessary to accomplish this level of accuracy. Yavapai matches totals on both sets of reports, for example, while La Paz gets the totals to match by not including data on secured voters in the reports but then reconciling the totals by taking into account the number of secured voters in that county.

6.6.9 PPR-related Reports After Election

Virtually, all of the other 13 counties run as many PRR-related reports as possible prior to the close of an election to capture voter history and election data before it disappears when the election is closed. All would like to be able to have access to this information after the close of the election as it is difficult, if not impossible, to anticipate the requests for information that they will receive after the election which require this information.

6.7 Summary of County Data Gathering

As part of the assessment process, a data gathering questionnaire was sent to each county to be completed and returned prior to the scheduled regional meeting with that county.

12 of the 15 counties responded. Gartner did not receive responses from Cochise, Navajo and Pima. The details of the responses are documented in the tables in Appendix B. Here is a brief summary of key findings.

- The County Recorder is responsible for both voter registration and elections in 4 of 12 counties
- Electronic Pollbooks are used in 10 of 12 counties
- All respondents have access to a GIS system, typically part of the county planning department.
- There are over 180 users statewide that have access to the VRAZ-II in some fashion



- The VRAZ-II database is constantly changing. The following is an example indicating the annual volume of database updates and inquiries.
 - Registrant additions 52,973
 Registrant changes 100,307
 Registrant cancelations 9,217
 Voter registration reports 1,356
 PRRs 395

6.8 Security

There are 2 security layers to obtain access to VRAZ-II. The first layer is through Citrix, which hosts that application, and the second is built-in security at the application layer.

In many cases, composite solutions such as VRAZ-II, especially those including legacy approaches, may contain security vulnerabilities that stem from many different access paths to data⁷.



⁷ Gartner has not conducted a security assessment of VRAZ-II within the scope of this engagement, and recommends that AZSOS perform such an assessment, to verify the use of best practices within the implementation.

7.0 Pain-Points & Remedies

Pain-Points are impediments that inhibit the AZSOS and county's progress toward meeting the business goals in fulfilling obligations under law as well as in providing quality service to their constituents.

There are 3 sets of these pain-points, namely:

- Maricopa and Pima County
- The Other 13 Counties
- The Office of the Secretary of State

It should be noted that IBM managed the original implementation and the on-going support and maintenance of VRAZ-II until March 2016.

7.1 Maricopa and Pima County Pain-Points

These counties which maintain their respective voter registration systems, must rely on VRAZ-II for certain functions such as:

- The interfaces with MVD and SSA.
- Check for duplicate voters among counties (HEI)
- Matching of felon/incapacitated and deceased voters (HEI)
- UOCAVA ballot request and uploading

7.1.1 Dropped Batches of Records

Pain-Point - There have been occasions when the interface between Maricopa and Pima and VRAZ-II has failed to indicate successful transmission and receipt of records causing technical staff to spend many hours resolving what and why a failure occurred.

Remedy Long-Term - The current interfaces between VRAZ-II and Maricopa and Pima counties could be replaced with real-time, web services interfaces. This would greatly simplify the interfaces, make them more accurate and make the information flow timelier. This is not, however, a minor task. It should resolve the occasional dropped batch painpoint. In addition need reports from MVD by county of records transmitted to through the state interface. Also, need report from Maricopa and Pima of received transactions.

7.2 The Other Thirteen (13) County Pain-Points

7.2.1 Confusing & Misused System Tables

Pain-Point - The 'How Registered' vs 'Source of Information' tables in PowerProfile are confusing and even contradictory. As a result they have been used differently by different counties resulting in data without clear classifications.

Remedy Short-Term - AZSOS should 'clean-up' these tables as they have many entries that are duplicate and very confusing and result in being coded differently among the counties.


7.2.2 UOCAVA Reason Codes

Pain-point - There are check boxes in two screens for 'Military' and 'Foreign'. The counties are using these codes differently. Also, the Reason Code for UOCAVA is confusing and duplicative. This information must be reported to the Federal Elections Assistance Commission, so an effort should be made to make the information as accurate as possible. There are about 1,200 Arizona voters in UOCAVA status.

Remedy Short-Term - There should be a check box on the search screen so all reasons for UOCAVA can be reported without having to go through all the reason codes for UOCAVA. In addition, AZSOS should work with the counties to 'clean-up' these tables.

7.2.3 Misdirected EZVoter Records

Pain-Point - There are 2,153 voter records in Agency Central that have been sent to AZSOS by a county because the record was not in the county to which it was sent by EZVoter. They should have been processed by AZSOS sometime in the past (they go back to 2010) but have not been. Likely most of them are 'Active' in PowerProfile today, but that needs to be determined and these records resolved and cleaned up.

Remedy Short-Term - AZSOS should work with the counties to 'clean-up' these records.

7.2.4 Insufficient User Training

Pain-Point - Until September 2016, there had been only one set of formal training offered to the counties (since the initial training at implementation in 2006/2007) and that occurred about 5 years ago.

Remedy Short-Term - Training should be provided at least once per year and in any case, just prior to the release of a new version of VRAZ-II. The training should be targeted to high level people (super-users) who run the whole system for that organization.

7.2.5 Insufficient User Manual

Pain-Point - The current user manual available to the counties is for version 12.7 of PowerProfile and is only the generic manual for PowerProfile, so it does not reflect the many unique characteristics of VRAZ-II as implemented for the State of Arizona. It is therefore of very limited utility to the many users of the system. However, several counties have created their own internal procedure documentation.

Remedy Short-Term - Since Arizona is unique in its implementation, there needs to be a manual for the users which is specific to the Arizona implementation. ES&S, at this time, is in the best position to create this manual.

7.2.6 PowerScan vs. Scan in PowerProfile

Pain-Point - When VRAZ-II was originally implemented in phases in 2006 and 2007, the other 13 counties used the scanner function in PowerProfile and it worked well. When the 13 counties consolidated into a centralized environment in 2015, this function involved too much administration to maintain scanner drivers in all the counties remotely. It was decided that scanning would be performed outside of PowerProfile, and so PowerScan was developed by ES&S. Now all 13 counties use PowerScan, but it is not as fast or



convenient as the scanning function originally embedded in PowerProfile. PowerScan is a web-based (HTML-5) application.

Remedy Intermediate-Term - Based upon county staff desire to return to the fully integrated scanning capability of the scan feature within PowerProfile, improvement to the present external PowerScan could be examined to improve the efficiency of the scanning process conducted by all of the 13 counties.

7.2.7 Data Entry Errors

Pain-Point - AZSOS wants to reduce unnecessary work by obtaining complete and accurate information at the source. A prime example of this is EZVoter records in which more accurate information from the applicant would avoid further checking on records with transposed digits or invalid addresses.

Remedy Long-Term - Data entry errors that occur at MVD and missing information from public input to EZVoter will be addressed in the Motor Vehicle Modernization project scheduled for completion in June 2020.

7.2.8 Petition Processing

Pain-Point - Counties want to process petitions more quickly, accurately and with minimum labor. The petition process in PowerProfile is not used by all counties, as they have found faster and easier ways in which to accomplish that work. At the end of the process they simply enter the results into PowerProfile.

Remedy Short-Term - Further investigation will be necessary to determine the issues and whether PowerProfile should be changed to encourage use of its petition processing or whether this is a training issue.

7.2.9 Checking EZVoter Applications

Pain-Point - EZVoter records are sent to Agency Central, but the duplicate quick check does not compare them with the records in 'Suspense' status at that time. Because of that, a second record gets created, and then in the duplicate checking process the two records are found and one is canceled. This works but it creates extra work that is being done unnecessarily.

Remedy Intermediate-Term - Further investigation will be necessary to determine the issues and whether PowerProfile should be changed to also check records in 'Suspense' or whether this is a training issue.

7.2.10 PEVL vs Non-PEVL

Pain-Point - About half of all registered voters are in PEVL status (Permanent Early Voting List) but whenever reports are run, the report must review all registered voters and therefore is slow. The process could be sped up if a user could specify PEVL or Non-PEVL as filtering criteria. PEVL status voters must be sent paper ballot.

Remedy Intermediate-Term - This would be a significant modification by ES&S to PowerProfile whereby the user could indicate that only PEVL records were needed on a given report and the system would not read through all records to create the report.



7.2.11 UOCAVA Process Cumbersome

Pain-Point - There are many steps in the current UOCAVA process for registration, voting ballot casting. It is essentially a notification system. There are third party systems that may be easier to use for both the UOCAVA voter and the county, and these should be investigated.

Remedy Long-Term - The present system is simply a notification system. Improvement will involve finding a commercial system that provides a simpler process, which delivers the ballot to the voter and delivers the cast ballot to the county while maintaining a secret ballot.

7.2.12 Electronic Pollbooks & Standard Addresses

Pain-Point – The PowerProfile extract for electronic pollbooks often have conversion difficulties. Conversely, counties using ES&S pollbooks do not all use the specific function of PowerProfile for those extracts, and thus get less than optimal results.

Further, all electronic pollbooks require a standard address or the record is not downloaded and shown at the poll site. Many counties have created a 'work around' by which they enter a formulaic standard address. This is particularly necessary in rural and reservation locations. The work around has not been standardized across all of the 13 counties. Standard addresses are in the form of:

- House Number
- Direction
- Street Name
- Street Suffix

Non-standard addresses are free form, such as, 'One and half miles south on Oak Road from the intersection of Oak Road and Elm Street'. Rural and reservation areas of Arizona have many non-standard addresses. There are currently 12,000 voters in Arizona with an 'Active' status that have only a non-standard address. That number would be much higher if voters with an 'Inactive' status were counted.

Non-standard address cannot be downloaded into electronic pollbooks. There is a 'work around' in which counties make a standard address using some convention that allows the record to download into the electronic pollbook. Having the voter record in the pollbook at the poll site enables the pollworker to sign-in the voter and enables the voter to vote a regular rather than a provisional ballot.

Remedy Short-Term - Standard addresses for non-standard address locations could be determined as a policy convention among the counties. Issues with incomplete or incorrect downloads to pollbooks would require modifications of PowerProfile by ES&S. Finally, use of the specific function for ES&S pollbooks is a training issue.

7.2.13 Mass Updates

Pain-Point - PowerProfile has the ability to do mass updates in which a given change can be applied to a range of voter registration records. This is a fast and convenient way to get repetitive changes made to records. It is needed for re-districting, for example. But



PowerProfile has no 'undo' button, and the operational nature of the system means the recovery from a mass update that made unintended changes is not possible. As a result, county staff tend to be cautious and do many tasks manually for fear of what problems a mass update might cause them.

Remedy Long-Term - Since mass updates are both powerful but irreversible, training is necessary and would provide the education for the proper use of the mass update function. Additionally, the user that would like to use the mass update feature should utilize a 'test' environment to verify that they will obtain the expected result. The development of an 'undo' button would require a substantial enhancement by ES&S to PowerProfile.

7.2.14 Future Street File

Pain-Point - Some counties have used the future street file feature for re-districting, but then were told that they could not mass apply that to the current street file (Yavapai). Other counties indicated that they were able to mass apply their future street file.

Remedy Short-Term - This may be a training issue in that other counties reported being able to apply the future street file to the current street file as in the case of re-districting. If it is not a training issue, this would involve an enhancement by ES&S to PowerProfile.

7.2.15 Election Reports After Close of Election

Pain-Point - At close of election, data is purged about details of the election, so the county 'work around' is to run numerous reports and save them as a PDF just <u>prior to close</u> so they will have them. Many counties expressed the desire to be able to run these reports <u>after the close of an election</u>.

Remedy Long-Term & Major - This likely would involve a significant enhancement by ES&S of PowerProfile. However, this is primarily a training issue since elections can be archived and unarchived.

7.3 The AZSOS Pain-Points

7.3.1 Non-Standard Process - New 'Canceled' Voter Policy

Pain-Point - There is a statewide policy, followed by all the counties, regarding how a previously 'Canceled' voter who submits an application for voter registration is recorded in VRAZ-II. The policy is to create a new voter record with a new voter registrant number even though there is a complete match with a record in 'Canceled' status for that voter. The 'Canceled' record contains that voter's history which is not carried over to the new record. Operationally this policy of creating a new record works, but when examined from the view of reporting accurate information, it inflates the number of new voter registrations and it loses the voting history of some voters which may be of use for some records requests.

Remedy Short-Term- This would require a policy change by AZSOS.



7.3.2 Non-Standard Process - Coding of Seventeen Year Olds

Pain-point - When 17 year olds register to vote, some counties make the record status 'Suspense' instead of making it 'Not Eligible' when underage people register. Many counties (Yavapai is notable exception) do this and it can be easily corrected with additional training.

Remedy Short-Term – Counties should follow the Procedures Manual.

7.3.3 Non-Standard Process - Notice of Incomplete Information

Pain-Point - The 'Notice of Incomplete Information' is built into PowerProfile but is not used by the counties. Instead they create this notice outside the system manually. Counties want to customize language in the 'Notice of Incomplete Information' but cannot do so without a modification request which could be quite costly, so they have a 'work around' by extracting the data and doing a mail-merge in MS-Word. This can be remedied by a modification that retains central control of the main body of the notice while providing an area that can be customized by each county.

Remedy Short-Term - This would require ES&S to verify that the change request is feasible.

7.3.4 Non-Standard Process - Procedure for Voter Address Change After Election Deadline

Pain-Point - If a voter submits a request for an address change in the remaining 29 days before an election, the counties differ on whether they process or hold the transaction until after the election. Many counties hold these transactions until after the election. That enables the voter to proceed to vote and to vote at his old poll site. There should be a consistent policy across all counties on this.

Remedy Short-Term- This would require a policy change by AZSOS.

7.3.5 Difficulty Fulfilling Records Requests

Pain-Point - As indicated in the Findings, there are factors which will substantially increase the number and difficulty of records requests made upon AZSOS. AZSOS and the counties need to accurately report statewide data to a variety of parties such as:

- Campaigns
- Litigants
- Political Organizations

The information needs to be presented in a variety of ways such as:

- Voter registration by jurisdiction by party affiliation
- Election results by various parameters

In addition, AZSOS is charged with providing 'a single, uniform, official, centralized, interactive computerized statewide voter registration list' and is charged with fulfilling legitimate requests for timely and accurate information from it. AZSOS struggles with meeting its obligations to fulfill statewide records requests for two reasons:



- All of the interfaces to VRAZ-II need to be significantly improved or replaced to enable a complete and seamless integration with and among the counties as well as key agencies such as MVD.
- VRAZ-II needs the ability to enable comparison in time reporting that does not change as production work progresses.
- Maricopa and Pima Counties do not supply key information

Remedy Long-Term & Major - To resolve this pain-point, several items would need to be accomplished:

- Reconcile Maricopa GIS with Statewide Street File Maricopa County uses county GIS based upon ESRI⁸ to identify address locations, and that information is used in its voter registration system. All of the other counties, including Pima County, use an older, simpler technology. In most cases, they consult the county GIS system to determine what the address is (or ought) to be and most Arizona counties that have GIS have ESRI GIS. Once this information is obtained, however, a table in the voter registration system (the street file) is updated with the address manually. Since Maricopa does not use street file entries, it does not export them into VRAZ-II. This severely impacts the AZSOS ability to respond to records requests for statewide reports. Maricopa GIS staff, however, indicate that it would not be a significant effort for them to generate a street file from their GIS and provide an updated file nightly through a batch process.
- Capture All Jurisdictional Boundaries in VRAZ-II Jurisdictional boundaries such as those for municipalities, Congressional Districts, Legislative Districts and even Fire and Water Districts do not in many cases align with county boundaries. When information is requested for any of these overlapping boundaries, the counties can only provide their respective portion of the jurisdiction and the recipient is therefore obliged to integrate disparate reports to determine the whole picture for a given jurisdiction. The AZSOS should have all of this information, and all in the same reconciled format, such that reporting can be done quickly and easily from one unified database (namely VRAZ-II).

Having accomplished the above items, the problem of enabling comparison reporting over time would still remain and be an inhibitor to statewide reporting. It is such a significant item that it is called-out separately in section 8.0 Transformational Requirements for AVID.



⁸ Environmental Systems Research Institute (ESRI, Inc.) was founded in 1969 in Redlands, CA and has grown to be the most widely used Geographic Information System (GIS) in the world.

8.0 Transformational Requirements for AVID

These are current and future needs of AZSOS and the counties, which would be significant enhancements to PowerProfile that would be short of a complete re-write, but beyond standard release enhancements. They may already exist in other voter registration systems; something that will be determined in the market scan RFI task of this engagement.

8.1 VRAZ-II Does Not Support Comparison Reporting

VRAZ-II is an On-line Transaction Processing (OLTP) System. As a result, the data changes second to second as work is being performed. Reports run in the morning will not have the same totals as reports run at noon. That is fine for on-going operational work, but there needs to be a reporting capability such as occurs with a data warehouse. With data captured and copied to a data warehouse, a report can be run anytime with date range parameters and it will produce the same totals. This is important when a series of reports are needed examining the same data from different perspectives and wanting all the reports to be about the same dataset. What is needed is comparison in time reporting (for PRRs) but the current system is only an OLTP system, so that data is changing constantly and this type of reporting is difficult or impossible.

8.2 VRAZ-II Has No Work Flow

VRAZ-II has no work flow streams to enable users to indicate the process they wish to complete and have the system take them step-by-step through the screens necessary to complete that process. Many modern systems, such as for planning and building permits provide this capability. PowerProfile is a complex system and users are required to learn the many screens and the order in which they must use them in order to achieve some business process. It may be that this can be added to PowerProfile. It is certainly a feature that would be desirable in the fulfillment of AVID.

8.3 VRAZ-II is Precinct-based, Not Vote Center-based

VRAZ-II was designed for precinct-based voting in which each voter is assigned to one and only one precinct and is instructed to go there to vote. Increasingly, Arizona (and most other states) are moving toward voter center voting in which any voter can go to any (though fewer) voting location within the jurisdiction, and the appropriate ballot for that voter will be available and can be cast. This is a key consideration for the future of voter registration in Arizona. It will require a substantial enhancement to PowerProfile to enable it to perform voter center functions. ES&S has expressed interest to offering this enhancement to Arizona. Currently, counties have devised 'work arounds' that move in the direction of 'super poll sites' rather than complete vote center configurations.

8.4 Implement a Modern Multi-tier Security Architecture

Modern security architecture separates security into three tiers:

- User Access
- Service Interfaces to Business Logic



Database and Data Files

Each of these tiers are secured individually, and thus provide a stronger security model overall. There can be no direct access to the data outside the context of executing authorized business transactions. Different access points, whether user interfaces or data exchanges, are secured in the same way. VRAZ-II currently provides only security at the User Access tier. The AVID future solution should leverage modern authentication and authorizations mechanisms, and secure the system at all three tiers.



9.0 Key Metrics

Metrics are less direct than measures. They are indicators of whether a process is improving or becoming less efficient. Still they are vital to the process of determining whether 'things are getting worse or are getting better'. For the processes of voter registration, key metrics may be the following:

- Incomplete application forms
- Records in suspense
- Number of provisional ballots cast
- Records Requests
- Duplicate voter records
- Cost per vote per election

9.1 Incomplete Application Forms

Incomplete application forms occur when a voter fails to provide sufficient information to determine the voter's eligibility to vote. As a result, a 'Notice of Incomplete Information' is sent to the applicant requesting the necessary information, and subsequent processes are in place to track and resolve whether the applicant provides the needed information. If applications are increasingly moved to a condition in which the applicant provides the necessary information upon initial application, these forms and their concomitant follow-up processes can be reduced. A prime example would be an EZVoter on-line application which requires the applicant to provide the needed information without which the application is not submitted. Thus, the number of incomplete application forms is a good indicator of the efficiency of the vote registration process.

9.2 Records in Suspense

Voter registration records are placed into 'Suspense' for a variety of reasons, typically because insufficient information is provided. Fewer records remaining in 'Suspense' status would be an indication of a more efficient process.

9.3 Number of Provisional Ballots Cast

Provisional ballots are cast for a variety of reasons but many are cast simply because at the moment the voter wishes to cast a ballot, the available technology prevents the poll site from knowing whether or not the voter is eligible to cast a ballot or has already cast a ballot. If the poll site has real-time information on eligibility at that moment, he can avoid a provisional ballot and either permit the voter to cast a known valid ballot or prevent the voter from casting a ballot. Either way the elimination of provisional ballots means less 'down-steam' work to determine the validity of the ballot and thus greater efficiency in the process. Thus the reduction in provisional ballots is an indicator of improved processes.



9.4 Records Requests

Records requests are expected to increase (especially for the AZSOS) for a variety of reasons. A measure of the number of days required to fulfill a records request would be an indicator of the efficiency of that process. The measure would need to take into account the time spent determining from legal counsel that the records request is legitimate and on the back-end the time the requestor took to pay for the records. Taking those factors into account, the average duration between receipt of request and its fulfillment would be a valid indicator of that process.

