

# State of Delaware

# Request for Proposals for Professional Services GSS18809-ELECTION\_SYS

### <u>COPY</u>

Prepared for: State of Delaware

Michael Bacu

Address: Government Support Services

100 Enterprise Place, Suite 4

Dover, DE 19904

Prepared by: Mark Beckstrand

Email: mark.beckstrand@dominionvoting.com

Phone: (828)301-7670

Due Date: January 18, 2018 (3:00 pm EST)

This page left intentionally blank. 

## **Transmittal Letter**

On the following pages, Dominion has provided the transmittal letter to meet the State of Delaware's specifications.





January 18, 2018

To: The State of Delaware Department of Elections

From: Dominion Voting Systems, Inc.

RE: Request for Proposals for Professional Services, Election System Solution, Issued by Government Support Services, Contract Number GSS18809.

Please accept the formal proposal document attached hereto, as our most responsible attempt to meet the needs and expectations of the State of Delaware Department of Elections, the Commissioner of Elections, the New Castle, Sussex, and Kent County Departments of Elections, and the voters, poll workers, and citizens of the State of Delaware.

As a full service election solutions provider, we have put forth every effort to offer a cost efficient, secure, user friendly, and comprehensive voting system configuration, given the stated requirements, methodology options, and system parameters, as outlined in the Request for Proposal.

Included in our response are the required documents and forms, such as the Transmittal Letter, our carefully prepared responses to the RFP questions, the detailed pricing section, an item by item description of our industry leading 2005 EAC Certified Democracy Suite Voting System, and a description of our professional and personal support services, along with verification of the compliance and regulatory guidelines as required by the Request for Proposal.

Additionally, as required in the instructions for the Transmittal Letter, we are listing Dominion's exceptions that we respectfully request the state consider when evaluating our response. Exceptions include the following which are explained in more detail in the Exceptions document, Section 3 *Attachments*:

- 1) Appendix G Sample Professional Services Agreement Dominion has noted several provisions in the sample services agreement for your consideration that we are willing to discuss in more detail to come to mutually agreeable terms. As noted on our exceptions form, Dominion understands that the Sample Contract provided in the RFP is an Information Technology template, written broadly to work with different types of vendors and technology. However, there are very unique considerations to a voting system, licensing and service agreement, such as State certification of equipment, closed system networks, software licensing (not work for hire custom software), IP ownership and many other items, which Dominion believes requires discussions and further modifications.
- 2) Appendix B Scope of Work Certification The ImageCast 40" Full Face proposed solution will not be certified at the time of award; however, we do expect certification to be achieved in the late 2018/early 2019 timeframe.



3) RFP Main Document – Performance Bond – Dominion has provided a performance bond in the form of an annual renewal bond.

Dominion also attests that we will not store or transfer non-public State of Delaware data outside of the United States.

As a responsible system provider and who relies heavily on prior experience and a "best practices" approach, we base our recommendations on our direct and personal experience working with the State of Delaware Department of Elections and the three individual county election offices. This long term relationship and practical understanding of Delaware's unique and distinctive election needs, presents the customer with the best chance for success and ultimately, complete confidence in Dominion as a trusted partner.

In this case as in every case, we place cost below accuracy, transparency, responsible supervision, and goal attainment. Regardless of which system composition is ultimately selected and installed, the State of Delaware will receive the same comprehensive training, project oversight, and implementation services that separate Dominion from all others in the voting systems marketplace.

Our products are designed, engineered, and manufactured in North America by a team of election professionals whose cumulative experience is unmatched and far exceeds any other election systems provider.

Our company credo is "Our Customers Come First", a statement that reflects our around the clock availability, our dedication to product life cycle management across multiple product lines, and our willingness to listen, learn, and apply practical election related knowledge to every situation. Therefore, our mission and our objective is not only meeting the baseline requirements, but exceeding them.

We remain confident that the voters of Delaware will be well served by the hand-picked Dominion Voting Systems project management, implementation, and customer support team, with their vast election system solutions expertise, some of which is attributed to working with New Castle, Sussex, and Knox counties.

Once again, we are grateful for the chance to participate in this RFP process, and thank you for the opportunity to put this plan into action, thereby securing a safe and secure voting system future for your citizens. We look forward to extending our long and mutually beneficial relationship between Dominion Voting Systems and the State of Delaware.

Sincerely yours,

Mark W. Beckstrand Regional Sales Manager

Dominion Voting Systems, Inc.





# **Table of Contents**

Transmittal Letter	3
Required Information	8
Section 1 - Licenses and Certifications	9
Section 2 - Scope of Work	12
Appendix B, Part 1: General Information	12
Appendix B, Part 2: Voting Machines	57
Appendix B, Part 2a: General Election Deployment Data	88
Appendix B, Part 3: Electronic Poll Books	89
Appendix B, Part 4: Elections Management	104
Appendix B, Part 5: Voter Registration	129
Appendix B, Part 6: Absentee Voting	180
Section 3 - Attachments	193
Section 4 - Proof of Insurance	202
Pricing Submission	212

# **Required Information**

The following information shall be provided in each proposal in the order listed below. Failure to respond to any request for information within this proposal may result in rejection of the proposal at the sole discretion of the State.

Dominion has reviewed and fully understands the minimum requirements for proposal submission. Based on the specific instructions to submit our proposal in the order requested, we have broken our response into 4 main sections that observe the minimum requirements and maintain the following order:

Section 1 – Licenses and Certifications

Section 2 – Scope of Work

Section 3 – Attachments

Section 4 – Proof of Insurance



### **Section 1 - Licenses and Certifications**

1) Provide Delaware license(s) and/or certification(s) necessary to perform services as identified in the scope of work.

Dominion is proposing Democracy Suite Version 5.5 for the State of Delaware's Election System Solution. Democracy Suite Version 5.5 is currently undergoing the certification process with the Elections Assistance Commission. Certification will be complete in the timeframe as provided by the State of Delaware. Dominion's primary solution is the ImageCast 40" Full Face model which we are anticipating an EAC certification date in late 2018. This system will be fully certified ahead of the State of Delaware's first use in September 2020.

In addition, Dominion is offering several alternative solutions as detailed in Appendix B, Part 2 Voting Machines as well as Section 3, *Attachments* and separately priced according to the RFP requirements. The alternative solutions are currently certified under Democracy Suite Version 5.0.

Below we provide a copy of our EAC certificate in its current standing.

ASSISTANCE COLUMN STATE OF STA	United States Election Assistance Comm	nission VVSG 2005 VER.	
	Certificate of Conformance		
STATES OF AMERICA	<b>Dominion Democracy Suite</b>	e 5.0	
The voting system identified on this certificate has been evaluated at an accredited voting system testing laboratory for conformance to the 2005 Voluntary Voting System Guidelines (2005 VVSG). Components evaluated for this certification are detailed in the attached Scope of Certification document. This certificate applies only to the specific version and release of the product in its evaluated configuration. The evaluation has been verified by the EAC in accordance with the provisions of the EAC Voting System Testing and Certification Program Manual and the conclusions of the testing laboratory in the test report are consistent with the evidence adduced. This certificate is not an endorsement of the product by any agency of the U.S. Government and no warranty of the product is either expressed or implied.			
	y of the product is either expressed or implied	l.	
Product Name: Democracy		P	
ernment and no warranty	Suite	BDQ	
Product Name: Democracy:  Model or Version: 5.0	Suite  EV  DVS DemSuite 5.0	Executive Director  i. Election Assistance Commission	

On the following pages, we provide a letter for application approval from the EAC, verifying our movement and intent to certify the latest version of Democracy Suite and corresponding products that will be used by the State of Delaware.



### U. S. ELECTION ASSISTANCE COMMISSION

VOTING SYSTEM TESTING AND CERTIFICATION PROGRAM 1335 East West Highway, Suite 4300 Silver Spring, MD 20910

July 5, 2017

Ian Piper
Director, Federal Certification
Dominion Voting Systems
1201 18th Street, Suite 210
Denver, Colorado 80202

#### Approval of Voting System Testing Application Package

Dear Ian Piper,

The U.S. Election Assistance Commission (EAC) completed the review of the application package for Dominion Voting Systems (Dominion) Democracy Suite 5.5. The application is accepted and assigned the following unique application number: **DVS1702**.

Dominion selected Pro V&V as the lead VSTL for this testing engagement, and testing will be conducted to the VVSG 2005. If the system meets the criteria for a grant of certification, the system will be assigned the number "**DVS-DemSuite5.5**," as per your request on the application form (EAC-002C).

The Certification Program assigned Ryan Macias as Project Manager to oversee this testing engagement. The goal of the Project Manager is to facilitate the communication between EAC staff (including Technical Reviewers), manufacturer, and VSTL to optimize the efficiency of the certification process. The Project Manager will monitor the voting system throughout its life cycle in the Certification Program, and ensure the process meets the requirements of the Certification Program's manuals.

The contact information for this Project Manager is:

Name: Ryan Macias
 E-mail: rmacias@eac.gov
 Telephone: (202) 579-5496
 Fax: (202) 566-3128

In addition, the lead EAC technical reviewer assigned to this system is:

Name: Tom Caddy
 Email: tjcaddy@gmail.com

The EAC may at any time utilize additional technical reviewers to assist in the review of test plans, test cases, and test reports. All communications with the technical reviewers shall be facilitated through the Project Manager.



Finally, we strongly encourage you to regularly visit the EAC's Web site (<a href="www.eac.gov">www.eac.gov</a>) for the latest Notices of Interpretation and Clarification, news, program manuals, and updates. This information can be found <a href="here">here</a>. The information contained in the Notices of Interpretation and Clarification is critical to understanding testing standards and program requirements. It is a manufacturer's responsibility to ensure they adhere to all procedural requirements of the program.

If you have any questions or need further information about this matter, please do not hesitate to contact us at your earliest convenience. We thank you in advance for your cooperation in this matter.

Sincerely,

Brian Hancock

Director of Voting System Testing and Certification

### **Section 2 - Scope of Work**

Vendor shall provide responses to the Request for Proposal (RFP) scope of work and clearly identify capabilities as presented in the General Evaluation Requirements below.

Dominion is offering the ImageCast 40" Full Face as the primary offering to meet the election needs of the State of Delaware. We have also included information on the ImageCast X with VVPAT as an additional option. We have included these as the two responsible product offerings depending on the preferences of the State of Delaware and their installation timetable.

In addition we have included line item pricing for the ImageCast Precinct to ensure we provide the greatest amount of options to the State of Delaware. Information on the ImageCast Precinct and the ImageCast Central (our proposed Absentee Voting solution) can be found under section 3. *Attachments*, in this RFP.

### **Appendix B, Part 1: General Information**

### **Detailed Specifications**

- 1) Vendor shall provide the following to ensure strength and viability of the vendor for the duration of the voting system life expectancy:
  - a) Financial Statements subject to an independent audit with an unqualified opinion.

Dominion has provided financial statements that demonstrate our financial viability in a separate envelope, marked as confidential material.

b) Five (5) consecutive years of audited financial statements including parent company if any.

Dominion has provided the past five consecutive years of audited financial statements in a separate envelope, marked as confidential material.

c) History of statewide voting system implementation success. The successful vendor shall provide direct history of a minimum of three (3) successfully managed implementations for the main contractor and any subcontractors utilized in the response to this Request for Proposal.

Dominion has an extensive history with providing statewide voting implementations and systems to our customers. We have provided three references in Attachment 5 "Business References" of this proposal who can attest to the quality of our staff, implementations, and provided voting solutions. In addition, we would be happy



to provide any additional information or client references to the State of Delaware upon request.

### d) Employee Base and Company Size

Dominion Voting employs approximately 275 election professionals.

# e) Original equipment manufacturer for any equipment not manufactured by the vendor.

Product	Hardware/Manufacturer
ICX 40" Full Face (Advantage)	<ul><li>ImageCast X 40" Full Face</li><li>Manufacturer: AValue</li><li>Version 5.7</li></ul>
ICX with VVPAT	<ul><li>ImageCast X Tablet</li><li>Manufacturer: AValue</li><li>Model: HID-21V</li></ul>
	ImageCast X VVPAT printer:  • Manufacturer: KFI SRL  • Model: VRP3
ICC	ImageCast Central PC Workstation  • Manufacturer: Dell • Model: Dell 7440
	<ul><li>ImageCast Central Scanner</li><li>Manufacturer: Cannon</li><li>DR-G1130</li></ul>
ICP	ImageCast Precinct Scanner/Tabulator  • Manufacturer: Dominion Voting Systems • Model: PCOS 300B
ImageCast Report Printer	<ul> <li>EMS Report Printer</li> <li>Manufacturer: Dell</li> <li>Model: E310DW mono printer</li> </ul>



Election Management System Server	Election Management System Server  • Manufacturer: Dell • Model: PowerEdge R630
Adjudication Workstation	<ul> <li>Adjudication Workstation</li> <li>Manufacturer: Dell</li> <li>Model: Precision T3420</li> </ul>
Uninterruptable Power Supply	<ul> <li>Uninterruptable Power Supply</li> <li>Manufacturer: APC</li> <li>Model: APC SMART-UPS 1500VA</li> </ul>

### f) Proof of a robust support organization with a nationwide presence.

Dominion is headquartered in Denver, CO with office locations in McKinney, TX, Jamestown and Endicott, NY, San Leandro, CA, and Toronto, ON. Dominion is strategically positioned in all 4 U.S. continental time zones to support its growing customer base of over 1,200 jurisdictions in 33 states.

In addition to our growing support organization, we have a dedicated operational team to serve the State of Delaware. Below we provide some of the key team members that will be serving the State of Delaware and their constituents.

Phase	Staff Member	Years of Experience
Project Manager	Cathi Smothers	30+ years
Customer Relations Manager	Chris Williams	2 + years
Planning and Design	Darren Silverburg	10+ years
Customization	Darren Silverburg	10 + years
Implementation and User	Jason Frank	11+ years
Acceptance		
Training	Darren Silverburg SW.	10+ years
	Tim Baumbach HW	17 + years
Closeout and Final User	Jason Frank	11 + years
	Chris Williams	2+ years

Below Dominion has provided a sample project plan. Upon contract award, Dominion will work with the State of Delaware to provide a comprehensive and detailed project plan to fit the needs of the State of Delaware.

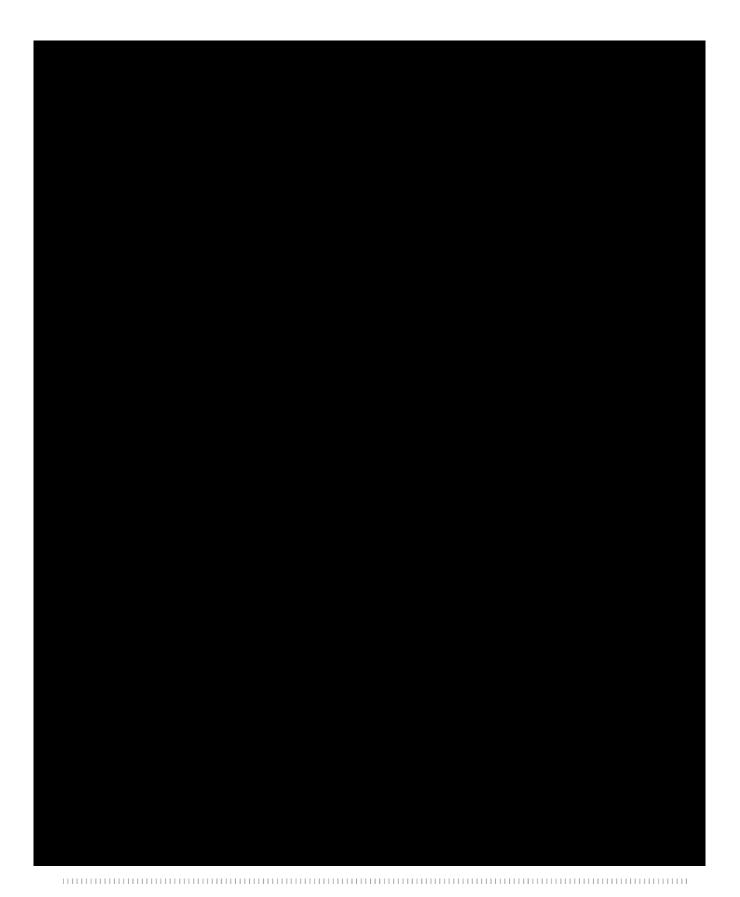


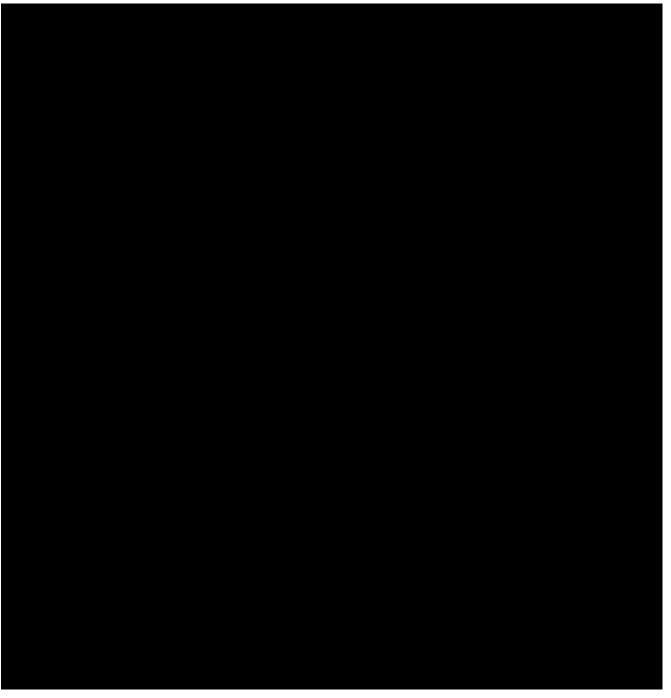
Task Mode Task Name	Duration	Start	Finish	Predecessors



Scheduled interface		







- 2) Vendor or vendors shall provide an integrated voting system that:
  - a) Allows for automation and full integration between the State's polling place equipment, absentee voting system, and election management system.

Dominion's Democracy Suite Election Management System can fully integrate with all aspects of the State's Election system, including polling place equipment and the



absentee voting system. The Democracy Suite was designed to be an all-encompassing solution for elections. The Democracy Suite was built to seamlessly interact with all facets of a state or jurisdiction's voting system, making the transition to Dominion's products smooth and easy, while still allowing the State to dictate what parameters they want to run their election under.

### b) Provides a single-point support system for all aspects of total system.

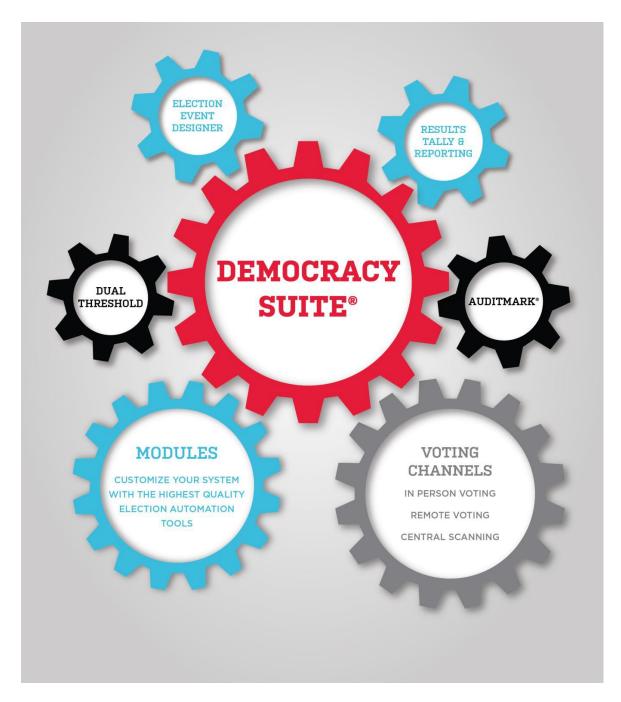
The Democracy Suite Election Management System acts as an end-to-end single-point support system. The Democracy Suite also acts as an end-to-end election technology solution. Everything from the initial steps of building an election, all the way to auditing post-election results is streamlined into one easy to use and navigate system, the Democracy Suite.

Dominion will be providing a dedicated Customer Relations Manager for the State of Delaware to ensure the project is delivered on time, to budget and to the required quality standard within the agreed upon specifications. The CRM will be responsible for managing consultants and allocating and utilizing resources in an efficient manner while maintaining a cooperative, motivated and successful team.

### c) Provides for seamless data exchange between system components.

The Democracy Suite system allows and is designed to exchange data seamlessly between its various components. Dominion has provided the following diagram that shows the system's components and the communication channels between each system at a very high-level.





# d) HAVA compliant and must meet all applicable accessibility laws and guidelines.

Dominion's proposed system is fully compliant with accessibility requirements. All ImageCast products feature the latest technological advances in accessible voting technology, providing more options for voters with accessibility needs to vote privately and independently.



The Advantage was designed to accommodate a standard 3.5 mm stereo jack interface to support a variety of accessible device inputs including Left-Right paddles, Jelly Switches, and Sip and Puff devices. This provides support for the vast majority of the accessibility community to "bring their own device" for assistive use as the 3.5 mm jack is the predominant interface used.

In addition, Dominion has included its Remote Accessible Vote By Mail/UOCAVA solution as an additional option for voters with accessibility needs. Some states, like California have adopted this model where a voter can vote at home using their own accessibility devices and it is included as part of our solution, should the State of Delaware choose to implement its fully integrated functionality.

Ballot audio options are configurable to allow instructions to be repeated. Customers can define the number of times the instructions will repeat, the repeat delay, and voter inactivity timeout.

Dominion offers a variety of methods for creating audio ballot files. Available options include, direct recording of audio content, importing professionally recorded audio, or synthesizing audio with a Text-to-Speech engine.

e) Carries out election processes completely and accurately during the entire system lifecycle

Democracy Suite is a modular system and our proposed implementation plan will see the State of Delaware's system be modified, upgraded, and expanded on a



component basis throughout the lifecycle of the project. To ensure that election processes are carried out both accurately and completely. Elections of all sizes in multiple jurisdictions can attest to our election solutions being verifiably and securely accurate. This has been proven through certification testing of several iterations of the Democracy Suite solution proposed as well as years if use in elections across the United States.

### f) Has equipment that is well-built, rugged, easily maintained.

All Dominion equipment is well-built, rugged, and easy to maintain.

Dominion and its team will address on-going support, repair, and preventative

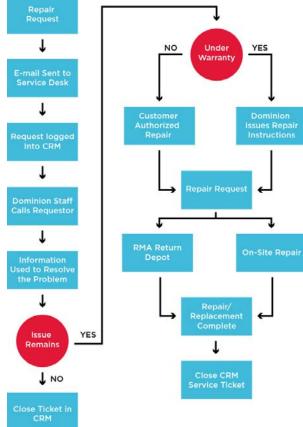
maintenance in a comprehensive and effective manner as characterized by the following:

- **Engineering** Key components are designed with redundancy.
- Manufacture All components are manufactured using ISO 9001 practices.
- **Design** The solution architecture is redundant (redundant servers, redundant storage, etc.)
- **Warranty** We provide hardware and software warranty to meet customer specification.
- Preventative Maintenance Dominion will provide technical training to Delaware in order to ensure proper functioning of voting equipment
- Repair Dominion maintains a warehouse in Oswego, NY with an inventory of all parts and supplies needed and can respond quickly should a need arise.
- Readiness During the identified pre-election period, Dominion and its team will comply with requirements for enhanced response time to warranty requests.
- warranty requests.

  Tracking and Reporting Dominion utilizes its Customer Relations Management system (CRM) to oversee repair and maintenance issues. This is the same ticket tracking system that is used for problem escalation.

DOMINION VOTING

Dominion and its team use a Customer Relations Management system (CRM) database to capture service calls to ensure all issues are resolved effectively. Once a call/email is received, a work ticket is created and the initiating party will be contacted by a member of the service team.



Initial contact will be established after notification. At that time, additional troubleshooting instructions may be provided to help the service team better respond to the failure or defect. If the defect or failure cannot be addressed in this manner, a service representative will make the appropriate arrangements for resolution. The diagram on the previous page summarizes this process.

If a failed component is under warranty, a Dominion technician will schedule an onsite visit to repair / rectify the defective or failed component. Where a failed or defective component is not covered by warranty, a request for an on-site visit to assess and repair the failed / defective component may be made.

Dominion will provide on-going support to State officials and collaborate with other Project Managers in the timelines agreed between the State of Delaware and Dominion Voting in order to ensure proper project oversight and prompt problem resolution.

g) Has components that are interoperable and have a data structure with a mechanism that easily exports data in user defined or common data formats (when established by the US EAC).

The products proposed are all designed within the Democracy Suite EMS environment and are integrated and interoperable by design.

h) Allows the State to effectively and efficiently audit election results while maintaining secrecy of the ballot.

Dominion understands that for a voting system to be trusted, it must be subject to confidence-building audit procedures. The primary solution of the ICX 40" Full Face will have undergone and completed EAC certification as required for a voting system to be in operation in the State of Delaware by the time of first use. The company has submitted itself to numerous external audits to verify the security and accuracy of the system – all such audits were completed to the satisfaction of the auditors. These audit reports are available upon request.

Dominion will be pleased to work with the State to determine the breadth, scope and appropriate processes, procedures and standards to be used for auditing the Democracy Suite voting system. With respect to risk-limiting audits – a specific type of audit relevant to voting tabulation systems – Dominion has tolls already in place to facilitate this type of auditing technique.

At the heart of Dominion's Democracy Suite system, we emphasize transparency. Every single ballot in the election is imaged and appended with Dominion's patented AuditMark, a record of how the system interpreted the voter's selections. This ballot-level audit trail allows election officials and other stakeholders to review not only the ballot images, but also the tabulator's interpretation of each ballot.

Each image is labeled with the tabulator, batch, and sequence number within the batch, which corresponds to the physical ballot in the stack. The AuditMark is appended



directly to the image showing the vote was interpreted at scan time. This AuditMark will also include any adjudications applied to the ballot for voter intent. Even if ballots for a given batch are mixed after scanning, these multiple records provide a way of correlating the digital Cast Vote Record data to the image scanned and finally to the physical paper ballot. While the AuditMark allows ballot-level auditing, it is never tied to the voter, thus maintaining the secrecy of the ballot.

Dominion has developed a Ballot Audit and Review Module to assist election officials in performing election canvasses including audits and risk-limiting audits. This tool allows multiple officials to access digital ballot images with their digital ballot AuditMark records, digital Cast Vote records, and related review notes. Filtering options enable the creation of ballot review subsets for specific audit reviews, including the ability to filter images of ballots by ballot style, precinct, polling location, contest, and candidate, for the purposes of a recount or post-election audit. This tool resides in a secure post-election environment that is separate from EMS.

Dominion is happy to discuss and determine the RLA process parameters upon contract negotiations.

This Risk-Limiting Audit has been used with great success throughout the State of Colorado. Currently, Dominion is the only supplier on the market who can provide this Risk-Limiting Audit capability.

The proposed Democracy Suite system meets all Delaware requirements that a voter be able to cast a vote in absolute secrecy. The ImageCast 40" Full Face upgrade ensures that ballot choices cannot be linked to a particular individual voter, and preserves the secrecy of the vote.

 Has strong access controls that authenticates administrators, users, technicians, devices and services before giving access to sensitive functions.

The Democracy Suite integrates a role-based access control system for all software and hardware components. Each user accessing the system is the member of one of the predefined or custom-made roles. Each role has its own set of permissions, or actions that users of that role are allowed to perform. This access control approach provides authentication and authorization services and can be granular according to the jurisdiction's needs and organization.

Dominion utilizes authentication and authorization protocols that meet EAC VVSG 2005 standards. In addition, Dominion's solution relies on industry-standard security features to ensure that the correct users based on a user role or groups are granted the correct privileges. Finally, each jurisdiction is responsible for ensuring that only authorized personnel have access to both the system and tools used for installation and configuration purposes. All back end system and tabulator operations are continuously and completely logged at all times to maintain a complete record of all election-related processes.



Dominion also employs the use of smart cards as another access control that helps to authenticate administrators, technicians, and users prior to and during a voting session. Two-factor authentication needed to initialize the ImageCast machines. The poll worker will use their smart card and enter their credentials to initialize the unit and open it for standard voting.

When a voter checks in to vote, the poll worker will verify the voter's credentials and create an activation card using the smart card reader/writer which can be integrated with many commercially available ePollbook devices. The activation card is used to activate a voting session on the unit and to present the voter with the correct ballot style. No information that can identify the voter is programmed on the activation card. Once the voter has printed or cast their ballot, the activation card is inactivated and can be returned to be reprogrammed for the next voter.

### j) Has strong physical security, data protection and software integrity features.

Strong physical security, data protections, and software integrity are just a few of the robust protections built into all of the Democracy Suite products and solutions. Dominion's current certification effort is being tested to the most recent standards set for voting systems by the Elections Assistance Commission. Dominion implements security protocols that meet or exceed EAC VVSG 2005 requirements. All of Dominion's security protocols are designed and implemented to stay current with the rapidly evolving EAC security requirements set forth by various iterations of the VVSG. Dominion's security technology takes into account every aspect and every component of the Democracy Suite platform. This includes – but is not limited to – the full encryption of election projects, USB memory media, election data, software applications, elections results files, and data transmission.

### Encryption



### Audit Logs

From the initial state of the election project, until the deactivation state, the EMS system maintains an activity log, which contains every action that any of the users have performed within the system. The audit record information cannot be modified or permanently deleted. During the voting phase of the election event, ImageCast devices also keep an activity audit log which tracks events happening on the device itself.

#### Access Control



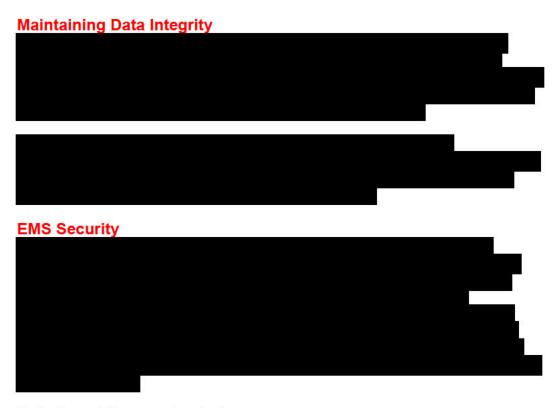
Democracy Suite integrates a role-based access control system for all software and hardware components. Each user accessing the system is the member of one of the predefined or custom-made roles. Each role has its own set of permissions, or actions that users of that role are allowed to perform. This access control approach provides authentication and authorization services and can be granular according to the jurisdiction's needs and organization.

### k) Detects, remediates, logs and reports anomalous or malicious behavior.

Dominion's Democracy Suite system and its components can detect, remediate, log and report any anomalous or malicious behavior within any and all system components. Below we provide some details regarding the Democracy Suite system's security.

All of Dominion's security protocols are designed and implemented to stay current with the rapidly evolving EAC security requirements set forth by various iterations of the VVSG.

Dominion's security technology takes into account every aspect and every component of the Democracy Suite platform. This includes – but is not limited to – the full encryption of election projects, activation cards, memory media, election data, software applications, elections results files, and data transmission. In addition, Dominion developed a custom ballot authentication system built around an optional secure ballot paper stock and in tabulator authenticators.



Role-based Access Controls



Democracy Suite integrates a role-based access control system for all software and hardware components. Each user accessing the system is the member of one of the predefined or custom-made roles. Each role has its own set of permissions, or actions that users of that role are allowed to perform. This access control approach provides authentication and authorization services and can be granular according to the jurisdiction's needs and organization. Complete user and role membership management is integrated within the Democracy Suite EMS Election Event Designer client module.

The Democracy Suite EMS platform implements role-based user management for provisioning access control mechanisms on each election project. Managing access control policies is integrated within the User Management activity of the EMS EED module. This activity is permitted only for users with administrative privileges.



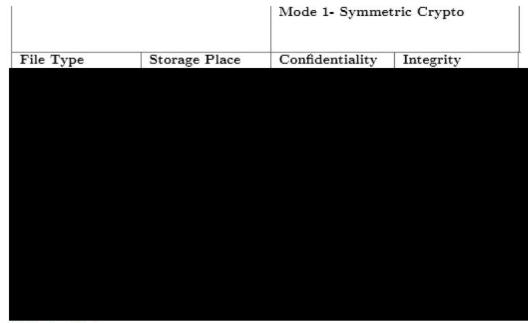
### **Effective Password Management**

Proper password management requires multiple activities and controls, namely:

- Data quality
- Utilization of one-way (hash) cryptography
- Computer generated passwords for greater entropy and protection from dictionary attacks
- Different password strength profiles for different user levels
- Utilization of hardware tokens for storing user credentials (two-level authentication security: something you know ad something you have)
- User state machine (initial, active, inactive)

All of these activities and controls are integrated within the Democracy Suite platform. Dominion utilizes authentication and authorization protocols that meet EAC VVSG 2005 standards. In addition, Dominion's solution relies on industry-standard security features to ensure that the correct users based on a user role or groups are granted the correct privileges. Finally, each jurisdiction is responsible for ensuring that only authorized personnel have access to both the system and tools used for installation and configuration purposes. All back end system, and tabulator operations are continuously and completely logged at all times to maintain a complete record of all election-related processes.





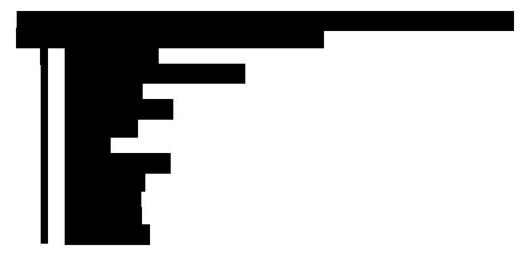
### **EMS Audit Log**

From the initial state of the election project, until the deactivation state, the EMS system maintains an activity log with the EMS database. This activity log contains every action that any of the users have performed within the system and represents a detailed audit log that can be analyzed and printed in the form of an audit report. The audit record information cannot be modified or permanently deleted using the EMS client applications. It can, however, be exported for archiving purposes as part of the record retention policy. Keeping in mind that audit log information can contain a significant amount of information, it is the responsibility of the administrative user to perform regular archiving of the log.

During the voting phase of the election event, ImageCast devices also keep an activity audit log which tracks events happening on the device itself.

### **ImageCast Tabulator Security**

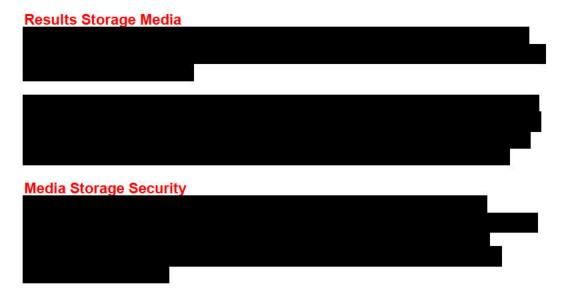




### **Internal Battery**

In the event of a power failure, ImageCast tabulator units have an internal Lithium Ion rechargeable battery with a two-hour life.

In the case of a power failure, including full power drain, restarting places the unit in "Interrupt" mode, in which the previously stored election data is reloaded when the unit resumes operation. If there is a catastrophic electrical or mechanical damage, the memory cards are inserted into a spare unit. When powered on, the unit resumes operation using the previously stored election data.



### **Tabulator Audit Trail**

The tabulator Audit trail file is stored on the Compact Flash memory card, and contains a chronological list of all messages generated by tabulator software. All audit record entries include a time-and-date stamp. This file is encrypted and digitally signed to protect its integrity.



During the final results tally activity, the automated audit log of each optical scanner is input into the EMS Results Tally and reporting system for a consolidated record.

