



STATE OF MICHIGAN ENTERPRISE PROCUREMENT

Department of Technology, Management, and Budget

525 W. Allegan, Lansing MI 48913
P.O. Box 30026, Lansing, MI 48909

NOTICE OF CONTRACT

CONTRACT NO. **071B7700117**

between

THE STATE OF MICHIGAN

and

CONTRACTOR	Dominion Voting Systems Inc.
	1201 18 th Street, Suite 210
	Denver, CO 80202
	Gio Costantiello
	416-762-8683 ext. 241
	gio.costantiello@dominionvoting.com
5149	

STATE	Program Manager	Sally Williams	MDOS
		517-241-2747	
		williams1@michigan.gov	
STATE	Contract Administrator	Sue Cieciva	DTMB
		517-284-7007	
		ciecivas@michigan.gov	

CONTRACT SUMMARY			
DESCRIPTION: Voting System Hardware, Firmware, Software and Service – Department of State			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
March 1, 2017	February 28, 2027	None	February 28, 2027
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45 Days		Refer to Section 2.1 Time Frames	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-card <input type="checkbox"/> Direct Voucher (DV) <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS			
There is no minimum order requirement.			
MISCELLANEOUS INFORMATION			
ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION			\$0.00

CONTRACT NO. 071B7700117

FOR THE CONTRACTOR:

Company Name

Authorized Agent Signature

Authorized Agent (Print or Type)

Date

FOR THE STATE:

Signature

Name & Title

Agency

Date



STATE OF MICHIGAN

VOTING SYSTEM HARDWARE, SOFTWARE AND SERVICES CONTRACT TERMS

This VOTING SYSTEM, HARDWARE, SOFTWARE AND SERVICES CONTRACT (“**Contract**”) is agreed to between the State of Michigan (the “**State**”) and Dominion Voting Systems Inc. (“**Contractor**”), a Delaware corporation. This Contract is effective on March 1, 2017 (“**Effective Date**”), and unless terminated, expires on February 28, 2027 (the “**Term**”). The parties agree as follows:

1. **Definitions.** For the purposes of this Contract, the following terms have the following meanings:

“**Acceptance**” has the meaning set forth in **Section 8.e**.

“**Audit Period**” has the meaning set forth in **Section 30**.

“**Authorized Users**” means all Michigan counties, cities, or townships.

“**Business Day**” means a day other than a Saturday, Sunday or other day on which the State is authorized or required by Law to be closed for business.

“**Change**” has the meaning set forth in **Section 4**.

“**Change Notice**” has the meaning set forth in **Section 4.b**.

“**Change Proposal**” has the meaning set forth in **Section 4.a**.

“**Change Request**” has the meaning set forth in **Section 4**.

“**Confidential Information**” has the meaning set forth in **Section 28.a**.

“**Configuration**” means State-specific changes made to the Software without Source Code or structural data model changes occurring.

“**Contract**” has the meaning set forth in the preamble.

“**Contract Administrator**” is the individual appointed by each party to (a) administer the terms of this Contract, and (b) approve any Change Notices under this Contract. Each party’s Contract Administrator will be identified in the Statement of Work.

“**Contractor**” has the meaning set forth in the preamble.

“**Contractor Personnel**” means all employees of Contractor and any Permitted Subcontractors involved in the performance of Services hereunder.

“**Deliverables**” means the voting system tabulators and all related components, and the accessible voting system components, and all other materials that Contractor is required to or otherwise does provide to the State or Authorized Users under this Contract and otherwise in connection with any Services, including all items specifically identified as Deliverables in the Statement of Work.



Notwithstanding the foregoing, the term Deliverable shall not include the EMS Software or System Software.

“Dispute Resolution Procedure” has the meaning set forth in **Section 39**.

“Documentation” means all user manuals, operating manuals, technical manuals and any other instructions, specifications, documents or materials, in any form or media, that describe the functionality, installation, testing, operation, use, maintenance, support, technical or other components, features or requirements of any Deliverable.

“Effective Date” has the meaning set forth in the preamble.

“EMS Software” means the Election Management System (EMS) software provided by Contractor under the Statement of Work, and any Maintenance Releases or New Versions provided to the State and any Configurations or Modifications made by or for the State pursuant to this Contract, and all copies of the foregoing permitted under this Contract and the License Agreement.

“Extended Service Period” has the meaning set forth in Section 1.6 of the Statement of Work.

“Fees” means the prices for Services, EMS Software and Deliverables set forth in an attachment to the Statement of Work.

“Harmful Code” means any: (a) virus, trojan horse, worm, backdoor or other software or hardware devices the effect of which is to permit unauthorized access to, or to disable, erase, or otherwise harm, any computer, systems or software; or (b) time bomb, drop dead device, or other software or hardware device designed to disable a computer program automatically with the passage of time or under the positive control of any Person, or otherwise prevent, restrict or impede the State's or any Authorized User's use of such software.

“Initial Service Period” has the meaning set forth in Section 1.6 of the Statement of Work.