9.5 Duplicate Voter Records

Duplicate vote records occur from a variety of reasons, some of which are unavoidable such as the move of a voter from one county to another. Still, the fewer duplicate records that occur, the more the system is working efficiently.

For example, at present because EZVoter does not display an indication that the voter application has been submitted, it is not uncommon for several records to be generated by the applicant in hopes that the request 'finally takes'.

Further, if EZVoter checked VRAZ-II records in real-time, applicants who were already registered would be so informed and thus a duplicate record would not be generated.

9.6 Cost Per Election

Perhaps the most important and most easily understood metric is the cost per election. The details of what would be included in this calculation would need to be standardized (for example direct and in-direct costs) and whether sunk labor cost would be included, but once established, the cost from one similar election (say, Presidential) would be instructive as to the efficiency and effectiveness of methods used. It may indicate, for example, if vote centers are less expensive than precinct voting or if vote-by-mail is less expensive than vote-in-person.



10.0 Appendix A – Legislative Background

10.1 National Voting Rights Act of 1965

The Voting Rights Act of 1965 prohibits racial discrimination in voting. It was signed into law by President Lyndon Johnson and was subsequently amended by Congress five times to expand its protections. It was designed to enforce the voting rights guaranteed by the Fourteenth and Fifteenth Amendments to the Constitution.

Section 2 prohibits any state or local government from imposing any voting law that results in discrimination against racial or language minorities and specifically outlaws literacy tests and similar devices that were historically were used to disenfranchise racial minorities.

Section 5 requires 'pre-clearance' which prohibits certain jurisdictions from implementing any change affecting voting without receiving preapproval from the U.S. Attorney General or the U.S. District Court for D.C. and proving that the change does not discriminate against protected minorities. Another special provision requires jurisdictions containing significant language minority populations to provide bilingual ballots and other election materials.

In *Shelby County v. Holder* (2013), the U.S. Supreme Court struck down the coverage formula as unconstitutional. The Court did not strike down Section 5, but without a coverage formula Section 5 is no longer enforceable.

The State of Arizona, as well as many other states and jurisdictions, fell under the preclearance requirement of Voting Rights Act of 1965 until the Shelby vs. Holder decision in 2013.

10.2 Uniformed and Overseas Citizens Absentee Voting Act of 1986

The Uniformed and Overseas Citizens Absentee Voting Act (1986) (UOCAVA) is a federal law which requires states to mail federal voter registration forms to overseas and military voters upon request, permit them to register by mail, and permit them to vote by absentee ballot in federal elections. UOCAVA was signed into law by President Ronald Reagan. Groups of people covered under the act are:

- Members of the seven Uniformed Services
- Members of the U.S. Merchant Marine
- Eligible family members of the above
- U.S. citizens employed by the federal government residing outside the U.S.
- Other private U.S. citizens residing outside the United States

The Act required the creation of an official postcard form (Federal Postcard Application - FPCA) containing a voter registration and absentee ballot application.



10.3 National Voter Registration Act of 1993

The National Voter Registration Act of 1993 (NVRA) aka <u>The Motor Voter Act</u>, was signed into law by President Bill Clinton and took effect on January 1, 1995. The law expanded voting rights by requiring state governments to offer voter registration opportunities to any eligible person who applies for, or renews, a driver's license or public assistance. It requires states to register applicants that use a federal voter registration form, and <u>prohibits states from removing registered voters from the voter rolls unless certain criteria</u> <u>are met</u>. Those conditions were detailed as follows:

The NVRA required that, upon receipt and approval or disapproval by the appropriate state election official, each applicant would be sent a notice as to the disposition of the application (§8(a)(2)). A voter registrant's name was not to be removed from the voter registration list except at the request of the applicant, by reason of criminal conviction or mental incapacity, by the death of the applicant, or by the applicant moving out of the jurisdiction (\$8(a)(3)-(4)). Registered voters could not be removed from the list for nonvoting (§8(b)(2)). A state's efforts at maintaining up-to-date voter registration rolls were to be conducted in a 'uniform, nondiscriminatory' fashion and had to be in 'compliance with the Voting Rights Act of 1965' (§8(b)(1)). A state could use the U.S. Postal Service's 'National Change Of Address' program to help maintain accurate voter registration rolls (§8(c)(1)). A state could remove a person from its registration list if the registrant notified the election office that he/she had moved or if the registrant failed to respond to a notice sent by the registrar and failed to vote or appear to vote in two federal general elections ((8(d)(1)). That is, the registrant must respond to the notice within the period covered by two general elections-voting being a means of response.9

This has become known as 'The NVRA Process' and is part of the business processes of voter registration in the State of Arizona (as well as all other states).

10.4 Help America Vote Act of 2002

In 2002 following the Presidential Election of 2000, Congress enacted the Help America Vote Act (HAVA) and provided \$3.2B in federal funds for its implementation. HAVA had a number of provisions but of significance for Arizona's statewide voter registration system were the following requirements:

- Database of Record The database of record of registered voters was to be held as a single statewide database by the Secretary of State, whereas previously each county held the database of record for its county and there was no statewide database.
- Check for Duplicates The Secretary of State was to enable cross-checking by the counties to ensure that there were no duplicate records among the counties of the state.



⁹ The National Voter Registration Act of 1993: History, Implementation, and Effects Royce Crocker, Specialist in American National Government, September 18, 2013.

- Check for Felons The Secretary of State was to enable the check for felons based on state and federal court records and remove them from the registered voter roles in accordance with state and federal law.
- Check of Incapacitated The Secretary of State was to enable the check for incapacitated voters based on state and federal court records and remove them from the registered voter rolls in accordance with state and federal law.
- Check 4-digit SSN The Secretary of State was to enable the check for Social Security Numbers based upon the last 4-digits of the voters Social Security Number provided against the records of the federal Social Security Administration.
- Check of Deceased Voters The Secretary of State was to enable the check of state vital records to determine if registered voters have died and to remove their registration from the state records.

10.5 State of Arizona Proposition 200 in 2004

NVRA requires States to accept and use a uniform federal form to register voters for federal elections. The Federal Form developed by the federal Election Assistance Commission (EAC), requires only that an applicant affirm, under penalty of perjury, that he or she is a citizen.

In 2004, Proposition 200 required voter-registration officials to 'reject' any application for registration that was not accompanied by documentary evidence of citizenship. Proposition 200 was a ballot initiative designed to combat voter fraud by requiring voters to present proof of citizenship when they register to vote and to present identification when they vote on election day.

Arizona applied Proposition 200 to the Federal Form. However, on June 17, 2013, the U.S. Supreme Court ruled against Arizona in the case of Arizona vs. Inter-Tribal Council of Arizona. This made Proposition 200 citizenship requirement inapplicable to the Federal Form

As a result, Arizona recognizes two voter registration forms: the Federal Form by which citizenship is affirmed by affidavit and a state form in which citizenship is provided by the voter.

Possession of a valid Social Security Number (SSN) is not an indication of citizenship as SSNs are issued to resident aliens who are allowed to work in the US. Should a resident alien become a citizen, the SSN will not change.

The Social Security Administration records have indications as to which SSNs belong to non-citizens and Arizona county voter registration staff have indicated that it would be useful if that information was made available upon inquiry.



10.6 Arizona Primary Election (Primary Election vs. Presidential Preference Election)

The Arizona Primary does not occur until August. Additionally, in a presidential election year, Arizona conducts its Presidential Preference Election in March which allows Arizona voters to voice their preference of candidates. The Arizona Primary is 'semi-open', meaning independent voters may vote in any recognized party's Primary Election¹⁰. However, the Presidential Preference Election is 'Closed', meaning that party affiliation is a requirement for casting a ballot.



¹⁰ In cases when the Libertarian Party does its Primary Election, only registered Libertarians may vote.

11.0 Appendix B - Summary of County Survey

As part of the assessment process, a data gathering questionnaire was sent to each county to be completed and returned prior to the scheduled regional meeting with that county. Here is a summary of the responses from 12 of the 15 counties:

	Apache	Cochise	Coconino	Gila	Graham
AVID Contact	LeNora Fulton	Not received	Donna Casner	Sadie Jo Bingham	Wendy John
IT Contact	Ben Bugdale		Ki Sung	Kelly Riggs	Allison Mattice
Responsible for Voter Registration	Geneva Honea, Voter Registration Supervisor		Donna Casner, Chief Deputy Recorder	Sadie Jo Bingham, Recorder	Polly Merriman, Deputy Recorder
Voter Registration Reports to	LeNora Fulton, Recorder	Christine Rhodes, Recorder	Patty Hanson, Recorder	Sadie Jo Bingham, Recorder	Wendy John, Recorder
Responsible for Elections	Angela Romero		Patty Hanson, Recorder	Sadie Jo Bingham, Recorder	Wendy John, Recorder
Elections Reports to	County Manager		Patty Hanson, Recorder	Sadie Jo Bingham, Recorder	Board of Supervisors
# of Voter Registration FTEs			6-10	10	3
# of Voter Registration Adds/Year	3000		5000	250	478
# of Voter Registration Changes/Year	3000		3000	700	621
# of Voter Registration Cancels/Year	500		1000	100	164
# of Reports/Export/Month	50		100	25	30
Custom PRR for Public	No		Voter Lists	Precinct List, Mailing Lists	Precinct List, Mailing List

 Table 7.
 County Data Collection Questionnaire Responses

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	Apache	Cochise	Coconino	Gila	Graham
			20 Hours	4 hours	
Do you have Jurisdictions that conduct elections	Yes		No	No	No
Example of Jurisdictions	Districts		N/A	N/A	N/A
Electronic pollbook	Yes		Yes	Yes	Yes
Electronic pollbook Model/Software	Toshiba ES&S		EA Tablet Live	ES&S Express	Apple IPad, KnowInk
# of electronic pollbooks	120		100		17
Who Supports the Interface to electronic pollbook	ES&S		EA	ES&S	Knowlnk
# of Devices for Internal Voter	4		18	13	6
Registration Use	Windows 10		Windows	Windows	Windows 10 Pro
# of Devices for Public Use	2		2	3	1
	Windows 10		Windows	Windows	Windows 10 Pro
Max Concurrent Users (election year)	8		25	10	4
Max Number of Users with Access	14		25	10	4
Characteristics of Network	N/A		80 Mbps Internet	N/A	Sacnet-Secure
Dedicated Network	N/A		County Network	N/A	County Network
Address Standards Followed	Yes		Yes	Yes	Yes
	County GIS		County GIS	911	Planning & Zoning, GIS
GIS and Type	Yes		Yes	Yes	Yes
	ESRI		ESRI	ESRI	ESRI
Geobase Source	ArchGIS		County GIS	N/A	County GIS
Other tools to Augment VRAZ-II	Simple User Manual		Nothing Identified	Nothing Identified	Crystal Reports, Excel

	Greenlee	La Paz	Maricopa	Mohave	Navajo
AVID Contact	Berta Manuz	Shelly Baker	Linda Weedon	Kim Stewart	Not Received
IT Contact	Charles Berube	John Settles	Michael Johnson	Nathan McDaniel	
Responsible for Voter Registration	Kathy Valenzuela	Yvonne Yazzie, Voter Registration Coordinator	Mary Fontes, Federal Compliance Officer	Kim Stewart, Administrative Supervisor	
Voter Registration Reports to	Berta Manuz, Recorder	Shelly Baker, Recorder	Linda Weedon, Deputy Elections Director	Robert Ballard Recorder	Laura Sanchez, Recorder
Responsible for Elections	Yvonne Pearson, Elections	Kevin Scholl, Elections Director	Linda Weedon, Deputy Elections Director	Allen Tempert, Elections Director	
Elections Reports to	County Manager	Board of Supervisors	Helen Purcell, Record	Board of Supervisors	
# of Voter Registration FTEs	2	2	12	6	
# of Voter Registration Adds/Year	146	200	27322	2500	
# of Voter Registration Changes/Year	464	83	69707	9000	
# of VR Cancels/Year	46	50	3516	750	
# of Reports/Export/Month	25	100	750	10	
Custom PRR for Public	5	50 Mailing labels registrant lists	PRRs	150-200	
Do you have Jurisdictions that conduct elections	Yes	No	Yes	Yes	
Example of Jurisdictions	2 towns (fire & school districts	N/A	City of Phoenix	Special Districts	

	Greenlee	La Paz	Maricopa	Mohave	Navajo
Electronic pollbook	Yes	No	Yes	Yes	
Electronic pollbook Model/Software	Toshiba ES&S	N/A	HP Tablet, AskED	Robis / Asus AskED	
# of electronic pollbooks	9	N/A	1800	140	
Who Supports the Interface to electronic pollbook	ES&S	N/A	Internally	Robis	
# of Devices for Internal Voter	5	4	28	16	
Registration Use	Windows 7		Windows 10	Windows	
# of Devices for Public Use	1	2	20	4	
	Windows 7		Windows 10	Windows	
Max Concurrent Users (election year)	3	6	13	18	
Max Number of Users with Access	10	6	13	25	
Characteristics of Network	DS3 link	N/A	2 Cisco routers, 6 10 gb Quest lines	150 Mbps Metro Ethernet Internet	
Dedicated Network	County Network	N/A	County Network	County Network	
Address Standards Followed	Yes	Yes	Yes	Yes	
	E911 & GIS	County Zoning & 911	CASS	County Planning	
GIS and Type	Yes	N/A	Yes	Yes	
	ESRI		ESRI	ESRI	
Geobase Source	County GIS Planning, State Plane Coordinate	N/A	County Elections GIS Database	N/A	

	Greenlee	La Paz	Maricopa	Mohave	Navajo
Other tools to Augment VRAZ-II	Nothing Identified	Nothing identified	Completely independent of VRAZ	Nothing identified	
			ZIA polling server		
			Statewide DR		
			Single Sign-on is used		

	Pima	Pinal	Santa Cruz	Yavapai	Yuma
AVID Contact	Not Received	Barbara Montijo	Suzanne 'Suzie' Sainz	Laurin Custis	Robyn Pouquette
IT Contact		Pete McGrath	Jesus Pliego	Sara Ekwall	Clif Summers
Responsible for Voter Registration		Sandra Tapia, Voter Registration Supervisor	Luiz Gonzalez II	Laurin Custis, Registrar of Voters	Lori Aguilar, Voter Registration Coordinator
Voter Registration Reports to	F. Ann Rodriguez, Recorder	Virginia Ross, Recorder	Suzie Sainz, Recorder	Leslie Hoffman, Recorder	Robyn Pouquette, Recorder
Responsible for Elections		Michele Forney, Elections Director	Melinda Meek, Elections Director	Lynn Constabile, Elections Director	Paul Melcher, Chief Deputy County Administrator
Elections Reports to		Virginia Ross, Recorder	Board of Supervisors	Board of Supervisors	Board of Supervisors
# of Voter Registration FTEs		4	2	9	3
# of Voter Registration Adds/Year		4488	289	8000	1300

	Pima	Pinal	Santa Cruz	Yavapai	Yuma
# of Voter Registration Changes/Year		7125	307	5000	1300
# of Voter Registration Cancels/Year		1887	4	1200	N/A
# of Reports/Export/Month		10	100	150+	5-6
Custom PRR for Public		120 Voter Lists	20	0	Very few
Do you have Jurisdictions that conduct elections		No	Yes	Yes	No
Example of Jurisdictions		N/A	Town of Patagonia/ Signature Rosters	Special Districts	N/A
Electronic pollbook		No	Yes	Yes	Yes
Electronic pollbook Model/Software		N/A	Toshiba Encore 2 Windows 8.1 EZRoster 3.3.1	Express Poll 5000 Windows CE EZ Roster 3.3.2	Express Poll 5000
# of electronic pollbooks		N/A	35	120	65
Who Supports the Interface to electronic pollbook		N/A	EZRoster	ES&S	GEMS
# of Devices for Internal Voter		35	8	12	6
Registration Use		Windows 7x32 (desktops)	Windows Pro	Windows 7 Pro	Windows 7
		Windows 8/1X64 (tablets			
# of Devices for Public Use		8	3	1	1
		Windows 7x32 (desktops)	Windows Pro	Windows 7 Pro	Windows 7

	Pima	Pinal	Santa Cruz	Yavapai	Yuma
		Windows 8/1X64 (tablets			
Max Concurrent Users (election year)		10	8	18	5
Max Number of Users with Access		40	11	18	5
Characteristics of Network		Cox 100Mbps CenturyLink 45Mbps BPG protocol	N/A	200Mbps Ethernet Internet	60 Mbps Internet
Dedicated Network		Separate – devices attached to the Pinal domain	County Network	County Network	County Network
Address Standards Followed		Yes County Assessor and Planning/Development	Yes 911, Planning and Zoning, MVD	Yes County Development & Planning with e911	Yes County Planning Department
GIS and Type		Yes ESRI	Yes	Yes ArcMap	Yes ESRI
Geobase Source		State Plane Coordinate System, US Census	County GIS	County Record County GIS Development Services	County GIS
Other tools to Augment VRAZ-II		Nothing identified	Nothing identified	MS Access for UOCAVA MS Excel for exports	Nothing identified

12.0 Appendix C - Glossary of Terms

- 1. *.NET ('dot NET')* Microsoft's application development and runtime environment for client/server and web-based applications, supporting several programming languages, such as C#. Used by the HEI interface within VRAZ-II, and Maricopa County's VR solution.
- 2. 4-Digit SSN Last 4 digits of the SSN.
- 3. *Absentee Ballot* a ballot submitted (as by mail) in advance of an election by a voter who is unable to be present at the polls.
- 4. *Absentee Voter* a voter who submits (as by mail) his or her ballot in advance of an election because he or she is unable to cast it in person on Election Day at a pollsite.
- 5. Accessible Voting Device Voting station equipped for individuals with disabilities.
- 6. ADA Americans with Disabilities Act of 1990 The Act is a US labor law that prohibits unjustified discrimination based on disability. It affords similar protections against discrimination to Americans with disabilities as the Civil Rights Act of 1964, which made discrimination based on race, religion, sex, national origin, and other characteristics illegal. Unlike the Civil Rights Act, the ADA also requires covered employers to provide reasonable accommodations to employees with disabilities, and imposes accessibility requirements on public accommodations.
- 7. Affidavit An affidavit is a written sworn statement.
- 8. Agency Central A Java module of VRAZ-II which provides interfacing capability, including scheduled file imports. It has rules which determine how data is imported into VRAZ-II. There are only 'pulls' of data; there are no 'pushes'. Some are batch and some are real-time (such as the DL/SSN check with MVD). Agency Central communicates directly with the PowerProfile database.
- 9. AOC Administrative Office of the Courts
- 10. *As-is* Also referred to as 'current state' the 'As-Is' state is the existing business and technical environments the current system supports
- 11. AZSOS Arizona Office of the Secretary of State
- 12. Ballot Style A version of the ballot that is specifically for a party, precinct, or election.
- 13. *Canvass of the Vote* The canvass is a period following the election in which vote tallies are completed and ballots and votes are reconciled.
- 14. *Citizens Clean Elections Commission* Citizens Clean Elections Commission (CCEC) allows candidates running for the Legislature or statewide offices the opportunity to forgo special interest money by collecting a certain number of \$5 donations. This due to the Citizens Clean Elections Act passed in 1998.
- 15. *Citrix* Provides desktop virtualization by running PC applications, or entire PC desktops, on a centralized server while accessing them remotely from users' devices. This model simplifies deployment and provides additional security, but incurs additional licensing fees.
- 16. Crystal Reports Reporting tool used to extract data.
- 17. DHS State of Arizona Department of Health Services



- 18. *District* Area of a state, county, or city marked off for administrative, electoral other purposes (i.e. schools, fire, legislative, congressional)
- 19. *Duplicate Records* Two records that contain some or all of the critical data elements (name, date of birth, driver's license number, SSN)
- 20. EAC U.S. Election Assistance Commission. The EAC is an independent, bipartisan agency created by the Help America Vote Act of 2002 (HAVA). It was established to assist in the administration of Federal elections and provide assistance with the administration of certain Federal election laws and programs.
- 21. Early Voting Voting conducted in 27 days before election day.
- 22. *Electronic PollBook* Refers to a device, typically a tablet or specialized device that receives the roster of registered voters for a polling location and enables the pollworker to use it to determine a voter's eligibility to vote and the ballot that the voter is eligible to cast. The ES&S electronic pollbook in this report is referred to as the e-PollBook.
- 23. *EZVoter* A web application that captures voter registration transactions on Service Arizona and delivers them to VRAZ-II.
- 24. Felon Person that has been convicted of a felony.
- 25. *FTP* File Transfer Protocol is a standard network protocol used to transfer computer files between a client and server on a computer network.
- 26. *Hard Match* Transaction that is received that matches all four of the critical criteria (name, date of birth, driver's license number, and SSN).
- 27. HAVA Help America Vote Act of 2002
- 28. HAVV Help America Vote Verification The States are required to verify the driver's license number against the state motor vehicle database. The State submits the last digits of the SSN, name, and date of birth to the MVD for verification with Federal Social Security Agency (SSA). In addition, SSA is required to report whether its records indicate that the registrant is deceased. To ensure the privacy of the SSN, HAVA restricted the collection to only the last four digits of the SSN. To comply with the requirements of Section 303 of HAVA, SSA developed a new verification system, known as the Help America Vote Verification (HAVV) system, in August 2004. States must only submit a request to HAVV for new voters who do not present a valid driver's license during the voter registration process. HAVV verifies the accuracy of the name, date of birth, and last four digits of SSN submitted and sends an indication of whether SSA records show the individual as deceased.
- 29. HEI HAVA Exceptions Interface HAVA required processing of voter registration records against felon/courts, death records, and MVD to process matches. HEI contains additional functionality to allow Maricopa and Pima counties to have access to registrant and street data. Whenever there is a transfer between Pima, Maricopa and the other 13 counties, it is used to adjudicate differences, combine records, etc. HEI helps Recorders to work exceptions and act on them.
- 30. *Hybrid Precinct/Vote Center* A vote center that allows voters in certain precincts to vote at that location but does not allow all voters in the county vote at that location.
- 31. *Incapacitated* Person who is impaired by reason of mental illness, mental deficiency, physical illness or disability, chronic use of drugs, chronic intoxication, or other cause



(except minority) to the extent of lacking sufficient understanding or capacity to make or communicate responsible decisions.