The tabulator Audit trail file will include:

- System startup messages (recorded by Application Loader).
- System self-diagnostic messages (module initializations, security verifications).
- All administrator operations (messages include "security key" id names).
- All ballots cast, rejected and diverted.
- All voter notifications (undervotes, overvotes).
- All system errors (paper jams, power failures, hardware failures, data errors, etc.).
- Source and disposition of system interrupts resulting in entry into exception handling routines.
- All messages generated by exception handlers.
- Notification of system login or access errors, file access errors, and physical violations of security as they occur, and a summary record of these events after processing.
- Non-critical status messages that are generated by the machine's data quality monitor or by software and hardware condition monitors.

All audit logs are digitally signed. If there is tampering of the audit data or logs, this is detected by the operating unit. The unit reports "Election File Mismatch" and will not operate since modifying the audit files can only indicate malicious usage.

Every action, event and operation that occurs on ImageCast equipment is permanently logged to an audit log file that exists on both memory cards. Every event and operation that occurs on the election management system is kept on the election project audit within the EMS database. The file is signed and encrypted.

Audit logs are available to operators at all times. On the optical scanners, these can be accessed from the administration menu, and printed. In EMS, a directory of audit files is accessed in the graphical user interface, and can be printed. Operators with Administration privileges can access these files at any time.

Audit log records cannot be deleted or modified. Users with proper authorization levels can generate and view the audit report. Audit reports cannot be deleted.

 Only exposes physical ports and access points essential to voting operations, testing, and auditing; restricts access to ports based on permissions of the user; and logs all connections to include the identity of the user.





m) Operates on dedicated servers within the State's network and does not require or permit connection to the internet.

The ImageCast 40" Full Face and the ImageCast X are not connected to the internet or any external networks. Both the ImageCast X and the ImageCast 40" Full Face can be configured to work within the State of Delaware's network on their own dedicated servers.

The

Democracy Suite system and its applicable components do not permit a connection to the internet, thereby keeping the privacy of voters safe, and the outcomes of elections transparent and secure.

 Interface with various State financial systems for paying Election Officers and polling places.

Dominion can work with third party vendors and the State of Delaware to create a system that easily interfaces with the State designated financial systems to pay Election Officers and polling places. While Dominion is not proposing a specific Voter Registration component for this RFP, we have extensive experience working with third party vendors to meet the needs and requirements of all of our customers.

 Generates emails to absentee voters who provide an email address whenever a significant event occurs. This includes receipt of an application, transmitting a blank ballot, receipt of a voted ballot, and whether or not a person's voted ballot was counted.

Dominion is not proposing a Voter Registration component for this RFP. Dominion will happily work with a third party vendor to ensure that emails to absentee voters can be generated when a significant event occurs. Dominion will work with a third party vendor to ensure that these emails include a receipt of application, transmittal of a blank ballot, receipt of a voted ballot, and whether or not that individual's voted ballot was counted.

p) Integration with other systems, e.g. DMV (for SSN validation, per HAVA), and DELJIS (for Felony checks)

Dominion has extensive experience working with other systems (the DMV and criminal background system checks) to integrate our products and solutions with given state systems. Dominion will work in conjunction with the State of Delaware and awarded third party vendors to guarantee a seamless integration with systems such as the DMV and DELJIS.

Vendor or vendors shall provide an integrated voting system with demonstrated capability of the following minimum system requirements:



a) The system must possess the capability to monitor all poll books system-wide on an entire state, county, or local scale, depending upon the jurisdictional boundaries of the election.

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

b) The system must possess the capability to automatically transmit alerts to selected election administrators or officials when events occur, identified by specific equipment undergoing the event.

The Democracy Suite EMS does not provide alerts or notifications when events such as deleting or modifying a record are performed. However, all actions are permanently logged in an unalterable audit log, and can be viewed at any time by those with administrative privileges.

c) The system shall be individually marked by unit with integrated identification tags, either sequential numeric or sequential alpha-numeric. Tags shall be configured to indicate ownership by the State. The Vendor shall provide an updated equipment location listing, based upon the integrated identification tags on a daily basis as delivery is implemented.

Dominion's voting equipment can be individually marked with integrated identification tags, using either a sequential numeric or sequential alpha-numeric based on the State of Delaware's discretion. Tags will indicate ownership by the State of Delaware. Updated equipment listing and tracking based on the agreed upon identification tags can take place during the implementation phase and can be updated accordingly at an agreed upon schedule and timeframe.

### **Other Requirements:**

1) Vendor shall be required to conduct an on-site demonstration of equipment's capability to provide accommodations for voters with accessibility needs.

Dominion agrees to and will comply with the stated requirement to conduct an on-site demonstration of the proposed solution's ability to provide accommodations to voters with accessibility needs. More information on Dominion's innovations regarding accessible voting can be found in the later sections of this RFP.

2) Standards and Policies: The system must comply with State of Delaware Enterprise Standards and Policies, Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information.



Dominion has read and agrees to the requirement as it is stated in the State of Delaware's Enterprise Standards and Policies, GSS\_18809\_ELECTIONS\_SYS\_rfp>Technology Requirements > STANDARD PRACTICES.

### 3) System Logs and Help:

a) Must be instrumented to provide monitoring, alerts, notices and information to existing monitoring systems. Additional tools for those areas that require more robust, extensive, and/or interactive monitoring must be included in the Bidder's proposal.

EMS System Logs: There are three types of EMS system logs, which are system errors, warnings and information. Each EMS application records its own set of log files. These logs account for activities that are not specific to a particular election database. Some of this information is also logged in the Windows Event Viewer.

Window Logs: In addition to the EMS system, the Windows Event Viewer logs information relating to the operating system and computer hardware, including any system errors (i.e. power failures, hardware failures, data errors, etc.)

ImageCast tabulators and equipment maintain a real-time audit log of every action, event, and operation (attempted or executed) that occurs. The Democracy Suite EMS system also maintains a real-time audit log of every action, event, and operation of the system.

b) Must provide functionality to allow authorized users to print screen information including application name and screen or function name.

The Election Management System has the functionality to allow authorized users to print screen information including the application name and screen or function name.

c) Must provide a comprehensive and context-sensitive electronic help function that can be accessed both from the relevant application function and independently from a help menu.

The Democracy Suite Election Management System provides context-sensitive to users for specific actions. These help menus can be accessed via the relevant application and independently from a help menu.

d) Must allow an authorized user to access and view help information from an application function without having to exit or close the application function.



Nearly every Democracy Suite application provides a help button. The Help button brings up the user guide documentation and the user does not have to close or exit the application to view the user guide.

e) The information that the system provides through either the electronic help function menu or in a context-sensitive manner must include field-specific information on required data content and data format as well as general information about each application function and application screen or page.

The Democracy Suite Election Management System provides user guides that provide general information about specific windows and features within the Election Management System. Most user guides provided via the electronic help function menu are available within the functionality of the Democracy Suite Election Management System.

f) The system's electronic help function content must be cross-referenced, allowing an authorized user to view and access content on help topics and subtopics that are related to the help topic or subtopic that the user is currently viewing.

Democracy Suite's user guides allow the user to view content on topics and subtopics that the user is currently using via a searchable pdf document, accessed via the help button functionality.

g) Must provide a Help table of contents, multiple (up to 15) index levels, and full text search.

The Democracy Suite's Election Management System's user guides all include a table of contents that utilize a full text search capability, and also include multiple index levels.

h) The help index levels, index values, help content and hierarchy of index values and associated help content must be configurable by an authorized administrator for all general, function-specific and field-specific help topics and subtopics.

The Democracy Suite Election Management System does not allow for configurable content. However, all content is searchable within the specific help user guide topics and subtopics.

- System functions and features must conform to accessibility standards cited in:
  - 1) Section 508 of the United States Rehabilitation Act: and

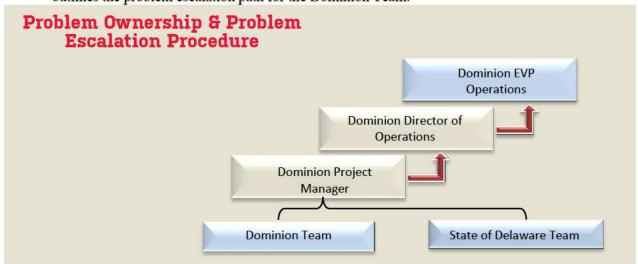


 Web Content Accessibility Guidelines 2.0 (W3C World Wide Web Consortium Recommendation WCAG 2.0 12/2008, Level A & Level AA Success Criteria).

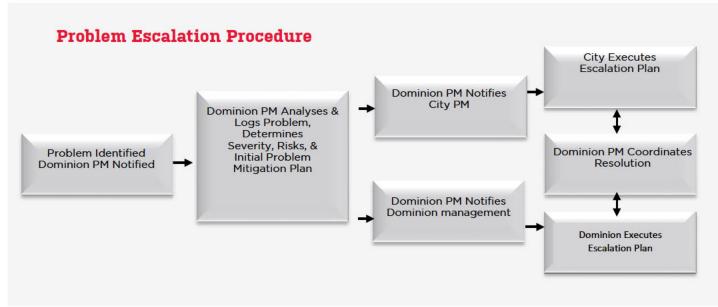
Dominion's Democracy Suite Election Management system conforms and meets the accessibility standards as set forth by Section 508 of the United States Rehabilitation Act and the WCAG 2.0.

- j) Contractor staff that provide Help Desk and Maintenance and Operations (M&O) support shall use an automated problem-tracking tool to enable staff to record, track, monitor, and report on operational and performance problems (e.g., defects and Deficiencies) detected, prioritized, and resolved during:
  - Pilot and Production operation of the System beginning with Pilot Deployment and Testing and extending through the end of First Year Operations and Close-out; and,

During the normal course of implementing Democracy Suite, Dominion staff work closely with customers to establish a clear and timely information flow. This communication helps reduce the number of problems and support early identification of problems that require resolution through the Problem Escalation Procedure (PEP). The key to a successful PEP is established ownership of a problem. The following table outlines the problem escalation path for the Dominion Team:



Another key to the PEP is process. The Dominion Project Manager will follow a well-defined and proven PEP process as depicted at a high level in the diagram below, Problem Escalation Procedure and further detailed in the following section.



Dominion has successfully applied the proposed PEP to implementations in New Mexico, Colorado, California, and many other Dominion implementation projects. The proposed process has the following key steps:

**Problem Identification** – Customer identifies a problem or Dominion proactively identifies a problem.

**Problem Analysis** – The Dominion Project Manager will work with the individual who identified the problem and Dominion staff to clearly characterize the problem, assesses its severity, and determine the initial mitigation strategy. The Dominion Project Manager will describe, document and log the problem in Dominion's automated ticket tracking system. Dominion's Project Manager will notify the appropriate Customer/Dominion staff of the severity and risk of the problem.

**Problem Mitigation Plan (PMP)** – The Dominion Project Manager will lead a team to identify the root cause, determine/document mitigation approach, and identify the management point of contact approval of the PMP.

**Mitigation Execution** – The team will execute the approved PMP and track resolution.

**Problem Escalation Process** – The Dominion Project Manager will escalate a problem based on exceeding the resolution target time or at the individual's discretion.



**Problem Close-Out** – The Dominion Project Manager will document the problem, resolution, and lessons learned. The Dominion Project Manager will also close out the item on the problem and risk logs.

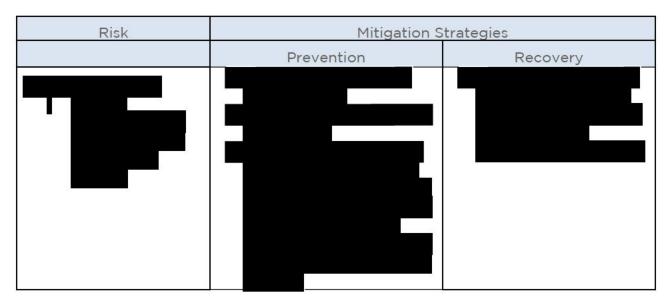
Since problems do not always occur during normal business hours, key stakeholders will be provided with emergency contact information that will allow our team to be reached outside of business hours (e.g. evenings, weekends, holidays, etc.) and on an emergency basis.

Our business is built on supporting customers to conduct elections in an error-free, secure, and timely manner. The Dominion team designed our PEP to ensure that we address problems before they have an impact on an election. Higher levels of service are provided during critical periods. Escalation always takes place to a position with a wider and deeper pool of resources at his/her disposal, to assist in resolution.

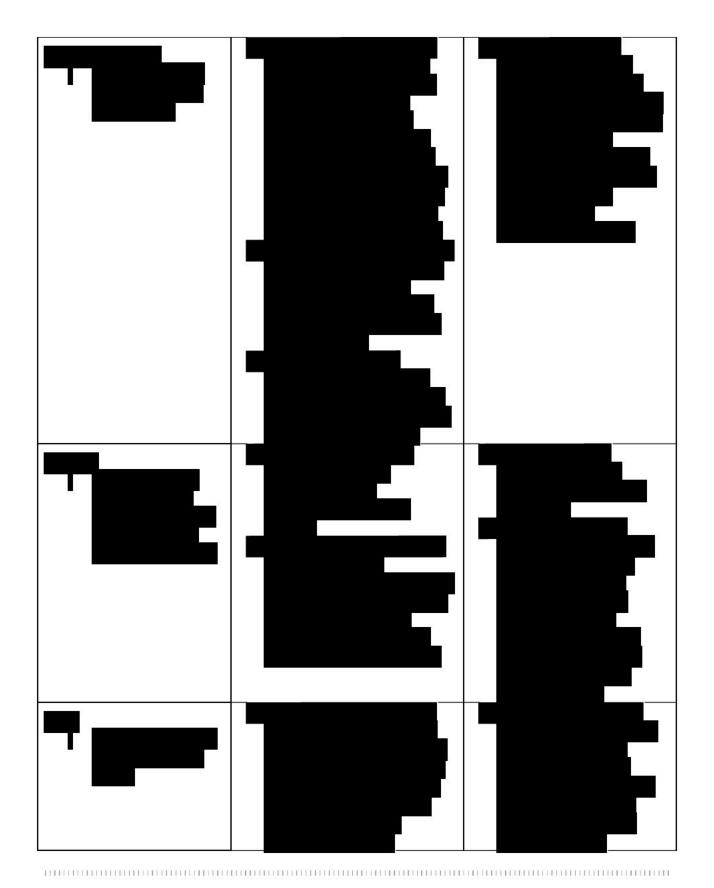
#### **Risk Management**

In addition to the project schedule, project risk management strategy and contingency planning is a critical component of the overall implementation plan. Best practice in risk management involves reducing the likelihood of occurrence of an undesired event, and mitigating its effects once the event has occurred.

An early project activity is to work with stakeholders to understand potential risks and to put in place measures to reduce the probability and potential impact of these uncertain events. This activity includes a methodical process by which the project team identifies, scores, and ranks the various risks. High, medium and low potential risks are identified, along with the action to be taken for each identified risk. This is to reduce the probability of a negative occurrence, or reduce its impact on the project. A comprehensive, Delaware-specific risk management plan will be developed and finalized during the initial phases of the implementation. A sample listing of risks is provided below:









#### 2) Ongoing Production operations and maintenance

Dominion's support processes are well-honed and have been implemented across our customer base. Dominion uses a CRM database to capture service calls so no issue is overlooked. The CRM system tracks service requests from the initial point of contact to issue resolution. It provides us with a management control tool as well as a status/historical reporting capability. The CRM system will also be used to retain and reference repair orders, maintenance checklists and all other documents reflecting any work performed on any voting system component. Once a call/email is received, a work ticket is created and the initiating party will be contacted by a member of the service team.

Initial contact will be established no more than two hours after notification. At that time, additional troubleshooting instructions may be provided to help the service team better respond to the failure or defect. If the defect or failure cannot be addressed in this manner, the service representative will make the appropriate arrangements for resolution.



Final project plans agreed between the State of Delaware and Dominion will reflect goals and milestones that will be overseen by the Project Manager. The Dominion Project Manager will ensure that all resources and logistics are carefully planned, prepared and deployed according to plan. Delaware's election staff will have this project plan schedule and can ensure all goals are achieved successfully. Should there be any other concern with regards to the project, the Dominion Project Manager will be able to address your concerns during business working hours (non-election period) within 24 hours, and within two hours maximum during election period.

k) The Contractor shall provide and use software tools to scan and monitor the System to ensure that security vulnerabilities are identified and addressed.

#### **EMS Audit Log**

From the initial state of the election project, until the deactivation state, the EMS system maintains an activity log within the EMS Database. This activity log contains every action that any of the users have performed within the system and represents a detailed audit log that can be analyzed or printed in the form of an audit report. The audit record information cannot be modified or permanently deleted using the EMS client applications. It can, however, be exported for archiving purposes as part of the record retention policy. Keeping in mind that audit log information can contain a significant amount of information, it is the responsibility of the administrative user to perform regular archiving of the log.

During the voting phase of the election event, ImageCast devices also keep an activity audit log which tracks events happening on the device itself.

#### 4) Data Conversion:

a) The contractor is responsible for all aspects of data conversion from the existing system to the new system. The Delaware Department of Elections will be available to provide assistance in data interpretation and participate in testing and evaluation of the results.

### **Implementation**

Dominion Voting understands that voting system implementations are complex and challenging projects, which require rigorous planning and execution. Dominion has successfully completed similar implementations in jurisdictions across the country, including most recently in Colorado in 2016. To ensure Delaware's success, Dominion will deploy all the tools and expertise available in order to ensure the success of this critical project.

Dominion's service organization will provide the coordination and supervision of all activities required to transition the State to their new Democracy Suite Voting system. We employ technical and project management experts who demonstrated unmatched skill



in understanding what resources are necessary to complete a project seamlessly and on time.

The proposed project team not only has considerable experience in providing ongoing support to election officials, but also in implementing new voting technology.

## **Project Initiation and Planning**

Dominion proposes to hold the Project Kick-Off activities immediately following vendor selection.

At minimum, the designated Dominion Project Manager and the Dominion Implementation Team Lead will meet with the State for the following activities:

- 1. Review project governance structure, project roles, and responsibilities
- 2. Project Management Artifacts Review
  - a. Review and adjust the following with a view to finalize immediately following contract signing:
    - i. Project plan activities, schedule and milestones
    - ii. Issue tracking and escalation plan
    - iii. Risk mitigation plan
    - iv. Communication plan
    - v. Conflict Resolution
- 3. Training Plan finalization
  - a. Review and adjust training sessions and schedule with a view to finalize immediately following contract signing.
- 4. Review Architectural and Technical Specifications deliverables
- 5. Review end-to-end test objectives, with the goal of developing and finalizing test plans and test-to-production plan.

## **Gap Analysis and Application Configuration**

A key phase in the initial stages of the project implementation will be a gap analysis performed by the Dominion team, and subsequent configuration will be developed and implemented. Through this thorough analysis, Dominion will identify if there are aspects of system functionality which need to be customized in order to meet the State's statutory requirements. Dominion technology is used in dozens of states across the United States, each with its own set of particular and unique requirements. Below we describe the steps involved in customizing the system to the County's environment.

The Dominion Voting Democracy Suite Election Management System (EMS) is a highly configurable election system that can be adapted to meet the needs of any jurisdiction. Dominion will work closely with the State to ensure that the system is deployed in a manner that meets all jurisdictional requirements. The following steps are typically required:

#### **Data Conversion and Migration to Democracy Suite EMS**

Dominion has worked with many customers to transition from a legacy voting system to the Democracy Suite platform, and is familiar with migrating data from many different systems to the Democracy Suite EMS. Dominion works with a number of different Voter Registration System vendors to ensure we can import data easily and efficiently.



Election definition data may be entered manually using the Election Event client application, or imported from an Excel spreadsheet using the Election Data Translator utility. Dominion will work with Delaware to ensure that the State's data is formatted correctly so that it can be subsequently imported into Democracy Suite using the Election Data Translator utility. This platform allows for the definition of an entire election within the spreadsheet, and rapid proofing of existing election definition data. Modifications can easily be made within the spreadsheet for any items that are not within the State's export files.

In subsequent elections, election definition data may be exported or copied from prior election databases to speed up the programming process.

#### **Customization of Configurable Options**

During this stage, the State will provide final input and approval on ballot layouts, reports content, and the configuration of the options of the ImageCast voting terminals. This step takes place at the same time as the data import bridge is created and results data export file is created and provided to the IT system managers.

## **Project Update Meetings**

Dominion subscribes to a collaborative management approach, where transparency, frankness, and open communications drive our projects. The key aspects to effective management are planning and control processes. We have developed tried and true project plans, and we implement controls to maintain schedules and quality standards. One of the essential components of our project management approach is regularly scheduled meetings with all key stakeholders from both the Dominion and the County's project teams. Dominion has proposed biweekly meetings, which can be held in person or on the phone depending on the project phase, which would include, at minimum, Dominion's Project Manager and Implementation Team Lead.

The biweekly meetings bring together key decision makers and stakeholders to ensure adequate project oversight. These regular meetings are an opportunity to review progress against the baseline plan, and discuss any necessary changes, as well as address any other project issues or questions.

The biweekly meetings are in addition to ongoing communication between the Dominion Project Manager and counterparts of other teams as required by the RFP.

## **On-site Support**

Dominion is proposing to provide onsite support for at least the first election during both the Logic and Accuracy testing phase, and around Election Day. Given that the State may hold several elections in a year, Dominion will provide a robust onsite presence to ensure a successful project delivery. In addition to formal training, our specialists will work to transfer the required knowledge and skills relevant Delaware staff, with the objective of ensuring that Delaware staff is empowered to manage all aspects of the system's availability and functionality.



#### **End-to-End Test**

This end-to-end test will simulate real election conditions and utilizes Election Day configurations. Dominion will be responsible for the creation of a test election database, test ballots and for the set-up and installation of the test system on-site in Delaware. During the end-to-end test ballots are cast on the appropriate voting systems, polls are closed, results are transmitted to the Results Tally and Reporting application of the Election Management System, and applicable reports are generated.

As described in the project plan, test plans will be developed and finalized immediately upon contract award.

## **Acceptance Testing**

The State is responsible for User Acceptance Testing, conducted following the successful end-to-end test. Dominion will provide an onsite presence to support acceptance testing performed by Delaware.

#### **Preparation for Acceptance Testing**

Dominion will provide guidelines and checklists to the State for acceptance testing and coordinate dates with the staff for software installation. This includes assessing suitability and identifying any modifications required, identifying areas for each process including a secure area for inventory control, preparing necessary acceptance documentation, and ensuring all necessary supplies are available.

#### **Acceptance Testing**

The State's Acceptance Teams, with support from Dominion staff, will conduct detailed acceptance testing of the voting equipment. This acceptance testing provides assurance of full product functionality and accuracy. Acceptance testing is an essential part of the Dominion quality assurance process.

#### **In-Person Voting Terminals – System Acceptance Testing:**

- 1. Physical inspection of equipment
- 2. Functional testing using provided test materials

#### **EMS Acceptance Testing:**

- 1. Utilization of the EMS system to restore or create a simple election project
- 2. Creation of sample election files and ballots for in-person and ImageCast Central voting system
- 3. Directly load sample results from voting terminals
- 4. Create Election Results Reports
- b) Based upon the approved recommendation for the phasing of the application, the contractor must develop data-mapping, conversion and migration plan for what files and data are converted and when the conversion will occur. This plan shall include information regarding the synchronizing of data to ensure there is no lost data as the system is phased in. As part of the plan, the contractor must develop a data map that describes each field and/or table in the existing system and how it will be treated by the conversion program:



## Gap Analysis and Application Configuration

A key phase in the initial stages of the project implementation will be a gap analysis performed by the Dominion team, and subsequent configuration will be developed and implemented. Through this thorough analysis, Dominion will identify if there are aspects of system functionality which need to be customized in order to meet the State's statutory requirements. Dominion technology is used in dozens of states across the United States, each with its own set of particular and unique requirements. Below we describe the steps involved in customizing the system to the County's environment.

The Dominion Voting Democracy Suite Election Management System (EMS) is a highly configurable election system that can be adapted to meet the needs of any jurisdiction. Dominion will work closely with the State to ensure that the system is deployed in a manner that meets all jurisdictional requirements. The following steps are typically required:

#### **Data Conversion and Migration to Democracy Suite EMS**

Dominion has worked with many customers to transition from a legacy voting system to the Democracy Suite platform, and is familiar with migrating data from many different systems to the Democracy Suite EMS. Dominion works with a number of different Voter Registration System vendors to ensure we can import data easily and efficiently.

Election definition data may be entered manually using the Election Event client application, or imported from an Excel spreadsheet using the Election Data Translator utility. Dominion will work with Delaware to ensure that the State's data is formatted correctly so that it can be subsequently imported into Democracy Suite using the Election Data Translator utility. This platform allows for the definition of an entire election within the spreadsheet, and rapid proofing of existing election definition data. Modifications can easily be made within the spreadsheet for any items that are not within the State's export files.

In subsequent elections, election definition data may be exported or copied from prior election databases to speed up the programming process.

#### **Customization of Configurable Options**

During this stage, the State will provide final input and approval on ballot layouts, reports content, and the configuration of the options of the ImageCast voting terminals. This step takes place at the same time as the data import bridge is created and results data export file is created and provided to the IT system managers.

c) The contractor must provide programs for converting the existing data to the new system. These conversion programs must be functionally tested and pass full regression tests before turning over to the test users for acceptance testing.

The Democracy Suite EMS Election Data Translator module will allow for mapping of election data from the State of Delaware into a format that is easily imported directly into Democracy Suite Election Event Designer. The Election Event Designer application enables a seamless import of election data in Excel, CSV, and XML formats, with



minimal manipulation after the fact. If certain data formats are not currently supported, Dominion will work with the State to provide the appropriate mapping functionality for seamless integration. Dominion has successfully worked with a number of different states to ensure the easy and efficient upload of election data, including the State of Colorado, and the State of Michigan's QVF program, and the State of New Mexico. Dominion has worked with Statewide Voter Registration Systems that previously interfaced with GEMS and now interface with Democracy Suite, including the State of Colorado and the State of New Mexico, and will ensure that the State of Delaware has a similar interface.

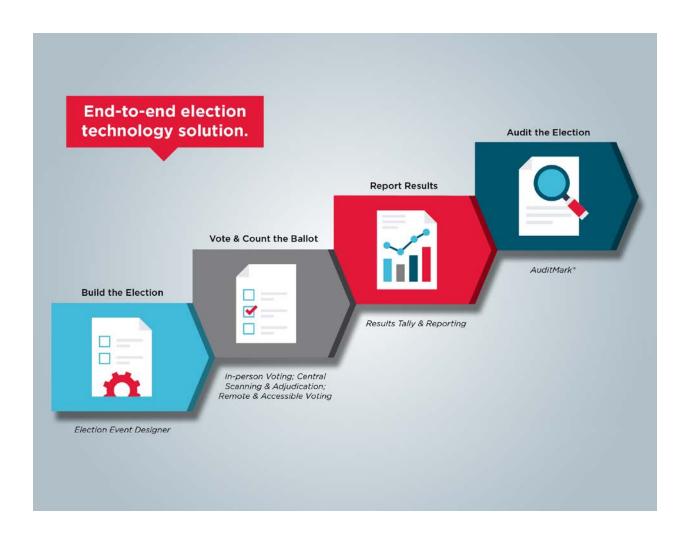
d) The contractor is responsible for identifying data anomalies that require "data cleansing" activities and will assist with the needed "data-cleansing". These "cleansing" activities will ensure that all data is ready for conversion and processing. "Data cleansing" will remain in effect for the length of the agreement.

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

## **Democracy Suite Election Management System**

- Democracy Suite powers the entire voting system out of a **single comprehensive database**, with all the tools needed to simplify and streamline the process. All voting channels whether absentee ballots, accessible voting, or precinct-based voting are supported and powered by Democracy Suite.
- All pre-election and post-election tasks take place out of the same database from ballot programming to results reporting on Election Night, **Democracy Suite is a complete**, end-to-end elections solution.





#### **Highlights**

- Democracy Suite is designed to suit the needs and requirements of
  jurisdictions large and small, and can be easily scaled to support any size
  jurisdiction --even nationwide, as in Mongolia and the Philippines, where
  Dominion's Democracy Suite Election Management System was the backbone of
  successful, transparent national level elections.
- The County will be equipped with Dominion's Democracy Suite Election
   Management System, which is comprised of several modules to manage an
   election project from start to finish. Democracy Suite is composed of two main
   components:
- Through the **Election Event Designer (EED)**, the election definitions of each jurisdiction such as districts, races, and candidates can be input or imported.
- Through the Results Tally and Reporting (RTR), the counties can easily and
  quickly receive and accumulate election results from their precincts and rapidly
  report them to the State for accumulation and distribution of statewide election
  results. The module exports results in a data format compliant with the California
  Secretary of State standards.
- The system allows for the **configuration and creation of a wide range of reports** that can be easily accessed or customized.

#### **Election Event Designer**

The Election Event Designer (EED) module of Democracy Suite EMS has all the tools needed to build the election project, complete in-house ballot set-up, and program the voting machines. It is simple to import the County's jurisdictional data, such as voting locations, districts, candidate, and contest information. From there, the State, with or without vendor support, can layout and design ballots, create audio files for accessible voting, and program and define voting machine behavior for each voting channel. Since the system is fully integrated across all voting channels, the County only needs to proof one database.

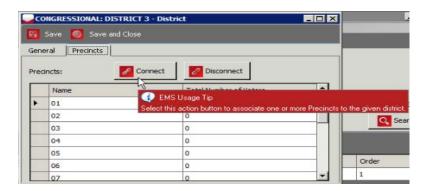
#### **Election Definition**

The Election Event Designer module manages all of the information needed to define an election. Definition of an election is a complex task, and the event definition module allows for the easy entry and tracking of districts, precincts, contests, candidate names, voting locations and ImageCast tabulators. Election Event Designer allows jurisdictions to choose from a variety of language options for an election project.

Election definition data may be entered manually, or imported using the Election Data Translator utility. The Election Data Translator utility allows the import of the election definition from State election files further simplifying the election definition process for Delaware's election officials. Election definition data from may be exported or copied from prior election databases to speed up the process of coding subsequent elections.



The Democracy Suite EMS also provides context sensitive help to State employees as they go through the programming process. An example of this context sensitive help can be seen in the screenshot below:



#### **Ballot Layout**

Election Event Designer uses the State's geopolitical and election event data to automatically calculate the required ballot styles and generate full-sized press-ready ballots in industry-standard PDF format. EMS lays out contests on the ballot in the most space-efficient manner possible, in order to minimize printing costs. Election Event Designer offers extensive options for ballot styling with full user control - choose fonts, line weights, number of columns, multiple languages, multi-card or double-sided, landscape or portrait-style, variety of voting target options, colored headers, etc. A unique ballot ID barcode distinguishes each ballot style. The ballot is 8.5" wide and can vary between 11"-22" in length.

The ballot can be double sided and, if necessary, can be made up of multiple pages (up to 15) to accommodate a ballot with offices and candidates that might exceed one double-sided page. ImageCast Optical Scan Ballots can be easily printed by a range of modern printing technologies. All fonts used in the ballot artwork are embedded in the PDF file and ballot artwork files are digitally-signed (X.509) and tied to the election project files produced by Democracy Suite EMS to allow for authentication and revision control.

#### **Audio Ballot Generation**

The EMS system uses Cepstral, a third-party text-to-audio synthesizer, to automatically generate audio ballots for the ImageCast tabulators. Users also have the option to import human-recorded audio, with or without the help of the EMS Audio Studio module, or fine tune pronunciation of the synthesized audio using Cepstral's Swifttalker application. The system outputs audio ballots (PNG images, SPX audio files and XML definition files), definition reports (XML, Excel or HTML files), and election definition files required to program the ImageCast Evolution

#### Programming of ImageCast Devices from a Single Database

The ImageCast voting devices are defined and configured in the Election Project and these parameters are passed to the voting devices via the election files on the removable memory media. Voting devices are automatically configured to know which ballot styles to accept or display to the voter, how the unit should interact with voters and where



results files are uploaded. The poll worker only needs to follow the Election Day procedures established by the State, and never needs to make a decision regarding the voting device's settings at the voting location.

#### Results Tally and Reporting

The Results Tally and Reporting (RTR) module of Democracy Suite EMS is used on Election Night upon close of polls to accumulate results from tabulators, consolidate, tabulate and generate results reports.

#### **Results Accumulation**

The application allows for the direct transmission of results from the ImageCast units in the precinct to the Communications Manager module via secure wireless modem transmission. For more information on transmission options, please see the Results Transmission section below.



#### Flexible Reporting Options

The program automatically uploads the result files into the results tally module, and consolidated results are verified, tabulated, and published. Once the vote data is uploaded into the result tally module, the flow of results to the public and media can be controlled. RTR allows election officials to review the results before releasing them, and the system provides a number of reporting methods, including but not limited to Summary and Precinct-level (Statement of Votes Cast) result reports. In addition to the static, predefined reports found in most reporting systems, RTR's Summary and Precinct-level reports use the Microsoft SQL Server Reporting Services engine to offer maximum flexibility to user. These reports feature a variety of configurable options and filters, including detailed breakdowns of provisional ballots cast, ballots cast during early voting, on Election Day, and by mail. Election administrators may use the default settings, or configure the data fields included in the reports depending on the target audience. Reports may be filtered by precinct, district, contest, tabulator, or voting location, to narrow in on specific results data of interest contained within the election database.

The RTR module features numerous export types for compatibility with third-party webbased Election Night Reporting software including our own.



## Core Technology - Ensuring Accurate & Transparent Elections

## Highlights

- The Democracy Suite Election Management System handles all activities related to your election. It produces ballots and tabulator information, and is enhanced by Dominion's Core Dual Threshold and AuditMark technologies.
- Dual Threshold technology has a user-defined low and high marginal mark threshold to ensure that each and every voter's ballot will be read the same every time. If a voter does not properly fill in the oval while marking their ballot and their oval mark falls in the marginal mark zone, the system will inform the voter of the Marginal Mark and the onus of clearly defining their intent is on the voter, not the Election Official.
- The AuditMark auditing system is, however, what makes the Dominion difference and sets us apart from other vendors in this industry. It is the only system that digitally stores an image of every ballot cast along with a record of how the ImageCast tabulator interpreted each vote, ensuring a completely transparent and auditable election.
- Administrators find it a great comfort when reviewing ballot images during recounts and every image is accompanied by this clear, digital, human-readable AuditMark record.
- We take particular pride in this unique feature, because it demonstrates how seriously Dominion takes our policy of being 100% accountable for each and every vote cast.

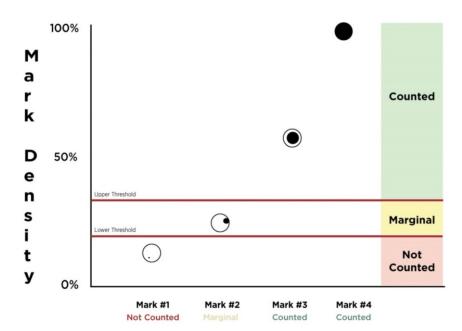


#### **Dual Threshold Technology (Marginal Marks)**

From its early beginnings, Dominion Voting has emphasized the use of digital scanning, and continues to set the standard in digital image acquisition and analysis in the tabulation of digitally scanned ballots. When a hand-marked ballot are scanned by an ImageCast tabulator – at the precinct level or centrally - a complete duplex image is created and then analyzed for tabulation by evaluating the pixel count of a voter mark. The pixel count of each mark is compared with two thresholds (which are defined through the Election Management System by the Election Official) to determine what constitutes a vote.

If a mark falls above the upper threshold, it is determined to be a valid vote. If a mark falls below the lower threshold, it will not be counted as a vote. However, if a mark falls between the two thresholds (known as the "ambiguous zone"), it will be deemed as a marginal mark and the ballot will be returned to the voter for corrective action (please see diagram below).

With this feature, the voter is given the ability to determine his or her intent at the time they cast their ballot, not an inspection or recount board after the fact, when it is too late. The chart below illustrates the Marginal Mark threshold interpretation.