“Intellectual Property Rights” means any and all intellectual property rights in any part of the world, whether registered or unregistered, and all applications for and renewals or extensions of such rights, including rights comprising or relating to: (a) patents, patent disclosures and inventions (whether patentable or not); (b) trademarks, service marks, trade dress, trade names, logos, corporate names and domain names, together with all of the goodwill associated therewith; (c) works of authorship, designs, copyrights and copyrightable works (including computer programs), mask works and rights in data and databases; (d) trade secrets, know-how and other confidential information; and (e) all similar or equivalent rights or forms of protection.

“Key Personnel” means any Contractor Personnel identified as key personnel in the Statement of Work.

“License Agreement” has the meaning set forth in **Section 5**.

“Maintenance Release” means any update, upgrade, release or other adaptation or modification of the Software, including any updated Documentation, that Contractor may generally provide to its licensees from time to time during the Term, which may contain, among other things, error corrections, enhancements, improvements or other changes to the user interface, functionality, compatibility, capabilities, performance, efficiency or quality of the Software.

“Modification” means State-specific changes made to the Source Code of the Software to enhance, improve or otherwise create derivative works of the Software.



“New Version” means any new version of the Software that the Contractor may from time to time introduce and market generally as a distinct licensed product, as may be indicated by Contractor’s designation of a new version number.

“Operating Environment” means, collectively, the platform, environment and conditions on, in or under which the EMS Software is intended to be installed and operate, as set forth in the Statement of Work, including such structural, functional and other features, conditions and components as hardware, operating software and system architecture and configuration.

“Permitted Subcontractor” has the meaning set forth in **Section 10.e**.

“Person” means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other entity.

“Program Manager” is the individual appointed by each party to (a) monitor and coordinate the day-to-day activities of this Contract, and (b) for the State, to co-sign off on its notice of Acceptance for Services, the EMS Software and Deliverables. Each party’s Program Manager will be identified in the Statement of Work.

“Purchase Order” means an order for EMS Software, Services or Deliverables to be provided by Contractor and the corresponding fees to be paid by the State or Authorized User, issued by the State or Authorized User, and subject to these terms and conditions.

“Representatives” means a party’s employees, officers, directors, partners, shareholders, agents, attorneys, third-party advisors, successors and permitted assigns.

“Services” means any of the services Contractor is required to or otherwise does provide under this Contract or the Statement of Work (including any exhibits or attachments), as more fully described in the body of this Contract and the Statement of Work.

“Software” means both the EMS Software and the System Software.

“Source Code” means the human readable source code of the Software to which it relates, in the programming language in which the Software was written, together with all related flow charts and technical documentation, including a description of the procedure for generating object code, all of a level sufficient to enable a programmer reasonably fluent in such programming language to understand, build, operate, support, maintain and develop modifications, upgrades, updates, adaptations, enhancements, new versions and other derivative works and improvements of, and to develop computer programs compatible with, the EMS Software.

“Specifications” means, for the Software, the specifications collectively set forth in the Business Requirements Specification and Technical Specification, together with any other specifications set forth in the Statement of Work or Documentation.

“State” means the State of Michigan.

“State Data” has the meaning set forth in **Section 27**.

“Statement of Work” means the statement of work attached as **Schedule A** to this Contract, including all attachments and exhibits thereto.

“State Resources” means all materials and information, including documents, data, know-how, ideas, methodologies, specifications, software, content and technology, in any form or media, directly or indirectly provided or made available to Contractor by or on behalf of the State or Authorized Users in connection with this Contract.



“System Software” means the operating system code, including software, firmware and microcode, (object code version) for each Deliverable, including any subsequent revisions, as well as any applicable Documentation.

“Term” has the meaning set forth in the preamble.

“Third Party” means any Person other than the State, an Authorized User, or Contractor.

“Third-Party Products” software or hardware that are not Contractor’s proprietary software or hardware, provided by Contractor’s distributors or other Third Parties to State.

“Transition Period” has the meaning set forth in **Section 22**.

“Transition Responsibilities” has the meaning set forth in **Section 22**.

“Unauthorized Removal” has the meaning set forth in **Section 10.d.ii**.

“Unauthorized Removal Credit” has the meaning set forth in **Section 10.d.iii**.

2. **Statement of Work.** Contractor shall provide the Deliverables, EMS Software and Services, pursuant to the executed License Agreement (defined below) and to the executed Statement of Work, which is attached as **Schedule A** to this Contract. The terms and conditions of this Contract will apply at all times to the Statement of Work.
3. **Statement of Work Requirements.** The Statement of Work will include the following:
 - a. A detailed description of the Services to be provided by Contractor, including any service and maintenance obligations and training obligations of Contractor;
 - b. A detailed description of the EMS Software to be provided by Contractor;
 - c. A detailed description of the Deliverables to be provided by Contractor;
 - d. Names and contact information for Contractor’s Contract Administrator, Program Manager and Customer Service Manager, and any other Key Personnel of Contractor;
 - e. Names and contact information for the State’s Contract Administrator and Program Manager;
 - f. An exhibit detailing the Fees payable under the Statement of Work, the manner in which such Fees will be calculated, any invoicing requirements, including any time frames on which any such Fees are conditioned, and such other information as the parties deem necessary; and
 - g. A detailed description of all State Resources required to complete the Services and Deliverables set forth in the Statement of Work.
4. **Change Control Process.** The State may at any time request in writing (each, a **“Change Request”**) changes to the Statement of Work, including changes to the Services, EMS Software (subject to Section 1.5D Statement of Work) and Deliverables (each, a **“Change”**). Upon the State’s submission of a Change Request, the parties will evaluate and implement all Changes in accordance with this **Section 4**.
 - a. As soon as reasonably practicable, and in any case within twenty (20) Business Days following receipt of a Change Request, Contractor will provide the State with a written proposal for implementing the requested Change (**“Change Proposal”**), setting forth:
 - i. a written description of the proposed Changes to any Services, EMS Software or Deliverables;
 - ii. a schedule for commencing and completing any additional or modified Services, EMS Software or Deliverables, and the effect of such Changes, if any, on completing any other Services under the Statement of Work;