- 32. *JBoss* JBoss is a popular Java application server / middleware providing a runtime environment for Java server-based applications. JBoss is a RedHat product, and available under an open source and vendor-supported model.
- 33. *Jurisdiction* A closed boundary designated for some governmental purpose including Congressional, Legislative, county, and municipal boundaries, as well as districts for water, fire, school, etc.
- 34. MVD State of Arizona Motor Vehicles Department (ADOT).
- 35. *MySQL* MySQL is a popular database management system available under an open-source model or supported by Oracle. VRAZ-II uses MySQL to replicate voter registration for access by Voter View, to avoid the online service directly accessing the voter registration database.
- 36. *NVRA* National Voter Registration Act of 1993, aka The Motor Voter Act was federal legislation signed into law by President Bill Clinton on May 20, 1993, and took effect on January 1, 1995. The law expanded voting rights by requiring state governments to offer voter registration opportunities to any eligible person who applies for, or renew a driver's license or public assistance, requiring states to register applicants that use a federal voter registration form to apply, and prohibiting states from removing registered voters from the voter rolls unless certain criteria are met.
- 37. Oracle Enterprise Edition The Enterprise Edition of the Oracle Relational Database Management System (RDBMS) includes replication, security, recovery, performance and management capabilities not available with the Standard Edition (see below), but at significant additional license cost. VRAZ-II uses this version. Some options are only available as option packs with Enterprise Edition, such as Label Security, which is used to virtually partition different county's voter registration data in a single database.
- 38. Oracle Standard Edition The lower lost license of the Oracle Relational Database Management System (RDBMS), lacking some of the 'enterprise' features (see above). Maricopa and Pima Counties use this version as the staging database to exchange data with VRAZ-II.
- 39. Other 13 Counties The 13 Arizona counties that directly use VRAZ-II as their Voter Registration/Election Management System. Maricopa and Pima counties use a local voter registration system that is interfaced to VRAZ-II.
- 40. *PDF* Portable Document Format is a file format that provides an electronic image of text or text and graphics that looks like a printed document and can be viewed, printed, and electronically transmitted.
- 41. *PEVL Permanent Early Voting List* A voter status that indicates the wish to permanently receive their ballot by mail.
- 42. *Pollbook* An official register listing registered voters in a given area. The pollbook records the signature indicating that the person is voting in the election.
- 43. *Poll Site* Also called a Polling Place is a physical location where voting takes place during an election.



- 44. *Pollworker* Inspectors and Clerks. While Inspectors serve as supervisors and marshalls for the polling locations, Clerks assist with a variety of conventional tasks.
- 45. *PowerBuilder* Rapid application development and runtime environment for client/server style applications. PowerBuilder was a popular tool in the mid to late 1990s, and has lost significant market share since then.
- 46. *PowerLock* Administrative component of PowerProfile to manage its security configuration.
- 47. *PowerProfile* Voter registration and election management application provided by ES&S that enables election officials to register voters and conduct elections from a central data store.
- 48. *Precinct* The smallest geographic area in US voting subdivisions, in which local party officials are elected. A precinct usually has from 200 to 1,000 voters in it.
- 49. *PRR* Public Records Request; PowerProfile method to produce reports regarding voter registration records. Requests are typically for campaigns, political parties and political organizations.
- 50. *Red Hat Enterprise Linux* Popular vendor-supported distribution of the Linux operating system, supporting enterprise functions for high availability and security.
- 51. *Registrant Number* Voter registration number (voter ID) assigned to a registered voter.
- 52. SAVE Systematic Alien Verification for Entitlements A program of the United States Citizenship and Immigration Services which provides county Recorders with access to information contained in the Verification Information System (VIS) database. SAVE facilitates lookups on the immigration and nationality status of individuals in the United States.
- 53. Service Arizona ADOT (Arizona Department of Transportation) website where Arizona residents can access links to all on-line services, such as vehicle registration renewals, personalized license plates and voter registration, eliminating the need to visit a physical office.
- 54. *Signature Roster* An official register listing registered voters in a given area. The signature roster records the signature indicating that the person is voting in the election.
- 55. Soft Match In duplicate matching process, a record that does not match all four of the critical criteria (name, date of birth, driver's license number, SSN) but has some areas that match.
- 56. SSN Social Security Number as issued by the federal Social Security Administration(SSA)
- 57. Superior Court A court of general jurisdiction, often a trial *court* for a county or municipality.
- 58. UOCAVA Uniformed and Overseas Citizens Absentee Voting Act
- 59. *U.S. District Court* United States district courts are the general trial courts of the United States federal court system.
- 60. *Vote Center* Vote centers are an alternative to traditional, neighborhood-based precincts. When a jurisdiction opts to use vote centers, voters may cast their ballots



on Election Day at any vote center in the jurisdiction, regardless of their residential address. Eleven states now either permit jurisdictions to replace precincts with vote centers, or have authorized vote center pilot projects in selected jurisdictions.

- 61. *Voter History* Record of the elections in which a registered voter has participated and what method they voted.
- 62. *VoterView* Website provided in conjunction with PowerProfile by the AZSOS where Arizona residents can view their political party affiliation, name and address of their assigned polling place, and districts where they are eligible to vote. Additionally, the registered voter can view the status of their ballot (both provisional and early ballot).
- 63. *VRAZ-II* Replaced VRAZ in 2006/2007. The 13 counties implemented an individual instances of PowerProfile with a central database intended to consolidate voter registration data from all 15 counties. Maricopa and Pima counties retained their existing voter registration systems.
- 64. *Web Services* Popular style for real-time Application Programming Interfaces (APIs) over standard internet protocols. Leverages XML structures to exchange data between systems. VRAZ-II web services are deployed within JBoss. VRAZ-II also consumer MVD web services.
- 65. *ZIA Messaging System* Zia is a Java / J2EE / XAware application written by the ES&S development team and XAware to address the issue of synchronizing county VRS systems (now only Maricopa and Pima) with the centralized state (PowerProfile EE) system.





Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration State Procurement Office 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

Arizona Department of State, Office of the Secretary of State



Access Voter Information Database (AVID) Statement of Work

April 2017 RFP Number: ADSPO17-00007130





Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration State Procurement Office 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

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1.0 Executive Summary

This Statement of Work (SOW) in conjunction with RFP ADSPO17-00007130 outlines the scope, tasks, subtasks, deliverables, and services needed to provide a solution for the Arizona Office of the Secretary of State (AZSOS) Access Voter Information Database (AVID) project. This SOW describes the work required but does not provide an exhaustive list of every subtask necessary for the completion of the work.

1.1 **Project Objectives**

Completion of this SOW shall provide the following:

- Provide a centralized statewide voter registration system that is Help America Vote Act 2002 (HAVA) and ARS §16-168(J) compliant and meets the requirements that are outlined in this SOW.
- Provide a stable platform for voter registration in Arizona for the next ten (10) years.
- Provide more efficient integration with other agencies and counties that shall make all voter registration information available in the centralized statewide database.
- Minimize the number of duplicate voter registrations.
- Provide a smart front-end that performs data checks, confirms submissions (minimizes duplicates), and has a user-friendly interface.
- Provide ad-hoc reporting (i.e. running a report on party preference for rural parts of the State.
- Provide for exporting of reports and data in multiple standard formats (i.e. .cvs, .xlxs, .pdf).
- Provide the centralization of street files, precincts, precinct parts, and all election jurisdictional boundaries statewide.
- Provide electronic document imaging, such as capturing driver license signatures and attaching supporting documentation.
- Ensure all integration and updates of voter registration data occurs in real time.
- Supports a Services Oriented Architecture model for integration with future systems.
- Provide for a hosted solution or Cloud deployment.
- Ensure that voter registration data is secure both in flight and at rest.





1.2 Expected Project Benefits

AZSOS and the counties expect the following benefits to accrue to them as a result of this new AVID voter registration system:

- Workflow AVID shall provide simplified and efficient daily processing of voter registrations that leads users through the steps necessary to accomplish a given task.
- Vote Center Capability AVID shall enable precinct-based and voter-center-based voting. A voter center permits anyone eligible to vote in the county to vote his or her specific ballot at the vote center.
- Efficient Integration AVID shall provide an efficient integration with the voter registration systems of Maricopa and Pima counties will ensure the highest quality of voter registration information in the centralized database.
- Real-Time Pollbooks AVID shall have the capability to support real-time connectivity for the County's for their respective voter registration information from all Arizona polling places simultaneously for any given election.
- Geographical Information System (GIS) AVID shall be capable of leveraging GIS overlays to define precincts, jurisdictions, and validate registrant's addresses.
- Reconciled Reports AVID shall allow multiple reports with the same parameters to be run and report the same subset of data so that totals match appropriately.
- Improved Ad Hoc Reporting AVID shall enable the generation of new ad-hoc reports (i.e. creation of a new report format not previously anticipated).
- Modern Multitier Security Architecture AVID shall provide security at all layers of the solution, only providing access to authorized users. The system shall implement strong intrusion protection mechanisms and provide industrial-strength capabilities to ensure access control of voter data.
- *Flexibility for Growth* AVID shall have the capability and flexibility to grow with advances in technology.

1.3 Key Project Metrics

Metrics are less direct than measures. They are vital indicators of whether a process is improving or becoming less efficient. The Contractor shall work with the AVID Project Team to validate the key metrics to measure, determine current values for each of these metrics, and determine the manner and method by which these metrics can be obtained from the new AVID solution. The Contractor shall also assist AZSOS in developing a table of these metrics presenting and comparing the values 'Before' and 'After' the AVID implementation improvements to the Arizona business processes as measured by these indicators.





For the processes of voter registration, the initial key metrics that shall be measured are the following:

- Records in suspense
- Number of provisional ballots cast
- Efficiency of processing early ballots
- Records requests
- Duplicate voter records

1.3.1 Records in Suspense

Voter registration records are currently placed into 'Suspense' for a variety of reasons, typically because insufficient information was provided. Fewer or no records remaining in 'Suspense' status would be an indication of a more efficient process.

1.3.2 Number of Provisional Ballots Cast

Provisional ballots are cast for a variety of reasons. However, many are cast simply because at the moment the voter wishes to cast a ballot, the available technology prevents the poll worker from knowing whether or not the voter is eligible to cast a ballot or has already cast a ballot. If the poll worker has real-time information on eligibility at that moment, the poll worker can avoid a provisional ballot. Either way, the elimination of provisional ballots means less 'down-steam' work to determine the validity of the ballot and thus greater efficiency in the process. Therefore, the reduction in provisional ballots is an indicator of improved processes.

1.3.3 Efficiency of Processing Early Ballots

Processing early ballots is a laborious task for all counties. Capturing and tracing the early ballots requested, sent, received, and accepted along with the reason for the early ballot and acceptance would provide valuable information for the planning for improving the efficiency of managing early ballots.

1.3.4 Records Requests

Records requests are expected to increase for a variety of reasons. A measure of the number of days required to fulfill a records request would be an indicator of the efficiency of that process. The measure would need to take into account the time spent determining from legal counsel that the records request is legitimate through the time it takes to deliver the requested information. Taking those factors into account, the average duration between receipt of request and its fulfillment would be a valid indicator of that process.





1.3.5 Duplicate Voter Records

Duplicate voter registration records occur due to a variety of reasons, some of which are unavoidable, such as the move of a voter from one county to another. However, the fewer duplicate registration records that occur, the more the system is working efficiently.

1.4 Anticipated Project Timeline

The table below summarizes the State of Arizona desired high-level timeline for the execution of the AVID RFP Project.

Figure 1.	Anticipated Timeline
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1.5 Schedule of Key Events

Listed below are the dates and times by which stated actions shall be taken or completed. AZSOS reserves the right to revise the schedule. If AZSOS determines, in its sole discretion, that it is necessary to change these dates and times, AZSOS shall issue an addendum to this solicitation. All listed times are Mountain Standard Time.

Event	Date
RFP Issued on ProcureAZ	5/12
Pre-Offer Conference	06/01
Deadline for Proposer submitted questions	06/05
Proposals Due	06/16





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Event	Date
Demonstrations for shortlisted Proposers	TBD




Request for Proposal Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID)

Arizona Department of Administration State Procurement Office 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

2.0 Background

The Office of the Arizona Secretary of State (AZSOS) is the State's Chief Election Officer in charge of ensuring a fair election process and establishing policies and procedures in collaboration with the State's fifteen (15) counties regarding statewide voter registration. One of the goals of the Office is to register more voters and encourage them to become engaged in elections.

Voter registration policies, practices and systems in Arizona derive their origin and direction from a series of federal and State laws. Key among the legal provisions related to voter registration is the requirement by the Help American Vote Act of 2002 (HAVA) and (ARS §16-168(J) that the Secretary of State shall hold the single, uniform, official, centralized, interactive computerized statewide voter registration list that includes all voter registration information.

2.1 Current Environment

2.1.1 Introduction

In 2004, AZSOS implemented a preliminary effort at compliance with HAVA 2002 by aggregating voter registration lists from the 15 Arizona counties and named that system Voter Registration Arizona (VRAZ-I).

In 2006 and 2007, AZSOS implemented a much more extensive VR System called VRAZ-II in a hybrid model in which both Pima and Maricopa counties retained their in-house VR systems, while the remaining 13 counties each had a separate instance and separate database of the commercial VR system.

In 2015, the databases of the 13 counties were consolidated into a single, centralized database. Pima and Maricopa County continued to operate local VR systems, but exchange data with the State. This current solution is called Voter Registration Arizona II (VRAZ-II). VRAZ-II is based upon the ES&S PowerProfile voter registration system as implemented by IBM. It remains a hybrid (as opposed to top-down or bottom-up) model.

2.1.2 Voter Registration Model

The following outlines the differences between bottom-up, top-down, and hybrid models.

- Bottom-Up The Bottom-Up Model involves a central database that is interfaced with each county voter database, either via nightly batches or some more real-time method. All county processing is performed on local individual county databases.
- Top-Down The Top Down model involves complete centralization of voting records in the office of the Secretary of State with on-line, real-time access to the records by each and all of the State's county registrars. The counties access the





centralized system and all county processing is performed directly on the central database.

Hybrid - The Hybrid Model is a combination of the other two models with some counties using a central database in real-time for voter registration while other counties of the State continue to use a local voter registration system, with batch or more real-time interfaces to the statewide database.

2.1.3 Current Interfaces

In the current Arizona Hybrid model, the VRAZ-II system currently integrates with the following \ state agencies' systems and the separate VR Systems of two (2) counties:

- Motor Vehicle Division (MVD), part of the Arizona Department of Transportation (ADOT)
- Federal Social Security Administration
- Arizona Department of Health Services (DHS)
- Courts (county, state, federal)
- Public Portal
- Electronic Pollbooks
- Elections Management Systems1
- HAVA Exception Interface (HEI)
- SAVE Homeland Security
- Maricopa and Pima VR Systems

The following diagram illustrates the current environment.



¹ See Appendix A for List of vendor voting equipment used by Arizona Counties.



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Figure 2. VRAZ-II Environment

2.1.3.1 Motor Vehicle Division (MVD)

There are 4 interfaces between VRAZ-II and the Motor Vehicle Division (MVD). They are:

- MVD Transfer of MVD Records to Secretary of State
- MVD Transfer of EZVoter Records to Secretary of State
- VRAZ-II Request for MVD Signature from MVD driver license records
- VRAZ-II Request for 4-Digit SSN Check to SSA via MVD

2.1.3.1.1 MVD Transfer of MVD Records to VRAZ-II

Each night, a batch file is sent to VRAZ-II from MVD containing all the MVD driver's license records that were created or updated. This batch file only contains information pertinent to voter registration such as name, date of birth (DOB), address, driver's license (DL) number and the last four (4) digits of the SSN.





2.1.3.1.2 MVD Transfer of EZVoter Records to VRAZ-II

Voter registration applications are obtained from EZVoter in one of two ways:

- Internet An applicant enters a request to register or an update to his or her voter registration records on-line through ServiceArizona. This was implemented in 2002.
- MVD Office / Driver License Application An applicant checks the box on the driver's license application that he or she would like to register or update his or her voter registration record (with such items as party preference). This was implemented in 2005.

All EZVoter voter registration application records are sent nightly in batch mode to VRAZ-II.

2.1.3.1.3 VRAZ-II Request for MVD Signature

The purpose of this interface is for VRAZ-II to obtain the applicant's digitized signature from a registrant's driver license and place the digitized signature on the registrant's voter registration form.

2.1.3.2 VRAZ-II Social Security Administration Interface

In accordance with HAVA, AZSOS must check with the Social Security Administration (SSA) to confirm the validity of a voter registration record by providing name, DOB, and the last 4-digits of the SSN. This is processed against the local MVD table. If a match is not found in the MVD table then the SSN is verified against SSA Help America Vote Verification (HAVV).

2.1.3.3 Department of Health Services (DHS)

In accordance with Arizona laws, the Arizona Department of Health Services (DHS) sends AZSOS on a monthly and yearly basis, a file of every death recorded in the State in the previous month or year. The records include:

- Decedent Name
- Decedent's date of birth
- Decedent's date of death
- Decedent's social security number, if available
- Decedent's address at the time of death
- Decedent's father's name or mother's maiden name (if available)





This is accomplished by depositing an electronic 'flat file' in a standard format on a file transfer protocol (FTP) server monthly with an agreed upon file name and location. AZSOS retrieves this file and processes it accordingly within VRAZ-II.

If the decedent resided in Pima or Maricopa counties, VRAZ-II sends an electronic transaction to that county to update of voter registration records.

In addition, each quarter, DHS updates the National Center of Health Statistics (NCHS) (part of the Center for Disease Control) with its records of deaths in Arizona in that quarter. In addition, DHS obtains from NCHS the death records of Arizona residents that died outside of Arizona. That information is planned to be transmitted to AZSOS in the next month's electronic 'flat file'. This will enable the AZSOS to capture all nationally reported deaths of Arizona registered voters and update the voter registration records accordingly.

2.1.3.4 Courts

In accordance with Arizona laws, a person convicted of a felony loses his or her right to vote, unless and until certain conditions are met. As a result, each Superior Court, in the State and US Attorney General, and the Department of Justice sends a monthly electronic file or e-mail to AZSOS listing felony convictions of the previous month. These files are entered and processed by VRAZ-II.

In accordance with Arizona laws, an Arizona court may hear a case and render a judgment on the incapacity of a resident of Arizona to manage his or her affairs and thus have their right to vote revoked. The records of all judgments of incapacity are provided monthly to AZSOS as a 'flat file'. This file is retrieved by AZSOS and is processed by VRAZ-II.

As a result of this process, on a monthly basis, AZSOS receives approximately 15 electronic files from Arizona Superior Courts, electronic files from Arizona District Court for felonies, and paper files from as many as 94 other Federal District Courts including the U.S. Department of Justice and U.S. Attorney General.

2.1.3.5 Public Portal

The public portal is an on-line public portal component of the voter registration system. It is on the AZSOS' website and enables voters to:

- Query their voter registration information/voting history
- Find voter's polling site
- View the status of the voter's provisional ballot
- View the status of the voter's early ballot

Constituents of Maricopa and Pima counties connect to public portal through a web service that retrieves information from those systems.