Dual Threshold Mark Detection - Marginal Marks Dominion Voting





#### **Dominion's Exclusive Digital Ballot AuditMark**

Dominion's AuditMark technology will allow Walworth County to provide greater transparency in the electoral process. Every single ballot in the election is imaged and appended with Dominion's patented AuditMark, a record of how the system interpreted the voter's intent. The AuditMark is the only technology that provides a clear and fully auditable single vote cast record for every ballot cast.

This ballot-level audit trail allows election officials and other stakeholders to review not only the ballot images, but also the tabulator's interpretation of each ballot.

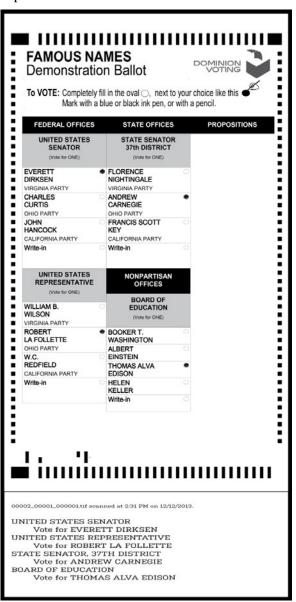
#### The AuditMark Advantage

<u>Transparency:</u> Our system is the <u>only one</u> that stores a complete image of every ballot cast, along with the audit trail for that ballot visually affixed to the image. <u>Accuracy:</u> The audit trail shows how the tabulator interpreted the voted ballot markings or the secure barcode, at the time the ballot was cast. By viewing this image, an election official can easily verify that the tabulator has correctly interpreted the voter's selections on the ballot.

<u>Trust:</u> Furthermore, by randomly opening a small number of image files and verifying that the audit trail displays the correct results, the election official can quickly develop a high level of confidence that all of the ballots have been interpreted correctly.

In practice, the AuditMark feature can be used as:

- a method to test machine integrity before an election
- a method of obtaining confidence that the equipment is functioning properly
- a method to completely audit the entire election
- a method to enhance re-count





## ImageCast Adjudication - Simplifying the Ballot Auditing Process

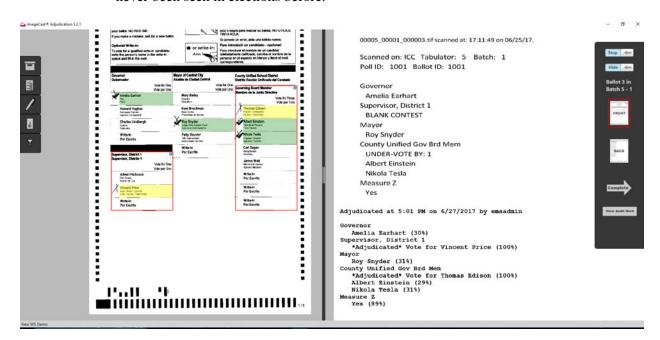
## **Highlights**

- A ground breaking multi-user digital ballot review and adjudication tool that allows the county to complete central count ballot processing from end-to-end without compromising transparency or accuracy.
- As ballots are being scanned on the ImageCast Central, the ImageCast Adjudication software electronically out-stacks ballots, in real time, that need to be reviewed for conditions ranging from overvotes, undervotes, and marginal marks to certified write-in contests.
- The users log into the secure system and begin reviewing ballots as they are scanned. Each ballot scanned in our system has an AuditMark. ImageCast Adjudication takes the power of our patented AuditMark technology to the next level. This is accomplished by appending adjudication decisions to the original ballot image and producing a transparent, easy to read chain of custody and activity log.
- ImageCast Adjudication has a complete activity log that records all executed and attempted actions on the system, so that clarifying voter intent is made not only easy but also transparent. Now anyone reviewing the ballots will be able to see how the voter marked their ballot, how the scanner interpreted the intent and then how the ballot was adjudicated.
- The application log can be audited team by team, dramatically improving the efficiency and shortening the central count process.
- Dominion is committed to adding further functionality to the ImageCast Adjudication application. Currently, Provisional Ballot adjudication is in development and will be available in mid-2018.



The Adjudication Application is a stand-alone module that allows for the efficient processing of ballots that require resolution of voter intent on a ballot-by-ballot basis during the post-voting stage of an election. The Application has been developed to accept ballot files from ImageCast Central. After analysis and correction, the ballot files are sent to the EMS Results Tally & Reporting application for tally and reporting. The primary function of the Adjudication Application is to create an automated process that allows ballots with exceptions or "out-stack" conditions – such as overvotes, undervotes, blank ballots, marginal marks, major contests and certified write-ins – to be resolved on-screen and sent to tally. This eliminates the need for additional costs, time and resources spent on duplicating and re-scanning ballots.

The Adjudication application can be utilized real time as the Jurisdiction sees fit. The Adjudication Application adds to the efficiency of Dominion's ImageCast Central Count system by making it scalable to as many reviewing teams as needed for the jurisdiction. The out-stacked ballots will appear on the screen for the team to review as they come available. This creates efficiencies that have never been seen in elections before.



Adjudication Application in use – The first screen shows the contests that need review highlighted with a red box, and candidates with marginal marks highlighted in yellow. The second screen shows a vote being adjudicated for Vincent Price and Thomas Edison.

Unlike competitive systems, Democracy Suite allows the user to see the entire ballot when adjudicating. Since adjudication occurs with the entire ballot face displayed on the 24" monitor, decisions regarding voter intent are made with the full ballot displayed. Not only is the ballot displayed but the original AuditMark

record, showing how the ballot was initially read is displayed. Once the ballot is adjudicated, a second AuditMark, showing the adjudicator's actions is recorded.

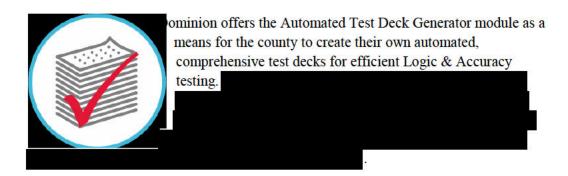
## **Additional EMS Optional Modules**

# Electronic Ballot Delivery – Dominion's ImageCast Remote (UOCAVA)

Dominion's ImageCast Remote UOCAVA system offers a secure and efficient means for overseas and military voters, as well as voters requesting a ballot through MYVote to receive, mark, print and return their ballot to their local elections office. The ImageCast Remote UOCAVA system ensures the security and transparency of the balloting process while preserving the privacy of UOCAVA voters.

Fully integrated and supported by Democracy Suite, the ImageCast Remote UOCAVA system allows election officials to conduct a seamless election, without the need for a separate database or election project. Ballots returned by UOCAVA voters can be processed on ImageCast Central, eliminating the need to duplicate ballots or process UOCAVA ballots on a separate system.

### Automated Test Deck Generator



. The elimination of error

due to mistakes in hand-marking ballots for L&A testing provides a high degree of confidence.





## Appendix B, Part 2: Voting Machines

#### Legal requirements - Delaware Code, Title 15, Chapter 50A

Dominion is offering the ImageCast 40" Full Face as the primary offering to meet the election needs of the State of Delaware. We have also included information on the ImageCast X with VVPAT as an additional option. We have included these as the two responsible product offerings depending on the preferences of the State of Delaware and their installation timetable.

In addition we have included line item pricing for the ImageCast Precinct to ensure we provide the greatest amount of options to the State of Delaware. Information on the ImageCast Precinct can be found under section 3, *Attachments*, in this RFP. Overview information on the ImageCast Central can be found in Appendix B, Part 6, *Absentee Voting*.

#### § 5001A Requirements.

- a) Any electronic voting system may be adopted, purchased or used which shall be so constructed as to fulfill the following requirements:
  - 1) Each voting device shall have a serial number permanently attached to or stamped to the device;

Yes. The ImageCast 40" Full Face has a serial number affixed to both sides of the voting case, as well as being identified through software.

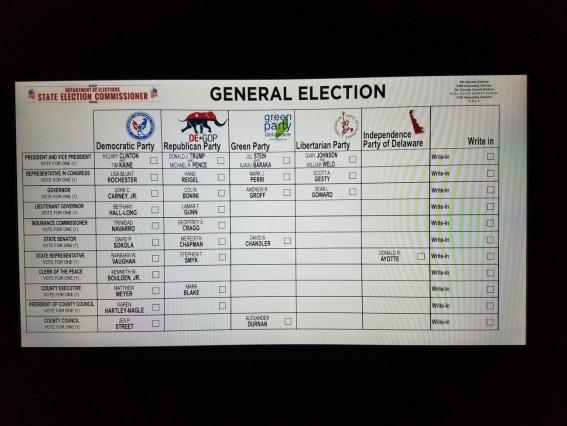
2) It shall secure to the voter secrecy in the act of voting for or against as many questions as may be submitted;

Yes. Voting on the ICX 40" Full Face the voter is completely enclosed by side and top privacy panels as well as a curtain that closes behind the voter, to ensure the voting process is completed in total privacy. The product as proposed utilizes a 40" touchscreen voter interface, the largest in the industry, providing maximum room to display the greatest number of contests and questions.

3) It shall permit the voter to vote for the candidates of 1 or more parties, or to write in the name or candidate of the voter's choice for any office;

Yes. The product as proposed utilizes a 40" touchscreen voter interface, providing more room than any other device in the industry for multiple parties, multiple candidates, and the ability for the voter to make the selection of their choice all on one surface. This includes write-in options as shown in the photograph below.





A sample ballot for the State of Delaware

4) It shall permit the voter to vote for as many persons for an office as the voter is lawfully entitled to vote for, and the automatic tabulating equipment used in such electronic voting systems shall reject choices recorded on any ballot card or any voting device if the number of such choices exceeds the number to which a voter is entitled;

Yes. The nature of Dominion's DRE solutions, such as the one proposed, is to prevent overvoting while the voter is present as well as encouraging the selection of candidates as indicated in the requirement. When the maximum number of candidates in a contest have been selected by the voter, i.e. the contest is fully voted, which can be from one to any number, the tabulator machine does not allow any further selections, until at least one of the previous choices is deselected.

5) It shall prevent the voter from voting for the same person more than once for the same office;

Yes. The proposed voting machine will prevent a voter from voting for the same person more than once for the same office. This is one of the many advantages provided by Dominion's DRE voting machines, as mentioned in item A4.



6) It shall permit the voter to vote for or against any question the voter may have the right to vote upon, but no other;

Yes. On the digital display that presents contest and questions to the voter, only the contest and questions applicable to the voter are displayed. In other words, the voter only sees their ballot style on the screen, and therefore cannot vote for anything else. The principle also applies to Primary elections, where the voters are only shown contests for the party of which they are associated. The ballot style is chosen by the machine based on the activation card provided to the voter to initiate the ballot.

7) It shall permit each voter in primary elections to vote only for the candidates of the party with which the voter has declared that voter's own affiliation, and preclude the voter from voting for any candidate seeking nomination by any other political party;

Yes. The ImageCast X 40" Full Face utilizes a smart card to activate the voting device, in a primary that activation is party specific, thus preventing any crossparty voting because the voter is only provided with valid contests to vote on.

8) It shall correctly record and accurately count all votes cast for any and all candidates of a political party, and for or against any and all questions, and correctly record the names of all candidates written in by votes;

Yes. The very nature and advantage of a DRE system is that it has the ability to correctly and accurately record all votes cast for any and all candidates of a political party, against any and all questions, and accurately records all of the candidates' names for write-in votes. The vote records are stored in multiple locations: a primary removable data drive with tallied results and the audit trail, a secondary removable data drive with tallied results and audit trail (i.e. backup), plus the cast vote record and the digital audit trail on an internal drive.

The unique software design of the ICX 40" Full Face constructs a Voter Verifiable Digital Audit Trail (VVDAT), as shown below, which each voter confirms at the close of their voting session. The VVDAT of each voter contains all selections in a single digital file which can be printed and rescanned, or digitally reprocessed for auditing or recount purposes.

Below Dominion has provided a sample Ballot Audit Trail Record, in the actual format the ImageCast units produce.



Primary Demonstration Democratic Ballot November 05, 2019



Governor Vote For One (DEM) Vote for Phillip Murphy Morris County Democratic

United States Senate Vote for One (DEM) Vote for Elliot Isibor Morris County Democratic Committee, Inc. (DEM)

Committee, Inc. (DEM)

General Assembly
Vote for Two
(DEM)
UNDER\_VOTE\_BY 1
Vote for Joseph R. Raich
Morris County Democratic
Committee Inc (DEM)

Board of Chosen Freeholders Vote for One (DEM)

Vote for Rozella G. Clyde Morris County Democratic Committee Inc (DEM)

State Committee Male Democratic Vote for Three (DEM) UNDER\_VOTE\_BY 2

UNDER\_VOTE\_BY 2 Vote for Philip R. Sellinger Morris County Democratic Committee Inc (DEM)

State Committee Female Democratic
Vote for Three
(DEM)
UNDER VOTE BY 1
Vote for Shawn Laurenti
DeFazio
Morris County Democratic
Committee Inc (DEM)
Vote for Marianne McConnell
Morris County Democratic
Committee Inc (DEM)

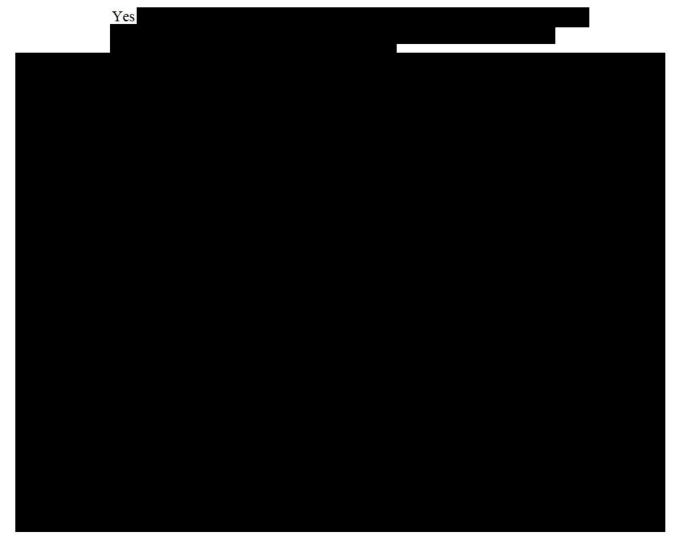
Mayor Vote for One (DEM) Vote for Michael Soriano Morris County Democratic Committee Inc (DEM)

Township Council
Vote for Two
(DEM)
UNDER\_VOTE\_BY 1
Vote for Janice McCarthy
Morris County Democratic
Committee Inc (DEM)

1/1



9) It shall be provided with means for sealing the vote recording devices to prevent its use and to prevent tampering with ballot labels, both before and after the polls are open or before the operation of the vote recording device for any election is begun and immediately after the polls are closed or after the operation of the vote recording device for an election is completed;



10) It shall be so equipped that it shall prevent the voter from voting for all the candidates of 1 party by the use of a single mark, punch or other action; however, it shall be provided with a device or method for each party, for voting for all presidential electors of that party by 1 mark, punch or other action.

Yes. A true DRE system that Dominion is proposing allows for this functionality while also complying most readily with the State of Delaware election laws. A sample of both contest types, slate (the President and Vice President contest) and individual candidates, has been provided in this RFP.



b) Every voting device or booth shall be provided with a means of providing sufficient light to enable voters while in the voting booth to read the ballots or ballot labels. All voting devices used in any election shall be provided with side curtains and front shield to insure that no person can see or know for whom any voter has voted or is voting.

Yes. The design of our 40" touchscreen voter interface is backlit, providing the ideal viewing opportunity for the voter. Voting on the ICX 40" Full Face, the voter is completely closed by side and top privacy panels as well as a curtain that closes behind the voter, to ensure the voting process is completed in total privacy. All Dominion voting machines provide sufficient light to read and cast ballots. In addition, all voting devices have side curtains and front shields to ensure that no person can see or know who or what a person is casting their ballot for. The predecessor product (AVC Advantage) to the ICX 40" Full Face has proven its ability to provide the highest level of secrecy to voters for the past 30 years and is still in use today. We've incorporated the same very successful ergonomic design in the product as proposed.





The ImageCast 40" Full Face

#### § 5002A Compliance guarantee.

Before any electronic voting system is purchased, rented or otherwise acquired, or used, the person owning or manufacturing such voting device must give an adequate guarantee in writing and post a bond accompanied by satisfactory surety with the State Election Commissioner guaranteeing and securing that such voting devices comply fully with the requirements contained in § 5001A of this title and will correctly and accurately record every vote cast and further guaranteeing such voting device against defects in labor and materials for a period of 5 years from the date of acquisition thereof, or, in the case of rented voting devices, for the period of rental.

Yes. Dominion has read and will comply with the established bonding requirements as set forth by the State of Delaware.

#### § 5005A Printing of ballots; distribution of ballots.

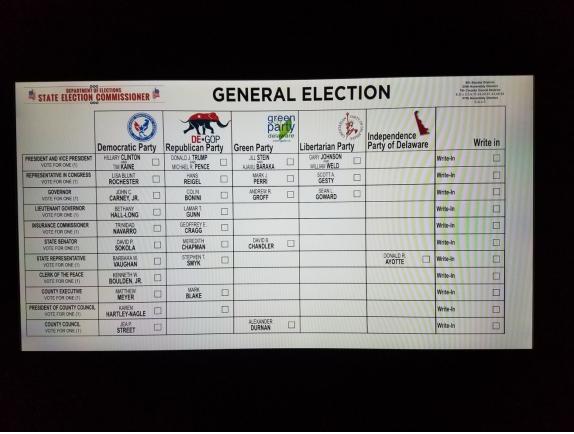
a) Ballots shall be printed in black ink on white material of such size as will fit the ballot frame used for all elections and shall be secured in the ballot frame to make tampering or removal difficult. (See D below)

Yes. For absentee use, and/or the State elects to purchase an optical scan solution all ballots will be printed in black ink on white material and of a size that will fit the layout defined for use in elections. With the touchscreen device as proposed there is no such paper overlay or frame, thus eliminating this need.

b) The party emblem which has been duly adopted by such party in accordance with law and the party name or other designation for each political party represented on the voting device shall appear on the ballot if space and layout permits.

Yes. Dominion provides the largest screen size available on the market with our ICX 40" Full Face design. Due to the size and layout advantages that the full face system provides, Dominion has the greatest ability to set up the design and format of all ballots as the State of Delaware desires. Images of party emblems or other such detailed images are easily reproduced on our screen.





Sample State of Delaware Ballot displaying Party Emblems

c) Official ballots for voting devices shall be prepared and furnished by the Department in the same manner as provided by law.

Yes. Dominion's Election Management System provides multiple types of functionality. The display as appears on the ICX 40" Full Face screen can be generated using any graphics design application, providing maximum flexibility in ballot layout and design, then integrated within Democracy Suite per voting device and displayed accordingly. Absentee or paper ballots are completed in a similar fashion in creating output for either ballot on demand or other printing device.

d) Nothing in this section shall preclude the use of an electronic device where the ballot is electronically generated and displayed or which has the capability to generate and display multiple ballots.

Yes. For the 40" touchscreen election solution as proposed, the ballot as displayed on the touchscreen is generated using a graphical design application, with the election database using Election Management software and transferred as part of the election setup process.



#### Additional requirements, Delaware Code, Title 15, Chapter 45

#### § 4502 Form and designation of ballots.

For each election, the party emblem adopted by each political party and its a) name shall appear on the ballot with the names of its candidates, arranged in line with the titles of the offices for which they are contesting, along with space for the voter to write in the name of any candidate of that voter's choice, as prescribed in § 5005(b) of this title. In those years in which a President and Vice-President of the United States are to be elected the ballot shall be designated "Presidential, Vice-Presidential, State, County and District Ballot"; in other years the ballot shall be designated "State, County and District Ballot". The names of all candidates of any party shall be placed under the title and device of such party as designated in the certificate filed with the department of elections by such party's authorized agent or agents or, if none is designated, under some suitable title or device to be selected by the department of elections. When a President and Vice-President are to be elected, the names of the candidates for those offices shall be placed at the top of the list of candidates for all offices to be voted upon. The device named and chosen and the lists of candidates of the Democratic Party shall be placed in the first column on the left-hand side of the ballot, of the Republican Party in the second column, and of any other party, and the space for the voter to write in the name of any candidate of that voter's choice for any office, in such order as the department of elections shall decide. The names of unaffiliated candidates shall appear in alphabetical order, under the heading "Unaffiliated Candidates", after the listing of various political parties.

Dominion understands this requirement. We have created an initial layout based on the provided information; however the 40" touchscreen display provides more flexibility in the way this is accomplished. Dominion looks forward to further defining this layout in a future demonstration or implementation.

b) All ballots for the same election shall be of uniform size, of the same quality and color of paper and sufficiently thick that the printing cannot be distinguished from the back. The arrangement of the ballots shall in general conform, as nearly as possible, to the sample ballot set forth in this section.

Dominion has read and agrees to provide the correct specs for paper ballots for the applicable voting machines and systems. This is not applicable to the use of a touchscreen DRE device.



c) The ballots prepared in accordance with this chapter shall conform as far as possible to the following design except that the write-in column may be placed on either side of the ballot.

#### OFFICIAL BALLOT

Presidential, Vice-Presidential, State, County and District Ballot

		PARTY EMBLEM	PARTY EMBLEM	PARTY EMBLEM		
WRITE IN		Name of Party	Name of Party	Name of Party		
	For President	JOHN DOE	JOHN DOE	JOHN DOE		
	For Vice-President	JOHN DOE	JOHN DOE	JOHN DOE		
	For United States Senator	JOHN DOE	JOHN DOE	JOHN DOE		
	For Representative in Congress	JOHN DOE	JOHN DOE	JOHN DOE		
	For Governor	JOHN DOE	JOHN DOE	JOHN DOE		
	For Lieutenant Governor	JOHN DOE	JOHN DOE	JOHN DOE		

Please reference our sample ballot images provided in this section.

d) Absentee ballots may be laid out with candidate names under an office title. If this form is used, party logos shall not be used and the political party of each candidate shall be listed beside or below the name of each candidate. The candidates shall be listed in the order specified in subsection (a) of this section above. Except, that in a primary election the candidates shall be listed in alphabetic order and the political party shall be listed for each office.

The power of the Democracy Suite integrated solution is the flexibility to create images as identified, or to the greatest extent possible keep the precinct and absentee images consistent.

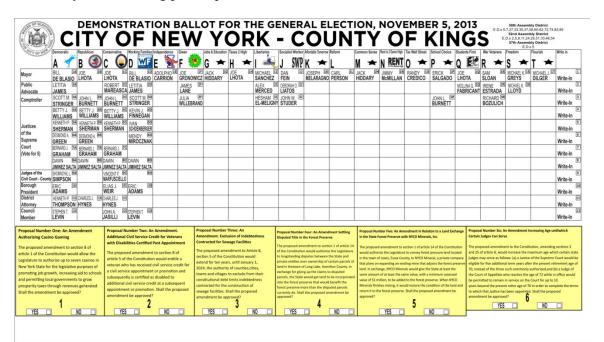
e) If the number of candidates, offices and/or parties to be listed on the ballot preclude the layout of a ballot as specified in this section, the Department of Elections shall obtain approval of the State Election Commissioner to lay



## out the ballot in a manner best suited to the number of candidates, offices and/or parties eligible to be placed on the ballot.

A distinct advantage of Dominion's large ICX 40" screen is that it allows the state of Delaware a DRE touchscreen ballot that has the most flexibility concerning ballot layout on the market. Dominion will work with the State of Delaware to provide ballot layout options that meet all of the needs of the State of Delaware and their State Election Commissioner.

The sample ballot provided is based on the 2016 election, where the ballot layout is straightforward. Shown below are addition samples of more challenging layouts, including public questions.

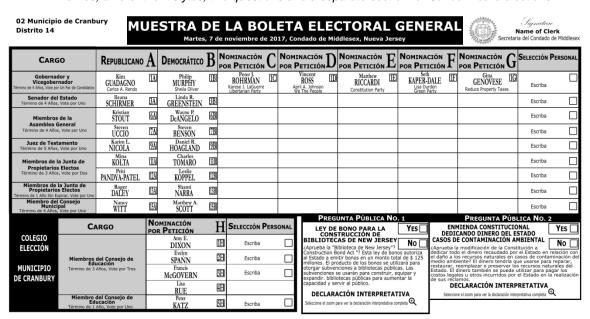


New York City 2013 sample ballot with 19 parties and 6 questions (with color background)

02 Township of Cranbury 14th District		SAMPLE GENERAL ELECTION BALLOT Tuesday, November 7, 2017, County of Middlesex, New Jersey									Signature Name of Clerk Middlesex County Clerk							
OFFICE 1	<b>FITLE</b>	REPUBLICAN	A	DEMOCRATIC	B	NOMINATION BY PETITION	C	Nomina by Peti			Nomination by Petition	E	Nomination By Petition		Nomination By Petition		Personal	Снотсе
Governor : Lieutenant Go 4 Year Term, Vote fo	overnor	Kim GUADAGNO Carlos A. Rendo	1A	Philip MURPHY Shella Oliver	1B	Peter J. ROHRMAN Karese J. LaGuerre Libertarian Party	10	RC	SS Johnson People	1D	Matthew RICCARDI Constitution Party	1E	Seth KAPER-DALE Lisa Durden Green Party	1F	GENOVESE Reduce Property Tax	1G ces	Write In	
State Sena 4 Year Term, Vote		Ileana SCHIRMER	3A	Linda R. GREENSTEIN	3B												Write In	
Members of General Assembly 2 Year Term, Vote for Two		Kristian STOUT	6A	Wayne P. DeANGELO	6B												Write In	
		UCCIO Steven	7A	Steven BENSON	7B												Write In	
Surrogate 5 Year Term, Vote for One		Karim L. NICOLA	9A)	Daniel R. HOAGLAND	9B												Write In	
Members of the Board of Chosen Freeholders 3 Year Term, Vote for Two		Mina KOLTA	11A	Charles TOMARO	11B												Write In	
		PANDYA-PATEL	12A	KOPPEL	12B												Write In	
Member of the Board of Chosen Freeholders 1 Year Unexpired Term, Vote for One		Roger DALEY	13A	Shanti NARRA	13B												Write In	
Member of the Committe 3 Year Term, Vot	ee	Nancy WITT	15A	Matthew A. SCOTT	15B												Write In	
OFFICE TITLE		Nor	Nomination by Petition ${f H}$		PERSONAL CHOICE			PUBLIC QUESTION N  NEW JERSEY LIBRARY CONSTRUCTION BOND ACT				YES		STITUTIONAL AM	IC QUESTION NO. 2  NAL AMENDMENT INEYS FROM STATE  YES			
Edi				Amy E. DIXON	1H	Write In					the "New Jersey Lil		No TENV	IRON	MENTAL CONTAM	INATI	ON CASES	No 🗌
		nbers of the Board of Education Year Term, Vote for Three		Evelyn SPANN	2F	Write In		□ Si	onstruction tate to issue the second construction of the second constructio	in Bo sue b \$125	and Act"? This bond onds in the aggrega million. The procee	act au te prii ds of	thorizes the dedi- nciple reso the bonds The	cate all urce da monev	moneys collected b mage in cases of co s would have to be i	y the S ontmina	State relating ation of the en repair, resto	nvironment?
				Francis McGOVERN	3E	Write In			ill be used rants will	d to p be u	provide grants to pu sed to build, equip, ease capacity and se	blic lib	praries. The or property of public also	be use	the State's natural d to pay legal or oth its claims.	resour er cos	ces. The mon ts incurred by	eys may the State
	Momboro	fowher of the Beard of		Lisa RUE	4E	0			INTER					TERPRETIVE STATEMENT t zoom to see full Interpretive Statement (9)				

Sample New Jersey black and white ballot with contest of different height to provide more room for slate names, different font styles, two questions and a separate section for School Board elections.

5H



The same ballot as above in Spanish.



Vendor shall provide voting machines for Election Day and early voting that meet or exceed the following requirements:

a) The US EAC must have certified the voting equipment against VVSG 1.0 standard or higher.

Yes. Unless noted otherwise in the Exceptions attachment of this RFP, Dominion voting systems and equipment are certified by the US EAC VVSG 1.0 or higher.

b) Provides all voters the opportunity to privately and independently cast his/her vote.

Yes. All Dominion voting machines are designed for voters to privately and independently cast their vote. Voting on the ICX 40" Full Face the voter is completely enclosed by side and top privacy panels as well as a curtain that closes behind the voter, to ensure the voting process is completed in total privacy. The product as proposed utilizes a 40" touchscreen voter interface, the largest in the industry, providing ample room for display of the greatest number possible in our industry of multiple contests and questions as requested.

No individual vote records, in the tallied results files or audit logs, contain any information on time or type of voter, preventing any record from being traced to an individual voter.

c) The capability to quickly and accurately build ballots using the State's standard export from the State's election management system, e.g. candidates, offices and districts.

Dominion has had great success in working with jurisdictions for just this kind of application. We have extensive experience in exporting and importing election data seamlessly and easily, in addition to implementing our systems with other states and various jurisdictions election management systems.

d) Shall be scalable – each voting device can handle a minimum of 1,000 complex ballot styles for an election, multiple languages, and various election configurations.

All of Dominion Voting's proposed solutions both meet or exceed this requirement.

e) Voters choices, including write-in votes, shall be reflected on a paper record created by the voter or voting system that a voter with or without disabilities can review before it is cast and that is suitable for a recount.

All of the devices as proposed meet this requirement.



f) Voting machines used in polling places and early voting sites must be capable of operating in an election district or vote center mode, and report results of each race by election district.

Yes. All devices as proposed are capable of this requirement. One advantage of the ICX 40" Full Face touchscreen device is that we provide the greatest flexibility to meet the state's needs. As an example, the State may choose to utilize machines for early voting and in precinct will alternatively define them as being task specific.

g) Voting machines used in polling places or early voting sites must have a battery capable of operating the device for at least 16 hours, and have a battery that recharges automatically when power is restored to the system. A system in which the battery requires removing and charging on a separate charging device does not satisfy this requirement.

Yes. The ICX 40" Full Face will include battery power capable of 16 hour use.

h) The voter should be able to activate the voting machines and/or select accessibility features without Election Officer assistance in a manner that results in the display of the correct ballot for the voter.

An activation card is used to activate a voting session on the ImageCast 40" Full Face and to present the voter with their correct ballot style. No information that can identify the voter is programmed on the activation card. Once the voter has cast their ballot, the activation card is inactivated and can be returned for to be reprogrammed for the next voter.

Each voter is provided with an activation card, and is able to activate their ballot without assistance.

The accessible voting features are available to all voters. Using a voter activation card that activates the accessible voting features, the voter is able to activate their ballot and the accessible voting features without Election Officer assistance.

i) Voting machines that utilizes voter completed paper ballots should possess the capability to determine the intent of voter who does not mark his/her ballot according to the instructions. Further, the system must possess the capability to process normal variations in printing and scanning without requiring adjustment of the mark reading thresholds.

This requirement is N/A concerning the ImageCast 40" Full Face. If the State of Delaware elects or the Optical Scan solution as set forth by Dominion Voting, our Adjudication module will meet the above requirement.



The nature of Dominion's DRE solutions, such as the one proposed, intrinsically ensures voter intent is captured correctly at the time of voting. It is not possible for a voter to mark his/her ballot in such a way that intent is vague or unclear.

j) Voting machines that utilize voter completed paper ballots must possess the capability of processing a ballot with a blank second or back page if no election data flows to the second or back page.

N/A concerning the ICX 40" Full Face and the ICX Prime.

k) Voting machines that utilize voter completed paper ballots shall possess the capability of sorting write-ins, blanks, and over-votes on a high-speed scanning device and reporting write-in votes by race and election district.

N/A concerning the ICX 40" Full Face and the ICX Prime.

I) Voting machines that utilize voter completed paper ballots shall possess the capability of processing ballots up to nineteen (19) inches.

Dominion's proposed optical scan solutions expand up to a 30" long ballot.

m) Export results by election district, race and candidates onto multiple copies of paper, and onto removable media that can be read by devices at reporting stations and the results securely transmitted to a secure location. This includes the reporting of under votes and over votes (where possible) by race. Transmission must comply with State of Delaware Enterprise Standards and Policies, Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information.

Dominion's proposed optical scan solutions and our VVPAT solution both satisfy this requirement as set forth by the State of Delaware.



## § 5001A Requirements.

- n) Any electronic voting system may be adopted, purchased or used which shall be so constructed as to fulfill the following requirements:
  - 11) Each voting device shall have a serial number permanently attached to or stamped to the device;

Alternate Solution #1: ImageCast X with VVPAT
Yes.

12) It shall secure to the voter secrecy in the act of voting for or against as many questions as may be submitted;

#### Alternate Solution #1: ImageCast X with VVPAT

The ImageCast X DRE with VVPAT allows every voter to review, accept, or reject his or her paper record privately and independently. If the voter accepts the paper record, the individual votes and vote totals will then be stored directly on the device's redundant memory. If the voter rejects or spoils the VVPAT paper record, the VVPAT will record that the record is void, and keep a running record of all cast and spoiled ballots. The voter will then have the opportunity to return to their voting session and make any applicable changes. Every electronic record has a corresponding paper record copy.

13) It shall permit the voter to vote for the candidates of 1 or more parties, or to write in the name or candidate of the voter's choice for any office;

#### Alternate Solution #1: ImageCast X with VVPAT

The ImageCast X DRE with VVPAT allows the voter to vote for multiple parties as the voter chooses to do so. An onscreen keyboard appears on the screen that allows the voter to enter the name of their chosen write-in candidate. This text is then included on the ballot prior to tabulation. For paper ballots, the scanner identifies a write-in candidate, and that ballot is then moved to Adjudication to resolve.

14) It shall permit the voter to vote for as many persons for an office as the voter is lawfully entitled to vote for, and the automatic tabulating equipment used in such electronic voting systems shall reject choices recorded on any ballot card or any voting device if the number of such choices exceeds the number to which a voter is entitled;

THEOLOGIC BORD OF THE PROPERTY OF THE PROPERTY



# Alternate Solution #1: ImageCast X with VVPAT

The ImageCast X with VVPAT shall permit the voter to vote for as many persons as the voter is lawfully entitled to.

15) It shall prevent the voter from voting for the same person more than once for the same office;

## Alternate Solution #1: ImageCast X with VVPAT

Dominion's ImageCast X with VVPAT will prevent a voter form voting for the same person more than once for the same office.

16) It shall permit the voter to vote for or against any question the voter may have the right to vote upon, but no other;

#### Alternate Solution #1: ImageCast X with VVPAT

The ImageCast X with VVPAT permits the voter to vote for or against any question the voter has the right to vote upon.

17) It shall permit each voter in primary elections to vote only for the candidates of the party with which the voter has declared that voter's own affiliation, and preclude the voter from voting for any candidate seeking nomination by any other political party;

#### Alternate Solution #1: ImageCast X with VVPAT

Yes. To begin with, the ImageCast X with VVPAT utilizes a smart card to activate the voting device, in a closed primary that activation is party specific, thus eliminating this kind of voter error. By having the partisan contests displayed on such a large single surface voter interface provides the best opportunity for the voter to easily make their selections as indicated.

18) It shall correctly record and accurately count all votes cast for any and all candidates of a political party, and for or against any and all questions, and correctly record the names of all candidates written in by votes;

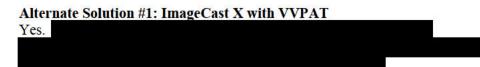
#### Alternate Solution #1: ImageCast X with VVPAT

Yes. The advantage of the ImageCast X with VVPAT system is that it has the ability to correctly and accurately record all votes cast for any and all candidates of a political party, against any and all questions, and accurately records all of the candidates' names for write-in votes. The unique software design of the ImageCast X with VVPAT constructs the audit trail image of voter intent as the voter makes their selections. This is both attributable to the nature of the



ImageCast X with VVPAT's function as well as the unique design of the manner in which Dominion's voting devices record this information.