2.1.3.6 Electronic Pollbook

The electronic pollbook allows the export of election-related, voter registration, and early voting data from the voter registration system to be used in determining voter eligibility and ballot style by Electronic Pollbooks. Data export includes: election setup data, registrant data, street file data, ballot styles, polling places, precincts, early voting, and other election-related data.

The electronic pollbook interface also imports voting history data, added or updated registrants and signatures if desired by county back into the voter registration system.

2.1.3.7 Elections Management Module Export

The elections management system export of election-related data for use by external elections management module. The export includes election set up, districts, polling place, precinct and precinct part, party, office, and candidate data.

2.1.3.8 HAVA Exceptions Interface (HEI)

The HAVA Exceptions Interface (HEI) application is a custom solution that allows for all counties to process records shared by more than one single county. It accesses the VRAZ-II database directly. This interface tool allows the processing of voter registration records against felon/courts, death records, and MVD to process 'soft matches'. 'Soft match' occurs when there is not an exact match found for a transaction. This match criteria is configurable. The following type of exceptions are managed through the HEI application:

- Check for duplicate voters among counties
- Check for duplicate voters within a county
- Match felon/incapacitated and deceased voters

2.1.3.9 Maricopa and Pima Counties

Maricopa and Pima Counties continue to conduct voter registration on their respective county systems with limited integration with VRAZ-II.

Both Maricopa and Pima maintain the existing two-way interface between their respective voter registration systems and VRAZ-II. These interfaces allow voter records and updates to move between and among all 15 counties in Arizona. These interfaces exchange information about the status of individual voter registration records.

2.1.4 Analysis of Current Environment

AZSOS had a third party analyze their current voter registration system and business processes. This analysis was conducted in the fall of 2016. It documented how the current system is utilized along with challenges and inefficiencies that negatively impact





AZSOS' and Arizona Counties' ability to conduct the business of statewide voter registration. This analysis can be reviewed in the Current State Assessment in the Procurement Library.

The following are highlights of the recommendations:

- On-line vs. batch interfaces where possible
- Improved integration with Maricopa and Pima counties
- Establishing a reporting/data warehouse capability

2.2 Future Environment

The diagram below presents a conceptual view of the AVID Environment. With AVID, the use of Web Services is enabled to provide real-time interfaces to the several processes involving MVD and SSA, as well as processes involving Maricopa and Pima Counties, and providing the public access to selected voter registration information.



Figure 3. AVID Environment

2.3 Volumes and Metrics

The following table represents all 15 counties on basic annual volumes and metrics to drive sizing and scaling of the solution.





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Table 2.Voters - Overall

Parameter	Average
Number of registered voters (as of Jan 1, 2017)	3,646,122
Estimated Growth: 2% each year and 3% on Presidential Election years	
Registration Applications in (2016)	464,329
Registration Through MVD	309,580
Registrations Through counties	37,172
Name/address, etc. changes in (2016)	755,041
Changes Through MVD	755,041
Changes Through counties	Cannot distinguish

Number of Registered Voters (as of Jan 1, 2017	# of Registrants		
Greenlee	4,752		
La Paz	9,097		
Graham	18,222		
Santa Cruz	26,418		
Gila	30,159		
Apache	49,475		
Navajo	63,920		
Cochise	76,290		
Coconino	82,053		
Yuma	86,935		
Mohave	118,717		
Yavapai	139,755		
Pinal	196,261		
Pima	544,150		

Table 3. Registrants – By County





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Number of Registered Voters (as of Jan 1, 2017	# of Registrants
Maricopa	2,199,918
Total	3,646,122

Table 4. Users

Parameter	Number
Number of active user accounts within the 15 counties (including public access users)	250 Concurrent licenses

Table 5.External Agency Files

Parameter	Number of Records Per File
DHS Vital Statistics – Deceased	80,611 annually
Individuals	6,717 average per file
(approximately 12 files per year)	
Courts - Felons and Incapacitated	9,302 annually
(approximately 180 files per year)	

Table 6. Images

Parameter	Number of Images/
	Average Images per voter
Voter Applications	14,645,140
	2.38 per record
Letters and Documentation	865,633
	0.14 per record
Signatures	4,749,323
Current environment does not warehouse Pima signatures	0.77 per record





3.0 Requirements

3.1 Overview

The goal of the AVID Project is to provide a comprehensive and effective approach for the planning, design, development, deployment, maintenance and hosting of a new statewide voter registration system.

The future voter registration system shall provide efficient workflow for the productivity of county users, improved quality of data in the central database, robust reporting capabilities, effective integration with external agencies and counties capturing all necessary transactions, activities and data points, and efficient citizen self-service experience,.

The services required for the completion of this SOW are to be applied to meet or exceed the requirements outlined in this SOW, the functional requirements and non-functional requirements.

3.2 System to be Replaced

AZSOS voter registration system, VRAZ-II, which was implemented in 2006 consists of ES&S PowerProfile solution and associated interfaces with Maricopa and Pima counties' voter registration systems, MVD, courts, and DHS. VRAZ-II shall be replaced by the proposed solution in additional to providing to expected benefits defined for AVID.

3.3 Overview of Proposed System Requirements

3.3.1 Proposed Solution Overview

The AVID Project Team has identified several functional and technical requirements. These requirements address the new capabilities as well as existing capabilities from the legacy VRAZ-II system required to achieve the AVID objectives and vision.

A comprehensive analysis of the business processes has been conducted to ensure that the next generation voter registration system shall be aligned with the model of practice followed by the Counties and the State and shall meet all federal and state laws. The functional requirements were identified through a series of steps, with multiple stakeholders' inputs, including the identification of the current business functions of the VRAZ-II System, data sharing opportunities, and development of future business processes. These processes were documented in workflow diagrams and use cases and describe the functionalities required for the future AVID System. In addition, the analysis identified several opportunities to improve in many areas including the workflow and data quality.

Driven by the county and state business processes, and an understanding of the existing environment and future goals of AVID, a thorough technical analysis was conducted to





identify non-functional requirements. This analysis was used to derive the future nonfunctional and implementation requirements, the Software Maintenance and Operations (M&O) requirements and the hosting requirements for AVID.

The AVID functional and technical requirements are provided in the AVID Template H – Functional Requirements Matrix and AVID Template J – Non-Functional Requirements Matrix and the use cases are provided in the Procurement Library.

3.3.2 General Requirements

These are the general mandatory functional requirements of the future AVID system:

- *Multijurisdictional* It shall be intrinsically multijurisdictional in design and operation
- *Interfaces* It shall provide full integration with MVD, courts, DHS, and be easily extensible to accommodate other future interfaces.
- Model It shall support a 'hybrid' model, but potentially support a statewide 'topdown' solution in the future.
- County VR Interfaces It shall integrate with the voter registration systems of Maricopa and Pima Counties.
- Operational & Analysis Reporting It shall provide operational and analysis 'canned reports' as well as the ability to develop ad-hoc reports without extensive SQL programming.

3.3.3 Solution Architecture Guiding Principles

The Secretary of State seeks to implement a next-generation solution to support county and statewide voter registration needs for the next decade. The core architecture principles include:

- Database of Record Establish a central statewide voter registration database of record, which serves the counties' needs rather than having a distributed solution in all counties. Central statewide voter registration database will be accessed directly by 13 counties, the other 2 counties (Maricopa and Pima) will interface with it.
- Product Roadmap The underlying technology stack must consist of widely used components with a long-term viable product roadmap.
- Hosting Support a hosted deployment model, potentially leveraging cloud-based infrastructure and platform-as-a-service model.
- Security The design and implementation must be driven by a "security first" perspective, recognizing that the trust in security of voter registration data, and the access to this data, is paramount.





- *Hybrid Model* Support a hybrid statewide voter registration ecosystem, in which counties can continue to operate independent solutions through data integration.
- Integration Provide efficient integration with external systems that monitors interface transactions to ensure quality data.
- Configuration Capability Provide configuration over customization, to enable rapid response to change.
- Modern Architecture The software architecture must represent a modern architecture, meaning a rich browser-based user interface without plug-ins, a service-oriented back-end and an API-based integration tier.

3.3.4 Summary of Functional Requirements

The business functions that are necessary to AVID are organized into five (5) categories:

- 1. Voter Registration
- 2. Public Portal
- 3. Election Management
- 4. Records Requests
- 5. Petitioning
- 6. System Administration

3.3.4.1 Voter Registration

These are the processes necessary to support and manage the database of registered voters and elections.





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Figure 4. Voter Registration Requirements

Find and View Information About a Voter	View Voter Registration Tasks (Public View)	Manage Felon/Incapacitated
Process an Application for Voter Registration	Perform Self-Service Inquiry	Manage Death Records
Modify Voter Information		Manage UOCAVA Voters
Manage Scanned Entries	Voter Registration	Manage Secured Voters
Manage Duplicates		Issue Notices for Various Reasons
Resolve Data Integration Discrepancies		Process Response to Various Notices
Issue Notice of Incomplete Information		Perform NVRA Process
Process Responses to a Notice of Incomplete Information		Cancel Expired Inactive Voters
Resolve a Notice of Incomplete Information That Has Expired	Generate Reports for Voter Registration Management	Cancel a Voter
Create & Replace Voter Registration Cards	Manage Permanent Early Voter List	Re-instate a Voter

3.3.4.2 Public Portal

Support the need of constituents to query voter registration and voting information for themselves. The on-line public portal component of the voter registration system integrated with the AZSOS website will enable voters to:

- Query their voter registration information/voting history
- Find voter's polling site
- View a sample ballot
- Request an early ballot
- View the status of the voter's provisional ballot
- View the status of the voter's early ballot

Maricopa and Pima counties will need to connect to the public portal through a web service that obtains the data from the county for all six of these functions.





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3.3.4.3 Election Management

These are the processes necessary to set up, support and manage elections as it relates to voter registration.

Figure 5. Election Management Requirements

Set Up an Election	Manage UOCAVA, Early Ballot Requests and Returns	Manage Rosters and EPollbooks
Manage Polling Places		Process Provisional Ballots
Manage Poll Workers	Elections Management	Generate Election Reports
Manage Precincts	(not including ballot creation or tabulation)	Update VR History from Election Results
Manage Ballot Styles		Archive Election

3.3.4.4 Records Requests

These are the processes followed to fulfill requests for information regarding voter registration records requested by campaigns, political parties, political organizations and others.

Figure 6. Records Requests Requirements

Reports	Pocorde Poqueste	Inquiries
Data Exports	Records Requests	

These are the general functional areas. Please refer to the Use Case document and the AVID functional and technical requirements for specific AVID requirements.

3.3.4.5 Petitioning

These are the processes necessary to support petitioning from creating a petition, verifying signatures, and reporting signature verification, to archiving historical petition data.

The voter registration system shall accommodate a petition module and accept updated data from a third-party vendor for the purposes of overwriting or updating all necessary





data elements within a manual petition administration module. Data elements would include but are not limited to:

- Circulator data
- Notary data
- Petition raw count data
- Various dates (i.e. when a petition is received and/or processed)
- Petition line numbers
- Petition page number
- Valid or invalid name on list
- Reason name is valid or invalid
- Document the person has signed the candidate/initiative/referendum petition

gure 7. Petitioning Requirements				
Create a Petition	Remove name on Petition Upon Request	Track Verification of Petition Signature Check		
Track Petition Timeline		Track Petition Signature Findings		
Record Chief Petitioner	Petitions	Report Petition Signature Verification		
Check Duplicate Signature		Track History of Petition and Generate Statistical Reports		
Verify Address of Petition Signatory		Report on Voters Who Signed Petition		
View Information on Voters Who Signed		Report on Signature Verification by Date Range		
Create Random List for Verification of Signature	Archive Historical Petition Data	Close Down Petition		

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3.3.4.6 System Administration

These are the processes necessary to maintain the system tables that contain 'dropdown' values, system-wide variables and content, and security.





Figure 8. System Administration Requirements

Manage Access	Manage System Parameters	Manage System Security
Manage System Tables	System	Manage Precincts
Manage Street File	Administration	Manage Jurisdictional Boundaries

3.3.5 Summary of Non-Functional Requirements

This section describes the non-functional requirements for AVID. It is meant to describe the core non-functional aspects of the system, and accompanies the use cases. AZSOS expects the Contractor to further detail the requirements in a requirements validation phase early in the implementation project.

The significant themes of the non-functional requirements include:

- The solution should be built on modern technology, with a modern architecture style.
 - With an operational horizon of a decade, perhaps more, the solution should be 'future proof' in terms of operating on widely used technology components and infrastructure, and be able to evolve with these components as their capabilities improve. A Proposer Roadmap from current technology to future planned technology will assist AZSOS Evaluation Team in determining the proposed system viability.
 - □ Usage patterns and client devices will change. The client portion of the solution should be able to be operate in a browser-based environment without device or operating system dependencies.
 - □ The data repositories, both operational and reporting, should be readily accessible with common tools.
 - □ The back-end solution should expose service-based integration points (APIs) to support modern integration patterns with other State agencies or entities.
- The solution shall contain a central database, which is the statewide database of record, containing master voter data.
 - □ The database must be implemented with a widely-used database platform, with a preference of processing to be external from the database.
 - □ The statewide database must be inherently multi-jurisdictional, and be shared by the participating counties, while segmenting the data for counties to only





access their own data and provide read only access to the data of all other counties.

- □ The State prefers a centralized database approach over a federated model for the counties directly participating in the solution.
- □ The hybrid nature of the statewide solution must support data integration with two counties that operate their own voter registration systems.
- The solution shall be adaptable to changing business needs and statutory changes, supporting rapid modifications through configuration where possible, without dependency on rigid-scheduled releases.
- The solution shall be highly secure at all layers.
 - □ The database must be protected from unauthorized use within and outside of the AZSOS organization.
 - All data modifications must be fully auditable.
 - Use of the application should be strictly controlled to authorized users only.
 - □ The solution must support strong encryption for data in motion and data at rest.
- The solution shall be supported by a provider either in a hosted location or in a cloud environment.
- The solution shall support high availability and disaster recovery through common patterns.
 - □ High availability shall be supported, and enabled through configuration, using redundancy at the application and data tiers.
 - Disaster recovery must be capable of supporting a Recovery Point Objective (RPO) of 4 hours and a Recovery Time Objective (RTO) of 2 hours
- The data integration methods shall be near real-time, where possible, and use modern integration patterns.





3.3.5.1 Prefer Browser-Based Client

The current VRAZ-II system is an MS-Windows-based application which is used remotely via a Citrix client. The AZSOS would prefer a browser-based client model for AVID which would minimize the complexity of the deployment of AVID across the State.

Core requirements for the browser-based client are:

- Compatible with a current version of Edge, Chrome, Firefox, Internet Explorer (legacy) and Safari in non-compatibility mode.
- Based on a standards-based browser environment without plug-ins.

3.3.5.2 Usability

AVID should be easy to use for small and larger counties alike, and be intuitive enough to require minimal training.

Core requirements for usability are:

- All searches should support wildcard capability and multiple page navigation for results.
- The solution should provide task-based workflow capabilities to guide the user through required activities many tasks result from processing external agencies on the AVID back-end.
- AVID must comply with federal and State of Arizona accessibility policy (see: Arizona Revised Statutes §41-3504(A (1)), and § 41-3504(A (1(a)).
- AVID shall have an integrated, context sensitive help facility.

3.3.5.3 HAVA Compliance

AVID must implement the Uniform and Nondiscriminatory Election Technology and Administration Requirements of the Help America Vote Act of 2002, specifically Section 21083. "Computerized Statewide Voter Registration List Requirements and Requirements for Voters Who Register by Mail".

3.3.5.4 State Compliance

AVID must also be compliant to state requirements outlined in (ARS §16-168(J) as well as be aligned to the elections procedure manual.

3.3.5.5 Modern, Standards-Based Technology

The current system is based on the Java platform and Oracle database. AZSOS also supports a number of .NET / SQL Server based systems. Although the State intends to outsource AVID, the State requires the AVID System to be based on a modern and standards-based development and deployment environment.





Core technology requirements are:

- The programming environment should use a widely-used programming platform, framework and runtime environment.
- The preferred database management system is SQLServer.
- The application server environment can be deployed to commodity hardware using virtualization, and scale out by adding server resources.
- The database server environment can be deployed to commodity hardware, and scale up by adding server resources.
- The solution should minimize the use of proprietary third-party components within the vendor's product.

3.3.5.6 Integration

The proposed AVID solution must integrate with the existing voter registration systems of Maricopa and Pima counties and external agencies through file exchanges and services.

Core integration requirements are:

- The solution shall use the current two county file formats and structures.
- The solution shall produce voter export synchronization files to the two counties monthly to validate the data consistency with the statewide voter registration database. AVID shall process the synchronization result files produced by the two counties, and determine discrepancies. Each discrepancy must be addressed within the two county's systems and AVID. Potential discrepancies include:
 - D Voter in AVID but not in County, or vice versa
 - Voter ID does not match
 - Valid "From" Date, Registration Date or effective date of change does not match
 - Residential Address does not match
 - □ Name (Last, First, Middle, Former Last, Name Suffix) does not match
 - Precinct does not match
 - □ Voter Status does not match
 - □ County or AVID duplicate voter unique identifier
- The solution must provide validation, exception handling and exception reporting.
- All interface formats used between AVID and the two counties must remain fully documented, supported and available to the two counties and their systems





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support. Both Pima and Maricopa counties operate in-house developed voter registration systems.

3.3.5.7 Interfaces

AVID must continue the following interfaces:

Table 7. AVID Interfaces

Interface	Mode	Frequency
Integration with Maricopa County	Real-time	
Integration with Pima County	Real-time	
Motor Vehicle Division (MVD)	Real-time	
Department of Health Services (DHS)	Batch	Monthly
Courts	Batch	Monthly
Public Portal	Real-Time	
Electronic Pollbook	Batch	During elections
Counties' Elections Management Modules	Batch	Prior to elections
Systematic Alien Verification for Entitlements (SAVE)	Real-Time	
Help America Vote Verification (HAVV)	Look-Up	
Electronic Registration Information Center (ERIC)	Batch	

3.3.5.8 Security and Data Visibility

The solution shall include an Identity Access Management mechanism, integrated within the solution. Since security of the voter registration database and transactions is paramount, the mechanism must be industrial-strength, current and support best practices.

Core security requirements are:

• Authentication and authorization is performed through the security mechanism.





- The user's county affiliation(s) and roles are acquired from the security mechanism at the time of login.
- Administrators must be able to cancel user's sessions.
- Web service access to the solution's inbound web service (e.g. LiveCheck SSN result) must be secure.
- Single sign-on shall be enabled across all components of the solution (main application, reporting, etc.).
- The system shall suppress address information of voters, managed by the registrar, on the user interface and reports for users not authorized to view this data.
- AVID must suppress confidential information of voters (such as driver's license and SSN), managed by a County Recorder, on the user interface for users not authorized to view this data and implement necessary protocols to ensure compliance with the Arizona law regarding the recording and disclosure of all confidential information.
- AVID must adhere to all federal and State standards and guidelines regarding safeguarding of data.

AZSOS expects the proposed solution, including the hosting of the data, to be based on a proven model used by other state systems housing public records, and using established industry standards for outsourcing public functions and data. The solution model must be articulated in detail, including but not limited to:

- The level of sharing application resources with other clients of the hosting environment.
- The level of sharing infrastructure with other clients.
- The hosting location relative to the State's environments.
- The level of access the proposer's resources will have to the data, both from a systems and application perspective, and the processes to govern and audit this access.
- The mechanisms to protect transactions and data at rest.
- The approaches for unauthorized access and intrusion detection.

3.3.5.9 Externalized Application Configuration

In AZSOS' experience, the business rules around voter registration, petitions and election management are dynamic. To the extent that it is pragmatic, these rules should not be purely embedded in application code, but be expressed through a configuration





mechanism that drives the solution's behavior. This results in the ability to implement modifications more quickly and with less testing effort.

Core requirements for configuration capability are:

- Externalized common configuration parameters, such as:
 - Specific election management functions: books closed date, in person early voting, party holds, and UOCAVA deadlines.
 - □ The business rules that specify the letters that are generated upon different reasons for Notices.
 - □ The period of time for cancellations to take effect.
 - Source (or origin) codes for ballot receipt methods (e.g. received by mail or email).
 - □ The cut-off dates for mass mail outs.
- Externalized common sequence of activities, such as:
 - □ Enabling or disabling tasks related to workflow sequences.

3.3.5.10 High Availability

The activities and services performed by Arizona counties around voter registration, petitions and election management are critical. During peak times, such as the fifty (50) days leading up to an election or during redistricting, AVID cannot experience any unplanned downtime. The solution should be designed to be reliable, robust and, continuously available to county users.

Core availability requirements are:

- Windows of availability:
 - □ Outside of major election windows: 6:00 AM MST to 6:00 PM MST
 - During Early Voting period: Starting the week prior to early voting which 50 days prior to an election, 6:00 AM MST to 8:00 PM MST
 - □ Election Day: 4:00 AM MST to 11:00 PM MST
 - UOCAVA voter support: extended hours based on need
 - □ Election day/night: extended hours based on the election
- Within these windows, availability must be greater than 99.99%.
- Planned maintenance windows are outside of the window of availability unless otherwise agreed upon by the counties.





3.3.5.11 Disaster Recovery

In case of a major incident, it is critical that services be restored rapidly.

Core disaster recovery requirements are:

- Recovery Time Objective (RTO), representing the maximum amount of time before services are restored after a major incident: 2 hours. This represents the maximum duration of outage time in which users would not be able to access AVID. When the system becomes available again, it would include the data contents up to the RPO limit, or more recent.
- Recovery Point Objective (RPO), representing the maximum period in which data that was entered/processed by the system might be lost: 4 hours. This represents the maximum duration in which data that was processed prior to the major incident would be lost and would have to be re-entered or re-processed from the time of the last synchronization to the backup environment.

AZSOS is aware of the trade-offs between business continuity and cost, thus seeks a cost-effective solution for RTO and RPO targets. If the requirements are close to a "breakpoint" of approaches that significantly increase the complexity and cost, then different targets may be proposed and considered.

3.3.5.12 Performance

The online component of AVID is a user-centric application that enables county users to process voter registrations, manage petitions and manage elections. The actual and perceived performance is important to the overall user experience and staff efficiency.

The online transaction response time standards must be proposed by the Proposer in its proposal.

Below is an example of how this response time standard is expected to be specified:

Response Time Factor	Response Time Average (Seconds)	Response Time Maximum (Seconds)
Response time for <u>typical user</u> <u>requests</u> (95% of transactions):	< .5	2
Response time for <u>complex user</u> <u>requests</u> (5% of transactions):	< 1	3
Response time for <u>typical reports</u> (90% of reports):	< 5	10

Table 8.AVID Performance





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Response time for <u>complex</u> <u>reports</u> (10% of reports):	< 15	30

These response times are measured within the data center, from the edge servers, and exclude wide area network (WAN) links between the county and the data center where AVID is to be hosted.

3.3.5.13 Data Retention and Archiving

Retention of voter data is governed by the Arizona Election Code. VRAZ-II implements retention policies that comply with the relevant sections. AVID must adhere to the same policies.

There is a distinction between the *voter record* and the *voter file*. The voter record must remain within the system indefinitely. The voter file, which may include applications, certificates, investigations, etc. does not need to be maintained indefinitely.

The voter file retention requirements are:

Voter files must be kept within the solution and readily available as long as the voter registration is active, plus 5 years upon registration cancellation.

3.3.5.14 Reporting Capability

AZSOS expects that the proposed solution will include a COTS-based reporting tool that provides an integrated user experience.

Core reporting requirements are:

- The reporting tool shall be capable of implementing the current reports identified for inclusion within the solution.
- The reporting tool shall contain an ad-hoc query capability to support the AZSOS Election Division and the resident 13 counties with query capability of all appropriate data, through an intuitive interface, in support of legislative and other stakeholder queries and troubleshooting.
- The reporting tool shall have access to all county-level data and statewide data, governed by security rules.
- Report execution shall not diminish the overall performance of the AVID system, leveraging a separate reporting database.
- Certain reports are printed on special stock; all print output shall be able to be batched for different types of stock (i.e. voter ID cards).
- Reports shall be able to be run online, or in scheduled (batched) fashion.





 Reports containing the same data elements and period shall match regardless of when they are dispatched.

3.3.5.15 Imaging

The proposed solution shall be able to scan supporting documentation into voting files as images. The proposed solution shall also have the capability to import images captured by MVD₂. All images shall be retained in AVID in a separate image repository. AZSOS does not expect full-fledged content management capability to manage these document images, but does expect a scalable solution that operates seamlessly within the overall system context.

Core imaging requirements are:

- Capturing signature images for submission with voter applications to AVID that are not provided through MVD.
- Attaching supporting document images for inclusion with the voter file.
- Retrieving document images from within the context of the voter file.
- Ability to use existing and commonly used scanners.

3.3.5.16 Data Conversion

The current database of registered voters and their activity shall be migrated to AVID. This will include voter registration information, voter history, images attached to the voter, and street files (including street address ranges for all jurisdictions).

All voter related data (including voter history), street file information, and images that are currently stored within the VRAZ-II database must be loaded into AVID. VRAZ-II supports two existing file formats to extract this data for subsequent loads into offline systems.

 Table 9.
 Data Conversion Files

Extract File	Layout	
Offline voter extract file	Offline_Voter_Extract_Layout.xls	
Street index extract file	Offline_Voter_Extract_Layout_Dist_Street.xls	

3.4 Types of Services to be Performed

The Proposer shall propose an approach that leverages a standard implementation methodology for the proposed AVID solution, and related tools, templates and knowledge



² State of Arizona Motor Vehicle Division



base that ensures the implementation is effective in meeting business requirements. For details, see Section 5 - Detail of Scope of Work Tasks & Deliverables.

The services to be performed include but are not limited to:

- Project Management
- Requirements Development and Validation
- System Design
- System Development and Configuration
- Data Migration
- Testing
- Training
- Deployment (Rollout)
- Software Maintenance and Operations (M&O)
- Hosting Services
- Project Completion

3.5 **Procedures for Deliverables and Correspondence**

3.5.1 Deliverables Expectations Document

The Contractor shall develop the Project Deliverables in the form and format agreed to by the AVID Project Management Team using a Deliverables Expectations Document (DED), which must be approved by the AVID Project Team. No work shall be performed on any deliverable associated with a payment milestone until the DED has been approved in writing by the AVID project manager. As each Project Deliverable is submitted, the Contractor shall include a copy of the Project Deliverable's Expectation Document as the cover sheet.

3.5.2 Acceptance

All Contractor deliverables are subject to review and approval by the AVID Project Management Team prior to acceptance, and payment.

Acceptance of all Contractor deliverables shall be completed via a deliverables acceptance form to be drafted by the AVID Project Management Team.

The State shall have ten (10) business days to complete its review of each deliverable. The State shall accept or reject the deliverable in writing using the Controlled Correspondence and the Deliverable Acceptance Form. In the event of the rejection of any deliverable, the Contractor shall be notified in writing via Controlled Correspondence,





giving the specific reason(s) for rejection. The Contractor shall have five (5) business days to correct the rejected deliverable and return it to the State via Controlled Correspondence.

Deliverables shall be tracked on a tracking sheet approved by the AVID Project Management Team.

3.5.3 Controlled Correspondence

To track and document requests for decisions and/or information, and the subsequent response to those requests, the State and the Contractor shall use Controlled Correspondence.

Each Controlled Correspondence document shall be signed by the AVID Project Management Team (or designee) and the Contractor Project Manager (or designee). No Controlled Correspondence document shall be effective until the signatures of both are affixed to the document.

The Controlled Correspondence process may be used to document mutually agreeable operational departures from the specifications and/or changes to the specifications. Controlled Correspondence may be used to document the cost impacts of proposed changes but Controlled Correspondence shall not be used to change pricing.

Controlled Correspondence shall not be the basis of a claim for equitable adjustment of pricing. Any changes that involve a change in pricing shall be by a Purchase Order Change Notice.

Controlled Correspondence documents shall be maintained by both parties in ongoing logs and shall become part of the normal project status reporting process.





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4.0 Summary of Statement of Work Tasks and Deliverables

The table below lists the Deliverables associated with each Task.

Table 10. Work Tasks and Deliverables

Task	Deliverable	Title
Task 1 — Project Management	1	AVID RFP Periodic Status Reporting
	2	AVID RFP Project "Kick-off" Presentation
	3	Project Management Plan
	4	Communications Management Plan
	5	Change Management Plan
	6	Work Breakdown Structure
	7	Final Work Plan and Schedule
	8	Requirements Analysis, Validation and Development Plan
	9	Testing Plan
	10	Implementation and Deployment Plans
Task 2 — Requirements Development and Validation	11	Requirements Methodology and Template
	12	Detailed Functional and Non-Functional Requirements Traceability Matrices
Task 3 — System Design	13	Functional Design Document
	14	Technical Design Document
	15	Security Plan
	16	Disaster Recovery and Business Continuity Plan
Task 4 — System Development and Configuration	17	System Development and Configuration Validation Report
Task 5 — Data Migration	18	Data Migration Map
	19	Data Migration Report
Task 6 — Testing	20	System Testing – Test Results
	21	UAT Report
	22	Load and Stress Test Report
	23	System Operations Documentation
Task 7 — Deployment (Rollout)	24	Deployment Plan
	25	Data Conversion and Synchronization Plan





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Task	Deliverable	Title
	26	Training Plan
	27	Training Materials
	28	Training Metrics
	29	User Documentation
	30	System Implementation Checkpoint Meeting
	31	System Incident Reports – Warranty
	32	Corrective Maintenance Reports
	33	System Documentation
Task 8 — Software Maintenance and Operations (M&O)	34	Tier 2 Help Desk Plan
	35	Monthly Application Monitoring Report
	36	Monthly Operations Monitoring Report
	37	Tier 2 System Incident Reports – M&O
	38	User Training
	39	Adaptive Maintenance Reports
	40	System Enhancement Reports
	41	New Release Implementation
	42	Service Level Adherence Report
	43	Monthly Change Management Report
Task 9 — Hosting Services	44	Hosting Services Delivery Document
	45	Hosting Services Monthly Report
	46	Security Issue Report
	47	Backup Validation Report
	48	Business Continuity and Disaster Recovery Plans
Task 10 — Project Completion	49	Project Closeout Check List
	50	Updated System Documentation – Project Closeout





5.0 Detail of Scope of Work Tasks & Deliverables

This Section outlines the detail of the Scope of Work Tasks and their associated Deliverables for the AVID project.

It is expected that a COTS product will be proposed and that it will meet most, if not all, of the functional requirements of this RFP. There may be requirements that are not met but which will be met through modifications or enhancements of the COTS product. Further, there are integration modifications that will be necessary to seamlessly integrate the COTS product with existing Arizona systems such as those of MVD, Maricopa and Pima counties. Accordingly, this Section outlines the general statement of work and deliverables for the AVID project with emphasis on the tasks necessary for these enhancements and interfaces.

5.1 Task 1 — Project Management

5.1.1 Subtask 1.1 Project Monitoring and Status Reporting

Project status shall be tracked and reported on an ongoing basis. Regularly scheduled status meetings between the AVID Project Management Team and the Contractor Project Manager shall be held to discuss project progress, issues, resolutions and next steps. The following standard reporting mechanisms shall be used:

- Status reports
- Issues lists
- Risk management updates

In addition, a Project Information Library (PIL) shall be developed and maintained by the Contractor and overseen by the AVID Project Management Team in a single repository used to store, organize, track, control and disseminate all information and items produced by and delivered to the project. The PIL shall include a file structure with defined access and permissions. It shall also include an interface, such as a Web page or portal, where individuals can obtain project information, the latest documentation and submit issues or comments to the Project Team.

AVID Project Team shall be the owner of all the documents available in the PIL.





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Deliverable 1 AVID RFP Periodic Status Reporting

This deliverable shall be a recurring deliverable for the entire length of the project. The deliverable shall at a minimum include periodic reporting of the following activities:

- Status of work completed against the Project Work Plan
- Recovery plan for all work activities not meeting the approved schedule
- Projected completion dates compared to approved baseline key dates
- Escalated risks, issues (including schedule and budget), and action items
- Disposition of logged issues and risks
- Important decisions
- Actual/projected Project Work Plan dates versus baseline Project Work Plan milestone dates
- One-page graphical summary of the Project Work Plan status for all major tasks and subtasks for each phase
- Objectives for the next reporting period
- Client responsibilities for the next reporting period

5.1.2 Subtask 1.2 Project Initiation and "Kick-off"

A project initiation meeting shall be conducted by the Contractor at the AZSOS office and shall be attended by key AVID Project Team members. The purpose of the meeting shall be to review the project plan (including scope management, schedule management, risk management, change management, quality management, communication management and resource management) and the various deliverables associated with the AVID Project.

The Contractor shall lead the discussion of the following project initiation activities for all the stakeholders to gain an understanding of the process, roles and responsibilities:

- Roles Understanding of the roles of various project stakeholders including the Executive Management Committee, Project Sponsor, AVID Project Manager, AVID Project Team, and Contractor Project Team.
- Stakeholders Identification of key stakeholders to be contacted to review and validate information relative to all steps throughout the project.
- Work Plan Review of the project work plan.
- Deliverables Review of the deliverables of the project work plan.





■ *Project Schedule* - Review of the project schedule.

Any decisions or agreements from the "kick-off" meeting shall be documented by the Contractor and submitted to the overall project team for review and acceptance.

Deliverable 2 AVID RFP Project "Kick-off" Presentation

This deliverable is a presentation to familiarize project team members with the project. The presentation includes the following topics:

- Project Overview
- Objectives and Definitions
- Roles and Responsibilities
- Project Work Plan
- Project Deliverables
- Project Schedule (high-level)
- Keys to Success
- Next Steps
- Questions and Answers (Q&A)

5.1.3 Subtask 1.3 Project Management Planning

The Contractor shall follow project management methodologies consistent with the AZSOS guidelines and the Project Management Institute (PMI) Project Management Methodologies stated in the Project Management Body of Knowledge (PMBOK). At a minimum, the following deliverables shall be created for this subtask. The Contractor may propose additional deliverables as needed.

- Project Management Plan
- Communication Management Plan (Issue Logs to be updated weekly)
- Change Management Plan
- Work Breakdown Structure (WBS)





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Deliverable 3 Project Management Plan

The Project Management Plan shall outline how the Contractor will manage the AVID project throughout the project lifecycle. The plan shall include the following categories:

- Managing scope
- Managing the schedule
- Managing issues and risk

Deliverable 4 Communication Management Plan

The Communications Management Plan shall detail the varying levels of information about the project needed by various stakeholders regarding the project, status, accomplishments, impact on stakeholders, etc. The Communications Management Plan shall define:

- Target stakeholders
- The communication vehicles
- Scope and frequency of the project's communications per vehicle

As part of Communication Management, issues shall be logged and reported weekly and the plan shall detail the escalation mechanisms for Issue resolution.





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Deliverable 5 Change Management Plan

The Contractor shall adhere to the Change Management Plan, which shall be jointly developed by the AVID Project Manager with the project management team and the Executive Management Committee. The plan shall describe the process for review, acceptance and rejection of change requests. The plan shall be approved by the Executive Management Committee. Project changes shall be approved by the Executive Management Committee and the Advisory Committee.

In the Change Management Plan, change requests shall be:

- Drafted by the AVID Project Team
- Reviewed and edited by the Project Manager
- Approved or Rejected by the Executive Management Committee and Advisory Committee, as necessary
- Implemented by the Project Team, as necessary
- Updated by the Contractor to reflect the project schedule and cost estimates when change requests are approved

Deliverable 6 Work Breakdown Structure

The Contractor shall prepare and submit a Work Breakdown Structure (WBS) as a preliminary step in the preparation of a project work plan and schedule that encompasses all activities from Project Initiation to Project Closure. The WBS shall define the project's overall objectives by describing the project tasks and deliverables. The WBS shall include:

- A consolidated view of the activities, activity descriptions, and activity durations assigned to AVID team, the Contractor, and the QA Provider
- Resources assigned to each activity
- A list of deliverables tied to project milestones
- A method to track the project schedule against the planned schedule
- Deliverable approval periods





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Deliverable 7 Final Work Plan and Schedule

The Contractor shall deliver a master work plan including Gantt charts and a project calendar in Microsoft Project. The master work plan shall reflect any changes from the plan submitted with the Contractor's original proposal that were discussed and agreed upon during the project initiation meeting.

The work plan shall be maintained throughout the life of the project and shall be updated as necessary (weekly at a minimum) to reflect the accurate status of the project.

5.1.4 Subtask 1.4 SDLC Methodology Planning

In this task the Contractor shall detail the Software Development Life Cycle (SDLC) approach and methodology for design, development and testing of any enhancements or modifications to the new system. This task shall detail the methods for maintaining requirements traceability throughout the development process; methodology and processes adopted during the development phase; types and conduct of test activities, and the change control and configuration management processes. The Contractor is required to utilize industry standard tools to accomplish the various tasks of the SDLC, both during planning and development.

Deliverable 8 Requirements Analysis, Validation and Development Plan

This document shall detail the Contractor's approach to the method of capturing and maintaining requirements traceability throughout the development process. This plan shall detail the methods, tools, and technologies used to capture, catalog, and manage system requirements building upon and maintaining the use cases and functional and non-functional requirements.

Deliverable 9 Testing Plan

This deliverable includes a set of documents for each type of testing. The documents shall include the following components and be approved by the AVID Project Management Team:

- Software testing strategy, methodology processes, standards and guidelines for all software testing, including conversion testing activities
- Specification of entrance and exit criteria for each of the test events
- Templates and standards for all testing artifacts and deliverables





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Deliverable 9 Testing Plan

- Definition of testing metrics and how the metrics are recorded and reported (e.g., number of open test defects)
- Description of the approach for regression testing based on an analysis of which parts of the system may be affected by proposed and designed changes to the system and other supporting technologies
- Standards for establishing traceability from requirements to test cases

These document sets shall be compiled for each of the following types of testing:

- Integration
- User Acceptance
- Pilot

Deliverable 10 Implementation and Deployment Plans

The Implementation and Deployment Plans shall include the following components:

- A detailed explanation of the Contractor's implementation methodology
- An explanation of how operations shall transfer from the legacy system to the new system
- An up-to-date detailed implementation schedule




5.2 Task 2 — Requirements Development and Validation

In this task, the Contractor shall lead and facilitate the process for developing the detailed system functional and non-functional requirements documentation. Throughout this task, the Contractor shall validate and use the high-level baseline requirements developed during the AVID Current State Assessment and Future Design phases as outlined in the following documents:

- Use Cases Attached to this RFP
- Functional Requirements AVID Template H Functional Requirements Matrix
- Non-Functional Requirements AVID Template J Non-Functional Requirements Matrix

5.2.1 Subtask 2.1 Requirements Methodology

The Contractor shall provide details on the methodology and approach that shall be used to analyze the use cases and high-level baseline requirements, in addition to how to move forward with defining and managing the development of the detailed functional and non-functional requirements based on AVID needs as detailed in this RFP, best practices and industry standards. The Contractor shall define the software requirements methodology that shall be followed for finalizing system functional and non-functional requirements.

In addition to the requirements validation process, the Contractor shall:

- Define the requirements gathering processes
- Define the requirements management processes
- Provide requirements templates
- Enhance and maintain the functional and non-functional requirements developed during the new system's project planning phase

The software requirements methodology shall be approved by the AVID Project Management Team prior to the requirements gathering process.

Deliverable 11 Requirements Methodology and Template

The Contractor shall provide a clear and concise layout of how detailed requirements shall be gathered (including sections for functional, technical, security, performance, operational, etc.). The requirements template shall be robust enough to store and track functional, technical and other operational and performance requirements.





5.2.2 Subtask 2.2 Requirements Validation and Management

The following activities shall be included in the development of detailed requirements:

- Review in detail all existing use case documentation and requirements developed by the AVID Project Team.
- Perform on-site interviews with key stakeholders to understand how the baseline requirements shall be translated into the technical details required for software requirements
- Develop a draft software requirements methodology that addresses the approach and tools to ensure alignment with the existing baseline requirements and capture the level of detail necessary
- Review draft software requirements methodology with the appropriate stakeholders, allowing time for those stakeholders to return comments or clarifications
- Prepare final software requirements methodology based on updates from appropriate stakeholders
- Deliver the detailed functional and non-functional requirements traceability matrices

Deliverable 12 Detailed Functional and Non-Functional Requirements Traceability Matrices

The Contractor is required to utilize use cases in addition to the functional and non-functional requirements as the baseline to generate more detailed functional and non-functional requirements traceability matrices by conducting joint meetings with stakeholders.





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5.3 Task 3 — System Design

System design includes application design, interface design, and conversion design. Detailed and logical application design documents produced by the Contractor shall direct the application development efforts. The design function is driven by the outputs of the requirements validation phase. These documents provide the framework essential to ensure that the application is constructed consistently with appropriate software development methodologies and the functionality defined through the requirements.