19) It shall be provided with means for sealing the vote recording devices to prevent its use and to prevent tampering with ballot labels, both before and after the polls are open or before the operation of the vote recording device for any election is begun and immediately after the polls are closed or after the operation of the vote recording device for an election is completed;



20) It shall be so equipped that it shall prevent the voter from voting for all the candidates of 1 party by the use of a single mark, punch or other action; however, it shall be provided with a device or method for each party, for voting for all presidential electors of that party by 1 mark, punch or other action.

# Alternate Solution #1: ImageCast X with VVPAT

Yes. The ImageCast X with VVPAT system that Dominion is proposing allows for this functionality while also complying most readily with the State of Delaware election laws.

c) Every voting device or booth shall be provided with a means of providing sufficient light to enable voters while in the voting booth to read the ballots or ballot labels. All voting devices used in any election shall be provided with side curtains and front shield to insure that no person can see or know for whom any voter has voted or is voting.

# Alternate Solution #1: ImageCast X with VVPAT

The ImageCast X with VVPAT provides sufficient light and protections for the voter to be able to read and navigate their ballot. The ImageCast X with VVPAT voting booth comes with side curtains to ensure that no person can see or know for whom a voter is casting their ballot.

#### § 5002A Compliance guarantee.

Before any electronic voting system is purchased, rented or otherwise acquired, or used, the person owning or manufacturing such voting device must give an adequate guarantee in writing and post a bond accompanied by



satisfactory surety with the State Election Commissioner guaranteeing and securing that such voting devices comply fully with the requirements contained in § 5001A of this title and will correctly and accurately record every vote cast and further guaranteeing such voting device against defects in labor and materials for a period of 5 years from the date of acquisition thereof, or, in the case of rented voting devices, for the period of rental.

## Alternate Solution #1: ImageCast X with VVPAT

Yes. Dominion has read and will comply with the established bonding requirements as set forth by the State of Delaware.

# § 5005A Printing of ballots; distribution of ballots.

o) Ballots shall be printed in black ink on white material of such size as will fit the ballot frame used for all elections and shall be secured in the ballot frame to make tampering or removal difficult. (See D below)

# Alternate Solution #1: ImageCast X with VVPAT

Yes. For absentee use, and/or the State elects to purchase an optical scan solution all ballots will be printed in black ink on white material and of a size that will fit the layout defined for use in elections. With the touchscreen device as proposed there is no such paper overlay or frame, thus eliminating this need.

p) The party emblem which has been duly adopted by such party in accordance with law and the party name or other designation for each political party represented on the voting device shall appear on the ballot if space and layout permits.

#### Alternate Solution #1: ImageCast X with VVPAT

Yes. For absentee use, and/or the State elects to purchase an optical scan solution all ballots will be printed in black ink on white material and of a size that will fit the layout defined for use in elections. With the touchscreen device as proposed there is no such paper overlay or frame, thus eliminating this need.

q) Official ballots for voting devices shall be prepared and furnished by the Department in the same manner as provided by law.

#### Alternate Solution #1: ImageCast X with VVPAT

Yes. Dominion's Election Management System provides multiple types of functionality. The display as appears on the ImageCast X with VVPAT screen is generated from within Democracy Suite per voting device and displayed accordingly. Absentee or paper ballots are completed in a similar fashion in creating output for either ballot on demand or other printing device.



r) Nothing in this section shall preclude the use of an electronic device where the ballot is electronically generated and displayed or which has the capability to generate and display multiple ballots.

#### Alternate Solution #1: ImageCast X with VVPAT

Yes. The ImageCast X with VVPAT election solution as proposed, the ballot as displayed on the touchscreen is generated from within the Election Management software and transferred as part of the election setup process.

# Additional requirements, Delaware Code, Title 15, Chapter 45

# § 4502 Form and designation of ballots.

For each election, the party emblem adopted by each political party and its s) name shall appear on the ballot with the names of its candidates, arranged in line with the titles of the offices for which they are contesting, along with space for the voter to write in the name of any candidate of that voter's choice, as prescribed in § 5005(b) of this title. In those years in which a President and Vice-President of the United States are to be elected the ballot shall be designated "Presidential, Vice-Presidential, State, County and District Ballot"; in other years the ballot shall be designated "State, County and District Ballot". The names of all candidates of any party shall be placed under the title and device of such party as designated in the certificate filed with the department of elections by such party's authorized agent or agents or, if none is designated, under some suitable title or device to be selected by the department of elections. When a President and Vice-President are to be elected, the names of the candidates for those offices shall be placed at the top of the list of candidates for all offices to be voted upon. The device named and chosen and the lists of candidates of the Democratic Party shall be placed in the first column on the left-hand side of the ballot, of the Republican Party in the second column, and of any other party, and the space for the voter to write in the name of any candidate of that voter's choice for any office, in such order as the department of elections shall decide. The names of unaffiliated candidates shall appear in alphabetical order, under the heading "Unaffiliated Candidates", after the listing of various political parties.

# Alternate Solution #1: ImageCast X with VVPAT

Dominion understands this requirement. We have created an initial layout based on the provided information; however the ImageCast X with VVPAT display provides flexibility in the way this is accomplished. Dominion looks forward to further defining this layout in a future demonstration or implementation.

t) All ballots for the same election shall be of uniform size, of the same quality and color of paper and sufficiently thick that the printing cannot be distinguished from the back. The arrangement of the ballots shall in



general conform, as nearly as possible, to the sample ballot set forth in this section.

#### Alternate Solution #1: ImageCast X with VVPAT

Dominion has read and agrees to provide the correct specs for paper ballots for the applicable voting machines and systems. This is not applicable to the use of a touchscreen DRE device.

u) The ballots prepared in accordance with this chapter shall conform as far as possible to the following design except that the write-in column may be placed on either side of the ballot.

OFFICIAL BALLOT

Presidential, Vice-Presidential, State, County and District Ballot

WRITE IN		PARTY EMBLEM Name of Party	PARTY EMBLEM Name of Party	PARTY EMBLEM Name of Party
	For President	JOHN DOE	JOHN DOE	JOHN DOE
	For Vice-President	JOHN DOE	JOHN DOE	JOHN DOE
	For United States Senator	JOHN DOE	JOHN DOE	JOHN DOE
	For Representative in Congress	JOHN DOE	JOHN DOE	JOHN DOE
	For Governor	JOHN DOE	JOHN DOE	JOHN DOE
	For Lieutenant Governor	JOHN DOE	JOHN DOE	JOHN DOE

# Alternate Solution #1: ImageCast X with VVPAT

Dominion agrees to this requirement as set forth by the State of Delaware. We have provided sample ballots as an example and are happy to work with



the State of Delaware to come up with the best possible solution to meet the needs of the State and the voters of Delaware.

v) Absentee ballots may be laid out with candidate names under an office title. If this form is used, party logos shall not be used and the political party of each candidate shall be listed beside or below the name of each candidate. The candidates shall be listed in the order specified in subsection (a) of this section above. Except, that in a primary election the candidates shall be listed in alphabetic order and the political party shall be listed for each office.

### Alternate Solution #1: ImageCast X with VVPAT

The power of the Democracy Suite integrated solution is the flexibility to create images as identified, or to the greatest extent possible keep the precinct and absentee images consistent.

w) If the number of candidates, offices and/or parties to be listed on the ballot preclude the layout of a ballot as specified in this section, the Department of Elections shall obtain approval of the State Election Commissioner to lay out the ballot in a manner best suited to the number of candidates, offices and/or parties eligible to be placed on the ballot.

#### Alternate Solution #1: ImageCast X with VVPAT

A distinct advantage of Dominion's Election Management System and the ImageCast X with VVPAT is that it provides the most flexibility concerning ballot layout and design on the market. Dominion will work with the State of Delaware to provide ballot layout options that meet all of the needs of the State of Delaware and their State Election Commissioner.

Vendor shall provide voting machines for Election Day and early voting that meet or exceed the following requirements:

x) The US EAC must have certified the voting equipment against VVSG 1.0 standard or higher.

#### Alternate Solution #1: ImageCast X with VVPAT

Yes. Unless noted otherwise in the Exceptions attachment of this RFP, Dominion voting systems and equipment are certified by the US EAC VVSG 1.0 or higher.



y) Provides all voters the opportunity to privately and independently cast his/her vote.

#### Alternate Solution #1: ImageCast X with VVPAT

Yes. All Dominion voting machines are designed for voters to privately and independently cast their vote. Voting on the ImageCast X with VVPAT booth the voter is completely enclosed by side and top privacy panels as well as a curtain that closes behind the voter, to ensure the voting process is completed in total privacy. The product as proposed utilizes a touchscreen voter interface, providing ample room for display of the greatest number possible in our industry of multiple contests and questions as requested.

z) The capability to quickly and accurately build ballots using the State's standard export from the State's election management system, e.g. candidates, offices and districts.

#### Alternate Solution #1: ImageCast X with VVPAT

All of Dominion's Voting's proposed solutions both either met or exceed this requirement.

aa) Shall be scalable – each voting device can handle a minimum of 1,000 complex ballot styles for an election, multiple languages, and various election configurations.

#### Alternate Solution #1: ImageCast X with VVPAT

All of Dominion Voting's proposed solutions both meet or exceed this requirement.

bb) Voters choices, including write-in votes, shall be reflected on a paper record created by the voter or voting system that a voter with or without disabilities can review before it is cast and that is suitable for a recount.

#### Alternate Solution #1: ImageCast X with VVPAT

All of Dominion Voting's proposed solutions both meet or exceed this requirement.

cc) Voting machines used in polling places and early voting sites must be capable of operating in an election district or vote center mode, and report results of each race by election district.

#### Alternate Solution #1: ImageCast X with VVPAT

Yes. All devices as proposed are capable of this requirement. The State may choose to utilize machines for early voting and in precinct will alternatively define them as being task specific.



dd) Voting machines used in polling places or early voting sites must have a battery capable of operating the device for at least 16 hours, and have a battery that recharges automatically when power is restored to the system. A system in which the battery requires removing and charging on a separate charging device does not satisfy this requirement.

# Alternate Solution #1: ImageCast X with VVPAT

In the event of a power failure, ImageCast tabulator units have an internal Lithium Ion rechargeable battery with a two-hour life.



ee) The voter should be able to activate the voting machines and/or select accessibility features without Election Officer assistance in a manner that results in the display of the correct ballot for the voter.

# Alternate Solution #1: ImageCast X with VVPAT

An activation card is used to activate a voting session on the ImageCast X with VVPAT and to present the voter with their correct ballot style. No information that can identify the voter is programmed on the activation card. Once the voter has cast their ballot, the activation card is inactivated and can be returned for to be reprogrammed for the next voter.

The ImageCast X with VVPAT is user-friendly with an intuitive touchscreen that uses prompts and a simple, easy to navigate layout. The voter has the ability to zoom, adjust contrast, and other similar disability type features. To activate the machine with an audio ballot would require poll worker assistance.

ff) Voting machines that utilizes voter completed paper ballots should possess the capability to determine the intent of voter who does not mark his/her ballot according to the instructions. Further, the system must possess the capability to process normal variations in printing and scanning without requiring adjustment of the mark reading thresholds.

#### Alternate Solution #1: ImageCast X with VVPAT

The ImageCast X with VVPAT's Adjudication module has the capability to determine the intent of the voter who does not mark his or her ballot correctly according to instructions. The adjudication module has the capability to process normal variations in printing and scanning without requiring adjustment of the mark reading thresholds.



gg) Voting machines that utilize voter completed paper ballots must possess the capability of processing a ballot with a blank second or back page if no election data flows to the second or back page.

#### Alternate Solution #1: ImageCast X with VVPAT

Yes. The ImageCast X with VVPAT meets this requirement.

hh) Voting machines that utilize voter completed paper ballots shall possess the capability of sorting write-ins, blanks, and over-votes on a high-speed scanning device and reporting write-in votes by race and election district.

# Alternate Solution #1: ImageCast X with VVPAT

N/A concerning the ICX Prime with VVPAT.

ii) Voting machines that utilize voter completed paper ballots shall possess the capability of processing ballots up to nineteen (19) inches.

# Alternate Solution #1: ImageCast X with VVPAT

Dominion's proposed optical scan solutions and our VVPAT solution both satisfy this requirement as set forth by the State of Delaware.

jj) Export results by election district, race and candidates onto multiple copies of paper, and onto removable media that can be read by devices at reporting stations and the results securely transmitted to a secure location. This includes the reporting of under votes and over votes (where possible) by race. Transmission must comply with State of Delaware Enterprise Standards and Policies, Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information.

#### Alternate Solution #1: ImageCast X with VVPAT

Dominion's proposed optical scan solutions and our VVPAT solution both satisfy this requirement as set forth by the State of Delaware.



# ImageCast X Highlights

- Today, voters and election officials are increasingly looking to leverage everyday technologies to improve the voting process and experience. Dominion is listening to our customers, and has designed a touchscreen precinct-voting terminal that combines the flexibility, efficiency, and simplicity of modern technology, with an underlying platform of security and performance Democracy Suite.
- Fully integrated into the Democracy Suite platform, the ImageCast X takes full
  advantage of commercially available hardware, making it a cost-effective and
  flexible solution.
- The ImageCast X also offers options for voters with accessibility needs ranging from contrast and text size, to being able to toggle between languages during the voting session or listen to an audio ballot, as well as allowing for the use of personal assistive devices, such as a sip and puff.
- The touchscreen interface is user-friendly and intuitive for poll workers and voters, improving the voting process and experience.
- In Democracy Suite 5.0, the ImageCast X can be configured as a Ballot Marking Device which prints a choice summary ballot that is scanned on the ImageCast Precinct or ImageCast Central.
- The ImageCast X can alternately be configured as a Direct Record Electronic (DRE) device with a Voter Verified Paper Audit Trail (VVPAT). This configuration is expected to enter federal certification by the end of Q1, 2017.
- As with all other ImageCast products, the ImageCast X has been designed with a high level of security that meets the latest EAC VVSG requirements while maintaining ease of use.
- Similarly, as with all other ImageCast tabulators, the ImageCast X benefits from Dominion's patented exclusive ballot-level audit trail, the AuditMark, which not only creates a digital image of every ballot cast, but also appends to that image a record of how the voter's selections were interpreted by the voting system.



# **Product Description and Features**

Our newest in-person voting device, the ImageCast X, is a universal touchscreen voting device that leverages commercially available hardware, making it cost-effective and sustainable. The ImageCast X is driven by a robust, secure and flexible application developed by Dominion. The ImageCast X is available in two different hardware options, a 15" screen option, or a 21" screen option.

The use of compact, commercially available hardware makes the ImageCast X a cost-effective and versatile in-person voting solution. It requires less space to warehouse and is more affordable than larger proprietary solutions, while at the same time

offering full ADA compliance. The ImageCast X is a truly universal voting device that can be configured either as a Ballot Marking Device (BMD) which prints a paper ballot, or as a Direct Recording Electronic (DRE) device that stores votes electronically, with a Voter Verifiable Paper Audit Trail (VVPAT).

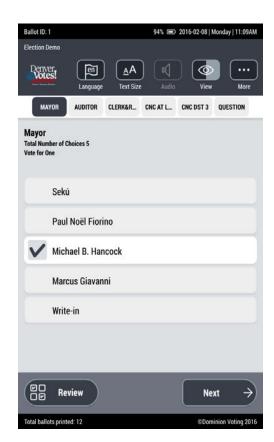
The ImageCast X has an intuitive touchscreen interface with various features for accessibility. Whether configured as a DRE or BMD, the voter navigates through the ballot and marks their selections on the ImageCast X, either using the touchscreen interface or an accessibility device.

Training for election poll workers is minimal and straightforward. When a voter checks in to vote, the poll worker will verify the voter's credentials and create an activation card using the smart card writer/reader which can be integrated with many commercially available ePollbook devices. The activation card is used to activate a voting session on the ImageCast X and to present the voter with their correct ballot style. No information that can identify the voter is programmed on the activation card. Once the voter has printed or cast their ballot, the activation card is inactivated and can be returned to be reprogrammed for the next voter.

The ImageCast X is user-friendly for both the voter and poll worker, with intuitive screen prompts and a simple layout. The voter will insert their activation card to activate the voting session on the ImageCast X. If



The ImageCast X streamlined the in-person voting process in Colorado vote centers during early voting and on Election Day.



The ImageCast X features an intuitive touchscreen interface that the voter navigates contest by contest.

available, the voter will be prompted to choose their preferred language for their voting session.



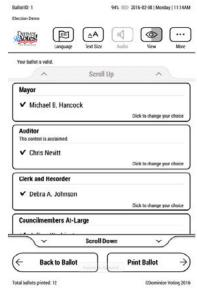
The voter may change their language selection at any time during the voting process. The voter can also change the text size or contrast of the display at any time during the voting session.

The voter will automatically be presented with the first contest on the ballot. The voter will navigate the ballot contest-by-contest by touching the screen to select options, candidates, and text for write-in selections. The voter can change or cancel their selection by deselecting their previous choice. The voter can also change the text size or contrast of the display. The View button allows the voter to change the display to high contrast white on black, or black on white. The text size button allows the voter to change the text size.

At any time, the voter can select the Review button to view a summary of their ballot selections. The ballot review will show all of the contests on the ballot, and give warning messages if there are any issues with the ballot, such as an undervote or blank contest. If the voter wishes to modify a contest, they simply touch that contest from the review screen and they will be taken directly to that contest page so that they can update their selection(s).

Once the voter has reviewed their ballot and is satisfied with their selections, they are ready to print or cast their ballot.





At any time the voter can change the text size or contrast of the display, as well as see a review of their ballot.



If the Image

Cast X is configured as a BMD, the voter will be given the option to "Print Ballot," and a paper ballot with all the voter's selections will be printed from a connected printer directly in the voting booth. The printed choice summary ballot contains a written summary of the voter's choices, as well as a 2D barcode which is read by Dominion's ImageCast tabulators. Once the ballot is printed, the voter can either deposit it in the ballot box for tabulation on the ImageCast Central at

the elections office, or they can scan their ballot on the ImageCast Precinct for tabulation directly in the precinct. No voter selections are stored on the ImageCast X BMD.



If configured as a DRE with VVPAT, once the voter has completed their on-screen review of their ballot choices, the system will print a summary of the voter's choices for their review on the connected VVPAT printer. The voter will have the opportunity to verify their selections on the VVPAT paper record prior to the final electronic record being recorded. The ImageCast X DRE with VVPAT allows every voter to review, accept, or reject his or her paper record privately and independently. If the voter accepts the paper record, the individual votes and vote totals will then be stored directly on the device's redundant memory. If the

voter rejects or spoils the VVPAT paper record, the VVPAT will record that the record is void,



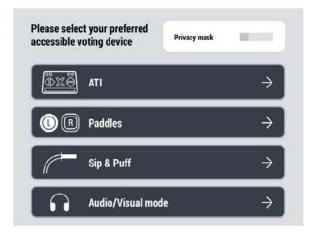
and keep a running record of all cast and spoiled ballots. The voter will then have the opportunity to return to their voting session and make any changes. Every electronic record has a corresponding paper record copy.

# Accessibility

Designed as a voting solution for all, the ImageCast X also offers several options for voters with accessibility needs to vote in a private and independent manner.

The ImageCast X offers the following user interfaces:

- Visual mode: Voter navigates their ballot using one of the available accessibility tools and the visual display
- Audio mode: Visual display can be disabled and the voter uses headphones to navigate an audio ballot using one of the available accessibility tools
- Visual & audio mode: Voter navigates their ballot using one of the available accessibility tools, the visual display, and the audio ballot



The ImageCast X is compatible with a range of accessibility tools and can present the ballot in audio only, visual only or both audio/visual mode.

In addition to the touchscreen functionality, the ImageCast X is compatible with a range of accessibility devices that voters can use to navigate through the ballot and mark their selections. The system is compatible with Dominion's hand-held controller called the Audio Tactile Interface (ATI), sip and puff device, or a 2-switch paddle device.

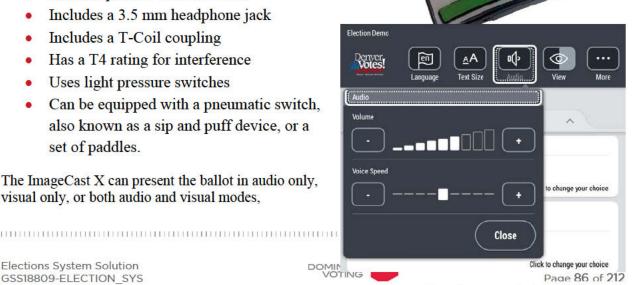
The Audio Tactile Interface (ATI) is the handheld device that is used by a voter during an Accessible Voting Session to navigate through and make selections to their ballot. The ATI:

 Has raised keys that are identifiable tactilely without activation (i.e. raised buttons of different shapes and colors, large or Braille numbers and letters)

Can be operated with one hand

- Includes a 3.5 mm headphone jack
- Includes a T-Coil coupling
- Has a T4 rating for interference
- Uses light pressure switches
- Can be equipped with a pneumatic switch, also known as a sip and puff device, or a set of paddles.

The ImageCast X can present the ballot in audio only, visual only, or both audio and visual modes,



depending on personal preference. Voters can adjust the rate and volume of their audio ballot, as well as the text size and contrast of the display, or disable the display entirely for added privacy. Every voter configurable option is automatically reset to its default value with the initiation of each new voting session.

Voters are able to review, verify and correct their selections prior to printing their ballot, by audio and/or visual means. Voters are warned if they have skipped, or undervoted a contest, and have the opportunity to go back and correct their selections.

In the BMD configuration, once the voter has completed their audio review and confirmed their ballot, the ImageCast X will print a paper ballot with the voter's selections. The voter can then deposit their ballot in the ballot box for tabulation on the ImageCast Central at the elections office, or they can scan their ballot on the ImageCast Precinct for tabulation directly in the precinct. No voter selections are stored on the ImageCast X BMD.

In the DRE with VVPAT configuration, once the voter has completed their audio review and confirmed their ballot, the ImageCast X will print a paper record on the connected VVPAT printer. The VVPAT has an internal scanner that will scan the 2D barcode on the VVPAT paper record, and provide an audio review of what is on the VVPAT record to the voter. Dominion Voting is the only vendor that can provide audio playback review of the VVPAT record for an accessible voting session.

15" OPTION 21" OPTION

The ImageCast X offers a variety of hardware options, including numerous platforms and sizes to better fit your needs.

The ImageCast X features the latest technological advances in accessible voting technology, providing more options for voters with accessibility needs to vote privately and independently.



# Appendix B, Part 2a: General Election Deployment Data

Dominion has read and reviewed the General Election Deployment Data as provided by the State of Delaware and took the information into account when composing our proposed solution and pricing.



# **Appendix B, Part 3: Electronic Poll Books**

Both Dominion and KNOWiNK are confident that our proposed solutions, as separately submitted under one cover, will meet or exceed your needs in our respective areas of expertise. Dominion and KNOWiNK's strong working relationship is built upon a foundation of open communications, the ability to coordinate on any needs of the State of Delaware, compatibility between our products, services, and solutions, and a history of shared successes.

# Minimum Requirements for Electronic Poll Book (EPB) System

#### **Basic Features**

- 1) Voter Search and Check-In:
  - a) Provide all information necessary to verify voters' identity.

Note: System shall store answers to these questions as a derived value from a strong key derivation function. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Application Security Standard, Web Application Security Standard, and Cryptography Standard.

- b) Allow for a search based on name, address, or voter ID. Must support predictive text, auto-complete, suggested matches, etc.
- c) Provide capability for the initial lookup step to be limited to just voters in the precinct location where the EPB is located.
- d) EPB shall have the ability to scan various forms of identification for search, e.g. Delaware driver's license, State ID card, Polling Place Card/Voter ID Card, etc.
- e) EPB shall have the capability of providing the EPB operator with sufficient voter record information for determining a voter's eligibility to vote, voter status, voted status, absentee status, districts and precinct information, and ballot information, only after the voters identity has been proofed per (a).
- 2) Usability:



- a) Touch screen capability is required.
- b) EPB shall support user interface customization such as brightness, contrast, text and UI control sizes, User Interface visibility (hide/show, enable/disable), color schemes.
- c) EPB must provide capability to employ the use of hand held devices for voter check in.
- d) EPB shall have the ability to support all DE election types and ballot combinations.
- e) EPB shall comply with all applicable accessibility laws and guidelines.
- 3) Data Validations:
  - a) System must maintain information on voters who have requested absentee ballots, returned absentee ballots, voted by absentee, early voted, etc.
  - b) System must identify voters required to show proof of identification or residence.
  - c) System shall prohibit the ability for any voter who has participated in one of the elections from participating in any of the other elections held on the same day.
  - d) System shall have the ability to display informational prompts and/or warnings based on non-qualifying voter criteria.
  - e) Data integrity must be cryptographically protected. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.



- 4) Voter Registration Data:
  - a) Provide a means to capture voter information updates (i.e. completing a voter registration application with electronic signature capture). When Driver License or State ID is used as proof of identification, EPB shall be able to parse the data from the barcode and reduce manual data entry, with the ability for the poll worker to accept or reject the scanned data for each record.

Note: All data must be digitally signed by the inserter and verify that the signing party is authorized on the server side before accepting it (and recording the signature). Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Application Security Standard, Web Application Security, Cryptography Standard, Key Management Standard, and Electronic Signature Standard.

b) Provide a means for updating the Delaware statewide voter registration system.

Note: Must be secure and digitally signed. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Application Security Standard, Web Application Security, Cryptography Standard, and Key Management Standard.

- c) Support the statewide voter list.
- d) EPB shall support electronic signature capture. Describe how a voter's electronic signature is captured.

Note: Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, Key Management Standard, and Electronic Signature Standard.

e) EPB shall provide polling place information for voters who appear at the wrong polling place and provide a means of directing voters to the correct polling place anywhere in the state, e.g. turn-by-turn directions or generate QR code containing the information.



f) Ability to capture and store an affidavit (e.g. for non-registered voters during school elections) on the EPB, include capturing of electronic signature.

Note: Must be digitally signed. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, Key Management Standard, and Electronic Signature Standard.

- 5) Data Synchronization:
  - a) Where multiple EPBs are deployed at the same voting site, prevent a voter from signing in at different stations.
  - b) Be capable of networking multiple EPBs that are located in a single voting location utilizing a secure local area network. Must demonstrate accurate and reliable synchronization between devices so that no voter can vote twice, and no registered voter is denied the opportunity to vote.
  - c) Provide a secure means for EPBs to communicate with a central system and vice-versa.

Note: Data must be secured at each level as described in provided security documents. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Application Security Standard, Web Application Security, Cryptography Standard, and Key Management Standard.

- d) If connectivity is available, EPB shall be able to determine if voter has signed in or voted in another location.
- e) Central system shall be capable of supporting more than one election at a time, e.g. simultaneous special elections. The system shall maintain separate unique election records for each election held on the same day.



- 6) Administration:
  - a) Allow for an override of the system if the voter is considered having voted but poll workers know that the voter has not yet voted. Reason for such override shall be captured and logged. The system shall have the ability to require advanced user authentication and authorization to perform the override.
  - b) Provide estimates on how long it would take to load an EPB with data.
  - c) EPB shall allow for voter history to be quickly and accurately uploaded into the Delaware statewide voter registration system.

Note: Must be digitally signed. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

- d) EPB must be able to produce all reports while the election is still underway and after it has closed.
- e) Provide a means for challengers to review checked in voters in real time at every location and from a central location, where connectivity is available.
- f) Allow for review of reports and data from previous elections where EPBs were used.
- 7) Reporting
  - a) Generate interim reports on the screen and printer, i.e. list checked in voters, list of registration updates, etc., without suspending registration operations.



- b) EPB must be capable of providing a list of all validated voters in each respective Election District on an optional EPB printer immediately following the close of the polls on Election Day. Please provide a sample of this list.
- c) Ability to identity double-voting either real-time or post-election.
- d) System must have the ability to conspicuously and automatically display and update the total count of voters checked-in at the precinct. If the EPBs communicate outside of their precinct, then EPB System shall have the ability to prohibit the display and/or combination of poll book counts within any other precinct.
- 8) Performance, dependability, reliability, availability:
  - a) EPBs shall consistently be quick to respond to user actions Example: Search results must be returned quickly or in within reasonable time.
  - b) EPB shall redundantly and securely store voter validation data.

    Note: Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp ->

    Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Application Security Standard, Web Application Security, Cryptography Standard, and Key Management Standard.
  - c) Must have sufficient dust, water and drop/shock resistance.
  - d) Operate on battery power for up to 16 hours in the case of a power outage.
  - e) Shall be capable of automatically switching to a self-contained direct current power source and not interrupt the operation or integrity of the data.



- f) Shall be configured in such a way that the operator is provided indication when the Precinct EPB device(s) is operating on battery power (DC)
- g) Provide a means of quickly recovering data from an EPB that has failed during operation.
- h) EPB shall be able to operate in standalone mode, locally networked (e.g. polling place), and state/public network (e.g. internet).
- 9) Support, troubleshooting, Survivability:
  - a) Provide onsite troubleshooting service on Election Day. Attach current cost figures as well as optional figures to cover day(s) before and after Election Day.
  - b) Provide a means to easily deploy security patches for firmware, OS, application, software, etc., to the EPB and its accessories. All electronic devices must be deployed with trusted computing integrity verification in their full stack.

Note: Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Application Security Standard, Web Application Security, Cryptography Standard, and Key Management Standard.

- c) Central system shall have a means to retrieve/report firmware, OS application, software, etc. installed on individual EPBs.
- d) Central system shall have a means to retrieve/report voter registration data version or release date deployed on each device.



- e) EPB accessories, e.g. scanners and printers, must be easily replaceable/serviceable on site with minimal technical experience required.
- f) Hot Swappable: EPB data must be redundantly stored so as not to lose any data, and be able to switch or replace EPB in the event of malfunction. EPBs shall be configured in such a manner to automatically replicate and securely encrypt a copy of the data at all times to a removable/relocatable memory device such as a USB Memory Flash Drive.

Note: A secure key management strategy must be used. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

- g) Hot Introduction: Ability to easily add EPBs into an existing operations, e.g. to support a sudden surge of check-ins, without disrupting ongoing operations.
- h) Scalability: Ability to remove or detach EPBs from an existing operation and transfer devices to another location, i.e. shifting resources based on demand
- i) Ability to generate media required to activate the voting machine.

- 10) Analytics:
  - a) Ability to capture wait times (from clerk 1 searching the voter while in line to clerk 2 searching the voter for check-in)
  - b) Ability to captured check-in processing times (from searching the voter during check-in)



- c) Ability to capture stand-by time (times when EPBs are idle)
- d) Ability to generate reports and export raw data captured

#### **Documentation**

As part of this bid, vendors are required to provide formal description and representation of the system, including a mapping of functionality onto hardware and software components, a mapping of the software architecture onto the hardware architecture, and human interaction with these components. The following are required:

- 1) System Architecture
- 2) Functional Description
- 3) User Manuals (System Administrator, Election Administrator, Check-In, etc.)
- 4) Engineering level Platform Security information (engineering level documentation).
- 5) Engineering level Cryptographic and Key Management information (engineering level documentation).

# **Data Transfer, Interfaces and Compatibility**

As part of this bid, vendors are required to provide a means for transfer of data between the Delaware statewide voter registration system and the EPB system. The following are required:

1) The EPB shall provide a simple and timely means of downloading voter and election data from the Delaware statewide voter registration system to the EPB system.



- 2) The EPB system shall provide a simple means of uploading voter history information to following Election Day to the Delaware statewide voter registration system following Election Day.
- 3) The EPB shall be compatible and can easily exchange data between EPB and the Delaware statewide voter registration system.

# **Security**

The system shall provide the following security features:

- 1) To prevent unauthorized use:
  - The EPB system shall provide of record of the following
    - The program and version in use
    - o The election file version/release date and time in use
  - Describe how security is managed with the EPB including but not limited to:
    - User access control features
    - Data encryption
    - Key Management

Note: Demonstrate compliance to Standards and Policies. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

- 2) Be secure from unauthorized access both physical and via wireless against all modern threats.
  - a) Compliant with **DoD DISA STIGs**
  - b) Does not exhibit common weaknesses enumerated by the CWE.
  - c) D eomization such as brightness,I validation by election officials and an audit trail of

Note: Compliant with Standards and Policies. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Application Security Standard, Web Application Security, Cryptography Standard, and Key Management Standard.



- 3) Shall be configured to ensure controlled, secure logical/administrative access
- 4) All components shall be configured in such a manner to provide a constant static data encryption methodology that minimally meets Delaware standards and policies, including the security standards and policies provided with this RFP.

Note: Refer to Standards and Policies: The system must comply with State of Delaware Enterprise Standards and Policies, Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information.

- 5) Shall be configured and managed in such a manner that all data in-motion maintains the highest level of physical or digital protections per Delaware standards and policies.
- 6) Shall be configured and managed in such a manner that they may never connect to a publically accessible network
- 7) Data In-Motion Security: If Precinct EPBs utilize LAN networking connectivity:
  - a) All Precinct EPBs must be connected via wired connection (e.g. LAN Ethernet Cable) utilizing a closed and independent switch.

-and-

b) The EPB must support (and require) a VPN connection to a secure location using cryptographic methods in the security and policies provided with this RFP

-or-

c) All Precinct EPBs must be connect via a closed wireless non-SSID broadcasting router with encryption methodology employed per Delaware State standards, including and additional filtration scenario to allow only the known Precinct EPB devices the ability to connect to the wireless network.

-and



- d) The Precinct EPBs shall be configured in such a manner as to only be capable of connecting to the designated wireless networking device.
  - and -
- e) The EPB must support (and require) a VPN connection to a secure location using cryptographic methods in the security and policies provided with this RFP.

Note: These devices must communicate over a secure layer (e.g. a strong VPN and secure mutual TLS authenticated API connection with good key management). Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Application Security Standard, Web Application Security, Cryptography Standard, and Key Management Standard.

- 8) Data In-Motion Security: If EPB System and Precinct EPBs utilize WAN networking connectivity:
  - a) All Precinct EPBs must be connected via a wireless non-SSID broadcasting router or network with at minimum encryption methodology employed per Delaware State standards (Refer to GSS 18809 ELECTIONS SYS rfp -> Technology requirements -> STANDARD PRACTICES for additional information), including an additional filtration scenario to allow only the known Precinct EPB devices within the precinct to connect to the wireless network.

-and

b) The EPB System shall be configured in a manner that all data transmission shall only use full tunneling methodology that permits specific routing and approved encryption standards. (VPN)

-and

c) The EPB System and Precinct EPBs shall be configured in such a manner that the wireless infrastructure must authenticate each client device prior to access.



- d) The EPB System and Precinct EPBs shall be configured in such a manner that two-factor authentication is employed.
- 9) EPBs shall support remote-wipe, local-wipe and have theft prevention and asset recovery features.
- 10) Ability to detect data tampering

Note: Cryptographically. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

11) EPB shall have the capability to time stamp most, if not all, activities such as time of voter check in, successful logins, invalid logins, log outs, network connectivity, data transfers, etc. Must have extensive audit logging capabilities.

Note: Must be digitally signed. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

- 12) Shall be capable of providing accessible and exportable comprehensive audit logs of all transactions to include at minimum, timestamp and transaction/event.
- 13) Support common and unique user accounts.
- 14) The EPB system must undergo a security review and assessment by a 3<sup>rd</sup> party, selected by Department of Elections, and vendor shall provide documentation that all known issues have been addressed and resolved.



# **Implementation Environment**

As part of this bid, vendors are required to provide separate pricing options for the system to be hosted in the cloud, internally, and hybrid. Regardless of hosting platforms or environments, the vendor solution must comply with the security and policies provided with this RFP.