5.3.1 Subtask 3.1 System Design

The Contractor shall conduct a review of AVID's functional and non-functional requirements to identify required modifications and enhancements to any pre-existing solution component or functionality that the Contractor plans to leverage for AVID. Design sessions shall be held by the Contractor along with appropriate staff from the AVID Advisory Committee and the QA Provider. The Contractor shall conduct Joint Application Development (JAD) sessions to fully explore and understand existing voter registration system functionality that the Contractor shall be leveraging for the new system, and to understand the gaps to be addressed to fulfill the remaining required functionality for the new system. Based upon these gap analysis JADs, the Contractor shall document in detail the design and development of the new system shall include the following:

- Define a conceptual architecture that shall produce a design to fulfill AVID stakeholder's functional expectations and can be technically realized
- Define the interfaces for each agency and include data field definitions and their validation rules. The logical architecture shall produce a design to fulfill the stakeholder's functional expectations and can be technically realized by the Contractor
- Define the details around the integration layers, potentially using Web Services and various other integration technologies. The physical architecture shall produce a design to fulfill the stakeholder's functional expectations and can be technically achieved by the Contractor.





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Deliverable 13 Functional Design Document

The Contractor shall deliver a Functional Design Document (FDD), or its equivalent, describing how the proposed system shall enable the functional and non-functional requirements of AVID. The Functional Design Document artifact shall include the following components:

- Details on which components shall be leveraged from existing systems and which components shall be newly developed
- Business rules
- Reporting capabilities and prebuilt reports
- User profiles and security role permissions
- System functionality traceable back to the functional requirements traceability matrix
- System overview diagrams
- Domain model
- Process flows

The Contractor may propose alternatives to any of these components but they shall be clearly justified and have the prior approval of the AVID Executive Committee.

All components of the design shall be maintained throughout the course of the project and updated when any system design changes occur.

The Contractor shall conduct a walkthrough of the FDD with the AVID Executive Committee and Advisory Committee and the QA Provider to validate the contents of the FDD. The FDD shall incorporate all information from the design sessions and all functional requirements. Approval of the FDD is required before development can begin.

Deliverable 14 Technical Design Document

The Contractor shall deliver a Technical Design Document (TDD), or its equivalent, reflecting the final requirements for system configuration and operation. This document shall be developed based on outputs from the technical design sessions conducted with the Contractor and AVID Project Team.

The Technical Design Document shall include the following components:

Detailed description of system architecture





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Deliverable 14 Technical Design Document

- Entity Relationship Diagrams
- Data Flow Diagrams
- Data Dictionary
- Processing controls
- Processes to manage system installation and configuration
- Data backup procedures
- Security controls
- Availability and resilience controls such as load balancing, failover capabilities, and fault tolerance

The Contractor may propose alternatives to any of these components but they shall be clearly justified and have prior approval of the AVID Project Management Team.

The Technical Design Document shall include, at a minimum, the interface definitions and design. The new system design shall be based on reviewing existing class diagrams, sequence diagrams, updated object models that represent the internal workings and designs of the containing subsystems that shall expose the services, and the component specification.

The Contractor shall conduct a walkthrough of the final TDD with the AVID Project Team, Advisory Committee, and the QA Provider to validate the contents of the TDD. Approval of the TDD is required before development can begin.

The approved TDD and FDD shall constitute the complete system definition for AVID system. The FDD and the TDD together shall constitute the agreement between AZSOS and the Contractor regarding the functionality and operation of the new system. The two documents shall be the documentation used by the Contractor during system development along with the use cases, and shall be the basis for the development of the User Acceptance Test (UAT).

Deliverable 15 Security Plan

The Security Plan, at a minimum, shall describe the following items related to the system:

- Security policies
- Logical security controls (privacy, user access and authentication, user permissions, etc.)





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Deliverable 15 Security Plan Technical security controls and security architecture (communications, hardware, data, physical access, software, operating system, encryption, etc.) Security processes (security assessments, risk assessments, incident response, etc.) Discuss the technical approach to satisfy the following: Network segmentation Perimeter security Application security and data sensitivity classification PII data elements Intrusion management Monitoring and reporting Host hardening Remote access Encryption State-wide active directory services for authentication □ Interface security Security test procedures Managing network security devices Security patch management Detailed diagrams depicting all security-related devices and subsystems and their relationships with other systems for which they provide controls Secure communications over the Internet The Security Plan shall detail how security shall be controlled during the implementation of the new system.





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Deliverable 16 Disaster Recovery and Business Continuity Plan

The Disaster Recovery/Business Continuity Plan shall describe how AZSOS and counties can provide information to their customers in the event of a disaster. At a minimum, the plan shall include the following:

- Specify backup and recovery procedures, as well as disconnected operational capability to ensure that the AVID system can continue to operate in the event of an unexpected destruction of hardware, software, or communications through system failure, disruption of connectivity or natural disasters
- Address all areas, such as arrangements for backup hardware or processing sites; off-site data storage; schedule for creation of backup media; and detailed recovery procedures for all anticipated types of disasters
- A description of each anticipated type of disaster shall be provided
- Describe escalation plans that specify the necessary points of contact and decision-making authority at the AZSOS and the AVID Advisory Committee

The Disaster Recovery/Business Continuity Plan shall be developed and validated to comply with the State's standards and industry best practices. As part of the Disaster Recovery/Business Continuity Plan:

- Roll-back plans shall be developed and validated for use in case of system failure during turn over to production.
- Plans shall be put in place for the stand-by of key support resources during turn-over to production activities.
- Potential go-live system failures and action points need to be identified and mitigation plans and actions must be developed and validated.
- Key project resources must be trained in recovery procedures.





5.4 Task 4 — System Development and Configuration

System development efforts shall be guided by the outputs of the Requirements Development and Validation and System Design tasks. This ensures that the application is constructed consistently. The Contractor may not initiate the system development activity until the State has formally accepted the system Functional and Technical Design Documents.

During this phase, developers shall fully document each software module. This documentation shall support the transfer of knowledge to AVID Project Team. The Contractor shall also transfer all agreed to and finalized documentation to the AVID Project Team. The format and the medium of transfer shall be at the discretion of AVID Project Team.

5.4.1 Subtask 4.1 System Development and Configuration

The Contractor shall configure the system to reflect and satisfy the requirements outlined in the FDD and TDD. Part of the development and configuration will be the installation of any third-party product or the development of necessary modules.

Additionally, the Contractor shall develop interfaces described in this SOW and documented during the design phase of the AVID project.

The Contractor shall follow development and testing industry best practices and standards.

5.4.2 Subtask 4.2 Periodic Reviews

During the system Development tasks, the Contractor shall schedule periodic reviews for the AVID Project Team to measure overall progress, status and work products. These reviews shall be conducted at AVID Project Team's option and may be conducted by the QA Provider and/or the AVID Project Team at a location of AVID Project Team's choice.

5.4.3 Subtask 4.3 System Documentation Updates - Configuration

Once the system has been developed, the Contractor shall make updates to any of the system documentation (development, training, security, design, requirements, etc.) to reflect any changes that have occurred during the development process. The Contractor shall also transfer all agreed to and finalized documentation to AVID Project Team. The format and the medium of transfer shall be at the discretion of AVID Project Team.

Deliverable 17 System Development and Configuration Validation Report

The Contractor shall provide a report indicating that the configuration and development has been completed and tested. The report shall include validating





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Deliverable 17 System Development and Configuration Validation Report

that the functional and non-functional requirements have been addressed, required interfaces have been developed, and that testing has validated the functionality is working together as a system.

The Contractor shall provide the report in a format approved by the AVID Project Team.





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5.5 Task 5 — Data Migration

Data migration efforts will include data mapping from the VRAZ-II to AVID, developing the tools to migrate the data, migration validation report, and transfer all agreed to and finalized documentation to the AVID Project Team.

5.5.1 Subtask 5.1 Data Migration Mapping

The Contractor shall analyze the current VRAZ-II data and develop a comprehensive data migration map. The data migration map will be reviewed with the AVID Project Team for clarity and completeness.

Deliverable 18 Data Migration Map		
The Contractor shall deliver to the State a Data Migration Map reflecting the final requirements for migrating VRAZ-II data to AVID.		
The Data Migration Map shall include the following components:		
Data dictionary		
 Detailed data map of all elements of the current database 		
Translation rules		
 Process of migrating images (signature, applications, documents) 		
The Contractor shall conduct a walkthrough of the final Date Migration Map with the AVID Project Team and the QA Provider to validate the contents.		
The approved Data Migration Map shall be the indicator for the Contractor to proceed in developing the data migration tools.		

5.5.2 Subtask 5.2 Data Migration

The Contractor shall design and develop the tools necessary to perform the data migration. The Contractor will be required to convert all the VRAZ-II databases to the correct format and load the required data for the testing of AVID.

The Contractor shall test the migration process in a test environment. The Contractor shall validate the migration and revise as necessary to achieve a successful migration. When the Contractor competes their validation, a data migration report will be provided to the AVID Project Team as part of the data migration validation.

The Contractor shall revise the migration based on feedback from the AVID Project Team validation activities.





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Deliverable 19 Data Migration Report

The Contractor shall design, code, and test the database migration logic. As part of the data migration activity, the Contract will produce data clean-up reports based on the discovery, analysis, and testing the VRAZ-II database.

The Contractor shall provide a data migration report which will summarize the migration success. This includes but is not limited to:

- Number of data records used for input and number of records migrated
 - Voter registration records
 - □ Number of voter registration records by status
 - □ Each county
 - Districts and precincts
 - □ Signatures and images
 - Petition summary
 - □ Street file summary
- Exceptions discovered as part of the migration
- Process of migrating images (signature, applications, documents)

The Contractor shall provide the report in a format approved by the AVID Project Team.





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5.6 Task 6 — Testing

The new system shall undergo a series of Component (Unit), System, and User Acceptance Tests (UAT). This includes emphasis on testing new functionality, as well as regression testing of already accepted functionality to ensure that changes to software have not adversely affected existing code. Each phase of testing requires the development of a thorough Test Plan, including test cases, scripts, data sheets, and expected results. The tests that are developed shall be repeatable and shall be directly traceable to the requirements.

System testing and UAT shall be driven by Requirements and Design, and shall adhere to detailed test plans and test scripts. AVID Project Team, Contractor, and QA Provider all have significant roles in the testing process. The Contractor shall thoroughly test the software itself before the AZSOS and county UAT teams begin their work. For each release, this includes component/unit testing, system/integration testing, volume and stress testing, performance testing, and load balancing testing prior to User Acceptance Testing. When the Contractor test results are validated by AVID Project Team and the QA Provider, UAT can commence. Upon the completion of the UAT, each release's overall readiness shall be assessed and a decision shall be made (Go/No Go) regarding deployment.

5.6.1 Subtask 6.1 System Testing

During this phase the Contractor shall perform various Unit, Subsystem and Integrated System qualification tests of all system functionality. The Contractor shall be responsible for generating the test data and test cases to be used for its own system qualification test. The Contractor shall develop the new system using a structured system life cycle development methodology that includes the following types of test activities:

5.6.1.1 Unit Testing

This type of test is used to validate that an individual program module or script functions correctly. Each system module that has been developed shall be tested to ensure that all module functionality is working properly. If a module interacts with other modules, the interfaces between the modules are 'stubbed' out or removed so that only the module itself is tested in isolation. These tests are generally informal tests conducted and documented by a developer.

5.6.1.2 Subsystem Integration Testing

This type of test ensures that small groupings of modules are working properly. While full system functionality is not yet tested in this phase, groups of modules that work together shall be isolated and tested to ensure that key activities work properly from end to end. This type of testing is generally performed by developers in the development environment. This is expected by the AVID Project Team to be the first phase of testing





where all test planning and documentation activities listed in the Test Planning Documentation shall occur.

5.6.1.3 End-to-End Testing

This phase of testing involves testing the new system's functionality end-to-end, including testing all interfaces to internal and external systems that interact with the new system. Not only shall this test cover system performance, volume, stress, and load balance testing but it shall focus on verifying that the system's functionality conforms to the functional and non-functional requirements that were defined for the new system. System documentation shall be reviewed to ensure that it encompasses a sufficient scope and that it was developed with sufficient quality. It is AVID Project Team's expectation that this test is conducted in an environment synchronized with the target production environment and is conducted by the Contractor testing team, which is independent of the development team. This test shall also ensure that the conversion and use of legacy system data does not generate any errors. The Contractor shall perform end-to-end testing until all major errors, as defined by AVID Project Team have been remediated within the system (e.g., key missing key functionality, computational errors etc.).

5.6.1.4 Regression Testing

The Contractor shall be responsible for regression testing for the new system. Regression Testing encompasses the re-running of previously completed test cases after new functionality or bug fixes have been added to the system. The Contractor is expected, through Regression Testing, to ensure that any changes made to the new system have not broken previously working system functionality.

Deliverable 20 System Testing – Test Results

The Contractor shall provide the documentation of the various test results from each type of the system test including:

- Unit Tests
- Subsystem Integration Tests
- End-to-End Tests
- Regression Tests

5.6.2 Subtask 6.2 User Acceptance Testing (UAT)

Once the AVID project successfully completes End-to-End Testing and a walkthrough of system functionality has been completed, UAT shall begin.





The Contractor shall be responsible for providing on-site support to the AVID Project Team during the planning and execution of UAT. Contractor support shall involve assistance with following activities:

- Plan and set up test environment
- Provide an efficient approach to testing that maximizes parallel and overlapping test activities
- Explain how development has interpreted requirements
- Communicate information about problems encountered during earlier test phases
- Respond to and fix reported defects
- Determine workarounds to be used during test scenario execution
- Provide information concerning the content of code builds during test execution
- Track details and provide summary reporting on testing plans, progress, issues, and interim results during test execution

The following subtasks have been identified as necessary to this task effort:

5.6.2.1 UAT Testing Environment Setup

The Contractor shall be responsible for:

- Preparing, installing, and configuring the system in the AVID project UAT environment.
- Coordinating all environment setup activities with AVID Project Team.
- Ensuring the new system is properly integrated into the AVID project environment and that it is properly interfaced with all required existing external systems including Maricopa and Pima voter registration systems
- Setup, installation, and integration of the new system in all locations that are in scope for UAT activities.

The Contractor shall notify AVID Project Team of all required UAT hardware with sufficient notice so that the hardware can be purchased and procured in time for the setup of the UAT environment.

The Contractor shall maintain responsibility for system operations throughout UAT.

5.6.2.2 UAT Testing Support

Once the key function walkthrough has been completed with no errors, the system shall be made available to AVID Project Team, who shall conduct a formal UAT of the new system. The Contractor shall have the following responsibilities:





- Develop core functional UAT test scripts and UAT tester training materials with approval of the AVID Project Team and QA Provider. Test scripts shall thoroughly test each functional requirement.
- Develop, maintain and refresh the UAT test environment (including database and loaded test cards). This shall be a separate environment from the production environment
- Provide system training for the UAT testers
- Provide on-site support of UAT testers
- UAT in cooperation with AVID Project Team, testing activities will take place at AZSOS location as well as at county locations
- Provide an application for the capture, reporting, and tracking of errors identified during UAT
- Document UAT Results
- Fix any errors identified as a result of UAT

The Contractor may be asked during the UAT to incorporate additional test scenarios, documenting their inclusion and test results. During testing, the Contractor shall be responsible for maintaining the UAT environment and maintaining the UAT tools including test cards and base data-set.

AZSOS and the counties are expecting that testing shall occur in two rounds but could require more depending on the results of UAT. The first round shall be used to identify errors and the second round and subsequent rounds, shall be used to validate that all errors have been fixed.

The UAT shall not be considered complete until the system can meet the exit criteria approved by the AVID Project Team and outlined in the Test Planning Documentation.

Deliverable 21UAT ReportThe Contractor shall prepare a UAT report documenting all the test results
including any errors and resolutions identified as a part of the UAT test.The UAT report shall summarize the UAT results and whether the UAT
objectives were met. At a minimum, it shall cover:••Achievement of UAT objectives••<

• A plan to address any UAT test issues still unresolved





5.6.3 Subtask 6.3 Load and Stress Testing

Load and stress testing includes high availability and disaster recovery testing.

The Contractor shall be responsible for load and stress testing for the new system as well as validation of fault tolerance and planned disaster recovery capabilities of the system. Load and stress testing validates the system's ability to continue operations under maximum loads and stressed conditions. The Contractor is expected to load the system to a minimum of 125% of the number of planned users and volume of transactions using automated loading tools. The Contractor is also responsible to conduct a complete run through of the system's fault tolerance and disaster recovery technologies and processes.

Deliverable 22 Load and Stress Test Report

The Contractor shall prepare a Load and Stress Test report documenting all the test results including any errors and resolutions identified as a part of the load and stress test.

The report shall summarize the load and stress test results and whether the objectives were met. At a minimum, it shall cover:

- Achievement of load and stress test objectives
- Test execution results indicating the responsiveness of the system at low and peak load times
- Test execution results indicating the responsiveness of the database(s) at low and peak load times
- A plan to address any test issues still unresolved

5.6.4 Subtask 6.4 System Documentation Updates – Testing

Once the system has been tested, the Contractor shall make updates to any of the system documentation (development, training, security, design, requirements, etc.) to reflect any changes that have occurred during the testing process. The Contractor shall also transfer all agreed to and finalized documentation to the AVID Project Team. The format and the medium of transfer shall be at the discretion of AVID Project Team.

Deliverable 23 System Operations Documentation

The Contractor shall prepare and submit System Operations Documentation that describes all required systems operational activities and provides guidance on system maintenance and enhancement practices, tools, and approaches.





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Deliverable 23 System Operations Documentation

The Contractor shall also provide any additional documentation, such as Custom off the Shelf (COTS) software user manuals, if applicable.

The System Operations Documentation shall encompass system functionality from a remote user's perspective, a State business user's perspective, and from an information technology and system operations perspective.

These manuals shall include the following types of information:

- A description of how to use the system based on user roles and responsibilities
- A list of prebuilt reports and their descriptions
- A description of all screens and how they are interrelated
- A description of all help and navigation functions and how to use them
- A complete list of error messages, their descriptions, and how to resolve the errors
- A list of all included system documentation and its use
- How to troubleshoot common system problems
- A description of the key data tables, elements, and their contents
- How to perform system maintenance functions like data backup and recovery, run batch processes (if applicable), perform data cleanup, and administer user accounts and permissions
- How to troubleshoot common system problems
- A listing of all logs and how to interpret them
- Key system capacity management considerations
- Key security management functionality
- Contact information for receiving support
- Where to find disaster recovery and business continuity information related to the system
- A listing of system interfaces and how to troubleshoot communications problems
- File descriptions
- System and system environment configuration baseline





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Deliverable 23 System Operations Documentation

The Contractor shall also transfer all agreed to and finalized documentation to the AVID Project Team. The format and the medium of transfer shall be at the discretion of AVID Project Team.





5.7 Task 7 — Deployment (Rollout)

The Contractor shall produce a detailed and thorough plan for deployment of the proposed system. The following are the minimum subtasks that should be addressed by the deployment plan.

5.7.1 Subtask 7.1 Detailed Deployment Plan

The Contractor shall prepare and submit a deployment plan and schedule which encompasses all activities related to the deployment of AVID. Activities included on the deployment plan may be prior to the deployment day, deployment day events, and post deployment day. Other factors to consider is the structure of the deployment related to having a pilot, rolling out in phases, or all at once.

Deliverable 24	Deployment Plan
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The Contractor shall deliver a deployment plan and schedule that encompasses all activities related to the deployment of AVID. The deployment plan shall be in a format and medium agreed to by AVID Project Team. The deployment plan shall include:

- A consolidated view of the activities, activity descriptions, activity durations, and activity dependencies assigned to AVID team, the Contractor, and the QA Provider
- Resources assigned to each activity
- A list of deliverables tied to project milestones
- A way to track and monitor deployment activities

5.7.2 Subtask 7.2 Data Conversion and Synchronization

To help ensure that the Contractor and the AVID Project Team fully understand the extent of the work needed for data migration, a detailed study of migration issues and requirements shall be required of the Contractor and included in the project plan.

The data conversion study shall include:

- Reviewing conversion analysis with the AVID Project Team and preparing a detailed data conversion plan (addressing manual and electronic data)
- Defining strategies for verifying and/or correcting existing data
- Developing data conversion scripts and test data conversion scripts





In this task the Contractor shall address data migration issues and a plan shall be in place to ensure the validation of all conversion routines and the accuracy and completeness of all data.

For this task to be successful, the Contractor shall ensure the following:

- Accountability for data conversion is assigned
- Data conversion was planned early in the project
- Process in place for validating conversion success and mitigating conversion failures
- Plan for data conversion and synchronization issues during deployment
- Validation routines exist to ensure conversion success
- Conversion checklists defined
- Conversion resources defined
- Contractor support during conversion communicated
- Restart and roll-back scenarios in case of conversion failure defined
- Estimated conversion effort defined
- Contingency in case of conversion problems defined

Deliverable 25 Data Conversion and Synchronization Plan

The Data Conversion and Synchronization Plan shall provide a field-by-field mapping (including how the values shall be converted) from the legacy system to the new system, including the following:

- Any assumptions or proposed calculations involved in the conversion
- Default values for required fields that do not exist in the legacy system(s) or a method to allow for missing data until all participants are on the new system
- Methods for handling anomalies in the data between the systems (data elements with incompatible length and/or type between the systems, or data elements with stricter edit requirements in the new system that fail those edits in the old)
- How data elements that have been assigned default values by the automated conversion procedures shall be populated with actual data once automated conversion is complete for a site

The Plan shall detail any data "clean up" procedures in the individual local agencies that can effectively improve the conversion effort. The Conversion Plan shall take into account possible exceptions to full conversion of the databases.





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Deliverable 25 Data Conversion and Synchronization Plan

It shall also detail exception reports that shall be produced by the conversion programs and provide for a fully reviewable conversion of data files.

If a phased implementation approach is used, the Contractor is responsible for continued data conversion and synchronization between old and new system until full implementation is achieved.

5.7.3 Subtask 7.3 User Training

Effective training that shall provide users the required skills to use the new system. The Contractor shall be responsible for the development of user training curricula, schedules, training materials and training evaluation materials. The Contractor shall be responsible for the setup and maintenance of an online training environment that allows trainees to access the new system. The Contractor shall also be responsible for conducting face-to-face, hands-on, user training in logical groupings at county or regional locations determined by AVID Project Team, and for managing all training planning and logistics. Initial training of users should be provided at each of the county locations.

User training shall be developed in alignment with the requirements defined in the Training Plan developed by the Contractor and approved by the AVID Project Team.

The system training, in addition to focusing on the navigation and use of the system, shall also focus on how the system is integrated into the day-to-day work of end users including new business processes and/or workflows that the system shall support.

After the training event, the Contractor shall provide the AVID Project Team with documented evidence of each trainee's competence to operate the system and integrate its support in to their day-to-day work. The competency test or measures will be defined by the AVID Project Team and may vary depending on the role. Training shall be of sufficient length to ensure adequate comprehension. Training shall be provided "just in time" prior to deployment and shall comprehensively address all system operations as well as security considerations.

The Contractor shall be responsible for coordinating training efforts with voter registration subject matter experts (SMEs) identified by the AVID Advisory Committee who shall provide policy and practice support to the Contractor and be present at the training sessions to provide input, as necessary, regarding practice and policy questions or implications.

Deliverable 26 Training Plan

The Training Plan shall describe the types of training and the audience for each, provide a description of training materials, provide a description of training





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Deliverable 26 Training Plan

methodology, including a detailed list of topics to be covered for each type of training, and describe the methodology for evaluation of training effectiveness. The plan shall provide an overview of tools and materials to be employed in the training including workbooks, handouts, evaluative materials, and a training system if employed. The types of training shall include, at a minimum, County Users, remote user, AZSOS user, AVID system administrator, and "trainthe-trainer" trainers. From the state perspective, the vendor will provide training initially but also provide "train the trainer" type sessions as well. All users would require some level of training. Changes to voter registration policies and procedures shall be incorporated into the training. The plan shall detail curriculum and materials development, training-of-trainers development (if necessary), training database development and maintenance, training roll-out schedule, materials production including computer based training (if necessary), training schedule including number of days and preliminary agendas for the training. The plan shall identify the proposed training staff.

Deliverable 27 Training Materials

The training materials shall include items used to conduct the training sessions for the system which shall ensure that training objectives are met. These materials can include presentations, demonstrations, activities, handouts and other required documentation. These materials shall also include training plans, evaluation materials, and training maintenance and support plans. An electronic copy of all training materials shall be provided to the AVID Project Team.

Training materials shall be required for each of the training types described in the training plan. Training Materials should be incorporated into the system as online help files accessible to users online. Each individual trainee should receive a copy of the training materials.

Updated user training shall be required with the implementation of any significant changes or upgrades to the system. The additional training platform shall be dependent on the needs of the users and the specific changes that occur.

Deliverable 28 Training Metrics

The Contractor shall provide training metrics for all types of training reporting progress and effectiveness. Metrics would include the number of participants registered to be trained, participants trained, and number of participants receiving training certification.





5.7.4 Subtask 7.4 User Documentation

The Contractor shall be responsible for providing user documentation. This user documentation will be Arizona specific outlining how to perform functions and processes on AVID for Arizona. The Contractor shall provide updates to the user documentation during the Maintenance and Operations portion of the contract reflecting applicable changes based on new releases, system enhancements, and system updates.

Deliverable 29 User Documentation

The Contractor shall provide Arizona specific user documentation. The format of the user documentation and the media it will be provided in will be approved by the AVID Project Team.

5.7.5 Subtask 7.5 Help Desk Training

The Contractor shall be responsible for providing training to all Help Desk staff that shall be tasked with handling AVID related issues. Training shall focus on the process of the help desk agents supporting AVID users in resolving AVID issues that are escalated to the help desk.

5.7.6 Subtask 7.6 Deployment (Rollout)

During system rollout, the Contractor shall be responsible for the operation of the system and assisting AVID Project Team staff with the implementation of the Help Desk capabilities to support the new system. Before deployment can begin, the Contractor shall ensure that the following activities have taken place:

- The new System's Deployment Plan is fully developed, documented and approved and includes the specific time frame and activities associated with the full roll-out of the system.
- All critical resources have been identified and are available to support deployment activities.
- Critical or new technologies have been fully tested and key resources identified to provide needed support.
- Contingency plans are in place to deal with implementation issues that may arise.
- A governance structure and Communication Plan has been developed, documented and approved which defines the implementation decision process and GO/NO GO events.
- Communications have been provided to stakeholders informing them of the implementation process and status has been developed and documented.





The Contractor is responsible for performing the system deployment with support from the AVID Project Team. After the system deployment, all major system functionality shall be available, including:

- All system functionality described in the functional and non-functional requirements documents
- Security controls as described in the Security Plan
- Online access to report generation and data analysis functionality
- File and data maintenance, archiving functionality, and database synchronization with disconnected sites
- Working communications amongst all in-scope sites
- Disaster recovery plans, procedures, and environments are in place
- Interfaces with external entities are working properly

5.7.7 Subtask 7.7 Incident Remediation and Software Warranty Period

The Contractor shall be responsible for fixing any errors that occur during the deployment. Once a new release has been developed, the Contractor shall perform regression testing on the release and receive AVID Project Management Team approval before submitting the release into production. All such fixes are required to occur in a reasonable time frame and shall be produced at no additional cost to the State as per the Service Level Requirements (SLRs).

The warranty period shall be mutually agreed upon as part of contract negotiation.

At the completion of system implementation, the Contractor, QA Provider, and relevant AVID Project Team shall conduct a system Implementation checkpoint meeting to assess system performance and status. After this meeting, AVID Project Team, with input from the AVID Executive Committee shall determine whether the project can continue into the Maintenance and Operations Support phase.

Deliverable 30 System Implementation Checkpoint Meeting

The Contractor shall conduct a meeting with the appropriate AVID Project Team members and QA Provider to discuss and assess the system performance and the status of moving forward.

Deliverable 31 System Incident Reports – Warranty

All incidents and defects that occur during the Warranty period which are part of the system scope (and under Warranty agreement) shall be documented and





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Deliverable 31 System Incident Reports – Warranty

communicated with the AVID Project Team within a reasonable, agreed upon time frame, on a regular basis. The incident report shall contain the severity of the incident, a description of the incident, incident resolution status, and the proposed course of action for remedying all open incidents.

Deliverable 32 Corrective Maintenance Reports

All corrective maintenance requests which are part of the system scope that occur during the Warranty period shall be documented and communicated with the AVID Project Team within a reasonable, agreed upon time frame, on a regular basis. The maintenance report shall contain the description of the maintenance request, resolution status, and the proposed course of action for remedying all open maintenance requests.

5.7.8 Subtask 7.8 System Documentation Updates – Deployment

Once the system has been deployed, the Contractor shall make updates to any of the system documentation (operations, training, security, design, requirements, etc.) to reflect any changes that have occurred during the deployment process. The Contractor shall also transfer all agreed to and finalized documentation to the AVID Project Team. The format and the medium of transfer shall be at the discretion of AVID Project Team.

Deliverable 33 System Documentation

At the completion of the project, the Contractor shall conduct a review with the AVID Project Team and identify any documentation that shall be updated as a result of changes. The Contractor shall be required to update the documentation and provide it to the AVID Project Team for review and final acceptance.

The following documents are some of the critical documents that shall be updated and provided to the AVID Project Team at the completion of the project:

- Functional Design Document
- Technical Design Document
- Security Plan
- Disaster Recovery Plan
- Capacity Plan





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Deliverable 33 System Documentation

Training materials

The Contractor shall identify any of AVID project's proprietary documentation and return it to AVID Project Team. Any electronic copies of AVID project proprietary information stored on Contractor equipment shall be deleted or transferred back to AVID Project Team.

The Contractor shall also transfer all agreed to and finalized documentation to the AVID Project Team. The format and the medium of transfer shall be at the discretion of AVID Project Team.





5.8 Task 8 — Software Maintenance and Operations (M&O)

At a minimum, the following services shall be completed by the Contractor. The Contractor may propose additional deliverables as needed to achieve the task goals Software Maintenance and Operations.

The Contractor shall provide an Account Manager for AVID and conduct a meeting with AZOS and the counties on an agreed upon frequency.

5.8.1 Subtask 8.1 Tier 2 Help Desk Plan – M&O

The Contractor is responsible for developing a Tier 2 Help Desk Plan that indicates how support shall be provided and how escalated incidents are resolved. The plan shall include a proposed organizational structure, service level commitments related to the resolution of logged incidents (based on issue priority or severity), and metric reporting for monitoring the system and Help Desk performance. The plan shall be consistent with AVID Project Team's requirements and format, with inputs from AVID Project Team and the QA provider team members

Deliverable 34 Tier 2 Help Desk Plan

The Contractor is responsible for developing a Tier 2 Help Desk Plan that indicates how support shall be provided and how escalated incidents are resolved. The plan shall include a proposed organizational structure, service level commitments related to the resolution of logged incidents (based on issue priority or severity), and metrics reporting for monitoring the system and Help Desk performance. The plan needs to include the process of providing weekly reports to AVID Project Team.

5.8.2 Subtask 8.2 Provide Application Monitoring and Management

The Contractor shall provide application monitoring and management services. These services shall include the following:

- Monitoring and managing all licensed software, third-party products, and interfaces related to AVID providing daily reports of transactions between external systems.
- Provide and support multiple domains that will include Development, UAT, and Production keeping them synchronized on a regular basis.
- Proactively and reactively notifying AVID Advisory Committee of issues, incidents, or problems found that affect or may affect AVID and of any required intervention to avoid or resolve the issue, incident, or problem.





Contractor shall report monthly on applications monitoring and management, including the tracking and reporting of any issues.

Deliverable 35 Monthly Application Monitoring Report

Contractor is responsible to report monthly on all issues and problems that occurred during the month. The report shall be in a format and medium that is approved by the AVID Project Team.

5.8.3 Subtask 8.3 Provide Operations Management

The Contractor shall provide operations management services. These services include the following:

- Monitoring scheduled operations jobs to ensure scheduled tasks start and process without error
- Detection of abnormal conditions or alarms
- Logging of failed operations jobs and corrective action taken
- Restarting operations jobs as required
- Documenting and reporting operations job issues
- Adding and removing operations jobs

Contractor shall report monthly on operations management services, including the tracking and reporting of any issues.

Deliverable 36 Monthly Operations Monitoring Report

Contractor is responsible to report monthly on all issues and problems that occurred during the month. The report shall be in a format and medium that is approved by the AVID Project Team.

5.8.4 Subtask 8.4 Report Creation and Maintenance

The Contractor shall implement AZSOS and county requests for custom report creation and maintenance. Responsibilities include:

- Providing an inventory of all reports in AZSOS and County production environment
- Modifications to existing production reports to address AZSOS and County requests





- Changes required for release upgrades and content updates
- Troubleshooting issues with custom reports in production
- Modifying and testing reports

For each custom report request, the Contractor shall work with AVID Project Team to prioritize requests and provide an estimated time to implementation. Additionally, the Contractor shall assist AZSOS and counties in defining the requirements for the report request.

5.8.5 Subtask 8.5 System Incident Resolution

Maintenance and Operations of the system includes software faults that are not a part of the scope of the original development effort. All incidents that occur as part of ongoing operations shall be addressed and resolved within a reasonable time frame as per the SLRs described in Section 6 Performance Measures and Associated Remedies.

Deliverable 37 Tier 2 System Incident Reports – M&O

All incidents that occur during the Base and Optional Extension M&O periods shall be documented and communicated with the AVID Project Team within a reasonable, agreed upon timeframe, on a regular basis. The incident report shall contain the severity of the incident, a description of the incident, incident resolution status, and the proposed course of action for remedying all open incidents.

5.8.6 Subtask 8.6 User Training

The contractor shall provide end user training. This training shall occur on a semi-annual basis or in conjunction with the delivery of new releases to provide training to new associates, associates in new roles, and refresher updates to associates.

This training could be provided on site at AZSOS, at the counties, remotely, web based or in other formats mutually agreed upon by AZSOS and counties.

Deliverable 38 User Training

Training shall be provided in the format and forum shall be mutually agreed with AZSOS and counties.





5.8.7 Subtask 8.7 Adaptive Maintenance

All changes and fixes shall be implemented based on a mutually agreed upon schedule. All changes shall go through all phases of testing by the Contractor and AVID Project Team. The test results shall be documented and provided to AVID Project Team for approval before a decision is made to put the new release into production. All relevant system documentation shall be updated and provided to AZSOS and counties after any system changes.

Deliverable 39 Adaptive Maintenance Reports

All adaptive maintenance requests that occur during the M&O period shall be documented and communicated with the AVID Project Team within a reasonable, agreed upon timeframe, on a regular basis. The maintenance report shall contain the description of the maintenance request, resolution status, and the proposed course of action for remedying all open maintenance requests.

5.8.8 Subtask 8.8 System Enhancements

If AVID Project Team determines that system enhancements are required, it shall submit a request for those modifications to the Contractor. The Contractor shall analyze the changes and provide constructive feedback on the request along with a cost estimate for performing those changes to AVID Advisory Committee. These cost estimates shall be negotiated based on rates proposed and agreed to in the Cost Proposal. AVID Advisory Committee can then decide whether it wishes to move forward with the requested enhancements, which shall be incorporated as a change order to the contract.

Deliverable 40 System Enhancement Reports

All system enhancement requests (changes requiring 200 or more hours of effort) that occur during the M&O period shall be documented and communicated with the AVID Project Team within a reasonable, agreed upon timeframe, on a regular basis. The enhancement report shall contain the description of the enhancement request, progress, and the test results and outcome of each request.





5.8.9 Subtask 8.9 Implementation of New Releases

The Contractor shall manage and implement licensed software and third-party product revisions. The Contractor and AVID Advisory Committee shall jointly determine release schedule and time of implementation.

The Contractor shall adhere to the following process for installing a new release:

- The Contractor shall install the release to all relevant domains with AVID Advisory Committee's approval to sync all domains as necessary.
- The Contractor shall install the release into a non-production environment.
- The Contractor shall perform integration testing of releases to validate the expected functionality.
- The Contractor shall perform a regression test to ensure the release did not negatively affect current functionality.
- AZSOS and the counties shall conduct UAT testing that will include Maricopa and Pima counties and other Agencies as necessary with support from the Contractor.
- The Contractor shall resolve problems/incidents found in regression or integration testing.
- The Contractor shall provide a list of changes that may require updates to the training materials.
- The Contractor shall provide changes necessary to the User Documentation.

Deliverable 41 New Release Implementation

The Contractor shall summarize the installation of the new release. The Contractor shall provide a list of changes contained in the release to AVID Project Team.

5.8.10 Subtask 8.10 Service Level Monitoring and Reporting

The Contractor shall conduct service level monitoring and reporting that shall include:

- Ongoing monitoring of Contractor adherence to service levels
- Any issues that could impact an agreed-upon service level
- Resolution of any root-causes impacting Contractor's ability to meet agreed-upon service levels
- Providing monthly statistics and management reports to AVID Project Team on service level attainment

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Deliverable 42 Service Level Adherence Report

The Contractor shall provide a monthly report of service level adherence. The report shall be in a format and medium that is approved by the AVID Project Team.

5.8.11 Subtask 8.11 Technology Change Management

The Contractor shall establish a process for managing configuration and technology changes made to licensed software and third-party products, including:

- Configuration and technology change management procedures including submission, analysis, prioritization, and approval of requests
- Configuration and technology change approval meetings as needed (weekly)
- Execution of configuration and technology change
- Validation of configuration and technology change

The Contractor shall work with AVID Project Team to establish and mutually agree upon configuration and technology change control process.

The Contractor shall provide configuration and technology change management services including:

- Providing ongoing management, including project plans and transition plan
- Providing reporting to County on change management
- Developing a production change schedule that is agreed upon by AVID Advisory Committee
- Testing all changes to licensed software prior to moving them to production
- Testing application enhancements, error corrections, upgrades and other revisions
- Developing test scripts and test data as needed

Contractor shall report monthly on configuration and technology change management, including the tracking and reporting of any issues.

Deliverable 43 Monthly Change Management Report

Contractor shall provide a report monthly of all configuration and changes made. The format and medium shall be approved by the AVID Project Team.





5.9 Task 9 — Hosting Services

5.9.1 Subtask 9.1 Prepare Hosting Services Delivery Document

The Contractor shall develop, maintain, and update a Hosting Services Delivery document. The Hosting Services Delivery document shall include the Contractor's approach to the following:

- Transition of Licensed Software from responsibility of Contractor project implementation team to the support team providing the hosted services
- Operations and administration
- Capacity planning and management, including:
 - □ Storage, network, and processing capabilities
 - Monitoring performance
- Management of servers; including:
 - Monitoring
 - Updating
 - Optimizing performance
- Maintaining service levels
- Defining and developing alerts (network latency alert, saturation alert, etc.)
- Service level monitoring and reporting, including:
 - Alerts
 - □ Service metrics
 - Monitoring tools
 - □ Service request tracking
 - Audits
 - Processes for communicating scheduled outages
- Maintaining security, including:
 - Physical security
 - □ Logical security
 - Periodic vulnerability testing
- Preventative maintenance, including technology refreshes to remain current with applicable industry standards





- Defining procedures for backups and restores, including:
 - □ Frequency
 - Method
 - Validation
 - Defining restore checkpoints
- Providing business continuity and disaster recovery services

The Contractor shall review the draft Hosting Services Delivery document with AVID Project Team, incorporate AVID Project Team's feedback and submit a final version to AVID Project Team for approval.

Deliverable 44 Hosting Services Delivery Document

The Contractor shall complete a Hosting Services Delivery document that is approved by AVID Project Team. The format and medium of the document shall be approved by the AVID Project Team.

5.9.2 Subtask 9.2 Provide Hosting Services

Throughout the Term of the Agreement, the Contractor shall provide Hosting Services. The Contractor shall:

- Operate the licensed software and the hosting services on a 24x7x365 basis
- Provide AZSOS and counties with access to the licensed software and hosting services over a pair of dedicated network connections from the hosting environment on a 24x7x365 basis
- Provide, monitor, and maintain hosting services hardware, software, and communications infrastructure, including:
 - D Physical infrastructure for data center (e.g., facility, environment, power)
 - □ Shared networking and application infrastructure
 - □ Computer systems, network equipment, and Contractor WAN
- Manage, monitor, and maintain Contractor-owned equipment in AZSOS facilities
- Provide technical support in the installation of network termination devices
- Monitor all inbound and outbound interfaces and provide AZSOS with notice of inactive interfaces or other potential connectivity issues





Provide and maintain all licensed software, hosting software, and third-party product licenses and sublicenses, and documentation required to provide the hosting services

The Contractor shall report monthly on hosting services activities, including the tracking and reporting of any issues.

Deliverable 45 Hosting Services Monthly Report

Contractor shall provide a report monthly of hosting services activity that shall include reporting of service level adherence. The content, format, and medium shall be approved by the AVID Project Team.

5.9.3 Subtask 9.3 Maintain Security

The Contractor shall provide security management. The Contractor shall:

- Provide data center physical security measures and controls
- Provide physical and logical security of all service components (hardware and software) and data
- Monitor AVID for system security errors, exceptions, and attempted violations
- Implement and monitor network intrusion and virus detection systems throughout hosted services network and computing infrastructure
- Provide and maintain virus protection
- Report security violations to AVID Project Team
- Provide and maintain all documentation required for security audits and internal control and control testing

Deliverable 46 Security Issue Report

Contractor shall provide a report, as needed that outlines any security breaches, intrusions, and issues. The content, format, and medium shall be approved by the AVID Project Team.