# **Accessories and Peripherals**

The Department of Elections may wish the following to be included in the vendor's base per-unit EPB bid:

- 1) Electronic Poll Book with barcode scanning and signature capture capabilities
- 2) Tablet tether
- 3) Removable memory storage (e.g. Micro-SD Card)
- 4) Power Banks (battery chargers)
- 5) 10' USB power cable
- 6) Carrying case
- 7) Stylus
- 8) EPB software which has been loaded onto EPB
- 9) Rotating stand for EPB
- 10) Smart Card Reader/Writer with cable
- 11) Shipping
- 12) Acceptance testing

Vendor shall also submit per-unit bids on the following optional equipment:



- 1) Multi-unit Desktop Charging/Sync Station
- 2) Thermal Printer with rechargeable battery backup (minimum 8 hours)

# **Optional Services**

Delaware may wish to enter into an agreement for training, EPB system setup, and election preparation assistance with the winning bidder. Provide current pricing for the following services:

- 1) Basic training on the EPB system
- 2) On-site setup of EPB system.
- 3) Maintenance of the system before, during and after use in elections.
- 4) Process to upload voter history and other required information to the Delaware statewide voter registration system following an election.
- 5) Ongoing training for new features.



# Appendix B, Part 4: Elections Management

# Minimum Requirements for Elections Management System

Note: This section also applies to public school board and referendum elections

#### 1) Offices and Terms:

a) System must provide a central repository of information regarding an elected office for federal, statewide, general assembly (Senate & House), county, municipalities (e.g. City of Wilmington), public school board.

Dominion's Election Management System allows the user to enter any office related information for any desired office type. Dominion has the ability to provide central repositories of information based on the State of Delaware's needs.

b) System must have the capability to create and modify office name, jurisdiction type, jurisdictions, terms, base year.

The Democracy Suite Election Management System allows the user to control various attributes of an office, including but not limited to, name, jurisdiction types, names of jurisdictions, and terms. The base year is not part of the Democracy Suite's data, because its focus is on an election specific event. However, this portion of data can be exported from one election event to the next seamlessly and easily.

c) System must allow VP office to be linked to President Office to appear as one ballot choice.

The Democracy Suite Election Management System allows the VP office to be linked to the President's office and appear as one complete ballot choice.

- d) System must have the capability to enter and update the following information about an office.
  - 1) Contact information.
  - 2) Term of the office
  - 3) The years that an office is elected
  - 4) Office filing fee.
  - 5) Office's ballot order.

The Democracy Suite Election Management System's Election Event Designer function allows for both the term of the office and the office's ballot order to be changed and amended by an authorized user. However, contact information, the years that an office is elected, and the office filing fee are not part of this functionality.



e) System must provide the capability for flexible, dynamic and overriding office terms.

The Democracy Suite Election Management system allows for office terms to be overridden by an authenticated user.

# 2) Candidate Filing:

a) System must provide capability to capture the required information for persons who have filed as a candidate for an office, been nominated to run for an office, or have declared themselves a write-in candidate for an office. System must provide real-time updates to candidate and office data ensuring data is synchronized.

Dominion's Democracy Suite Election Management System has the ability to define candidates and qualified write-in candidates for the purposes of ballot creation, supporting tabulators, and results tally and reporting. However, the Election Management System has limited functionality concerning the candidate filing process and entering candidate information into the system.

b) System must track changes and history of the changes made to office and candidate records.

Any and all changes made in the Election Management System are stored in the audit log and can be retrieved by an authorized user.

c) System must provide the capability to enter candidate information (e.g. name, address, phone #'s, email, etc.), and upload any supporting documentation

The Democracy Suite Election Management system has the capability to enter all applicable candidate information and any supporting documentation in the Election Event Designer.

 d) System must provide the capability to pre-populate basic candidate information from the Voter Registration module/system. Note: Candidates for some offices (e.g. school board) are not required to be registered voters.

Dominion's Election Management System supports the importing of election data in various formats through the Election Data Translator. This data can originate from the Voter Registration system; it does not however automatically integrate from the Voter Registration system.



e) System must have the capability to capture acceptance or rejection of candidate filings.

This function is not supported by Dominion's Election Management System.

f) System must not allow a candidate to be assigned to an election until the candidate filing has been accepted.

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

g) System must allow a candidate to withdraw.

The Democracy Suite Election Management system does not contain a process which allows candidates to withdraw and be stricken from both ballots and reports as needed.

h) System must provide the capability to verify candidate is a registered voter in jurisdiction of office where required for specific offices.

The Democracy Suite Election Management System does not have the capability to verify that a candidate is registered to vote in the jurisdiction where they are running for office. This is a function connected to the Voter Registration system, which Dominion is not providing a proposal for.

i) System must provide the capability to inform other counties of candidate filing (If cross-county office).

The Democracy Suite does not currently have the capability to inform other counties of candidate filings across counties.

j) System must support offices that have multiple office holders; impacts ballots, declaration of winners.

The Democracy Suite Election Management system can support offices that have multiple office holders as long as the number of offices are specified in the Election Event Designer. These offices that have multiple winners can be used to create applicable ballot content for the State of Delaware.

k) System must provide the capability to indicate the candidate paid the filing fee or, when appropriate, the candidate filed a supporting petition with signatures.

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

I) System must be able to capture the names of the persons who signed the petition. The system must have the capability to verify whether or not the person is registered to vote. Those who are not registered must be flagged as such.

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

m) System must provide the capability to verify that the person has only signed the petition once.

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

n) The system must be able to count the number of person are valid (e.g. registered to vote in the correct district) and not.

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

o) System must enforce deadlines (date and time) and other requirements. Allow authorized staff to override validations, and to capture and store reason(s).

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the



country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

# p) System must provide the capability to publish offices and candidate information to state websites manually or on schedule.

Dominion's Democracy Suite can use ballot related data to publish office and candidate information to state websites either manually or on a provided schedule. Voter Registration system data is not contained in this functionality.

# q) System should allow for export of office and candidate information.

Dominion's Democracy Suite can use election definition related data to export office and candidate information.

# r) System must allow for county to delete "erroneous" candidates.

Dominion's Democracy Suite can delete erroneous candidates from ballot related data. Eliminating mistaken or erroneous candidates using information from the Voter Registration system is not part of Democracy Suite's functionality.

#### 3) Referendums:

a) System must maintain a record of Referendums.

Dominion's Democracy Suite maintains a record of referendums added by authorized users. The process is similar to the process of adding offices in the Election Management System.

# b) System must provide a central location and user-friendly entry mechanism for Referendum

The Election Event Designer application offers a user friendly single point of entry for Referendum information as well as all other election event related information.

#### c) System must provide the capability to enter Referendum text.

The Election Event Designer application allows the user to enter referendum text in multiple languages and allows for the styling of text depending on the context and visual layout that it is being presented.

#### d) System must allow the import and export of Referendum text.

The Election Event Designer allows for the ability to export to export and import referendum text as part of the Election Data Transfer application.



e) System must support validation requirements for Referendum which may include a super majority for passage (e.g. 60%), or a certain number of ballots cast, or other unique criteria.

The Election Management System does not have the ability to define additional validation requirements, such as a super majority, for a referendum to be accepted.

f) System must allow multiple offices and multiple Referendum to be assigned to the same district(s).

The Election Management System allows for a wide variety of scenarios in which offices, races and referendums are assigned to districts and how they appear on the ballot. This includes the ability to assign as many offices, races and referendums to a single district as required by the State.

g) System must provide the capability to enter translated text.

The proposed Democracy Suite system provides full visual and audio support for English, Spanish, Chines (Cantonese and Mandarin) as well as Hindi. A wide range of other languages is also supported by the system. In Dominion's California implementations, the Democracy Suite system is certified to a minimum of ten different languages. The ImageCast X can support up to 25 languages in a single election, and correctly displays and prints any font sizes as recommended by the U.S. Election Assistance Commission.

#### **Multiple Languages – Paper Ballots**

The Election Event Designer module of the Election Management System is designed to incorporate multiple translated languages for presentation on the ballots and to configure the election in multiple languages, for both paper and audio ballots. Languages can be either text-based, as in English, Spanish and other European languages, or image-based, as in Chinese and other Asian languages.

The system supports all main Microsoft Fonts on a left to right configuration to be imported directly in to Election Event Designer. In the same way, the Democracy Suite system allows the use of textual units for different languages, in which content can be flipped for different languages (multi-language ballots). The system is capable of handling accents on ballot names, offices, jurisdiction names, etc., in all languages supported.

The Democracy Suite system allows for candidate names to appear as the user defines it for any language. The order of candidates themselves in the contest is not affected by the names. This is defined by the user-defined base order of candidates I the contest and the effect of rotations on this base order (this mechanism is not related to the language of the ballot). Our template mechanism for names is set by a particular language, for example, the Spanish template can order names by First-Middle-Last but the English/Vietnamese template can order names Last-First-Middle.



The ImageCast tabulators can be extended to support additional languages that are part of the Latin-1 character set, with the addition of custom language packs, containing translated audio files and voter screens. To add a new language, a Language Pack needs to be added to the ImageCast Precinct. The Language pack and instructions on how to implement it is provided by Dominion Voting.

#### Multiple Languages – Accessible Audio Ballot Voting

The EMS system uses Cepstral, a third-party text-to-audio synthesizer, to automatically generate audio ballots for tabulators. Cepstral offers language packages that include, English (American), English (British), Spanish, Italian, German and French in male and female voices. This is useful for jurisdictions that want to alleviate potential hours of audio recording. Its operation is based on the audio definition library file, which is exported from the Election Event Designer Module of the Democracy Suite EMS in XML format.

However, audio ballots can also be created without the need of using Cepstral. The State has the option to import human-recorded audio, with or without the help of the EMS Audio Studio module, or fine tune pronunciation of the synthesized audio using Cepstral's Swifttalker application. Audio Studio allows human voice audio files to be recorded in any language, be attached to an election project, and includes playback functionality for revision purposes. Recorded files are then exported from the application in .spx or .wav format, and imported into Election Event Designer for implementation into the election project. Additionally, audio files create from an external source can also be imported into the EMS system.

# **Multiple Languages – Proofing**

The Democracy Suite voting system is able to generate proofing ballots in multiple languages. These ballot proofs include items such as election titles, candidate names, office titles, proposals, voting instructions, etc. in the chosen language.

h) System must provide the capability to include or not include a referendum on a ballot.

The Election Management system allows for a finite level of control of how and when races, referendums and candidates appear on the ballot.

i) System must provide opportunity for editing and approval by state or county users before publishing Referendum text.

Dominion's Election Management System does not allow for editing and approval by state or county users before publishing Referendum text. The system allows for election information and definitions to be placed in during use of the Election Event Designer module, but not after those definitions been set and confirmed.



#### 4) Elections:

a) System must provide the capability to allow submission of candidate and Referendum filing.

The Democracy Suite Election Management system allows for the submission of candidates and referendum filings.

b) System must provide the capability to assign candidate ballot order.

Dominion's Election Event Designer module allows Delaware election officials with authorized access to assign the candidate ballot order.

c) System must provide the capability to import or export election data into ballot production system.

Dominion's Election Event Designer module acts as the ballot production system. The Election Data Transfer application offers the ability to export and import election data in an Excel file format.

d) System must provide the capability to calculate ballot styles and ballot types and assign ballot types to voters.

Dominion has extensive experience in creating, calculating and distributing multiple ballot styles to individual voters based on their voting needs, whether by jurisdiction or on a state or federal level. Specifically, the system can handle six parties and up to as many as ten different languages (wit audio). The EMS system is also capable of configuring ballots that contain contest from more than one party, and can support flexible and complex elections, including the handling of "hybrid" primary ballots.

#### 5) Setup:

a) System must provide the capability to setup an election (election date, offices).

The Election Event Designer module manages all of the information, including election date and offices that is needed to setup and define an election. Definition of an election is a complex task, and the event definition module allows for the easy entry and tracking of districts, precincts, contests, candidate names, voting locations, and tabulators.

b) All interfaces must leverage strong mutual TLS authentication in compliance with the security standards and policies provided with this RFP.

Note: Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for



additional information. Specifically, Application Security Standard, Web Application Security, Cryptography Standard, and Key Management Standard.

Agreed. All interfaces will act in compliance with the standards set forth by the State of Delaware.

c) System must provide programmatic exporting and importing of all election related data. The system must provide programmatic interfaces for data exchange between subsystems and other external vendor systems. Need ability to manually trigger exports and imports as well.

The Election Management System does not offer an Application Programming Interface that can be accessed. The Election Management System is designed to run in a closed environment thus ensuring the highest level of security for the State of Delaware.

d) System must provide the capability to import/enter candidates and Referendum and export to ballot production systems.

The Election Event Designer module contains its own ballot production system.

e) System must be able to support overlapping elections. The system must allow the user to specify which election they need to work on so that multiple elections can be managed at the same time. Ballots and voters assigned to a specific election shall have a unique ID which is linked to a specific election. A given voter could be in both elections, the voter would have the same voter ID but a unique election ID would be assigned.

The Election Event Designer offers the capability to differentiate election events and to assign different identifiers to election events and ballots linked to a specific election event.

f) System must provide the capability to enter candidate ballot order by guidelines configurable by authorized administrators (e.g. Dems, Reps, Other parties by alpha order).

The Election Event Designer offers the capability to sort candidates in any order that the user would like.

g) System must provide the capability to support the maintenance of a county's jurisdiction/representative district/election district data.



The Election Event Designer offers a user interface where election officials can enter or modify the geo-political structure for a given jurisdiction, such as a county.

h) System must be capable of producing reports.

The Election Event Designer has many types of reports designed to support the needs of election officials for the State of Delaware.

i) System must be capable of producing election management reports including which districts are on which ballot type, ballot type to election district in election district order and sorted by ballot type.

The Election Event Designer has a number of reports that relate to ballot types and their relationship to election districts (precincts). Dominion will work closely with the State of Delaware to determine which ballot type and design will best meet their needs.

j) System must provide the capability to calculate Ballot Styles.

The Election Management System does such calculations during the election setup process.

k) System must provide the capability to determine Ballot Types and assign voters.

Agreed. The Election Management System has the capability to determine Ballot Types and assign voters accordingly.

I) System must provide the capability to upload ballot styles from the ballot production system.

Dominion's Election Management System is a closed system. Information can be manually transferred to a public site of the State's or jurisdiction's choosing.

m) Public site must consistently and accurately display all elections.

Dominion's Election Management System is a closed system. Information can be manually transferred to a public site of the State or jurisdiction's choosing.

#### 6) Election Results Reporting:

a) System should provide a means of obtaining historical election results by election date readily and easily.

The Election Management System manages each election event as a separate database, the same database also contains all the results for that election event.



These databases and the pertinent historical information can be accessed by authorized election officials at any given time.

b) System must provide the capability to upload tabulation file.

Dominion's Results Tally and Reporting application has an extensible results export ability to conform to the formats required by each jurisdiction.

 System must provide the capability to upload consolidated tabulation system.

Dominion's Results Tally and Reporting application has an extensible results export ability to conform to the formats required by each jurisdiction.

d) System must provide the capability to check for errors.

The results exports files can include an md5 checksum that allows for error checking to occur.

e) System must provide the capability to upload/enter/post results in multiple formats to the state's websites.

Note: Digital signature should be provided. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

The Results Tally and Reporting application has the capability to upload state exports using the extensible results export ability mentioned in point 6B. These exports do not include any digital signature, other than the optional md5 checksum.

f) System must provide the capability to identify winner.

Within Democracy Suite's election event the Results Tally and Reporting application has a summary report that includes the total tally for all candidates and includes the ability to mark and identify the winner automatically.

g) System must be capable of producing election results and relevant election information for 3<sup>rd</sup> party organizations, e.g. Associated Press, Voting Information Project. System must support the manual or scheduled programmatic extraction of data in compliance with the security standards and policies provided with this RFP.

Note: Must be digitally signed. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology



# requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard

The Results Tally and reporting application has the capability to create and upload exports using the extensible results export capability. These exports do not include any digital signature, other than the optional md5 checksum.

#### Certification and recounts:

h) System must provide the capability to allow state to certify an election.

The Results Tally and Reporting allows an authorized user to certify election results by creating a full canvass report.

- i) System must report results by Election District for
- 1) Election Day polling places by machine and Election District
- 2) Absentee votes cast by voters in an Election District
- 3) Provisional votes counted within an Election District
- 4) Early voting results by Election District

The Results Tally and Reporting system can produce results reports broken down by Election Districts (precincts) and so-called counting groups which allow authorized election officials to organize categories of results based on tabulator from which the results originate. The most common setup is for election officials to create separate counting groups for Election Day, absentee and early voting results.

j) System must provide the capability to enter and report county and state reconciliation data.

Election projects in the Election Management System are typically setup on a county by county basis; however it is possible to create an election project on state level. This would allow for the consolidation of results on the State level to be reported to the State of Delaware.

k) System must provide the capability to record data and report on votes counted, over votes, under votes, etc.

The Election Management System provides the capability to record data and report on the number of votes counted, the amount of overvotes, and the amount of undervotes.

 System must provide the capability to allow authorized users to make adjustments to vote counts as a result of Court of Canvass. The



# changes (before and after), user information, and reason must be logged.

Dominion's Adjudication module, part of Democracy Suite, allows for authorized users to evaluate and adjudicate results on a ballot-by-ballot basis. The system stores both the state before and after, the system can show a log of individual changes, but cannot show the difference in votes on a vote total basis. However, Dominion's system can create two separate sets of reports, one before and one after.

m) System must provide the capability to generate reports showing the changes and differences between the unofficial election night results against the adjusted post-Court of Canvass results.

The Democracy Suite Election Management System has the capability to generate reports that highlight the differences between unofficial election results and election results after adjudication of cast ballots is complete.

n) System must provide the capability to allow election, official results, and recount results to be locked.

Note: Must be digitally signed. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

The Election Event Designer project packages can be backed up and stored separately, allowing election officials a path to procedurally ensure that a snapshot of results is kept as-is.

o) System must provide the capability to generate certificate of election documents.

Note: Must be digitally signed. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

The Democracy Suite Election Management system does not support the capability to generate certificates of election documents.



p) System must provide the capability to publish final results on state websites.

Note: Must be digitally signed. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

The Results Tally and Reporting the capability to create and upload exports using the extensible results export capability. These exports do not include a digital signature, other than the optional md5 checksum.

#### 7) Vote Publishing:

a) System must publish election results from the entire state or any portion thereof holding an election.

The election projects in the Election Management System can publish the entire State of Delaware's election results, or any portion of the jurisdiction holding an election (i.e. county-by-county).

b) System must include the full reporting of election results.

The Results Tally and Reporting application of the Democracy Suite system has numerous, extensive reporting capabilities that can be catered to the State of Delaware and their needs accordingly.

c) System must provide the capability to publish result files on state websites.

The Results Tally and Reporting application of the Democracy Suite has the capability to create and upload exports using the extensible results export capability.

d) System must provide the capability to prepare and combine result files for, in and cross-county elections and publish recount results separately.

The election projects in the Election Management System has the ability to prepare and combine results files in cross-county elections, on a county-by-county basis, and publish the recount results separately.

e) System must provide the capability to import text, pdf, or csv result files from tabulation systems. Tabulation systems from multiple vendors are/or may be in use.



The Results Tally and Reporting application can only import results from tabulators that are included and part of the Democracy Suite. Dominion has proposed numerous tabulation options that would work directly with Democracy Suite and the Results Tally and Reporting application. If the State selects Dominion's proposed solutions, the system would have the ability to import text, pdf or csv results files from the Dominion tabulation systems.

f) The system must display results of Referendums along with validation requirements so that a user may determine if the Referendum passed or failed.

The Election Management System does not have the ability to define additional validation requirements, such as a super majority, for a referendum to be accepted and displayed or published.

8) Election Officer and Zone Worker Management:

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

The Election Management System does not offer any facilities for the election officer or zone worker management.

- a) System must provide the capability to set up class schedule for each specific election.
- b) System must provide the capability to publish class schedule on state websites.
- c) System must provide the capability for potential individuals to apply to be a worker online.
- d) Ability for Election Officers to accept assignment, select class schedule, reschedule class, communicate online, and check payment status.
- e) System must provide the capability to configure custom positions, class size limits, and training requirements.



f)	System must provide the capability to track class vacancies and block the slot when full.
g)	Ability for authorized staff to review, accept, modify and deny applicants.
h)	System must provide the capability to place workers in waitlist, reserve, or on-call status.
i)	Generate assignment letters for applicants/workers that can be personalized by their Department staff with contact and class information, or reason for rejection, re-invitation notice, etc.
j)	Designate positions for each worker.
k)	Ability to input non-voters as workers. These are generally high school students who will become registered voters in the future. When they do register, use existing record to avoid re-entry of data. Also, zone workers for election night reporting do not need to be registered voters or Delaware residents.
I)	Record oath or the ability to upload electronic copies of oath.
m)	Record State of Delaware Dual Employer forms and Zone Worker Bid forms. Ability to upload electronic copies of the form.
n)	Record attendance at training and on Election Day.



0)	Assign county issued cell phone numbers to certain workers when necessary.
p)	Ability to communicate with potential and confirmed workers via text, email, or mail.
q)	Ability to record worker evaluations and recommendations.
r)	Ability to setup pay rate by position and by individual worker for each election.
s)	Ability to set accumulative payment threshold by calendar year or date range. Allow authorized administrators to configure to which positions the threshold shall apply.
t)	Ability to track when workers may exceed payment threshold. Provide visible warnings and prevent poll worker assignment.
u)	Ability to check for "orphan" workers, i.e. not assigned a role or polling place or zone location.
v)	Ability to check for "orphan" polling places or zone locations, i.e. not assigned with workers.
w)	Ability to check for under manned polling places and zone locations, i.e. not assigned with enough workers. Minimum number of workers and roles must be configurable by authorized users.
x)	Ability to generate files necessary for Finance to do payroll. The files shall be securely transmitted to Finance's file server.



- y) Ability to import payroll result file from finance and update payment status of workers. The files shall be securely transmitted from Finance's file server.
- z) Ability to manually set status of payment of workers individually or groups of workers at once.

Note: Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Application Security Standard, Web Application Security, Cryptography Standard, and Key Management Standard.

- aa) Ability to store worker working history.
- bb) Ability to copy all or select workers from previous elections and assign them new elections.
- cc) System should allow for export of worker information.
- 9) Location Management
  - a) Ability to add, update and delete election specific locations for early voting Election Day polling locations.

The Election Event Designer application has the ability to define polling locations as part of the election event. Each polling location can function in various roles, including early voting, absentee tabulation and election day voting depending on the type of tabulators placed in each location.

b) Ability to add, update and delete election specific locations for vote accumulation and transmission, a.k.a. election zones. Provide ability to exclude election zones from getting included in publishing and data export.

The Election Management System does not support the concept of election zones. However, the Democracy Suite supports various methods to transmit



results. The State of Delaware can optionally direct from the tabulators, or can indirectly accomplish this task by deploying a subset of the polling locations/vote centers in the results Transfer Module application, which can transmit results to a central location through a variety of methods.

### c) Maintain database of all past, current and proposed locations.

The Election Management System does not maintain a database of polling locations or the tracking of proposed locations for the State.

# d) System must provide the capability to publish locations by election online. Allow end users to get driving directions.

In the Election Management System addresses can be tracked per polling location, however, no driving directions are stored per location.

# e) Ability to copy all or select locations from previous elections and assign them new elections.

Polling locations can be exported and imported through the Election Data Translator application from older election events to newer ones.

### f) Assign election districts to locations.

Election districts can be assigned to locations indirectly through the tabulators that are defined as part of the election event. Each tabulator is linked to a single polling location, a tabulator itself can be connected to one or more election districts.

## g) Support multiple election districts per location.

Dominion's proposed ImageCast tabulators can be connected to one or more election districts at the discretion of the State of Delaware.

#### h) Store images and accessibility surveys for each location.

The Democracy Suite Election Management System does not allow for stored images and accessibility surveys for each individual location.

# i) Store contact information for each location for delivery and pick up of equipment.

The Election Event Designer application allows the administration of one or more contact persons for a given polling location.



j) Record serial numbers of equipment sent to each location.

Note: Digitally sign this data. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

The Election Event Designer allows for the administration of tabulators assigned to any given polling location. This does not include the specific serial number of the tabulator.

k) Record other equipment to be sent to each location.

Note: Digitally sign this data. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

The Election Event Designer application does not have support for tracking equipment other than the ImageCast tabulators for a given polling location.

I) Automatically generate a Bill of Lading for equipment delivery by third parties.

Note: Digitally sign this data. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

The Election Event Designer does not have the ability to automatically generate a Bill of Lading for equipment delivery by third parties.

m) Provide ability to generate files necessary for Finance to pay locations. The files shall be securely transmitted to Finance's file server.

Dominion's Election Management System does not have the ability to generate files necessary for the Finance Department to pay locations.

n) Support payment of multiple locations to a single account, e.g. payment for multiple schools go to the school district.



Dominion's Election Management System does not have the ability to support payment of multiple locations for a singular account.

o) Provide ability to import payment result file from finance and update payment status of locations. The files shall be securely transmitted from Finance's file server.

Dominion's Election Management System does not have the ability to import payment result files from finance and update the payment status of locations. Dominion is happy to work with a third party vendor in order to ensure a solution that meets the State of Delaware's standards.

p) Provide ability to manually set status of payment of locations individually or groups of locations at once.

Dominion's Election Management System provides the ability to manually set the statuses of payment of locations, either individually or applied to groups of locations at once.

q) Provide ability to scan signed rental agreements and attach to a facility records.

Dominion's Election Management System does not provide the ability to scan signed rental agreements and attach a specific facility to the records. Dominion is happy to work with a third party vendor to achieve this capability for the State of Delaware and its constituents.

r) Floor plans and contingency planning information viewable by responders.

Dominion's Election Management System does not provide the ability to include floor and contingency plan information that can be viewed by responders.

s) System should allow for export location information.

Polling information is included in the Election Data Translator export/import function.

t) Generate letters for location points of contact that can be personalized by their recruiter, e.g. delivery, pickup, site inspection, connectivity testing, etc.

Dominion's Election Management System does not contain the functionality to generate letters for specific points of contacts, or for the personalization of those letters.



u) Sign requirements by type and number for each type.

Dominion's Election Management System does not contain the ability to sign requirements by type and number for each type.

#### 10) Voting Information Project

 a) Ability to create files that comply with Voting Information Project specifications (https://votinginfoproject.org/). Note: At this time 5.1 is the latest version. Refer to <a href="https://votinginfoproject.org/projects/vip-5-specification/">https://votinginfoproject.org/projects/vip-5-specification/</a>

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

# 11) Data Exchange Policy

a) Any Request for Proposal (RFP) and/or Professional Services Agreement that requires a data extract from the Payroll, Human Resources Statewide Technology (PHRST) system must address data classification, protection, integrity and disposal as well as the method of transmission as identified below.

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

#### 1. POLICY:

The PHRST data contained in extract files provided to a vendor is to be used exclusively for the purpose defined in the RFP or Professional Services Agreement. It is not to be used for any other purpose.

#### 2. CLASSIFICATION OF DATA

The PHRST data being provided must be classified by PHRST in accordance with the Department of Technology and Information ("DTI") Data Classification Policy.

- b. Data Classification Definitions:
- i. State of Delaware Public Information available to the general public; eligible for public access.



- ii. State of Delaware Confidential Information covered by one or more laws. The disclosure of this information could endanger citizens, corporations, business partners and others. The types of information might be covered under non-disclosure agreements; or safeguarded by a general reference in law or best practices.
- iii. State of Delaware Secret Information that, if divulged, could compromise or endanger the people, or assets of the State; such as Public Safety Information. Data that is specifically protected by law (e.g. HIPAA).
- iv. State of Delaware Top Secret Information that could, if divulged, expose the State's citizens and assets to great risk.
- **3. DEFINITIONS** PHRST will determine if data being provided to the vendor meets any of the following definitions:
- a. Personally Identifiable Information (PII) Information which can be used to identify or contact a person uniquely and reliably, or can be used with other sources to uniquely identify an individual. Examples include but are not limited to full name, full social security number, full date of birth, street address, telephone number, email address, and fingerprints or other biometric data.
- b. Personal Health Information (PHI) Individually identifiable health information that is maintained or transmitted in any form or medium.
- c. Personal Financial Information (PFI) Individually identifiable financial information that is maintained or transmitted in any form or medium

#### 4. METHOD OF DATA ACCESS AND TRANSFER

The file format and method of data exchange must be in accordance with DTI standards. The format and file exchange process must be described in detail; e.g., file placed in folder in PHRST directory on the SFTP server, encrypted file placed on vendor's SFTP server, etc.

#### 5. FREQUENCY OF DATA EXCHANGE

The data exchange frequency must be defined.

#### 6. RETENTION/LIFECYCLE OF DATA

Data transmitted pursuant to the awarded contract vendor shall be retained so long as necessary to achieve its intended purpose. The vendor must agree to secure such data until such time as it may be destroyed or deleted. PHRST reserves the right to require a certificate of destruction/deletion.



#### 7. NON-DISCLOSURE OF DATA

- a. The awarded contract vendor employees or contractors shall not disclose, in whole or in part, the data described in this agreement to any individual or organization not specifically authorized.
- b. The awarded contract vendor is required to comply with all applicable confidentiality-related Federal, State and Local laws.
- c. PHRST shall be considered the custodian of the data it provides to the vendor for the purposes of the Delaware Freedom of Information Act, 29 *Del. C.* Ch. 100. All requests pursuant to FOIA for data subject to this agreement in the possession of the vendor must be referred to PHRST. To the extent that the vendor modifies the form or content of data disclosed by PHRST, the vendor shall be considered the custodian of such information for the purposes of the Delaware Freedom of Information Act, 29 *Del. C.* Ch. 100.

#### 8. DATA BREACH

Any breach in the security or confidentiality of the data being shared shall be reported immediately to PHRST, to the DTI Security Office, and to the contracting entity's designated Technology representative or Information Resource Manager (IRM).

#### 9. BUSINESS ASSOCIATE AGREEMENT

Prior to release and/or transfer of any data from PHRST to the contract vendor(s), the contracting entity shall execute a Business Associate Agreement (the "BAA) between the contracting entity and the awarded contract vendor. The executed BAA is valid through the life of the contract and any subsequent audit term (5 years or as identified by the State of Delaware contracting entity). If a new Professional Services Agreement is executed, a new BAA must also be executed even if there is no change in vendor

#### 12) Employee/Location Payment Data Processing

N/A. This functionality would fall under the umbrella of Voter Registration, for which Dominion is not submitting a proposal. Dominion has extensive experience working with Voter Registration companies and systems across the country and is happy to work with the State of Delaware to ensure all candidate filing components are meeting the standards as set forth by Delaware.

a) The file layouts identified below are state required templates established by First State Financials (FSF) for payment vouchers.



Vendor proposals are to identify system compliance with providing information compatible with the FSF vouchers.

# b) Payment to Polling Places

- 1) DAP001, Vouchers Inbound File Layout
- 2) DAP001, Vouchers Log Output File Layout



# c) Payment to Poll Workers

- 1) DAP010, One Time Vendor, Voucher Inbound File Layout
- 2) DAP010, One Time Vendor, Voucher Outbound Log File Layout





# **Appendix B, Part 5: Voter Registration**

Dominion Voting Systems is not proposing a Voter Registration System for purposes of this RFP. Therefore the following section is marked as not applicable. As a provider of election services and systems, Dominion has vast capabilities in partnering with industry leading Voter Registration firms. We are confident in our ability to develop compatible processes, procedures, and systems with the eventual Voter Registration provider and would be happy to work with the State and the chosen provider upon contract award.

### **Requirements for Voter Registration System:**

- 1) General Requirements & Features: Pertains to data accessibility, functional application administration, extensibility, and system access
  - a) The system must comply with State of Delaware Enterprise Standards and Policies, Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information.
  - b) Provide authorized users with read-only access to the data for registered voters within other counties, including historic voter activity data, historic voting participation data, historic affidavit images and historic signature images for registrants.
  - c) Provide authorized county users the ability to update the voter registration data for voters within their county.
  - d) Prohibit county users from changing data for voters in other counties except to submit a transaction that moves a matched voter from another county into their county.
  - e) Automatically send electronic notice to each appropriate county whenever a voter record is added or updated through automatic processes.
  - f) Provide the capability for authorized users to search, query and track electronic notices that have been sent to counties. Search, sort, filter



and grouping criteria must include county or jurisdiction, notice type, status (resolved or unresolved) and date or date range for notice.

- g) Provide the capability for authorized users to track the source of voter registration applications and to generate report or extract data for reporting purposes, e.g. EAC.
- h) Provide for update and addition of common nicknames, e.g. "Bob" for Robert.
- i) Be able to process voter registration data originating from new sources of voter registration data both internal and external to Department of Elections, with only the addition of a pluggable interface. Note: Department of Elections intends that DHSS-DSS and DOL will be among the potential "new sources" of voter registration data once they are able to plan for and implement a method to provide new voter registration data.
- j) Be able to process voter registration from existing sources. Note: DMV submits registration through their mainframe system as well as selfservice kiosks. DMV is in the process of deploying an online drive license and state ID service which is expected to submit voter registrations as well.
- k) Provide extracts of names and addresses for voters in one or more counties for processing by an external service.
- I) System must allow for authorized users to create, edit, and publish changes to webpages in a graphical user interface (GUI) without vendor assistance.
- m) System must allow an incomplete registration to be recorded with an incomplete status, send a verification notice to gather the missing information and deny the registration if missing information is not received in X days. Allow Authorized Administrator to configure X.



- n) System must support Election Day registration, to be used should the State legislature enable Election Day registration.
- o) Where applicable, must support predictive text, auto-complete, suggested matches, etc. to minimize manual entry.
- p) System shall comply with all applicable accessibility laws and guidelines.
- 2) Voter Registration Data: These requirements list voter registration data elements that must be maintained to comply with HAVA Section 303 requiring that each state implement a "single, uniform, official, centralized, interactive computerized statewide voter registration list."

Data elements described here include data provided or captured by elections officials' staff as well as data provided by citizens through online registration via the public access website.

The data elements listed here do not constitute an exhaustive list of required data. Department of Elections expects that during the Design Phase, the Contractor will work with department staff, partner agencies, and vendors to determine all specific data elements necessary to meet all requirements stated in this RFP.

- a) The system must comply with State of Delaware Enterprise Standards and Policies, Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information.
- b) Provide functionality that enables authorized users to add new registered voters and to update data associated with existing registered voters.
- c) Be able to capture, store, and display all historical data on every record, including images.



- d) Capture and display all data elements required to support functions and requirements defined in this RFP. e) Must allow for capture and storage of voter names including the following discrete data fields: i. First name (full or initial); Middle name (full name or initial); ii. Full last name (can include hyphenated last name); iii. Suffix (Sr., Jr., other generations); and iv. Previous name(s) f) Must store a unique identifier (Voter ID) for each registrant. g) Must capture and store historic data on voter residence, mailing address, including beginning and ending effective dates of those addresses. h) Must provide for capture and storage of addresses (See Voter Registration - Addresses). i) Must provide the ability to capture and store a voter's date of birth. NOTE: Because a voter may have currently effective registrations that predate the requirement to provide date of birth, system must be capable of handling voters without/partial a date of birth. j) Must capture affirmation of citizenship status.
  - 1) Full Social Security Number

optional for completion of voter registration:



k) Must be capable of capturing and storing the following data that is

- 2) Last 4 of Social Security Number
- 3) Delaware Driver's License Number
- 4) Delaware State ID Number
- 5) Telephone number (up to four different numbers, including type and extension, as separate fields or records);
- 6) Email address (Must adhere with current internet standards, such as 254 character email addresses).
- I) Must store a voter prior registrations in other states, if any:
  - 1) State
  - 2) Full Name
  - 3) County or Jurisdiction
  - 4) Voter ID
  - 5) Residential Address
  - 6) Mailing Address
  - 7) Driver License or State ID Number
- m) Must be capable of capturing and storing vote-by mail or absentee voting information. See Voter Registration Absentee Voting.
- n) Must be capable of capturing and storing a voter's language preference based on codes that can be defined and modified by authorized Administrators (e.g. RFC-5646).
- o) Must be capable of capturing and storing multiple accessibility/assistance needs for a voter, based on codes that can be defined and modified by authorized Administrators.
- p) Must capture, store and display the status of any voter's registration, effective dates for such changes and reasons for the change. The status options must include:
  - 1) Active:
  - 2) Inactive;
  - 3) Cancelled/Purged;
  - 4) Pending;
  - 5) Other status (e.g. new registrants during the closed of registration period, under age registrants waiting to be eligible, non-registered election officers)
- q) Must store a voter's political party preference, based on codes that can be defined and modified by authorized administrators.