5.9.4 Subtask 9.4 Conduct Backups and Restores

The Contractor shall conduct the backups and restores. Backups shall occur on an agreed upon schedule and shall include:

Regular backups of all AVID data

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- Backups of licensed software and third-party products
- Backup validation

Deliverable 47	Backup Validation Report

Contractor shall provide AVID Project Team with monthly reports certifying successful backup validation. The format and medium shall be approved by the AVID Project Team.

5.9.5 Subtask 9.5 Business Continuity and Disaster Recovery

Contractor shall provide prioritized business continuity and disaster recovery services for the hosting services and associated infrastructure (e.g., servers, network connection). The Contractor shall:

- Develop and maintain detailed business continuity and disaster recovery plans
- Review and update the business continuity and disaster recovery plans on at least an annual basis
- Develop action plan to mitigate risks and issues discovered during the business continuity and disaster recovery plan review
- Provide the AVID Project Team with copies of all updates to the business continuity and disaster recovery plans
- Perform an annual full system and database check

Contractor shall initiate the disaster recovery plan in the event of a disaster recovery situation and notify AVID Project Team per the agreement and disaster recovery policies and procedures.

Deliverable 48 Business Continuity and Disaster Recovery Plans

Contractor shall provide AVID Project Team with detailed business continuity and disaster recovery plans. Additionally, these plans shall be updated annually.




5.10 Task 10 — Project Completion

Upon the completion of the Warranty and Base Maintenance and Operations Periods, the Contractor shall perform all activities necessary to close out the project. This includes updating and transferring all system documentation to AVID Project Team and performing formal contract closure.

5.10.1 Subtask 10.1 Project Closeout Check List

The Contractor shall provide a project closeout check list that shall at a minimum include a list of deliverables, documentations accepted, list of any outstanding issues with a related plan for remediation, and final acceptance. The project closeout check list shall be in the form and format agreed to by the AVID Project Team.

Deliverable 49 Project Closeout Check List

The Contractor shall provide a project closeout check list that identifies that all tasks have been completed, all deliverables have been accepted, and the completion of activities that needed to be completed to officially close the AVID project. The project closeout checklist shall be in the format agreed to by the AVID Project Team.

5.10.2 Subtask 10.2 Transfer of Materials

At the completion of the project, the Contractor shall conduct a review with the AVID Project Team and identify any documentation that shall be updated because of changes during the Warranty Period or M&O Period(s). The Contractor shall be required to update the documentation and provide them to AVID Project Team for review and final acceptance.

The Contractor shall identify any of AZSOS' or County's proprietary documentation and return it to AZSOS and the counties. Any electronic copies of proprietary information stored on Contractor equipment shall be deleted or transferred back to AZSOS and the counties.

The Contractor shall release the source code for all interfaces developed in this project, specifically for Arizona, to AZSOS at completed milestones with a complete set of documented source code for them. As part of the transfer of source code, the Contractor shall conduct a high-level workshop with AVID Project Team explaining the structure of the source code and how to navigate and find key aspects of the system functionality within the code.





5.10.3 Subtask 10.3 System Documentation Updates

The Contractor shall make updates to any of the system documentation (operations, training, security, design, requirements, etc.) to reflect any changes that have occurred during the Warranty or M&O period(s).

Deliverable 50 Updated System Documentation – Project Closeout

At the completion of the Warranty or M&O period(s), the Contractor shall conduct a review with the AVID Project Team and identify any documentation that shall be updated as a result of changes during the Warranty or M&O Period(s). The Contractor shall be required to update the documentation and provide them to the AVID Project Team for review and final acceptance.





6.0 Performance Measures and Associated Remedies

The State shall monitor the performance of the contract issued under this RFP. All services and deliverables under the contract shall be provided at an acceptable level of quality and in a manner, consistent with acceptable industry standards, customs, and practice.

The table below lists the performance areas with Service Level Requirements and the associated business goals and related definitions:

Service Category	Service Level Requirement Focus	Business Outcome/Goal & Relevant Definitions
Project	Virus Contamination	Maintain a virus-free technical infrastructure.
Management	Formal deliverables and key plan dates	Proactively manage risks so that scheduled milestones are met.
Testing	Quality of Code Delivered to AVID Project Team for Testing	System code delivered to AVID Project Team for UAT testing shall be high-quality with a minimum number of issues that are uncovered in the UAT environment.
	UAT Defect Resolution Times	 in the UAT environment. Timeline requirements for response and resolution of defects identified in UAT based on Priority*. a. 1 = Major malfunction of the system. Testing cannot continue until problem is resolved. b. 2 = Major malfunction of component. Testing cannot continue until problem is resolved. c. 3 = Function within component is not working correctly. Testing can continue with other functions within the component. d. 4 = Component has a minor editing error e.g. misspelling on report or display. Error does not affect the function or validity of the test but shall need to be corrected before production. e. 5 = Issue is a design clarification or implementation issue that the State or the

 Table 11.
 Performance Areas with Service Level Requirements





Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration State Procurement Office 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

Service Category	Service Level Requirement Focus	Business Outcome/Goal & Relevant Definitions
Production / M&O	System On-line application response time	Ensure that system online response time is not adversely affected by system code changes once released into production. Proactively pursue opportunities to improve system performance.
	System on-line application availability	Ensure that system availability is not adversely affected by system code changes. Proactively pursue opportunities to reduce risks to system availability.
Software Maintenance Request Resolution Times		 Time Frame requirements for resolution of Maintenance Requests based on Severity*. a. Severity 1 – The system no longer functions at all, or a system component is unavailable to more than 20% of active production users. b. Severity 2 – Any defect that only affects less than 20% of the system functionality or less than 20% of active production users. c. Severity 3 – The system can function with a temporary workaround.

*Please note that 'Priority' is used for defects uncovered during UAT testing phase, and 'Severity' is used during production phase to distinguish the relative importance and response time requirements for the type of defect encountered.

The following is a list of the Service Level Requirements (SLRs) and the associated reporting requirements:

Table 12.	Service Level Requirements and Associated Requirements
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SLR Name	Service Level Requirement	Measurement of Noncompliance	Frequency of Measurement
Virus Contamination	All software developed and delivered by the Contractor shall be free of viruses.	Each virus that is included in software developed and delivered by the Contractor.	Monthly
Formal Deliverables and Key Plan Dates	The Contractor shall meet dates for deliverables and key plan dates as agreed to in the approved project work plan deliverable.	Each calendar day beyond the key plan due dates specified in the project work plan.	Monthly





Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration **State Procurement Office** 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

SLR Name	Service Level Requirement	Measurement of Noncompliance	Frequency of Measurement
System On-line Availability	The system shall be available 99.99% of the time.	Each percentage point less than the 99.99% availability for the month.	Monthly
System On-line Application Response Times	An average response time of 0.3 seconds for a screen interaction, with a maximum response time of < 0.5 seconds for frequently used functionality.	Each .5 second that the monthly weighted average response time exceeds the maximum response time.	Monthly
Production Environment	The system shall be available 99.99% of the time.	Each percentage point less than the 99.99% availability for the month	Monthly
Development and Test Environment	The system shall be available 99.9% of the time.	Each percentage point less than the 99.9% availability for the month	Monthly
Production Storage Area Network (SAN) Availability	Shall be available 99.99% of the time.	Each percentage point less than the 99.99% availability for the month	Monthly
Development and Test Storage Area Network (SAN) Availability	Shall be available 99.9% of the time.	Each percentage point less than the 99.9% availability for the month	Monthly
Individual patches and requisite patches	Same Calendar Day as signoff by State, completed within Availability SLRs Installation shall be within the SLR 95% of the time	Total number of events completed within Performance Target ÷ Total number of events scheduled, due or required	Monthly
Service packs and updates to "dot" releases	Within 5 Calendar Days of signoff by State. Required downtime is outside of the normal Availability SLRs. Installation shall be within the SLR 95% of the time.	Total number of events completed within Performance Target ÷ Total number of events scheduled, due or required	Monthly
Version or major release updates	Within 5 Calendar Days of signoff by State. Required downtime is outside of the normal Availability SLRs. Installation shall be within the SLR 95% of the time	Total number of events completed within Performance Target ÷ Total number of events scheduled, due or required	Monthly





Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration **State Procurement Office** 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

SLR Name	Service Level Requirement	Measurement of Noncompliance	Frequency of Measurement
Software Maintenance Request Resolution Times: Severity 1 - Emergency	The service provider shall resolve Severity 1 Maintenance requests within 4 clock hours.	Each clock hour beyond the requirement for resolving Severity 1 Maintenance requests.	Monthly
Software Maintenance Request Resolution Times: Severity 2 - Urgent	The service provider shall resolve Severity 2 Maintenance requests within 8 clock hours.	Each clock hour beyond the requirement for resolving Severity 2 Maintenance requests.	Monthly
Software Maintenance Request Resolution Times: Severity 3 - Important	The service provider shall resolve Severity 3 Maintenance requests within 3 calendar days.	Each calendar day beyond the requirement for resolving Severity 3 Maintenance requests.	Monthly
Quality of Code Delivered to UAT	All priority 3 or higher defects (testing defects) resulting from software development activities shall be resolved by the Contractor prior to the software going to UAT and prior to deployment to production.	Each priority 3 or higher defect that is uncovered in UAT.	Monthly after start of the UAT
Defect-Free Changes Incidents Caused by Changes	98% of Changes are implemented with no Defects being determined	Defect-Free Changes: [Total number of Changes that are not associated with any Defect within the Warranty Period] divided by [Total number of Changes where the Warranty period expires within such month] multiplied by 100 = [percentage of Defect-free Changes during such month].	Monthly





Solicitation No. ADSPO17-00007130 Description: Access Voter Information Database (AVID) Arizona Department of Administration **State Procurement Office** 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

SLR Name	Service Level Requirement	Measurement of Noncompliance	Frequency of Measurement
Invoicing Accuracy	100% of Invoices submitted on time that contain no errors billing calculations and application of any fee reductions	Invoice is submitted on time with no errors	Monthly





7.0 Proposed Project Organizational Approach

7.1 AVID Project Team Responsibilities

A high level list of AVID Project Team responsibilities includes the following:

- AVID Project Management
 - □ Maintains an Executive Committee
 - Maintains the Advisory Committee comprised of representatives from all stakeholder areas
 - Derived an AVID Project Manager
- AVID Core Team
 - Comprised representatives from AZSOS and counties
 - Participates in design workshops
 - □ Reviews and validates requirements and functional design
 - Provides consultation related to business processes
 - Participates in testing phases
 - □ Assists in communication with all County representatives

7.2 Contractor Responsibilities

A high-level list of Contractor responsibilities includes the following:

- Creating a detailed project timeline
- Reporting project progress
- Developing and verifying detailed functional and technical requirements
- Designing the new System
- Developing the new System
- Developing SDLC test plan and document life cycle testing results
- Converting data from the existing systems for use in AVID
- Writing technical and user documentation
- Installing hardware and software to support the System
- Developing any necessary interfaces to other systems
- Developing User Acceptance Test (UAT) Plan
- Preparing AVID UAT Team and conducting UAT





Arizona Department of Administration State Procurement Office 100 N 15th Ave., Suite 201 Phoenix, AZ 85007

- Developing Deployment and Training Plan
- Technical and End User Training
- Implementing deployment rollout of the new System
- Hosting and support of AVID in the defined environment

7.2.1 Contractor Staff Roles

Contractor shall provide necessary resources as needed throughout the contract period (implementation and maintenance and operations. No key personnel can be added or removed without AVID Project Management Team expressed approval.

Contractor Project Manager — Experienced Contractor Project Manager is critical to the success of the AVID project. It is the Contractor's Project Manager who is responsible for ensuring that the project is deployed on time, within budget and meets the functional and non-functional requirements.

Contractor Staff Roles — Contractor staff shall be available to participate in projectrelated meetings as scheduled by AVID project. On-site work shall be performed during normal business hours, 8:00 AM until 5:00 PM Mountain Standard Time.

Contractor Account Manager — Experienced Account Manager shall be assigned and available to support AZSOS and counties. The Account Manager needs to be available during normal business hours, 8:00 AM until 5:00 PM Mountain Standard Time, extended hours may be necessary during peak or critical election time periods.





8.0 Definitions

The following terms shown below in bold print and defined in italics, whether used in this RFP or a Contract resulting from this RFP, shall be defined and interpreted as follows:

- Affidavit: An affidavit is a written sworn statement.
- AVID: Access Voter Information Database.
- AVID Advisory Committee: Advisory Committee provides consultation and advice to the AVID Project Management Team and is comprised of representatives from county Recorders, county voter registration super users (SMEs), AZSOS, Arizona Motor Vehicle Division, and Arizona Department of Administration.
- AVID Project Team: Comprised of representatives from AZSOS and counties.
- AVID Project Management Team: Management team for the AVID project that is comprised of representatives from AZSOS and counties.
- **AZSOS:** State of Arizona Office of the Secretary of State.
- Ballot Style: A version of the ballot that is specifically for a party, district, precinct, or election.
- **Canvass of the Vote:** The canvass is a period following the election in which vote tallies are completed, and results become official and final.
- Citrix: Provides desktop virtualization by running PC applications, or entire PC desktops, on a centralized server while accessing them remotely from users' devices. This model simplifies deployment and provides additional security, but incurs additional licensing fees.
- Contract or Agreement: The particular Contract executed by the Contractor and the State, as a result of an award pursuant to this Request for Proposal, and of which this Request for Proposal shall be a part. "Contract" and "Agreement" may be used interchangeably.
- **Contractor:** The person, partnership, firm or corporation to whom this Contract is awarded by the State as a result of this Request for Proposal.
- **COTS:** Commercial off the shelf.
- District: Area of a state, county, or city marked off for administrative, electoral other purposes (i.e. schools, fire, legislative, congressional)
- *DL or DLN:* Driver's license number.
- Duplicate Records: Two records that contain identical information for some or all the data elements used for matching (name, date of birth, driver's license number, SSN4)





- **Early Ballot:** A ballot submitted (as by mail) in advance of an election by a voter.
- Early Voter: A voter who chooses to submit (as by mail) his or her ballot in advance of Election Day.
- **Early Voting:** Voting conducted in 27 days before Election Day.
- Electronic PollBook: Refers to a device, typically a tablet or specialized device that receives the roster of registered voters for a polling location and enables the pollworker to use it to determine a voter's eligibility to vote and the ballot that the voter is eligible to cast.
- Elections Management Module Export: Export of election-related data for use by external elections management systems.
- **EZVoter:** A web application that captures voter registration transactions on Service Arizona and delivers them to VRAZ-II.
- **Felon:** Person that has been convicted of a felony.
- **FTPS: Secure** File Transfer Protocol is a standard network protocol used to transfer computer files between a client and server on a computer network.
- HAVA: Help America Vote Act of 2002
- HAVV: Help America Vote Verification The States are required to verify the driver's license number against the state motor vehicle database. The State submits the last four digits of the SSN, name, and date of birth to the MVD for verification with Federal Social Security Agency (SSA). In addition, SSA is required to report whether its records indicate that the registrant is deceased. To ensure the privacy of the SSN, HAVA restricted the collection to only the last four digits of the SSN. To comply with the requirements of Section 21083 of HAVA, SSA developed a new verification system, known as the Help America Vote Verification (HAVV) system, in August 2004. The State must only submit a request to HAVV for new voters who do not present a valid driver's license during the voter registration process. HAVV verifies the accuracy of the name, date of birth, and last four digits of SSN submitted and sends an indication of whether SSA records show the individual as deceased.
- HEI: HAVA Exceptions Interface HAVA required processing of voter registration records against felon/courts, death records, and MVD to process matches. HEI contains additional functionality to allow Maricopa and Pima counties to have access to registrant data. Whenever there is a transfer between Pima, Maricopa and the other 13 counties, it is used to adjudicate differences, combine records, etc. HEI helps Recorders to work exceptions and act on them.





- Hybrid Precinct/Hybrid Vote Center: A vote center that allows voters in certain precincts to vote at that location but does not allow all voters in the county to vote at that location.
- Incapacitated: Person who is adjudicated (court ordered) or impaired by reason of mental illness, mental deficiency, physical illness or disability, chronic use of drugs, chronic intoxication, or other cause resulting in their right to vote being revoked
- Jurisdiction: A closed boundary designated for some governmental purpose including Congressional, Legislative, county, and municipal boundaries, as well as districts for water, fire, school, etc.
- **MVD:** State of Arizona Motor Vehicles Department (ADOT).
- NVRA: National Voter Registration Act of 1993, aka The Motor Voter Act was federal legislation signed into law by President Bill Clinton on May 20, 1993, and took effect on January 1, 1995. The law expanded voting rights by requiring state governments to offer voter registration opportunities to any eligible person who applies for, or renew a driver's license or public assistance, requiring states to register applicants that use a federal voter registration form to apply, and prohibiting states from removing registered voters from the voter rolls unless certain criteria are met.
- Other 13 Counties: The 13 Arizona counties that directly use VRAZ-II as their Voter Registration/Election Management System. Maricopa and Pima counties each use a custom voter registration system that is interfaced to VRAZ-II. The other 13 counties are comprised of: Apache, Cochise, Coconino, Greenlee, Gila, Graham, La Paz, Mohave, Navajo, Pinal, Santa Cruz, Yavapai, and Yuma.
- PDF: Portable Document Format is a file format that provides an electronic image of text or text and graphics that looks like a printed document and can be viewed, printed, and electronically transmitted.
- **PEVL:** Permanent Early Voting List A voter's choice that indicates the wish to permanently receive their ballot by mail.
- **Pollbook:** An official signature roster listing registered voters in a given area. The pollbook records the signature indicating that the person is voting in the election.
- **Poll Site:** Also called a Polling Place is a physical location where voting takes place during an election.
- Pollworker: Inspectors, marshals, judges, and Clerks. While Inspectors serve as supervisors and marshals for the polling locations, Clerks assist with a variety of conventional tasks.





- PowerProfile: Voter registration and election management application provided by ES&S that enables election officials to register voters and conduct elections from a central data store.
- Precinct: A geographic area in US voting subdivisions, in which local party officials are elected. A precinct usually has from 50 to 2,000 voters in it.
- Proposer: The person, firm or corporation who is responding to this Request for Proposal as a primary contractor.
- PRR: Public Records Request; PRR requests are typically for campaigns, political parties and political organizations.
- SAVE: Systematic Alien Verification for Entitlements A program of the United States Citizenship and Immigration Services which provides county Recorders with access to information contained in the Verification Information System (VIS) database. SAVE facilitates lookups on the immigration and nationality status of individuals in the United States.
- ServiceArizona: ADOT (Arizona Department of Transportation) website where Arizona residents can access links to all on-line services, such as vehicle registration renewals, personalized license plates and voter registration, eliminating the need to visit a physical office.
- Signature Roster: An official register listing registered voters in a given area. The signature roster records the signature indicating that the person is voting in the election.
- **SSN4:** The last 4 digits of the SSN.
- State: The State of Arizona.
- Statement of Work (SOW): Defines project-specific activities, deliverables and timelines for a vendor providing services to a client.
- Superior Court: A court of general jurisdiction, often a trial court for a county or municipality.
- **UOCAVA:** Uniformed and Overseas Citizens Absentee Voting Act.
- U.S. District Court: United States district courts are the general trial courts of the United States federal court system.
- Vote Center: Vote centers are an alternative to traditional, neighbourhood-based polling places. When a jurisdiction opts to use vote centers, voters may cast their ballots on Election Day at any vote center in the jurisdiction, regardless of their residential address. Eleven states now either permit jurisdictions to replace





precincts with vote centers, or have authorized vote center pilot projects in selected jurisdictions.

- Voter History: Record of the elections in which a registered voter has participated and what method they voted.
- Public Portal: Website provided in conjunction with PowerProfile by the AZSOS where Arizona residents can view their registration status, political party affiliation, name and address of their assigned polling place, and districts where they are eligible to vote. Additionally, the registered voter can view the status of their ballot (both provisional and early ballot).
- VRAZ-II: Replaced VRAZ in 2006/2007. The 13 counties implemented an individual instance of PowerProfile with a central database intended to consolidate voter registration data from all 15 counties. Maricopa and Pima counties retained their existing voter registration systems.
- Web Services Popular style for real-time Application Programming Interfaces (APIs) over standard internet protocols. Leverages XML structures to exchange data between systems. VRAZ-II web services are deployed within JBoss. VRAZ-II also consumer MVD web services.