- r) Must capture, store and display the following identification information for each voter record:
  - i. The voter's Delaware issued Driver's License number, if known or provided:
  - ii. The voter's Delaware issued State Identification Card number, if known or provided;
- iii. The DMV verification status of that number (i.e.., verified, not-verified, or pending verification; and
- iv. If verified, the date verified.
- s) Must capture and store the following identification information for each voter record:
  - 1) The 9-digit voter's Social Security Number, if known or provided, which must be accessible for input, query and reporting;
  - 2) The last 4 digits of the voter's Social Security Number (SSN4), if known or provided, which must be accessible for input, query and reporting;
  - 3) The Social Security Administration verification status of that number (verified, not-verified, or pending verification); and
  - 4) If verified, the date verified.
- t) Must capture and store the voter's current and historical methods of registration (e.g., "by mail," "walk-in," "registration drive," "DMV," etc.), based on codes that can be defined and modified by authorized Administrators.
- u) Must capture, store and display for voters who register by mail:
  - 1) Whether or not the voter is a first-time voter, subject to the HAVA ID requirement (HAVA Section 303[b]);
  - 2) Whether or not the voter has satisfied the ID requirement and, if so, how: and
  - 3) If exempt from this requirement, the reason for that exemption.
- v) For each voter registration application received, system must capture and store the following discrete data:



- 1) Application date;
- 2) Date the application was received; and
- 3) Effective date of registration for the application; and
- 4) The voter registration record that was created or updated based on data in the application.
- w) Must store and display the current and historic images of the full registration applications in a format consistent with either ANSI/AIIM standards or Delaware State standards.
- x) Must store and display the current and historic images of the full registration application with a minimum resolution of three hundred (300) dots per inch (dpi).

Note: Stored data must be digitally signed. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, Key Management Standard, and Document Imaging Standard.

- y) Must provide the ability to zoom into application and signature images.
- z) Must provide ability to attach\* and store\* other images to a voter's record in GIF, TIF, JPG, PNG and PDF formats, such as letters received from the voter. Must allow user to enter comments, and select a category for the image. Categories shall be defined and modified by authorized Administrators.
- aa) Must capture\*, store\* and display\* an average of fifty (50) free-form text comments and/or notes per voter record with an average size of five hundred (500) characters per comment or note.
- bb) Must be scalable to store\* an average of one hundred (100) free-form text comments and/or notes per voter record, with an average size per comment or note of one thousand (1,000) characters.



- cc) Must allow multiple comments and notes to be stored\* for a single registered voter. Each note must have a creation date, and user information associated with it.
- dd) Must retain all voter records and associated data, including images for each voter record, such that processes and reports that are generated with an "as of" date correctly reflect the data applicable on the "as of" date.
- ee) Must capture and store data\* for confidential voters under applicable Delaware laws.
  - i. Must allow capability to flag confidential voters.
  - ii. Must automatically assign non-conventional address (e.g. "Address Withheld") that are exempt from address validation (e.g. USPS/CASS standard). The non-conventional address will be defined and modified by authorized Administrators.
  - iii. Must capture and store\* the legal basis for which a voter qualifies as confidential (e.g., "court ordered," "victim of domestic violence,") based on user-defined codes that can be defined and modified by authorized Administrators
- ff) Must be able to send automated email notification at every step of the application processes, e.g. upon receipt, completed.
- gg)Must capture and store a record of list maintenance notices sent to a voter, including the date the extract for mailing label was created or the actual date sent.
- hh)Must provide a user interface for authorized Administrators to add and maintain allowable data values for all fields where the set of possible data values is constrained.
- ii) Must be able to export voter registration data in compliance with Electronic Registration Information Center (ERIC) data format.



- jj) Must be able to import data/reports\* from Electronic Registration Information Center (ERIC)
- kk) Must be able to import\* death data from Delaware Department of Health and Social Services and other authorized state and federal agencies for list maintenance.
- II) Must be able to process voter registration for underage voters (X yr. olds) and automatically activate them once they become eligible. Allow authorized administrator to configure X.
- mm) Must be able to process party affiliation changes during a closed period and hold/maintain these changes to be applied automatically when the party change period reopens.
- nn)Must be able to process voter registration for new voters during a closed period and automatically activate them once the period opens.
- oo)Must be able to import\* felon lists from authorized state and federal agencies for list maintenance.
- pp)For imported data\* for list maintenance:
  - i. System must be able to match individual records to existing voters. Search must have confidence match ratings configurable by authorized Administrators.
  - ii. Facilitate list maintenance with minimum user data entry and manual matching.
  - iii. For data received in non-electronic format, e.g. paper or scanned copies of paper reports, system must allow for manual data entry.

**★** Note: Must be digitally signed and/or verified. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology



requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

- 3) Voter Registration Addresses: These requirements cover addresses.
  - a) Must provide for capture and storage of the following discrete data fields related to a voter's address:
    - 1) House number;
    - 2) House fraction number;
    - 3) House number suffix (alphanumeric);
    - 4) Two-character pre-directional code (e.g. S for South., SW for Southwest) \*;
    - 5) Street name (alphanumeric);
    - 6) Street Suffix Abbreviations (e.g. BLVD for BOULEVARD, RD for ROAD, etc.) \*;
    - 7) Two-character post-directional code \*;
    - 8) Unit Type & Number (alphanumeric) \*;
    - 9) City;
    - 10) State\*
    - 11) Zip \*;
    - 12) Zip plus four\* (optional with respect to each voter); and
    - 13) County.

**NOTE: \* Must conform to USPS standards** 

- b) System must include the capability to standardize residential and mailing addresses against USPS standards.
- c) System must provide a means of overriding address standardizations needed to account for non-traditional residential addresses or non-US mailing addresses. Must be able to capture and store an address in a free-form format as a registered voter's official residence (e.g., the voter's address might be "THREE MILES NORTH OF ACME GROCERY STORE, Alturas, CA" or "Mile Marker 29.5, Hwy 85").



- d) Must provide for capture and storage of multiple mailing addresses for a voter, including permanent mailing addresses, temporary mailing addresses (with beginning and ending effective dates), permanent voteby-mail addresses, and one-time vote-by-mail addresses.
- e) Must determine whether or not a mailing address is within Delaware based on available data in the mailing address.
- f) Must be able to capture and store a voter's "Mailing" and "Vote-by-Mail" address using the following fields that can be used with mailing Software:
  - 1) Free-form data entry;
  - 2) Fields long enough to meet US postal, foreign and military mail regulations;
  - 3) Postal codes; and
  - 4) Country code
- g) System must provide the means to identify an address as an "invalid voter address", e.g. commercial address, private mail boxes, invalid delivery point, etc.
- h) The system must notify the user if a residential address has been identified as an "invalid voter address" and preclude the use of that address as a residential address.
- i) The system must provide for overriding the preclusion of an "invalid voter address" as the residential address of a voter, and capture and store the reason for the override.
- j) The system must provide the capability to remove an "invalid voter address" designation from a voter address.
- k) System must allow for the extraction of addresses.



- I) System must allow for the bulk standardization of addresses.
- m) System must provide a means to export addresses for external validation against CASS certified address standardization software.
- n) System must provide the capability to import and update addresses validated against CASS certified address standardization software.
- 4) Voter Registration Voter Search: These requirements cover voter registrant searches that will be executed by authorized users or staff.

Users may execute searches to research voter registration issues, resolve list maintenance questions or address other issues.

Requirements listed here include those that are specific to searches that are executed for list maintenance or research purposes, as well as those that are applicable to any search.

- a) Must allow an authorized user to query and locate an existing record in the system interactively, using any one or a combination of the following criteria:
  - 1) Full or partial first name;
  - 2) Common variances on first name;
  - 3) Full or partial middle name;
  - 4) Full or partial last name;
  - 5) Soundex variations on last name;
  - 6) Full or partial residence address;
  - 7) Full or partial mailing address;
  - 8) Full or partial telephone number;
  - 9) Full or partial Voter ID:
  - 10) Full or partial DL/ID;
  - 11) Full or partial Registration application number;
  - 12) Full or partial SSN4;
  - 13) Full or partial date of birth (DOB)
  - 14) Place of birth;
  - 15) Political party preference;
  - 16) Election District; and
  - 17) Political district.



- b) In response to a search executed for research or list maintenance purposes, system must return all high-confidence matches and all potential matches that exceed the minimum matching threshold (See: Record Matching and Merging).
- c) For any executed search, system must display the following information, at a minimum, for each match:
  - 1) Full voter name;
  - 2) Voter ID;
  - 3) Date of birth;
  - 4) DL/ID (if available);
  - 5) SSN4 (if available); and
  - 6) Residence address
  - 7) Where they vote
  - 8) Voter status (e.g. active, inactive, purged to include reason and date, etc.)
- d) For any executed search, system must, upon user choice, display applicable detail for a presented match, including:
  - 1) Historic voter activity data;
  - 2) Historic voting participation data;
  - 3) Historic affidavit/application images and
  - 4) Historic signature images.
- e) For any executed search, system must, upon user choice perform the search
- f) Synchronously; or
- g) Asynchronously. If done asynchronously, provide user a means to know that search has completed.
- h) For any executed search, system must, upon user choice export result to CSV, MS Excel, PDF, MS Word formats.



5) Voter Registration – Registration Processing: All voter registration additions and updates from the in-premise Delaware Department of Elections staff will be submitted via this system.

For voter registration transactions, the Delaware Department of Elections staff may optionally begin with a search of records. If the staff executes a search of the database as an initial step, the system will present a single matched record, if available, that meets or exceeds the high-confidence threshold for that search function. The staff may optionally select that matched record for the purpose of pre-populating the data in a new transaction, and then make additions and changes to the data. If the staff does not search for a match, or if the system does not return a single high-confidence match in response to a search, the staff will enter all required data fields for a new transaction.

The process described in these requirements refers to the ID Verification process (which is described in more detail in ID Verification).

- a) In response to a search that a user executes for purpose of submitting changes to an existing voter registration record, system must display a "match" result only if there is a single match that exceeds the high-confidence threshold.
- b) Must evaluate all submitted registration records against configurable data validation rules, and reject any records that have one or more errors configured as critical severity.
- c) Must provide the capability for authorized users to configure data validations, including adding, modifying, enabling/disabling, and setting severity level.
- d) Must submit registration records that were not rejected for critical severity data validation errors to the ID verification process as described in ID Verification.



- e) If system finds a single, high-confidence match of an existing voter record with the submitted record, system must, upon user choice, update the existing voter registration record with information from the submitted record. (See Record Matching and Merging concerning merge and match requirements.)
- f) If system cannot find a single, high-confidence match of an existing voter registration record with the submitted registration record, system must, upon user choice, create a new record for the voter.
- g) Voter registration applications captured, upon user choice, may remain in partial completion status, until additional requirements are received or authorized users apply the update or create a new voter.
- h) Must determine and indicate whether the voter is required to provide ID when voting in accordance with HAVA Section 303(b) and 42 U.S.C. Section 15483(b)(1), and any other applicable state or federal law.
- i) Once a Voter ID is assigned to a voter record, system must record voter status, according to configurable business rules.
- j) Must determine and assign the voter's election district. See Voter Registration Registration Processing Election District Assignment.
- k) Must provide ability for "Walk-in" applicants to interact with a signature-capturing device, including:
  - 1) Choose from changing or not changing party affiliation
  - 2) Selecting a party affiliation from a list or typing a party name of their choice
  - 3) Accepting and signing the declaration



- I) The signature-capturing device must display existing voter information, newly captured voter information, as well as general information (e.g. closed period for changing party affiliation).
- m) Must provide ability to scan and upload applications from non-walk-in registrants. Facilitate automatic signature clipping.
- n) When a county submits a change in status of a voter's registration to "cancelled" or "inactive" based on information received locally within the county, system must automatically accept the change in status and the county-supplied reason for the change.
- o) For each new registration, reregistration, or update of name, date of birth, CDL/ID or SSN4 with the resultant new or updated record in "active" status, system must compare that record against available death records for possible matches.
- p) For each new registration, reregistration, or update of name, date of birth, CDL/ID or SSN4 with the resultant new or updated record in "active" status, system must compare that record against available felon records for possible matches. See Felon Research for additional information.
- q) For each new registration, reregistration, or update of name, date of birth, CDL/ID or SSN4 with the resultant new or updated record in "active" status, system must compare that record against all other existing records for possible duplicates.
- r) Must provide ability to segregate deficient voter registration applications.
- s) Capture, store, view all forms and correspondence received from the voter.



Note: Digitally sign and verify it. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

- t) Flag registrations that provide residence locations that are not shown as dwellings for further investigation
- u) Should also provide for a search by address that provides a list of persons registered at that address, this is useful if the version of the name on the new application is too different from the name of the same person registered at the address.
- v) Must prevent persons registering at a prohibited address (USPS PO boxes, private mailbox facilities, etc., but provide a capability for a supervisor to override and include the reason for the override.
- 6) Voter Registration Registration Processing Election District Assignment:
  - a) System must automatically assign districts, including election district, based on the residence address provided.
  - b) System must have a central repository of addresses, election district and district assignment information.
  - c) System must allow an address point or a street segment to be updated.
  - d) System must provide tools to facilitate a consistent approach to assigning and maintaining election districts and districts.
  - e) System must provide the capability to record election district and district geographic descriptions.



f)	System must provide a method for manually overriding assigned election districts and districts.
g)	System must provide the capability to prepare jurisdiction, district, and election district data.
h)	System must provide the capability to map addresses to unique election districts and appropriate office districts.
i)	System must provide the capability to verify election districts and district records.
j)	System must provide the capability for County to maintain the election districts, district and address data for its own county.
	ter Registration – Registration Processing – Felon Research: This scribes the process of reviewing possible felon matches.
a)	Must provide ability to match against the Delaware Criminal Justice Information System to determine if registrant is a felon.
b)	Must provide the capability for authorized Administrators to enable or disable the felon verification.
c)	Upon determining that registrant is a possible felon, the system must flag the record for further investigation.
d)	Must provide ability for Department of Correction users to review all registrants flagged as possible felons.



7)

- e) Must provide ability for Department of Correction users to view relevant registrant information to determine if the registrant has completed his/her sentence.
- f) Must provide ability for Department of Correction users record the outcome of their research.
- g) Must provide ability to proceed with new registration, reregistration, or update of registration for non-felons and felons who have regained their right to vote (e.g. completed their sentence).
- h) Must provide ability to reject applications for non-eligible felons and to store the reason for rejection in the application.
- i) Must provide ability to generate report, extract date, and create letters of rejections.
- j) Must provide the capability for authorized users to register or deny registration regardless of Department of Correction research outcome. System must capture and store reason and user information for overrides.
- 8) Voter Registration ID Verification: These requirements describe the ID verification that is to occur for every voter registration or re-registration transaction before it is applied to the voter registration roll.

The process validates a DE driver's license number, an identification card number or an SSN4 through an interface involving data maintained by Delaware's Department of Motor Vehicles (DMV).

a) Must support the DMV ID verification (IDV) interface, which operates on a transactional basis, for SSN validation, per HAVA.



- b) For new voter registrations, re-registrations, and for updates with a change of name, date of birth, DL/ID or SSN4, system must automatically submit the data for validation from the DMV or the Social Security Administration through the IDV interface.
- c) When ID verification cannot be completed at time of receipt of the transaction, the record must be saved with an indicator/flag, and system must automatically retry an incomplete ID verification.
- 9) Voter Registration DMV Change of Address: Delaware's current implementation of the National Voter Registration Act (NVRA, or 'motor voter') allows for electronic processing of address changes for existing registered voters.

System to provide functionality to support this process, namely:

- 1. Attempt to match the records against existing voter registration records:
- 2. Provide such matches for appropriate processing; and
- 3. Provide unmatched (or below the established confidence threshold) transactions for further research and possible match to a voter.
- a) Must receive voter registration address change data from ERIC, other sources in accordance with the National Voter Registration Act (NVRA).
- Must attempt to match change of address (COA) transactions against existing voter registration records using established matching criteria (See Record Matching and Merging for requirements specific to matching criteria.)
- c) For matches of COA transactions against existing voter registration records that meet or exceed the established confidence threshold, system must, either automatically or upon user choice:
  - 1) Update the existing voter registration record with the new voter registration data received; and



- 2) Update the voter activity history with the basis for registration changes.
- d) For matches of COA transactions that do not meet the established confidence threshold for automatic matching but that meet the established minimum confidence threshold of that match function, system must automatically notify the county that it must make a determination of whether the records match.
- e) When a county verifies that a pre-existing voter registration record matches the COA transaction, system must:
  - 1) Record that information, including the basis for determination, in the voter activity history of the matched voter; and
  - 2) Update the existing voter registration record with the new voter registration data.
- f) If a county determines that the potential match of COA transaction to a preexisting voter registration record is not valid, system must record the determination that the COA transaction was not associated with the record and the basis for that determination.
- g) Must provide authorized users the capability to un-match previously matched COA transactions at any time after such matches have been applied. In such instances, system must correct any changes that were applied to the record as a result of the prior match and handle the transaction as a confirmed non-match for that process.
- h) When a COA transaction cannot be matched against any existing voter registration records, system must send unmatched COA data to the appropriate county.
- 10) Voter Registration Polling Place Cards: The department must mail voters polling place cards (PPC) following voter registration, reregistration, or updates to the voter record based on a variety of data points (e.g., voter's notification of an address change).



System must provide the capability to generate an extract to mail PPCs through a third party such as the Department of Technology and Information, Office of Management and Budget: Government Support Services - Printing and Publishing Office.

- a) Must have the capability to generate a data extract, based on the applicable mailing address for each voter of all required PPC information across the State so that PPCs can be printed by the State through a third-party mailing house.
- b) Must have the capability to generate pre-formatted and pre-populated PPC in PDFs, based on the applicable mailing address for each voter of all required PPC information across the State so that the PDFs can be printed in-house, by the State, or through a third-party mailing house.
- c) Must indicate in the voter record the date that the record was included in a data extract or PDF for PPC mailing.

11) Voter Registration – Absentee Voting: These requirements focus on supporting voters that will not be voting in their designated polling place on Election Day. Voters may request for absentee ballots mailed to them or they can walk in to their county office to vote on an absentee ballot in person. Voters may be eligible to vote absentee thru either UOCAVA (Federal law) or and "regular absentee" (Delaware law).

The data elements listed here do not constitute an exhaustive list of required data. Department of Elections expects that during the Design Phase, the Contractor will work with department staff, partner agencies, and vendors to determine all specific data elements necessary to meet all requirements stated in this RFP.



- a) System must capture Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) flags, whatever Election Administration and Voting Survey (EAVS) and FVAP reporting requirements are.
- b) Must capture and store the following data for every election:
  - 1) Type of application (e.g. Federal Postcard, Federal Write-In, Special Write-In, State defined application/affidavit, etc.);
  - 2) Source of the application (how received);
  - 3) Type of voter: Military, Overseas Citizens, etc.;
  - 4) Date application was requested;
  - 5) Date application was sent:
  - 6) Date application was received;
  - 7) Date application was returned (post marked);
  - 8) Type of elections/ballots requested;
  - 9) Whether or not the application was accepted or denied; and if denied, the reason for the denial. Use codes that can be defined and modified by authorized Administrators.
  - 10) Whether the voter wishes to exercise the permanent vote by mail option;
  - 11) Date vote-by-mail ballot was mailed;
  - 12) Whether the person voted in-person;
  - 13) Manner in which the absentee ballot was transmitted to the voter;
  - 14) When the absentee ballot was received by the elections official;
  - 15) Method of sending absentee materials (e.g., mail, fax, email, etc.);
  - 16) Method of sending absentee ballot (e.g., mail, fax, email, etc.);
  - 17) Method of return of absentee ballot (e.g., mail, fax, etc.);
  - 18) Address to send absentee ballot to.
  - 19) Form of voting (e.g., county absentee ballot or federal write-in voteby-mail ballot):
  - 20) Date absentee ballot was returned (post marked);
  - 21) Date absentee ballot was received:
  - 22) Whether the ballot was accepted or rejected; and
  - 23) If rejected, the reason for that rejection. Use codes that can be defined and modified by authorized Administrators.
- c) Must capture and store the status of uniformed services and overseas voters that have been identified and fall under the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA), including the following information:
  - 1) Classification (e.g., Uniformed Services or Merchant Marine on active duty, Eligible spouse of dependent, National Guard member on State orders, etc.); Codes that can be defined and modified by authorized Administrators.



d) Must capture and store the status of absentee voters (non-UOCAVA), including the following information: 1) Expected location and contact information on election date 2) Reason for voting absentee, based on codes that can be defined and modified by authorized Administrators. 3) Special qualifications e) Must support paper and online applications. For applications submitted online refer to State-Level Processes - Website: Voter Portal (Public Access). f) Must capture an image of the application (i.e. FPCA, Absentee Affidavit) and attach it to the voter's record. g) Must be able to register new voters and update existing voter registrations from UOCAVA applications (FPCA). h) Must be able update voter registration from absentee applications/affidavits. i) Must be able to send automated email notification at every step of the absentee voting process, e.g. upon receipt, completed. j) Must be able to update and delete applications. k) Must be able to change/remove absentee status.

I) Must be able to capture information for walk-in voters, including

electronic signatures for absentee applications.

111)	all elections.
n)	Must be able to accept applications, provide status, mark absentee ballots, etc. online (See State-level Processes – Website: Voter Portal (Public Access)).
0)	Must be able to assign unique ID (a.k.a. voucher number) for every absentee ballot issued, e.g. for walk-in applicants.
p)	Must be able to generate a list of reserved voucher numbers for future absentee ballot issuance, e.g. for paper applications as a backup or alternative intake.
q)	Must be able to assign voucher number by batch, e.g. issue voucher numbers to every voter eligible to vote by absentee for a specific election, by voter type.
r)	Must be able to void, reissue, and make corrections to voucher numbers or a range of voucher numbers.
s)	Must be able to identify whether a voucher number has been assigned, or reserved. If reserved, whether it's been assigned/used or not.
t)	Must be able to print mailing labels for absentee envelopes.
u)	Must be able to customize and design mailing labels and absentee envelope printing without assistance from the vendor. Support barcoding (e.g. Code39, Code128, QR Code, USPS IMB) of values such as the voucher number, and delivery points.



- v) Must be able to print absentee voter and mailing information directly on envelopes, e.g. a dedicated high-speed envelop printer (Pitney Bowes DA95f).
- w) Must be able to select, apply various filters and sorting absentee voters for data extraction, reporting, printing of labels and envelopes.
- 12) List Maintenance Record Matching and Merging: These requirements focus on the configuration of criteria for determining matches between records (either duplicate voter records, matches returned in response to a user-initiated search, or matches of voter records with death, felon or third party address change records) and on requirements associated with merging records that are determined to be a "match."

Though this section is called upon in Registration Processing and matching is referenced DMV Change of Address and other List Maintenance requirements sets, the focus here is the specification of the matching processes and the merge and unmerge processes.

- a) Must include a user-configurable method for authorized Administrators to:
  - 1) Establish sets of registration record matching criteria;
  - 2) Configure which criteria apply to each type of matching function (e.g., user-initiated registrant search for list maintenance/research purposes, user-initiated search for purpose of submitting data additions or updates, search for existing record upon receipt of a registration transaction, death record matching, felon record matching, duplicate record checks, NCOA matching, etc.);
  - 3) Assign "confidence" levels to each criteria set as it applies to each matching function; and
  - 4) Establish threshold confidence levels required for manual or automatic application of matches for each matching function.
- b) Must allow authorized Administrators to establish one or more bases for matching data in a registration record field, including (where applicable):
  - 1) Exact character match;



- 2) First "X" characters of the field (where "X" is user configurable);
- Same characters and order in string, but with spaces and punctuation removed;
- 4) Soundex match (or alternative method based on phonetic pronunciation);
- 5) Common nicknames match based on common variations of First Name established by authorized users (e.g., Robert = Bob, Bobby, Rob);
- 6) "X" matching characters within string; and
- 7) Same month and year.
- c) Must allow authorized Administrators to identify a set of matching criteria based on combinations of individual field match settings, such as:
  - 1. First Name- with "Common nicknames"; Last Name- first 4 characters; and Date of Birth- same day and month; or
  - 2. DL/ID exact match; First Name- with "Common nicknames"; Last Name- with Soundex.
- d) Must allow authorized Administrators to configure and update whether or not an established matching criteria set is applied to each matching function, including:
  - 1. Registrant searches for purposes of pre-populating a voter record;
  - 2. Registrant searches for list maintenance and research purposes;
  - 3. Searches for an existing record based on the ID;
  - 4. Duplicate registration checks;
  - 5. DMV, DHSS-DSS, DOL transaction processing;
  - 6. Death record matching; and
  - 7. Felon record matching.
- e) Must allow authorized Administrators to individually establish "confidence" values to each established matching criteria set as it applies to each potential matching function.
- f) Must allow authorized Administrators to establish and modify confidence thresholds for each matching function so that matches found that meet or exceed that confidence threshold are automatically applied by the system. For matches that do not meet that threshold, but meet a lower "manual" minimum matching threshold, system must



generate electronic notices/lists or flag the records for the appropriate county for match review and resolution.

- g) Prior to merging, system must allow user to select which of the records will be the base for the final voter record, and the option to copy values from certain fields from the other record.
- h) When applying the merge, system must:
  - 1. Record that information, including the basis for determination, in the voter activity history of the matched voter; and
  - 2. Create a voter registration record with the new consolidated voter registration data.
- i) When evaluating voter records to identify potential matches with other voter records (match within the system), DMV transactions, death records and felon records, system must exclude the following from matching results and notices to counties when same match criteria were used:
  - 1. Previously verified matches;
  - 2. Previously verified non-matches; and
  - 3. Previously identified potential matches pending determination.
- j) Must provide the ability for authorized users to batch clear, by date range and/or by the county user ID, match determinations made inappropriately.
- k) Must merge voter registration data into a single registration record when duplicate registrations are confirmed. The voter registration data must include voter activity history and voting participation history and be merged into the record with the most recent date of registration or voter registration update activity.
- Must provide authorized users with the ability to un-merge a single voter registration record into separate registration records in the event



that registration records were incorrectly merged. The separated voter registration data must include voter activity history and voting participation history and the separate registration records must contain the appropriate registration data.

13) List Maintenance – Death Records: Department of Elections receives death records from the Delaware Health and Social Services (DHSS) and ERIC and must utilize this information for list maintenance purposes. The Department also utilizes obituaries for list maintenance.

Department of Elections is responsible for ensuring any confirmed matches of death records with registered voters result in a cancellation of voter registration of the deceased persons.

- a) Must receive and store death records from different sources, e.g. DHSS, ERIC, obit.
- b) Must match all new death records received against existing voter registration records to identify existing voters that may have died.
- c) For matches with new death records that meet or exceed the established confidence threshold, system must automatically or upon user choice:
  - 1. Cancel the voter's registration;
  - 2. Record the basis for that cancellation in the voter's activity record; and
- d) For matches of new death record transactions that do not meet the established confidence threshold for automatic matching but that meet the established minimum confidence threshold of that match function, system must automatically:
  - 1. Note the potential match in the voter's record; and
  - 2. Provide a method for investigation and resolution of the potential match.



- e) Must allow an authorized county user to enter a determination of the validity of the potential match (valid or invalid).
- f) Must apply authorized county users' determinations of validity of potential matches and change voter status, if appropriate.
- g) Must provide authorized users the capability to un-match previously matched death records at any time after such matches have been applied. In such instances, system must correct any changes that were applied to the record as a result of the prior match and handle the transaction as a confirmed non-match for that process.
- h) Must allow authorized users to exclude from death record matching processes any death record determined to be incorrect or invalid.
- 14) List Maintenance Felon Data: In order to comply with applicable laws, system must have the capability to receive felon records from the state and federal agencies, e.g. Delaware Department of Justice (DOJ), Department of Corrections (DOC); to store such records on an ongoing basis; match records to voter registration records, and send electronic notices to counties to confirm potential matches; and, for confirmed matches, update registration status.

When felon data indicate that an individual is no longer under their jurisdiction (i.e., no longer incarcerated or on parole), system must ensure that the record is no longer included in checks for matches of felon records with voter registration records.

- a) Must be capable of receiving and storing felon records.
- b) Must match all new felon records received against existing voter registration records to identify existing voters that may have become ineligible due to felon status, or may have become eligible to vote due



to no longer being under DOJ and DOC jurisdiction (i.e., no longer incarcerated or on parole).

- c) For matches with new felon records that meet or exceed the established confidence threshold, system must automatically, or by user choice:
  - 1. Change the status of the voter's registration; and
  - 2. Record the basis for that change in the voter's activity record.
- d) For matches that do not meet the established confidence threshold for automatic matching but that meet the established minimum confidence threshold of that match function, system must automatically note the potential match in the voter's record.
- e) Must provide the ability for an authorized county user to enter a determination that the potential match is valid.
- f) Must provide the ability for an authorized county user that has investigated and determined that the potential match was invalid to enter that determination.
- g) Must provide authorized users the capability to un-match previously matched felon records at any time after such matches have been applied. In such instances, system must correct any changes that were applied to the record as a result of the prior match and handle the transaction as a confirmed non-match for that process.
- h) Must allow authorized users to exclude from felon matching processes any felon record determined to be incorrect or invalid.
- 15) List Maintenance Duplicate Identification: The system must have the capability to identify duplicate voter records and take action to ensure there is only one voter record for every eligible voter in Delaware in the official list of voters.



- a) Must provide the ability for authorized user to schedule and run duplicate checks across all voters in the database to identify potential duplicate registration records for the same voter using the criteria established for such matching.
- b) Must automatically, or by user choice, merge voter registration records and assign the voter to the appropriate county when duplicate records are identified based on match criteria sets that meet or exceed the established confidence threshold.
- c) Must, before automatically applying potential duplicate records, check voting participation history for the older registration record. If the older record indicates voting activity in an election after the date of registration in the newer record, the match must not be applied automatically and, instead, system must send electronic notice of potential match to the appropriate county(s).
- d) For matches of potential duplicate records that do not meet the established confidence threshold for automatic matching but that meet the established minimum confidence threshold of that match function, system must automatically note the potential match in both records.
- e) For those records where a potential duplicate was identified with a record in another county, and an authorized county user makes a determination of match validity, system must update the other record with the determination.
- f) System must provide authorized users the capability to un-match previously confirmed duplicate records at any time after such matches have been applied. In such instances, system must correct any changes that were applied to the record(s) as a result of the prior match and store the determination that the records were confirmed non-duplicates.



- List Maintenance Moved out of State: The system must have the capability to match voters against lists that contain Delaware citizens that have moved out of the state. The lists include those from DMV that list drivers who have surrendered their driver license in another state, as well as from the ERIC cross state report that lists Delaware voters that have registered to vote in another state.
  - a) Must provide the ability for authorized users to schedule and run moved out of state checks across all voters in the database to identify potential records using the criteria established for such matching.
  - b) Must evaluate the results and reject invalid results such as address changes previously received.
  - c) Must note a potential address change in the voter record and allow authorized users to extract records for mailing notices/confirmations.
  - d) When an address update has been determined to be valid where the voter moved outside the State, system must automatically, or upon user choice:
    - 1. Determine the status of the registrant in accordance with configurable business rules
    - 2. Note in the activity history for that registrant that the record was updated because of Moved out of State match.
- 17) List Maintenance Non-U.S. Citizens: System must allow for cancellation of voter registration for non-U.S. Citizens
- 18) List Maintenance NCOA: System must provide the capability to process all registered voter records against an external USPS National Change of Address (NCOA) service on a regularly scheduled basis.

Currently, Delaware receives this service monthly from ERIC. System must update the voter record with the potential NCOA match (no change in status) and provide an electronic notice to the county for evaluation and resolution. Administrators must have the capability to monitor all such pending NCOA updates until resolved by the county.



- a) Must provide authorized users the capability to configure a value 'X', such that the extracts created for NCOA processing are broken into multiple files, each containing a maximum of X records.
- b) Must evaluate the results from NCOA processing and reject invalid results - such as address changes previously received and address changes that are older than most recent changes received for a voter according to configurable business rules.
- c) Must note a potential address change in the voter record and send electronic notice to the appropriate county of the potential address change for determination of validity.
- d) When an NCOA address update has been determined to be valid where a voter has a forwarding address in the same county, system must automatically, or upon user choice:
- 1) Update the (residence or mailing) address of the registrant;
- 2) Note in the activity history for that registrant that the record was updated because of NCOA match; and
- 3) Flag the record for automatic generation and mailing of an Address Verification Card (AVC).
- e) When an NCOA address update has been determined to be valid where the voter has a forwarding address in a different Delaware county or outside the State, system must automatically, or upon user choice:
- 1) Determine the status of the registrant in accordance with configurable business rules
- 2) Note in the activity history for that registrant that the record was updated because of NCOA match; and
- 3) Flag the record for automatic generation and mailing of an AVC.
- f) When an NCOA address update has been determined to be valid where the voter has no forwarding address, system must automatically, or upon user choice:



- 1) Determine the status of the registrant in accordance with configurable business rules:
- 2) Note in the activity history for that registrant that the record was updated because of NCOA match; and
- 3) Flag the record for automatic generation and mailing of a AVC.
- 19) List Maintenance Board Approval Reports: System must allow for data extracts to be generated for elections board review prior to registration cancellation.
  - a) Facilitate the tracking of inactive voters who have had no contact for X period, where X is configured by the administrator.
  - b) Generate reports of all cancelled voters
  - c) Generate reports of all inactive voters
  - d) Generate reports of active to inactive, inactive to cancelled, active to cancelled.
- 20) List Maintenance Pre-Election Polling Place Cards (PEPPC): System must allow for data extracts to be generated for residency confirmation postcard mailings, or currently known as poll notification card mass mailing.
  - a) Must provide the ability to automatically generate a data extract of all required information in any or all counties on a batch basis so that PEPPCs can be printed by the State through a third-party mailing house.
- 21) List Maintenance –Address Verification Cards (AVCs): When the Department receives third-party notice of a change of address, elections officials are required by law to follow up with postcard to the voter alerting them to the actions being taken. For uniformity and list maintenance practices, this section describes system capability to support mailing change of address notices to voters on behalf of counties, if counties choose to have the state conduct mailings for them.
  - a) Must provide the ability for authorized users to generate a data extract, based on the applicable mailing address for each voter, of all required information for one or more counties across the State so that AVCs may be printed by the State through a third-party mailing house.
- 22) Voter Election Data Official List of Voters: As the HAVA mandated official list of eligible voters, the system must provide capability for extracting the official list of voters with respect to any election so that this data can be used to generate and print the polling place rosters and data files for electronic poll book.



a	Must provide authorized county users the ability to extract the official list of eligible registered voters with respect to any given election.
11111111111111	

- 23) Voter Election Data Voting History: System must maintain voter participation history data that are necessary for to make determination of whether a voter who registers by mail must show ID the first time he/she votes.
  - Throughout the Election Cycle period, system must capture ongoing data changes related to vote-by mail (See Voter Registration Absentee Voting) and provisional voting, to support the voter lookup capabilities on the public website and the interactive voice response system (IVRS).
  - a) System must provide the capability to capture vote credit history.
  - b) System must allow for the adding of voter history only when a ballot is valid.
  - c) System must provide the capability to edit existing vote history.
  - d) System must provide the capability to delete existing vote history. A record of deletion and who deleted must be maintained.
  - e) System must change a voter's registration status from inactive to active when vote history is applied.
  - f) System must have capability for the vote by mail module (absentee) to record received ballots and flag as the source for adding vote history.
  - g) System must allow for vote history to be added:
    - 1) After an election has been certified;
    - 2) As ballots are processed;
    - 3) To an individual voter; or
    - 4) Through a batch process.



- h) Must maintain historic voting participation for all voters, regardless of the number of elections in which voters might have participated. The history captured and maintained for each voting event must include:
  - 1) State defined code for the election;
  - 2) Election date;
  - 3) Voting district (Election District);
  - 4) How voted (vote-by-mail, early, polling place, or provisional); and
  - 5) Partisan ballot voted (for primary elections).
- i) Prior to an election, system must receive data from the Election Management system or module that enables a user to determine the following data for each registered voter:
  - 1) Voting district (Election District) assignment for the election; and
  - 2) Polling place assignment for the election
- j) For registered voters who vote a provisional ballot in an election, system must capture and store whether or not the provisional ballot was counted and, if not, the reason it was not counted.
- k) Must capture and store the voter participation in school board elections and referendum either by individual voter or mass update (using an input file)
- 24) Election Districts and Districts Mapping: So that the system can correctly determine the Official List of Registered Voters with respect to political districts, the system must maintain voting district cross reference information.

The information is required for derivation of residence in political district based on the voter's election district assignment.

a) Must be able to identify, from the voter's election district, the voter's voting district for State Senate, State Representative, County Council Districts, School Districts, Municipal Districts (e.g. City of Wilmington)



- b) Must capture and store county-defined local districts (e.g., county council, levy court, school districts) and must be able to identify, from the voter's election district, the voter's membership in such districts.
- c) Must notify county and administrators of "orphan" election districts (e.g., election districts without voters), and of "orphan" voter registration records (lacking a valid election district assignment).
- 25) Election District and Districts Redistricting: So that the system can apply new or updated district information to voters after redistricting, i.e. processing of drawing boundaries for electoral and political districts.

New district boundaries data are provided by the Elections Management system or module.

- a) Must be able to determine voter's new districts based on imported data (e.g. GIS)
- b) System must be capable of comparing districts assigned to a voter pre and post redistricting to identify potential errors. City, School and Fire District must not change.
- c) Must be able to identify, the voter's voting district for US Congress, State Senate, State Representative, County Districts, School Districts, Municipal Districts (e.g. City of Wilmington) after redistricting.
- d) Must provide the ability for authorized users to generate a data extract, prior to applying new districts.
- e) Must notify county and administrators of "orphan" voter registration records (e.g., voters without political district assignments).



- f) When update has been determined to be accurate, system must automatically, or upon user choice:
  - 1) Note in the activity history for that registrant that the record was updated because of redistricting.
- 26) State-level Processes Political Party Tracking: System must have the capability to track voters' political party data in order to (a) determine voter eligibility with respect to a primary election; (b) maintain uniformity of voter records and data; and (c) support the Voter Registration Report, which is a statistical abstract of party registration by political district.
  - a. Must allow authorized users to define and document changes to political parties. For each such party, system must capture and store the following information:
    - 1) State-assigned party code;
    - 2) Whether or not the party is Qualified, Attempting to Qualify, or Non-Qualified;
    - 3) Date of all changes in party status (Qualified/Non-Qualified/Attempting to Qualify;
    - 4) Reason for such changes (if applicable); and
    - 5) Current state party contact information.
- 27) State-level Processes Voter Registration Report (VRR): The VRR is a statistical abstract of voter registration by election district and partisan affiliation, is published by the department at prescribed times.

The system will need the capability to report on state and county level. The VRR statistics will need to be captured and protected from alteration due to subsequent changes in the underlying voter registration data.

The system must also enable an authorized users to create, on an ad hoc basis, an extract of specified VRR data elements as of an Administrator-specified VRR Date and enable the Administrator to specify/select the internal network location to which the electronic version of the resulting extract shall be routed/stored.

- a. Must provide authorized users the ability to view VRR completion status (e.g. 'requested', 'in progress', 'completed', 'data extracted').
- b. Must capture and store VRR statistics of active registered voters by election district and party within a county as of the established VRR date (or run date). System must capture these statistics county-by-county, or for the entire state at one time.



- c. Once a VRR has been deemed published the statistical data cannot be modified.
- d. Must support calculation and production of the following summary statistics for VRR component reports:
  - 1. Registration By County
  - 2. Registration By Senate District
  - 3. Registration By Representative District
  - 4. Registration By County District
  - 5. Registration By Political Party (Dem, Rep, Other)
  - 6. Registration By Minor Political Party (e.g. Natural Law)
  - 7. Registration By "Other" Political Party (i.e. free text Party Name)
- e. Must provide an authorized user the ability to:
  - Manually initiate a query to extract specified VRR data elements as of a specified VRR Date;
  - 2. Specify the file format for the resulting extract file in accordance with authorized file formats; and,
  - 3. Specify the internal network drive location to which the extract file should be output/stored.
- 28) State-level Processes –Voter Registration Data Requests (VRDR):
  Requirements below pertain to the need for the system to support workflow and associated data related to investigation, evaluation and fulfillment of VRDRs.
  - a) Must allow authorized users to input, track and review Public Voter Registration Data Requests (VRDRs), including:
    - 1. Requestor name:
    - 2. Requestor ID number and type;
    - 3. Requestor organization;
    - 4. Requestor residence and business addresses:
    - 5. Requestor contact information (phone, fax, email addresses);
    - 6. If Requestor is acting as an authorized agent for a qualified party, the name, address and contact information for the party legally qualified to purchase the data;
    - 7. Requestor's stated purpose/use for the data;
    - 8. Date of application;
    - 9. Date application received;
    - 10. Basis for qualification (election, party, academic, journalist, etc.);
    - 11. Date of application fulfillment or denial;
    - 12. Status of application:
    - 13. Criteria used to select/exclude records for the extract: and
    - 14. Filename(s) and number of records provided in the extract.



- b) Must allow authorized users to log the following items related to processing and fulfillment of a VRDR:
  - 1. Date the event occurred
  - 2. Time the event occurred
  - 3. Free-form text note, averaging fifty (50) characters per VRDR and scalable to one hundred (100) characters per VRDR, of activities and events
- c) Must provide authorized users with a method to select voter registration records for inclusion or exclusion in a VRDR extract based on multiple criteria, with the ability to specify a range or list where applicable, including:
  - 1. County of residence;
  - 2. City of residence;
  - 3. Zip code(s);
  - 4. Home voting district (Election District);
  - 5. Political party affiliation;
  - 6. Current or historic date of registration;
  - 7. Age (before or after a specified date of birth, or within a specified range of dates of birth);
  - 8. Language preference;
  - 9. Voting participation history; and
  - 10. Political district (such as State Senate District, State Representative District, County District, etc.).



- d) In fulfillment of a VRDR, system must be able to produce an extract as a standard text file, with a delimiter (set by the administrator) that includes user-selected data fields, such as:
  - 1. Voter ID
  - 2. Voter Name
  - 3. Date of Birth or Year of Birth
  - 4. Phone Number
  - 5. Residential Address
  - 6. Mailing Address
  - 7. County
  - 8. Districts
  - 9. Party
  - 10. Date of Registration
  - 11. Voting History
  - 12. Date Last Registration Change
  - 13. Code Last Change Voter
  - 14. Status of Voter
- e) System must be able to save user data extract preferences as profiles for later execution. For example users may create a profile based on HB245, i.e. a profile for public requests, candidate and political party requests, and another for the General Assembly, or State, County and local governments.
- f) System must allow users to delete previously saved preferences or profiles.
- 29) State-level Processes Website: Voter Portal (Public Access):
  Requirements listed below pertain to the need to provide online voter
  registration and self-service lookup of registration status and ballot status.

Delaware has adopted a standard for web applications to support mobile devices by optimizing standard browser screen displays via a common look and feel.

Delaware expects that any support the system provides for mobile devices will not require installation any application or other component on those devices. The system will be required to use the common look and feel.

The requirements below include translation of public-facing pages into different languages. Pages and functions to be translated are all of those pages/functions that are used by the public in order to register to vote. Information and features that are not used in order to register to vote (e.g., polling place information) need not be translated.



The system must comply with State of Delaware Enterprise Standards and Policies, Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information.

- a. For privacy purposes, the public website must require an individual accessing the website to provide sufficient personally identifiable information to authenticate the individual and to prevent others from accessing that voter's data, and must not provide or confirm any additional private information. The personally identifiable information must be configurable by an authorized administrator, such as: first name, date of birth, house number and zip code, DL/ID.
- b. For privacy purposes, the public website must require the user the option to use two-factor authentication.
  - i. Telephone Verification
  - ii. Email Verification
  - iii. HOTP/TOTP Software/Hardware Tokens (e.g. Google Authenticator, Authy)
  - iv. Cryptographic measures not otherwise mentioned.
- c. The public website must allow a voter to determine:
  - 1. Whether he or she is registered to vote;
  - 2. Whether or not voter is registered as a permanent vote-by-mail or one-time mail ballot voter; and
  - 3. Political party preference.
  - 4. His or her elected officials.
  - 5. Other publicly available voter information, voting history
- d. The public website must support online voter registration pursuant to applicable state and federal law, including new registration and updates to an existing registration.
- e. The public website must support online voter functions, including:
  - 1. Submit vote-by-mail (i.e. absentee) requests
  - 2. Submit Federal Post Card Applications (FPCA) for uniformed service and overseas citizens
  - 3. Submit requests for voter registration cancellation for themselves and their close relatives
  - 4. Submit requests for a polling place card
  - 5. View voter-specific sample ballot
- f. The public website must allow a voter to choose the method of signing their requests, including:
  - 1. Use of his or her existing electronic signature with Department of Elections
  - 2. Use of his or her existing electronic signature with DMV. Note:



- Utilize existing service.
- 3. Use of a pointing device to draw signature, e.g. stylus, mouse
- 4. Use of a saved picture of a signature
- 5. Print, sign and mail the application.
- g. Must provide authorized Administrators a method to configure signature options for each type of application or request.
- h. The public website must allow a voter to determine the status of submitted requests.
- i. The public website must allow a voter to determine:
  - 1. His or her eligibility to vote in an upcoming election;
  - 2. His or her voting election district for an election; and
  - 3. His or her polling place for an election.
  - 4. Driving directions to his or her polling place.
- j. The public website must allow a voter to:
  - 1. View login and logout history
  - 2. View request history
  - 3. Pause and resume completing the application
- k. Must allow members of the public to perform all online voter registration and self-service lookup functions using mobile devices without requiring installation of any application or component on the mobile device.
- The public website must allow voters who have voted a provisional ballot to determine if their ballot was counted and, if not, the reason it was not counted.
- m. The public website must allow voters who have voted a vote-by-mail ballot to mark their absentee ballot online.
- n. Must provide authorized Administrators a method to configure vote-bymail voters that can use the online function to mark their absentee ballot online.
- o. The public website must allow voters who have voted a vote-by-mail ballot to determine:
  - i. Date when his or her request was received
  - ii. Date when his or her ballot was sent
  - iii. Date when his or her ballot was received
- p. The public website must allow voters who have voted a vote-by-mail ballot to determine if their ballot was accepted and, if it was rejected, the reason it was rejected.
- q. The data on voters' registration status and ballot status that displays on the public website must be current as of a point in time of the user's query.
- r. Must allow an authorized administrator to control the updates of public access website data on voters' eligibility to vote in an upcoming election, election district assignment, and polling place assignment for an election.
- s. The data that are accessible and queried through the public access



- website must not change during a user's execution of a query.
- t. All public-facing web pages and functions that a member of the public views or uses in order to register to vote, change voter registration-related data, or look up registration status must be available in two (2) languages (English plus one (1) additional language). These languages currently include English, and Spanish. (Department of Elections will be responsible for providing the required translations.)
- u. Must be scalable and extensible to support web pages and functions that a member of the public views or uses in order to register to vote, change voter registration-related data, or look up registration status in a total of twenty one (21) languages (English plus twenty (20) other languages). Support for multiple language translations must not necessitate recompilation or recoding of the system.
- v. Must provide authorized Administrators a method to configure availability of the public website or select functions.
- w. The public website must have the capability to track voter registration from third party organizations and assign appropriate method of registration codes. Registration of third party organizations shall be defined by authorized Administrators.
- 30) State-level Processes Website: Offsite Registration: Requirements listed below pertain to the need to provide online voter lookup and registration by authorized users outside of normal business environment, e.g. state fair, naturalization ceremonies.

Delaware expects that any support the system provides for mobile devices will not require installation any application or other component on those devices.

- a. The website must require an individual accessing the website to provide sufficient personally identifiable information to authenticate the individual and to prevent others from accessing the system.
- b. For privacy purposes, the public website must allow user the option to use two-factor authentication.
- c. The website must provide capability to search voters and determine if they're registered and to display relevant voter registration information, such as addresses, districts, polling place, etc.
- d. Must provide the capability to submit voter registration applications, including capturing of electronic signature.
- e. Must provide ability for authorized Administrators to setup the events for which users can use the website, e.g. registration drives during the week(s) of the Delaware State Fair.
- f. Must provide ability for authorized Administrators to manage users by



event.

- g. Must provide ability to track registration captured by event, and by user.
- h. Registrations captured through this website will be in partial state of completion. This is purely for intake.
- i. Must provide ability for authorized Administrators to configure the types and levels of validations, e.g. ID verification, felon checks, for applications captured through this method.
- 31) State-level Processes Voter Registration Services: Support real-time voter registration from other state agencies and partners.
  - a. Must host services that will securely and reliably receive voter registration transactions (including declinations) from state agencies and partners, e.g. DMV, DHSS-DSS, DOL, etc., in real-time.
  - b. Must provide state agencies and partners the capability to:
    - i. Determine if their customer is registered to vote;
    - ii. If not registered, allow the customer to decline to register to vote;
    - iii. Determine if period of party changes is open;
    - iv. Retrieve list of political parties
  - c. Must support over-the-counter (e.g. DMV associate processing an applicant) and self-service (using kiosks, or using personal devices via the internet) voter registration methods.
  - d. Must store and capture data and electronic signature for voter registration. Note: Signature capturing methods use by state agencies and partners are outside of the scope of this RFP.
  - e. Must provide capability for county elections staff to review each application prior to creating new voters or updating existing voter registrations.
- 32) State-level Processes Voter Registration Query Services: Support voter registration queries from users of other state agencies and partners.

Certain citizen services provided by Department of Insurance, Office of the Lt. Governors, Office of the Governor, and General Assembly require them to be able to inquire voter's registration information, such as address, political affiliation and voting history.

- a. Must provide authorized Administrators capability to create and manage user accounts for users of other state agencies and partners
- b. Must provide authorized Administrators capability to determine and setup limited access to users.
- c. Queries from users of other state agencies and partners must not update



voter registration information.

- d. Must provide state agencies and partners the capability to login to search voters.
- 33) State-level Processes Voting History Match: System must provide capability to process ERIC data containing possible voting history matches (possible double-voting).
  - a. Must provide capability to extract voter registration, absentee information, voting history, and other relevant information to assist in the investigation.
  - b. Must provide capability for authorized users to capture and store status/determination of each case. Use codes that can be defined and modified by authorized Administrators.
  - c. Must provide capability to generate reports.

## **General System Requirements:**

- Standards and Policies: The system must comply with State of Delaware Enterprise Standards and Policies, Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information.
- 2) Audit Requirements: The system must log every action that changes voter registration data, election district mapping data, political party data, or security roles or role assignments. Logs must contain sufficient information for authorized Administrators to reliably reconstruct the chain of events and, where possible, track them back to a specific user.
- a. Must log all creations of and updates to voter registration data that are executed as a result of actions by users and automated processes. The following information must be logged for each such change to voter registration data:
  - 1. Data that was changed;
  - 2. Prior value of the data before the change (if applicable);
  - 3. Date and time of the change; and
  - 4. Source of the change (either an automated process identifier or user ID/name).
- b. Must log all creations of and updates to voter registration data that are executed as a result of actions by members of the public using the public access website. The following information must be logged for each such change to voter registration data:



- 1. Data that was changed;
- 2. Prior value of the data before the change (if applicable);
- 3. Date and time of the change; and
- 4. Source of the change (i.e., 'website user').
- c. Must log all instances of viewing individual voter registration records, searching voter registration records, executing queries and reports against voter registration data, and executing extracts of voter registration data that are initiated by users. The following information must be logged for each such instance:
  - 1. Date and time of the initiation of the view of the record, search execution or query/report or extract execution;
  - 2. Source or performer of the action (user name); and,
  - 3. For searches, executions of queries and reports, and executions of extracts, the data selection and filtering criteria for the search, query/report, or extract.
- d. Must log creations of and updates to election district and political district data (as described in Election District and District-Mapping) by users. The following information must be logged for each such change:
  - 1. Data that was changed;
  - 2. Prior value of the data before the change (if applicable);
  - 3. Date and time of the change; and
  - 4. User name for the individual who submitted the change.
- e. Must log creations of and updates to political party data (as described in Political Party Tracking) by users. The following information must be logged for each such change:
  - 1. Data that was changed;
  - 2. Prior value of the data before the change (if applicable);
  - 3. Date and time of the change; and
  - 4. User name for the individual who submitted the change.

5

- f. Must log all creations of and updates to security roles, security role permissions, and assignments of security roles to users. The following information must be logged for each such change:
  - 1. Data that was changed;
  - 2. Prior value of the data before the change (if applicable);
  - 3. Date and time of the change; and
  - 4. User name for the individual who submitted the change.
- g. Must provide a graphical user interface for authorized administrators to search, view, and print audit log data including filtering and sorting by any field or combination of fields. Filtering must support wild card searches and range of data where applicable.
- h. Must provide authorized administrators the capability to archive audit log entries prior to a given date of change and to retrieve archived data



## according to configurable criteria.

- 3) Reporting/Querying Requirements: The solution must include multiple pre-defined reports ready for execution by an authorized user, plus capability to define and execute ad hoc reports and queries.
  - a. The solution must provide authorized users with capability and tool(s) to query data and create formatted reports with user-defined sort criteria, filters, and subtotals/totals.
  - b. System must include a process for analyzing and reporting voter registration data for federal statistical reporting.
  - c. System must provide the capability to generate a report on underage voters in the database.
  - d. System must provide the capability to generate a report on new registrations.
  - e. System must provide the capability to generate a report on political party changes.
  - f. System must provide the capability to generate various voter registration and voting history statistical report. See some publicly available report at <a href="https://elections.delaware.gov/services/candidate/regtotals.shtm">https://elections.delaware.gov/services/candidate/regtotals.shtm</a> for reference.
  - g. System must capture statistics for paper and electronic registrations from referring agencies.
  - h. System must provide reporting capability on any and all data fields.
  - i. The data that the system displays in response to an executed report or query must be current as of a point in time of report/query execution.
  - j. The data extracted during execution of a report or query must not change during query execution.
  - k. Must allow authorized users to save created ad hoc report data selection, sort, filter, grouping, and formatting parameters for later re-execution.
  - I. Must allow authorized users to manually delete previously saved query/report statements (data selection, sort, filter, grouping and formatting parameters).
  - m. Must provide execution-ready versions of the pre-defined reports.
  - n. Must, for both ad hoc queries, ad hoc reports and pre-defined reports, allow the user to:
    - Preview/display the report or query results on screen, instead of or prior to printing the report;
    - 2. Print results of the entire report/query or user selected page(s) to a user selected printer in a local network environment; and
    - 3. Export the report or query results electronically to a user specified location external to the system, in multiple formats, including:



- Acrobat PDF, RTF, comma-delimited text file, and tab-delimited text file. (Report and query output will not be stored within the system.)
- o. For ad hoc queries and reports as well as predefined reports, the system must provide authorized users with a visual "progress indicator" during data extraction and report generation, and must allow users who execute a query or report to cancel execution prior to completion.
- p. For both ad hoc and pre-defined reports, the system must, at authorized user option, include the report parameters and report execution date in report output.
- q. Must make all stored queries and reports available for immediate generation and for batch generation.
- r. Must provide information to authorized users that batch-executed reports are completed.



## **Appendix B, Part 6: Absentee Voting**

Vendor shall provide voting equipment for absentee voting that meet or exceed the following requirements:

## Overview

a) The US EAC must have certified the voting equipment against VVSG 1.0 standard or higher.

The ImageCast Central tabulator is certified to the stated US EAC standards.

b) Provides all voters the opportunity to privately and independently cast his/her vote.

Yes. All ImageCast equipment, including our ImageCast Central solution allows for the highest level of privacy and independent voting.

c) Shall be scalable – each voting device can handle a minimum of 1,000 complex ballot styles for an election, multiple languages, and various election configurations.

The ImageCast Central solution can meet this requirement.

d) Voters' choices shall be reflected on a paper record created by the voter or voting system that a voter can review before it is cast and that is suitable for a recount.

The ImageCast Central solution can meet this requirement.

e) The voter should be able to activate the voting device and/or select accessibility features without poll worker assistance in a manner that results in the display of the correct ballot for the voter.

The ImageCast Central solution can meet this requirement for in-person voting.

f) Voting machine that utilizes voter completed paper ballots should possess the capability to determine the intent of voter who does not mark his/her ballot according to the instructions. Further, the system must possess the capability to process normal variations in printing and scanning without requiring adjustment of the mark reading thresholds.

The ImageCast Central solution can meet this requirement.

g) Voting machine that utilizes voter completed paper ballots must possess the capability of processing a ballot with a blank second or back page if no election data flows to the second or back page.

The ImageCast Central solution can meet this requirement.



h) Voting equipment that utilizes voter completed paper ballots shall possess the capability of sorting write-ins, blanks, and over-votes on a high-speed scanning device and reporting write-in votes by race and election district.

The ImageCast Central solution can meet this requirement.

i) Voting equipment that utilizes voter completed paper ballots shall possess the capability of processing ballots up to nineteen (19) inches.

The ImageCast Central solution can meet this requirement.

j) Export results by election district and race onto multiple copies of paper, and onto removable media that can be read and securely transmitted to a secure location.

The ImageCast Central solution can meet this requirement if the standard reporting and potential State reporting is required.

k) The absentee system should use standard paper instead of ballot stock and operate a ballot on demand system using a COTS printer.

Dominion's ImageCast X BMD meets this requirement if the State of Delaware so chooses.

#### **System Requirements, Performance and Capabilities**

The system shall be used to count absentee ballots at central locations in each of the State's three counties and shall meet the following requirements in addition to those mandated by the State's legal requirements listed in Appendix B – Part 2 Voting Machines and by the VVSG versions 1.0, 1.1, or 2.0.

#### 1. Accuracy

 a) Have control logic and data processing methods to detect errors and provide a method for resolving errors on ballots which impede tabulation without human review while still allowing and supporting manual review mechanisms – but which does not require physical remaking of paper ballots;

Yes. Please reference the Adjudication section following the State of Delaware requirements to learn how Dominion's Adjudication module meets this requirement.

b) Provide for the tabulation and reporting of write-in votes;

The ImageCast Central solution can meet this requirement.



c) Accommodate multi-member districts whereby multiple votes are cast for more than one position in the same election;

The ImageCast Central solution can meet this requirement.

d) In the event of the failure of a unit, retain a record of all votes cast prior to the failure; the unit shall provide for the audit of all records retained prior to the failure to determine if the records were affected by said failure.

The ImageCast Central solution can meet this requirement.

e) Shall not count overvotes;

The ImageCast Central solution can meet this requirement.

f) Shall record and report the number of undervotes and overvotes for each office and/or question on the ballot;

The ImageCast Central solution can meet this requirement.

g) Shall count ballots from various Election Districts without requiring the system to be stopped, reset, etc. when encountering a different Election District; and

The ImageCast Central solution can meet this requirement.

h) Shall provide a report after each batch of ballots have been counted that shows the number of ballots counted in each batch as well as the number of ballots not counted.

The Image Cast Central does not keep track of uncounted ballots (misread or unknown ballots). Currently Dominion is developing this capability for the ImageCast Central to be included as a new feature of our 5.8 certification.

#### 2. Audit and Security

a) Provide that each voter's ballot is secret and the voter cannot be identified by image, code or other methods

The ImageCast Central solution can meet this requirement.

- b) Provide printed records regarding the opening and closing of the polls and include the following:
  - 1. Identification of an election, including opening and closing date and times;
  - 2. Identification of each unit
  - 3. Verification that all counters are set at zero; and



4. Identification of all ballot fields and all special voting options

The ImageCast Central solution can meet all of these requirements.

c) Prevent printing of results before the sequence of events required for closing of the polls are completed;

The ImageCast Central solution can meet this requirement.

 d) Any programmable memory device shall be sealed in the unit with means of tamper resistant and preventative measures; engineering level information by the vendor must be provided to the State of Delaware;

The ImageCast Central solution can meet this requirement regarding seals. Dominion can also provide technical specifications on recommended seals at the State of Delaware's request.

e) Allow for extraction of data from memory devices to a central host; and

Note: Digitally sign it. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp-> Technology requirements - > STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

The ImageCast Central solution can meet this requirement.

f) Provide safeguards against unauthorized tampering of any system component. All components should exhibit trusted computing characteristics and be tamper resistant and preventative.

The ImageCast Central solution can meet this requirement.

3. Building Absentee Ballots (ballot preparation and other services)

The Central Count Absentee System shall include the hardware and software required to accomplish the functions described below.

- a) Absentee Ballot Specifications
  - I. For each election, the system shall provide each
    Department of Elections the capability to develop a
    database containing all necessary records and fields to
    build the ballots for each Election District in the county for
    primary, general and school elections. This includes:
    - 1. Election specific data to include global settings as appropriate;
    - 2. Political parties and appropriate logos;



- 3. Candidates:
- 4. Offices with links to the appropriate candidates
- 5. Referendums with links to appropriate responses;
- 6. Election Districts with links to the appropriate Offices; and
- 7. Reporting zone, if necessary (the location from which the results will be reported)

The ImageCast Central solution can meet all of these requirements.

II. The vendor's system shall provide the capability to create new elections, retain previously defined elections, and reuse previously defined elections. Such systems shall facilitate error-free definition of elections and their associated ballot layouts.

The ImageCast Central solution can meet this requirement.

III. The vendor's system shall provide proof sheets for each record so that the associated information can be verified.

Dominion's ImageCast Central solution can proof reports as needed.

#### b. Absentee Ballot Process

I. The vendor's system shall provide a mechanism for defining the ballot, including the definition of the number of allowable choices for each office and contest, and special voting options such as write-in candidates.

The ImageCast Central solution can meet this requirement.

II. The vendor's system shall generate all required master and distributed copies of the voting program in conformity with the definition of the ballot for each Election District. The systems operating the voting program must operate within a trusted computing environment – more specifically the full stack of the computer system must be cryptographically verifiable.

The ImageCast Central solution can meet this requirement.



III. The distributed copies, resident or installed in each voting device, shall include all software modules required to monitor system status and generate machine-level audit reports, to accommodate device control functions performed by maintenance personnel, and to register and accumulate votes.

The ImageCast Central solution can meet this requirement.

#### c. Absentee Ballot Validation

I. The vendor's system shall provide a mechanism for executing test procedures that validate the correctness of election programming for each voting device and to insure that the ballot corresponds with the installed election program.

The ImageCast Central solution can meet this requirement.

II. The vendor's system shall be able to receive data electronically from the State's Election Management System.

Note: Verify it cryptographically. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp -> Technology requirements -> STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

Dominion will work with the State and the Voter Registration provider to meet this requirement as set forth by the State of Delaware.

III. The vendor's system shall also be capable of transmitting accurate absentee results electronically to the State's Election Management System.

Note: Digitally sign it. Refer to GSS\_18809\_ELECTIONS\_SYS\_rfp-> Technology requirements - > STANDARD PRACTICES for additional information. Specifically, Cryptography Standard, and Key Management Standard.

Dominion will work with the State and the Voter Registration provider to meet this requirement as set forth by the State of Delaware.

IV. The vendor's system shall accommodate multiple languages. The system shall allow local election officials the ability to download information from software used to translate information to the appropriate language or the system should perform translations automatically with controls in place to ensure translations are accurate.

The ImageCast Central solution can meet this requirement.



#### 4. Ballot Printing

- a. The vendor's system shall provide the capability for the Department of Elections to print ballots as needed. Each ballot shall have the minimum control information in text and barcode:
  - I. Ballot style; and
  - **II. Election District.**

Depending on the barcode requirements as set forth by the Departments of Elections, Dominion's proposed Absentee Voting system can meet this requirement.

b. The vendor's system shall provide the capability to print ballots up to nineteen (19) inches.

The ImageCast Central solution can meet this requirement.

c. The voter shall make his/her selections by filling in an oval or rectangle located next to the name of the candidate.

The ImageCast Central solution can meet this requirement.

d. Where the column format as shown in voting machine section is not possible, we desire that the system shall print the appropriate party logo to the left of each candidate's name and/or the candidate's party under his/her name.

The ImageCast Central solution can meet this requirement.

e. Where ballot paper used in the system is not a COTS product, the vendor shall provide the Department of Elections the capability to purchase the paper directly from the vendor or the vendor's source.

The ImageCast Central solution utilizes COTS scanners and printers. Dominion will work with the Department of Elections to come up with the best and most cost-effective solution for the State of Delaware concerning ordering and purchasing of ballot paper.



#### 5. Back-Up Power

The system shall have the capability to operate for at least 16 hours during power failures, power surges and other abnormal electrical occurrences. The vendor shall provide documentation of the backup system and its maintenance when not in use for elections. This back-up power capability shall engage immediately with no loss of data in the event of disruption of electrical connection, and power all system components. NOTE: We are willing to discuss alternatives to this requirement.

#### **Internal Battery**

In the event of a power failure, ImageCast tabulator units have an internal Lithium Ion rechargeable battery with a two-hour life.



Dominion is happy to discuss other possible solutions during contract negotiations.

#### 6. Speed of System

A single device (scanner or tabulator) shall count at least 50 ballots per minute.

The ImageCast Central tabulators utilize a Canon G1130 scanner which scans 3500-4000 ballots per hour, thus meeting the threshold as provided by the State of Delaware.

#### 7. Election Reporting Requirements

a. Provide printed results of the absentee votes by election district for each candidate for each office and/or each question, and cumulative results for each candidate for each office in the format specified by the State.

The ImageCast Central solution can meet this requirement.

b. Provide a report for each Election District that shows the offices up for election, the candidates for each office and the absentee votes that each candidate receives for use at the Board of Canyas.

The ImageCast Central solution can meet this requirement.

c. Provide a report that shows the number of ballots counted along with the overvotes and undervotes for each office and for each office by Election District.

The ImageCast Central solution can meet this requirement.



d. Each report shall show the name and date of the election.

The ImageCast Central solution can meet this requirement.

e. Provide functionality to transmit election results via Secure File Transfer Protocol to the appropriate server over the State's wide area network.

The ImageCast Central solution can meet this requirement.

f. Provide for the storage of election results in any version of software required, i.e., Access, Excel, PDF, ASCII and HTML.

The ImageCast Central solution can meet this requirement.

g. Provide for election results to be produced in such a manner as to follow for easy copying for paper distribution upon request.

The ImageCast Central solution can meet this requirement.

#### 8. System Audit Log

The system audit log shall contain sufficient information to allow the auditing of all operations related to ballot tabulation, results consolidation, and report generation. It shall be created and maintained by the system in the sequence in which events and/or operations occurred.

The ImageCast Central solution can meet this requirement.

#### 9. Access to Election Data

Provisions shall be made for authorized access to absentee results after closing of the polls and prior to the publication of the official canvass of the vote. The system may be designed so that results may be transferred to an alternate database or device. Access to the alternate file shall in no way affect the control, processing and integrity of the primary file or allow the primary file to be affected in any way.

The ImageCast Central solution can meet this requirement.

#### 10. Other Requirements

a. Devices should be transportable, without damage to internal circuitry;

The ImageCast Central solution can meet this requirement.



b. Devices should withstand frequent loading and unloading, stacking, assembling, disassembling, reassembling, and heavy use, without damage to internal circuitry.

The ImageCast Central solution can meet this requirement.

c. Devices should provide Election Officials with a method to immediately detect if a voting unit is not operating properly;

The ImageCast Central solution can meet this requirement.

d. Devices should be "tamper-proof."

All ImageCast products have been designed with voter security and privacy in-mind. The ImageCast Central Absentee Voting solution utilizes secure passwords and physical security measures that ensure all equipment is "tamper-proof."



# Central Scanning solution: ImageCast Central – Scalable & Efficient High Speed Scanning Highlights

- Dominion's ImageCast Central tabulation system was designed with efficiency in mind. Most central count solutions that exist in the market today are large, expensive, proprietary solutions that are not scalable, efficient or easy to use or maintain.
- Dominion is presenting Delaware with the ImageCast Central, the Canon G1130.
- The ImageCast Central makes use of industry-leading commercial-off-the-shelf (COTS) hardware to decrease capital costs and minimize risk of hardware failure. So no matter the size of the county, adding multiple COTS scanners increases efficiency without breaking the bank.
- The ImageCast Central is engineered for operational simplicity. Step 1- The user loads a batch of ballots and presses 'scan' – Simple! Step 2 – When the batch scan is complete, the user presses 'accept' – Easy! The ImageCast Central continues scanning ballots until there are none left.





Dominion's ImageCast Central, like all of our ImageCast products, stores the ballot image with the secure AuditMark. The system's flexibility allows the jurisdiction to customize out-stacking conditions, such as overvotes, undervotes, marginal marks, and certified write-in contests. The ImageCast Central has all the tools election officials are looking for to make their central count process easy and more efficient. With the ImageCast Central count solution, Dominion focused its efforts on how to create efficiency using lower cost, off-the-shelf scanners which meet the VVSG 2005 standards, and software that streamlines the process.

The software is intuitive and requires minimal training for users. It is **simple** - the operator loads the batch into the scanner; presses scan. When complete, the operator presses the accept button and moves on to the next batch. The operator does nothing but process the ballots. The system's intelligence does the rest. Along with the requisite COTS hardware, the ImageCast Central provides ample flexibility to meet the needs of small, medium and large jurisdictions. ImageCast Central allows jurisdictions to consolidate results in an efficient environment, in real time.



Canon G1130 1



Jurisdictions can add ImageCast Central units to maintain efficiency while remaining cost-effective.

This use of less expensive and compact third-party devices enables the ImageCast Central count solution to offer higher sustained throughputs in the face of hardware failures, flexible site layouts when space is at a premium, and access to a vast pool of readily available replacement parts and certified technicians. All of these factors translate to improved maintainability, and lower cost of ownership.

Multiple ImageCast Central scanners can be programmed for use in an election. The ImageCast Central application is installed and later initialized on a computer attached to the central count scanner. Ballots are processed through the central scanner(s) in batches based on jurisdictional preferences and requirements.

The ImageCast Central stores ballot images by scanned batches. The scanned ballot images are migrated to the Election Management System through computer networking or removable media.



# **Section 3 - Attachments**

# 34) Complete all appropriate attachments and forms as identified within the RFP.

### **Attachment 2 : Non-Collusion Statement**

CONTRACT NO.: CONTRACT TITLE: DEADLINE TO RESPO NON-COLLUSION STA	Election ND:			Time)		Attac	chment
This is to certify that the u or otherwise taken any ac sub-contractor to another to the State of Delaware,	tion in re Vendor v	straint of free competi who also submitted a p	tive bidding in connectoroposal as a primary	tion with thi	s proposal, and further of	certifies that	t it is not
It is agreed by the unders Attachment 3, the Vendor	signed V	endor that the signed ance of the terms and	delivery of this bid re conditions of this soli	epresents, s citation inclu	ubject to any express e	xceptions s	et forth provision
NOTE: Signature of the contract with the State of				who legally	may enter his/her orga		
COMPANY NAME Don	ninion V	oting, Inc.			Check one)	X Corpo	
NAME OF AUTHORIZED (Please type or print)	REPRE:					Individ	
SIGNATURE	4	- 6		TITLE	President and CEC	)	
COMPANY ADDRESS	120	18th St. Suite	210, Denver, CO				_
PHONE NUMBER	866-6	554-8683	FAX	NUMBER_	303-291-3909		
EMAIL ADDRESS	John.l	Poulos@dominionvot		E OF SEL :	WADE.		
FEDERAL E.I. NUMBER			LICE	E OF DELA			
		Certification type(s	5)			Circle	all tha
001104104		Minority Business		47-14-15-20-1		Yes	No
COMPANY CLASSIFICATIONS:		Woman Business	Enterprise (WBE) siness Enterprise (I	DRE\		Yes	No
	2000-000	Veteran Owned Bu	siness Enterprise (	VOBE)		Yes	No
CERT.	NO.:	Service Disabled \	eteran Owned Bus	iness Ente	rprise (SDVOBE)	Yes	No
The above table is for inform							
The above table is for inform PURCHASE ORDERS (COMPANY NA ADDRESS 1201 1	AME)		Dominion Voting, Inc O 80202	). 			-,
PURCHASE ORDERS (COMPANY NA ADDRESS 1201 1	AME)						-
PURCHASE ORDERS (COMPANY NA ADDRESS 1201 1	AME) 18th St., Beckstr				JMBER <u>828-684-766</u>	6	-
PURCHASE ORDERS (COMPANY N/ ADDRESS 1201 1 CONTACT Mark PHONE NUMBER EMAIL ADDRESS AFFIRMATION: Within to Director, officer, partner of	AME)  18th St.,  Beckstr  828-  Mar  he past for proprie	Suite 210, Denver, C and 301-7670  k.Beckstrand@Domin ve years, has your firm	nionVoting.com n, any affiliate, any pri a Federal, State, Loc	FAX NU	ompany or entity, owner	,	- - -
PURCHASE ORDERS (COMPANY N/ ADDRESS 1201 1 CONTACT Mark PHONE NUMBER EMAIL ADDRESS AFFIRMATION: Within to Director, officer, partner of	Beckstr  828- Marine past for proprie	Suite 210, Denver, Coand 301-7670  k.Beckstrand@Domin ve years, has your firm tor been the subject of	nionVoting.com n, any affiliate, any pri a Federal, State, Loc	FAX NU	ompany or entity, owner ent suspension or debar	ment?	POSAL
PURCHASE ORDERS (COMPANY N/ ADDRESS 1201 1 CONTACT Mark PHONE NUMBER EMAIL ADDRESS AFFIRMATION: Within til Director, officer, partner of YESNO	Beckstr  828- Mari he past fir proprie	Suite 210, Denver, Coand  301-7670  k.Beckstrand@Domin ve years, has your firm tor been the subject ofif yes, please exp	nionVoting.com n, any affiliate, any pr a Federal, State, Loc lain	FAX NU	ompany or entity, owner ent suspension or debar	ment?	- - POSAL
PURCHASE ORDERS (COMPANY N/ ADDRESS 1201 1 CONTACT Mark PHONE NUMBER EMAIL ADDRESS AFFIRMATION: Within to Director, officer, partner of YESNO THIS PAGE SHALL H.	Beckstr  828- Mari he past fir proprie	Suite 210, Denver, Coand  301-7670  k.Beckstrand@Domin ve years, has your firm tor been the subject of if yes, please exp kIGINAL SIGNATUR  ED BEFORE ME this	nionVoting.com n, any affiliate, any pri a Federal, State, Loc lain  RE, BE NOTARIZE  8 4th day of	FAX NU edecessor c al governme  D AND BE  January	ompany or entity, owner ent suspension or debar  RETURNED WITH Y  , 20 18  DWARES RIA INGERIO	ment?	POSAL
PURCHASE ORDERS (COMPANY NA ADDRESS 1201 1 CONTACT Mark PHONE NUMBER EMAIL ADDRESS AFFIRMATION: Within the Director, officer, partner of YES NO THIS PAGE SHALL H. SWORN TO AND SUB	Beckstr  828- Mari he past fir proprie	Suite 210, Denver, Coand  301-7670  k.Beckstrand@Domin ve years, has your firm tor been the subject of if yes, please exp kIGINAL SIGNATUR  ED BEFORE ME this	nionVoting.com n, any affiliate, any pri a Federal, State, Loc lain  RE, BE NOTARIZE  3 4th day of	FAX NU edecessor c al governme  D AND BE  January	ompany or entity, owner ent suspension or debar	ment?	POSAL



## **Attachment 3: Exception Form**

Contract No. GSS18809-ELECTION\_SYS Contract Title: Elections System Solution

#### **EXCEPTION FORM**

Proposals must include all exceptions to the specifications, terms or conditions contained in this RFP. If the vendor is submitting the proposal without exceptions, please state so below.

 $\hfill \square$  By checking this box, the Vendor acknowledges that they take no exceptions to the specifications, terms or conditions found in this RFP.

Paragraph # and page #	Exceptions to Specifications, terms or conditions	Proposed Alternative
Appendix G Section 1.2	Conflict or inconsistency between provisions.	Any conflict or inconsistency between the provisions of the following documents shall be resolved by giving precedence to such documents in the following order: (a) this Agreement (including any amendments or modifications thereto); (b) Vendor's response to the request for proposals, attached hereto as Exhibit: and (c) Delaware's request for proposals, attached hereto as Appendix The aforementioned documents are specifically incorporated into this Agreement and made a part hereof.
Appendix G Section 2.7	Due to the nature of the Agreement, billing will likely be upon system acceptance and then annual thereafter.	Dominion is happy to discuss this item in more detail during contract negotiations to develop mutually agreeable verbiage.
Appendix G Section 2.10	Remove Section. Covered in Suspension and Termination sections	Dominion is happy to discuss this item in more detail during contract negotiations to develop mutually agreeable verbiage.
Appendix G Section 3.1	Section will need further review to ensure that the requirements are complaint with the State of Delaware voting system certification provisions.	Dominion is happy to discuss this item in more detail during contract negotiations to develop mutually agreeable verbiage.
Appendix G Section 3.2	The language related to defects and corrections will need to comply with the State of Delaware voting system certification provisions.	Dominion is happy to discuss this item in more detail during contract negotiations to develop mutually agreeable verbiage.
Appendix G Section 6	Dominion understands that the Sample Contract provided in the RFP is an Information Technology template, written broadly to work with different types of vendors and technology. However, there are very unique considerations to a voting system, licensing and service agreement, such as State certification of	

	equipment, closed system networks, software licensing (not work for hire custom software), IP ownership and many other items, which Dominion believes requires discussions and further modifications.	
Appendix G Section 9	Inclusion of a limitation on liability provision.	Except for the indemnification obligations contained in this agreement, either party's total aggregate liability for any loss, damage, costs or expenses under or in connection with this agreement, howsoever arising, including without limitation, loss, damage, costs or expenses caused by breach of contract, negligence, strict liability, breach of statutory or any other duty shall in no circumstances exceed the total dollar amount of the agreement. Neither party shall be liable for any loss of profits, loss of business, loss of data, loss of use or any other indirect, incidental, punitive, special or consequential loss or damage whatsoever, howsoever arising, incurred by the other party or any third party, whether in an action in contract, negligence or other tort, even if the parties or their representatives have been advised of the possibility of such damages.
Appendix B	Certification	Certification of the ImageCast 40° Full Face proposed solution is expected in late 2018/early 2019.
RFP Main Document Section V – Contract Terms and Conditions Item J – Performance Bond	Contractors awarded contracts are required to furnish a 100% Performance Bond in accordance with Delaware Code Title 29, Section 6927, to the State of Delaware for the benefit of Government Support Services with surety in the amount of 100% of the specific award. Said bonds shall be conditioned upon the faithful performance of the contract. This guarantee shall be submitted using Attachment 10 in the form of a good and sufficient bond drawn upon an Insurance or Bonding Company authorized to do business in the State of Delaware.	Dominion can agree to provide a performance bond in the form of an annual renewal bond.

Note: Vendor may use additional pages as necessary, but the format shall be the same as



provided above.



#### **Attachment 4: Confidential Information Form**

#### STATE OF DELAWARE Government Support Services

Attachment 4

Contract No. GSS18809-ELECTION\_SYS Contract Title: Elections System Solution

#### CONFIDENTIAL INFORMATION FORM

☐ By checking this box, the Vendor acknowledges that they are not providing any information they declare to be confidential or proprietary for the purpose of production under 29 Del. C. ch. 100, Delaware Freedom of Information Act.

onfidentiality and Proprietary Information
udited and Financial Statements are confidential and proprietary (included in separate envelope

Note: Vendor may use additional pages as necessary, but the format shall be the same as provided above.



#### Attachment 5: Business References

#### STATE OF DELAWARE Government Support Services

Attachment 5

Contract No. GSS18809-ELECTION\_SYS Contract Title: Elections System Solution

#### **BUSINESS REFERENCES**

List a minimum of three business references, including the following information:

- · Business Name and Mailing address
- · Contact Name and phone number
- · Number of years doing business with
- · Type of work performed

Please do not list any Personal References or State Employees as a business reference. If you have held a State contract within the last 5 years, please provide a separate list of the contract(s).

1.	Business Name: Address: Email: Phone # / Fax #: Current Vendor (YES or NO): Years Associated & Type	of
2.	Work Performed:  Contact Name & Title: Business Name: Address:	
	Email: Phone # / Fax #: Current Vendor (YES or NO): Years Associated & Type Work Performed:	of
3.	Contact Name & Title: Business Name: Address:	
	Email: Phone # / Fax #: Current Vendor (YES or NO): Years Associated & Type Work Performed:	of

STATE OF DELAWARE PERSONNEL MAY NOT BE USED AS REFERENCES.



As mentioned, Dominion has included line item pricing for our ImageCast Precinct, the world's most reliable optical scan tabulator to provide the State of Delaware with numerous options to meet their voting and election needs.

# IMAGECAST PRECINCT





#### **EFFICIENT**

Compact, lightweight, easy to store, and low maintenance.



#### SIMPLE

Easy-to-use for both voters and poll workers.



#### SECURE

Meets EAC security standards to preserve integrity and auditability.



#### ACCESSIBLE

Integrated accessibility options for private and independent voting.

#### Get in touch

1.866.654.VOTE (8683) sales@dominionvoting.com www.dominionvoting.com





#### **FEATURES & BENEFITS**





- A robust and reliable optical scan tabulator that safely stores and tabulates marked paper ballots.
- Clear voter messages to enable second-chance voting and minimize spoiled ballots.
- Reads single and double-sided ballots in all four orientations.
- Safety stores and tabulates hand-marked ballots and ballots marked using the imageCast\* X.





- Plug-and-play set up for easy and efficient opening and closing of polis.
- Integrated physical diverter that automatically segregates ballots containing write-ins, saving time after the polls close.
- During accessible voting, other voters can continue to scan their ballots, ensuring efficient voter processing.





- Optional integrated ADA compliant configurations, providing all voters with privacy and independence.
- Voters navigate an audio version of their ballot and confirm their selections, which are stored electronically or marked on a printed paper ballot.
- When in the Ballot Marking Device configuration, the system uses a library of human-hand marks and writing, further protecting voter privacy.

#### **ACCURACY & TRANSPARENCY**











#### **Ensuring Accurate & Transparent Elections**

Every ballot mage is appended with Dominion's exclusive AuditMark' technology. The system digitally stores an image of every ballot cast along with a clear record of how the tabulator interpreted each vote, ensuring a completely transparent and auditable election.

All results and ballot images are stored on encrypted memory cards. No identifying information about the voter is taken by the tabulator.



#### **GLOBAL FOOTPRINT**



The ImageCast® Precinct is the most widely used and reliable optical scan tabulator, with over 100,000 units deployed globally. Over the course of thousands of election projects conducted globally, Dominion has implemented a customer oriented, technical culture focused on achieving the highest levels of accuracy, reliability and transparency.

Get in touch 1.866.654.VOTE (8683) sales@dominionvoting.com www.dominionvoting.com





#### Appendix D - Confidentiality and Integrity of Data Agreement



#### DEPARTMENT OF TECHNOLOGY AND INFORMATION

William Penn Building 801 Silver Lake Boulevard Dover, Delaware 19904-2407

#### CONFIDENTIALITY (NON-DISCLOSURE) AND INTEGRITY OF DATA AGREEMENT

The Department of Technology and Information is responsible for safeguarding the confidentiality and integrity of data in State computer files regardless of the source of those data or medium on which they are stored; e.g., electronic data, computer output microfilm (COM), tape, or disk. Computer programs developed to process State Agency data will not be modified without the knowledge and written authorization of the Department of Technology and Information. All data generated from the original source data, shall be the property of the State of Delaware. The control of the disclosure of those data shall be retained by the State of Delaware and the Department of Technology and Information.

I/we, as an employee(s) of [INSERT CONTRACTOR NAME] or officer of my firm, when performing work for the Department of Technology and Information, understand that I/we act as an extension of DTI and therefore I/we are responsible for safeguarding the States' data and computer files as indicated above. I/we will not use, disclose, or modify State data or State computer files without the written knowledge and written authorization of DTI. Furthermore, I/we understand that I/we are to take all necessary precautions to prevent unauthorized use, disclosure, or modification of State computer files, and I/we should alert my immediate supervisor of any situation which might result in, or create the appearance of, unauthorized use, disclosure or modification of State data.

Penalty for unauthorized use, unauthorized modification of data files, or disclosure of any confidential information may mean the loss of my position and benefits, and prosecution under applicable State or Federal law.

This statement applies to the undersigned Contractor and to any others working under the Contractor's direction.

I, the Undersigned, hereby affirm that I have read DTI's Policy on Confidentiality (Non-Disclosure) and Integrity of Data and understood the terms of the above Confidentiality (Non-Disclosure) and Integrity of Data Agreement, and that I/we agree to above by the terms above.



## **Appendix E: Cloud and External Hosting**

#### STATE OF DELAWARE Government Support Services

#### Appendix E - Cloud and External Hosting

The Contractor is required to execute the Public and Non-Public Cloud and Offsite Hosting Terms and Conditions document(s) attached hereto and made part of the final Agreement.

# PUBLIC DATA OWNED BY THE STATE OF DELAWARE State of Delaware Cloud and/or Offsite Hosting Specific Terms and Conditions

THE	Terms and Conditions Clauses 1-10 are mandatory for every
	engagement.  Exceptions will be considered non-compliant and non-
1	Data Ownership: The State of Delaware shall own all right, title and interest in its data that is related to the services provided by this contract. The Service Provider shall not access State of Delaware User accounts, or State of Delaware Data, except (i) in the course of data center operations, (ii) response to service or technical issues, (iii) as required by the express terms of this contract, or (iv) at State of Delaware's written request.
2	Data Protection: Protection of personal privacy and sensitive data shall be an integral part of the business activities of the Service Provider to ensure that there is no inappropriate or unauthorized use of State of Delaware information at any time. To this end, the Service Provider shall safeguard the confidentiality, integrity, and availability of State information and comply with the following conditions:
	a) At no time shall any data or processes which either belongs to or are intended for the use of State of Delaware or its officers, agents, or employees, be copied, disclosed, or retained by the Service Provider or any party related to the Service Provider for subsequent use in any transaction that does not include the State of Delaware.
3	Notification of Legal Requests: The Service Provider shall contact the State of Delaware upon receipt of any electronic discovery, litigation holds, discovery searches, and expert testimonies related to, or which in any way might reasonably require access to the data of the State. The Service Provider shall not respond to subpoenas, service of process, and other legal requests related to the State of Delaware without first notifying the State unless prohibited by law from providing such notice.
4	Termination and Suspension of Service: In the event of termination of the contract, the Service Provider shall implement an orderly return of State of Delaware data in CSV or XML or another mutually agreeable format.
	a) Suspension of services: During any period of suspension or contract negotiation or disputes, the Service Provider shall not take any action to intentionally erase any State of Delaware data.
	b) Termination of any services or agreement in entirety: In the event of termination of any services or agreement in entirety, the Service Provider shall not take any action to intentionally erase any State of Delaware data for a period of 90 days after the effective date of the termination. After such 90 day period, the Service Provider shall have no obligation to maintain or provide any State of Delaware data. Within this 90 day timeframe, vendor will continue to secure and back up State of Delaware data covered under the contract.
	c) Post-Termination Assistance: The State of Delaware shall be entitled to any post-termination assistance generally made available with respect to the Services unless a unique data retrieval arrangement has been established as part of the Service Level Agreement.
5	Background Checks: The Service Provider shall conduct criminal background checks and not utilize any staff, including sub-contractors, to fulfill the obligations of the contract who has been convicted of any crime of dishonesty, including but not limited to criminal fraud, or otherwise convicted of any felony or any misdemeanor offense for which incarceration for a minimum of 1 year is an authorized penalty. The Service Provider shall promote and maintain an awareness of the importance of securing the State's information among the Service Provider's employees and agents.



- Data Dictionary: Prior to go-live, the Service Provider shall provide a data dictionary in accordance with the State of Delaware Data Modeling Standard. Security Logs and Reports: The Service Provider shall allow the State of Delaware access to system security logs that affect this engagement, its data and or processes. This includes the ability for the State of Delaware to request a report of the records that a specific user accessed over a specified period of time.
- Contract Audit: The Service Provider shall allow the State of Delaware to audit conformance including contract terms, system security and data centers as appropriate. The State of Delaware may perform this audit or contract with a third party at its discretion at the State's expense. Such reviews shall be conducted with at least 30 days advance written notice and shall not unreasonably interfere with the Service Provider's business.
- Sub-contractor Disclosure: The Service Provider shall identify all of its strategic business partners related to services provided under this contract, including but not limited to, all subcontractors or other entities or individuals who may be a party to a joint venture or similar agreement with the Service Provider, who will be involved in any application development and/or operations.
- Operational Metrics: The Service Provider and the State of Delaware shall reach agreement on operational metrics and document said metrics in the Service Level Agreement, Examples include but are not limited to:
  - Advance notice and change control for major upgrades and system changes
  - b) System availability/uptime guarantee/agreed-upon maintenance downtime c) Recovery Time Objective/Recovery Point Objective

  - d) Security Vulnerability Scanning

#### NON-PUBLIC DATA OWNED BY THE STATE OF DELAWARE State of Delaware Cloud and/or Offsite Hosting Specific Terms and Conditions

#### Terms and Conditions Clauses 1-13 are mandatory for every engagement. Exceptions will be considered non-compliant and non-responsive.

- Data Ownership: The State of Delaware shall own all right, title and interest in its data that is related to the services provided by this contract. The Service Provider shall not access State of Delaware User accounts, or State of Delaware Data, except (i) in the course of data center operations, (ii) response to service or technical issues, (iii) as required by the express terms of this contract, or (iv) at State of Delaware's written request.
- Data Protection: Protection of personal privacy and sensitive data shall be an integral part of the business activities of the Service Provider to ensure that there is no inappropriate or unauthorized use of State of Delaware information at any time. To this end, the Service Provider shall safeguard the confidentiality, integrity, and availability of State information and comply with the following conditions:
  - a) All information obtained by the Service Provider under this contract shall become and remain property of the State
  - At no time shall any data or processes which either belongs to or are intended for the use of State of Delaware or its officers, agents, or employees, be copied, disclosed, or retained by the Service Provider or any party related to the Service Provider for subsequent use in any transaction that does not include the State of Delaware.





3 Data Location: The Service Provider shall not store or transfer non-public State of Delaware data outside of the United States. This includes backup data and Disaster Recovery locations. The Service Provider will permit its personnel and contractors to access State of Delaware data remotely only as required to provide technical support.

#### 4 Encryption:

- a) The Service Provider shall encrypt all non-public data in transit regardless of the transit mechanism.
- b) For engagements where the Service Provider stores sensitive personally identifiable or otherwise confidential information, this data shall be encrypted at rest. Examples are social security number, date of birth, driver's license number, financial data, federal/state tax information, and hashed passwords. The Service Provider's encryption shall be consistent with validated cryptography standards as specified in National Institute of Standards and Technology FIPS140-2, Security Requirements. The key location and other key management details will be discussed and negotiated by both parties. When the Service Provider cannot offer encryption at rest, they must maintain, for the duration of the contract, cyber security liability insurance coverage for any loss resulting from a data breach in accordance with the Cloud and Offsite Hosting Policy. Additionally, where encryption of data at rest is not possible, vendor must describe existing security measures that provide a similar level of protection.
- Breach Notification and Recovery: Delaware Code requires public breach notification when citizens' personally identifiable information is lost or stolen. Reference: 6 Del. C. § 12B-102. Additionally, unauthorized access or disclosure of non-public data is considered to be a breach. The Service Provider will provide notification without unreasonable delay and all communication shall be coordinated with the State of Delaware. When the Service Provider or their subcontractors are liable for the loss, the Service Provider shall bear all costs associated with the investigation, response and recovery from the breach including but not limited to credit monitoring services with a term of at least 3 years, mailing costs, website, and toll free telephone call center services. The State of Delaware shall not agree to any limitation on liability that relieves a Contractor from its own negligence or to the extent that it creates an obligation on the part of the State to hold a Contractor harmless.
- Notification of Legal Requests: The Service Provider shall contact the State of Delaware upon receipt of any electronic discovery, litigation holds, discovery searches, and expert testimonies related to, or which in any way might reasonably require access to the data of the State. The Service Provider shall not respond to subpoenas, service of process, and other legal requests related to the State of Delaware without first notifying the State unless prohibited by law from providing such notice.
- 7 Termination and Suspension of Service: In the event of termination of the contract, the Service Provider shall implement an orderly return of State of Delaware data in CSV or XML or another mutually agreeable format. The Service Provider shall guarantee the subsequent secure disposal of State of Delaware data.
  - Suspension of services: During any period of suspension or contract negotiation or disputes, the Service Provider shall not take any action to intentionally erase any State of Delaware data.
  - b) Termination of any services or agreement in entirety: In the event of termination of any services or agreement in entirety, the Service Provider shall not take any action to intentionally erase any State of Delaware data for a period of 90 days after the effective date of the termination. After such 90 day period, the Service Provider shall have no obligation to maintain or provide any State of Delaware data and shall thereafter, unless legally prohibited, dispose of all State of Delaware data in its systems or otherwise in its possession or under its control as specified in section 7d) below. Within this 90 day timeframe, vendor will continue to secure and back up State of Delaware data covered under the contract.



8	Background Checks: The Service Provider shall conduct criminal background checks and not utilize any staff, including sub-contractors, to fulfill the obligations of the contract who has been convicted of any crime of dishonesty, including but not limited to criminal fraud, or otherwise convicted of any felony or any misdemeanor offense for which incarceration for a minimum of 1 year is an authorized penalty. The Service Provider shall promote and maintain an awareness of the importance of securing the State's information among the Service Provider's employees and agents
9	Data Dictionary: Prior to go-live, the Service Provider shall provide a data dictionary in accordance with the State of Delaware <u>Data Modeling Standard.</u>
10	Security Logs and Reports: The Service Provider shall allow the State of Delaware access to system security logs that affect this engagement, its data and or processes. This includes the ability for the State of Delaware to request a report of the records that a specific user accessed over a specified period of time.
11	Contract Audit: The Service Provider shall allow the State of Delaware to audit conformance including contract terms system security and data centers as appropriate. The State of Delaware may perform this audit or contract with a third party at its discretion at the State's expense. Such reviews shall be conducted with at least 30 days advance written notice and shall not unreasonably interfere with the Service Provider's business.
12	Sub-contractor Disclosure: The Service Provider shall identify all of its strategic business partners related to services provided under this contract, including but not limited to, all subcontractors or other entities or individuals who may be a party to a joint venture or similar agreement with the Service Provider, who will be involved in any application development and/or operations.
13	Operational Metrics: The Service Provider and the State of Delaware shall reach agreement on operational metrics and document said metrics in the Service Level Agreement. Examples include but are not limited to:
	a) Advance notice and change control for major upgrades and system changes b) System availability/uptime guarantee/agreed-upon maintenance downtime c) Recovery Time Objective/Recovery Point Objective d) Security Vulnerability Scanning

By signing this Attachment, the Service Provider agrees to abide by all of the above Terms and Conditions.

State of Delaware		Service Provice	ler Name
Signature		Signature	to !
Name	Peter Korolyk	Name	Vohn Poulos
	Deputy Director		1050
Title	Government Support Services	Title	President and CEO
Signature Date		Signature Date	1/16/2018

53



#### Appendix F - Cyber Liability Insurance

The contractor shall meet the Cyber Responsibilities, Liability and Insurance requirements attached hereto and made part of the final Agreement.

#### Cyber Responsibilities, Liability and Insurance

- A. Contractor Protection of Customer Data
  - 1. Contractor shall, at a minimum, comply with all Delaware Department of Technology and Information (DTI) security standards identified in this Participating Addendum.
- B. Definitions

Data Breach

54



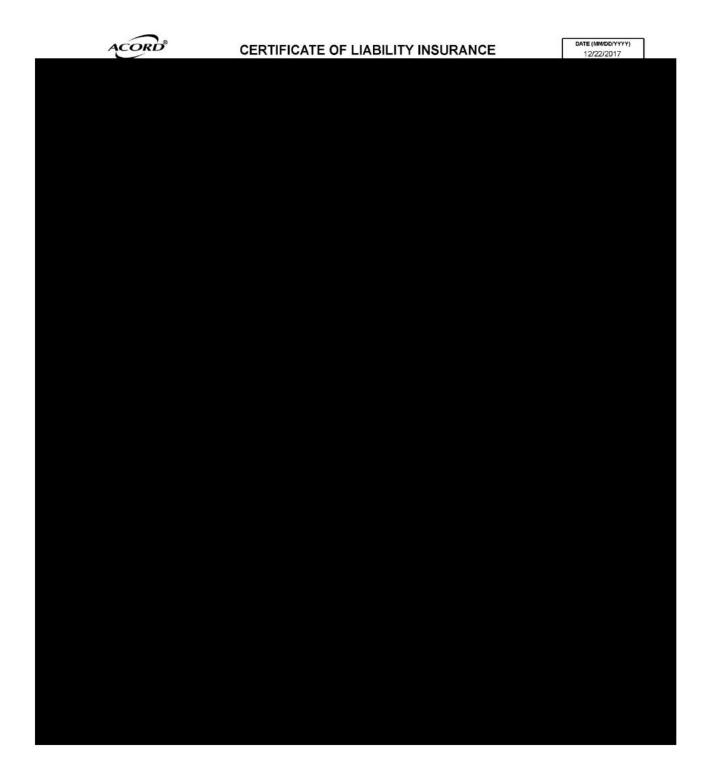
## Section 4 - Proof of Insurance

Proof of insurance and amount of insurance shall be furnished by awarded vendor(s) to Government Support Services prior to the start of the contract period and shall be no less than as identified in the bid solicitation, Section D, Item 7, subsection g (insurance).

Dominion has read and agrees to furnish the required insurance at the stated levels as provided by the State of Delaware.

Below we have provided a sample insurance document to demonstrate our capability to provide the State of Delaware with the required insurance upon contract award.







AGENCY CUSTOMER ID:	

ACORD	ADDITIONAL REMARKS SCHEDULE	Page 2 of 2



# **Pricing Submission**

Dominion has provided our proposed pricing on a USB disk as both the RFP and the issued addenda directed.

Taken from Addendum #3, issued on December 18, 2017.

Q25.

GSS\_18809Elections\_rfp Section: "IV Professional Services RFP Administrative Information, B. RFP Submissions and Appendix A - Minimum Mandatory Requirements" Paragraph number: 2 Page number: 5

Text of passage being questioned: 2. Each proposal must be submitted with one (1) paper copies and one (1) electronic copy on CD or DVD media disk, or USB memory drive. Please provide a separate electronic pricing file from the rest of the RFP proposal responses.

Appendix A - Minimum Mandatory Requirements on page 42 identifies: Vendors shall provide proposal packages in the following formats: 1. Two (2) paper copies of the vendor proposal paperwork. One (1) paper copy must be an original copy, marked "ORIGINAL" on the cover, and contain original signatures. 2. One (1) electronic copy of the vendor proposal saved to CD or DVD media disk, or USB memory stick. Copy of electronic price file shall be a separate file from all other files on the electronic copy. (If Agency has requested multiple electronic copies, each electronic copy must be on a separate computer disk or media)."



# **Dominion Voting Systems Corporation**

**Consolidated Financial Statements** 

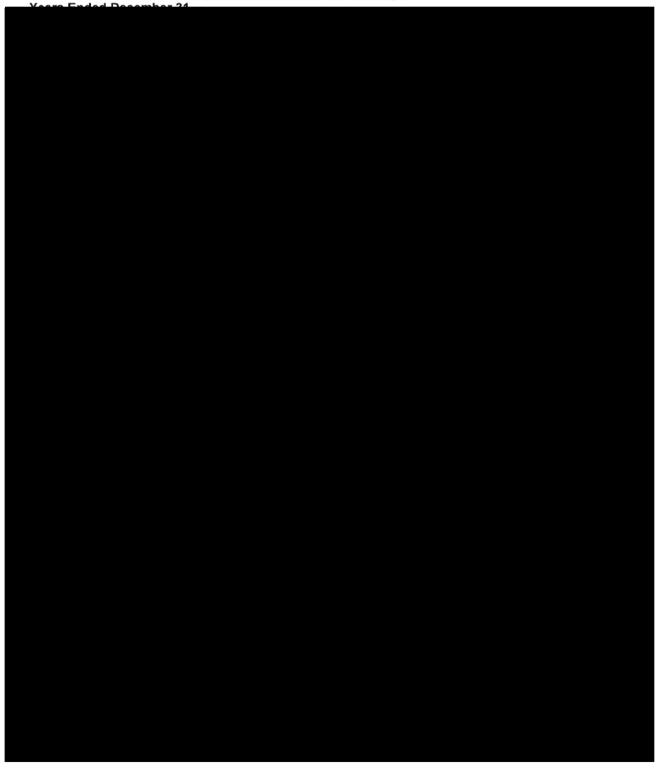
For the Year Ended December 31, 2012





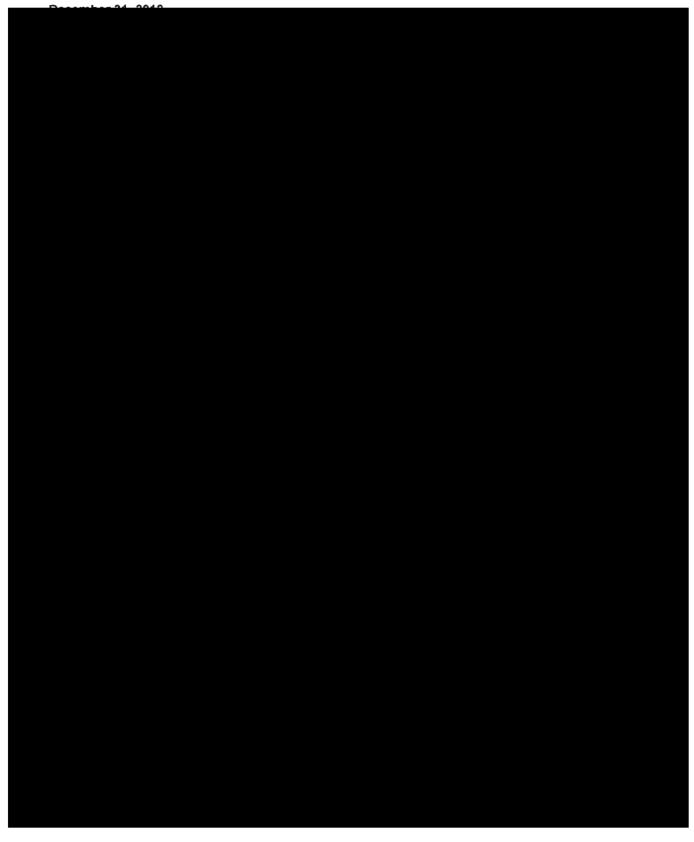
Dominion Voting Systems Corporation Consolidated Balance Sheet As at December 31.

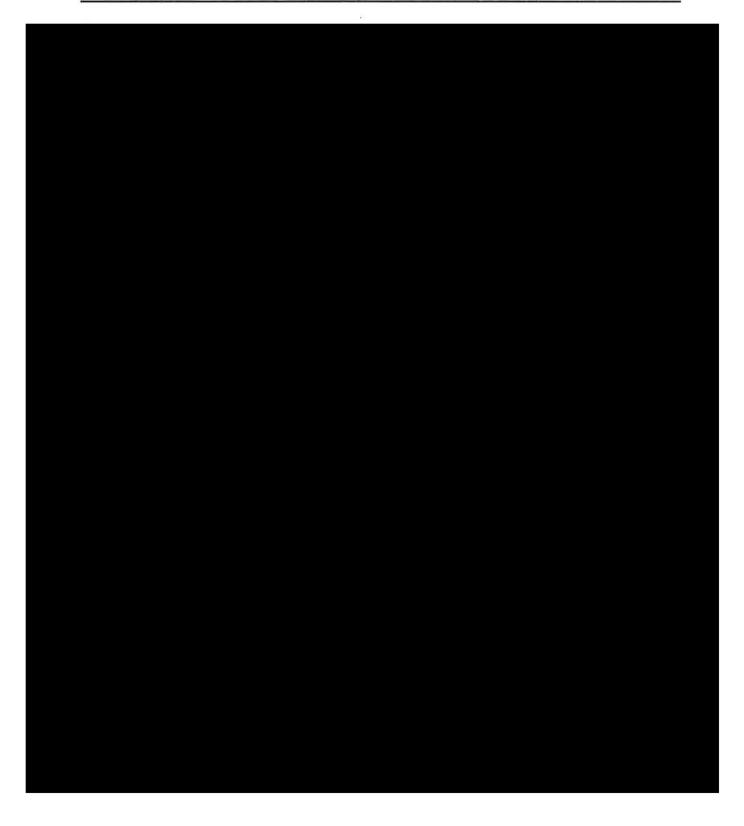
Dominion Voting Systems Corporation
Consolidated Statement of Operations and Retained Earnings



Dominion Voting Systems Corporation Consolidated Statement of Cash Flows Years Ended December 31.

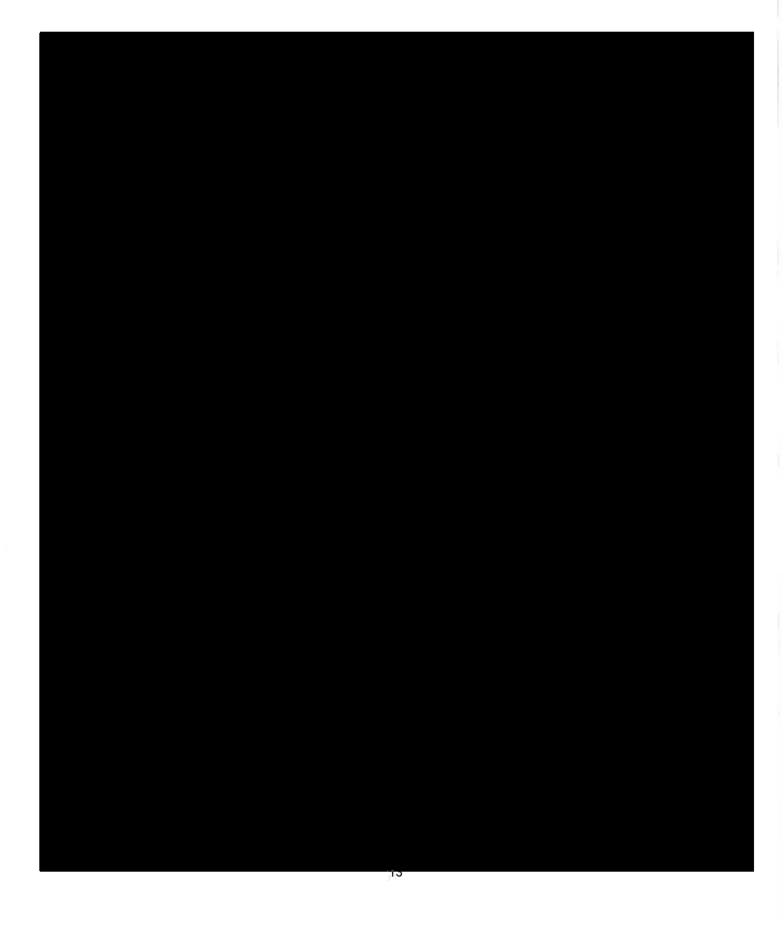


















		5