- iii. any additional State Resources Contractor deems necessary to carry out such Changes; and
 - iv. any increase or decrease in Fees resulting from the proposed Changes, which increase or decrease will reflect only the increase or decrease in time and expenses Contractor requires to carry out the Change.
- b. Within thirty (30) Business Days following the State's receipt of a Change Proposal, the State will by written notice to Contractor, approve, reject, or propose modifications to such Change Proposal. If the State proposes modifications, Contractor must modify and re-deliver the Change Proposal reflecting such modifications, or notify the State of any disagreement, in which event the parties will negotiate in good faith to resolve their disagreement. Upon the State's approval of the Change Proposal or the parties' agreement on all proposed modifications, as the case may be, the parties will execute a written agreement to the Change Proposal ("**Change Notice**"), which Change Notice will be signed by the State's Chief Procurement Officer (or his or her designee), and will constitute an amendment to the Statement of Work.
- c. If the parties fail to enter into a Change Notice within fifteen (15) Business Days following the State's response to a Change Proposal, the State may, in its discretion:
- i. require Contractor to perform the Services under the Statement of Work without the Change;
 - ii. require Contractor to continue to negotiate a Change Notice;
 - iii. initiate a Dispute Resolution Procedure; or
 - iv. if the Change Request is initiated due to changes in the applicable federal or state certification standards or laws, then, notwithstanding any provision to the contrary in the Statement of Work, terminate this Contract for cause under **Section 20**, or otherwise, terminate this Contract for convenience under **Section 21**.
- d. No Change will be effective until the parties have executed a Change Notice. Except as the State may request in its Change Request or otherwise in writing, Contractor must continue to perform its obligations in accordance with the Statement of Work pending negotiation and execution of a Change Notice. Contractor will use its best efforts to limit any delays or Fee increases from any Change to those necessary to perform the Change in accordance with the applicable Change Notice. Each party is responsible for its own costs and expenses of preparing, evaluating, negotiating, and otherwise processing any Change Request, Change Proposal, and Change Notice.
- e. The performance of any functions, activities, tasks, obligations, roles and responsibilities comprising the Services or Deliverables as described in this Contract are considered part of the Services and Deliverables and, thus, will not be considered a Change. This includes the delivery of all Deliverables in accordance with their respective specifications, and the diagnosis and correction of non-conformities discovered in Deliverables prior to their Acceptance by the State or, subsequent to their Acceptance by the State, as necessary for Contractor to fulfill its associated service and maintenance obligations under this Contract.
- f. Contractor may, on its own initiative and at its own expense, prepare and submit its own Change Request to the State. However, the State will be under no obligation to approve or otherwise respond to a Change Request initiated by Contractor.



5. **EMS Software and System Software Licenses.** Contractor hereby grants to the State and Authorized Users the right and license to use the EMS Software, System Software and related Documentation in accordance with the terms and conditions of this Contract and the License Agreement set forth in **Schedule B** (the “**License Agreement**”).
6. **Scope of Use for Deliverables.** The State and Authorized Users may use the Deliverables, and any software licensed in connection with such Deliverable, on a worldwide basis for the benefit of themselves. Contractor further authorizes use of the Deliverables by third parties who are under contract with the State or the Authorized User to provide outsourcing services for the benefit of the State or the Authorized User. There are no restrictions on subsequent resale or distribution of Deliverables that the State or Authorized User had paid for in full.
7. **Support and Maintenance.** Contractor shall provide support and maintenance for the EMS Software and all Deliverables in accordance with the applicable service level agreement set forth in the Statement of Work, Section 1.6, and the licensing restrictions set forth in the License Agreement and the terms and conditions of this Contract.
8. **Purchase, Delivery, Installation and Acceptance.**
 - a. Purchase Orders. The State or Authorized User will order the EMS Software, Services or Deliverables pursuant to a signed Purchase Order issued by the State or an Authorized User. The State or Authorized User reserves the right to cancel any Purchase Order at any time prior to shipment of the Deliverables or delivery of the Services and shall not be subject to any charges or other fees whatsoever as a result of such cancellation. The State or Authorized User may by written communication cancel or make changes to any Purchase Order subject to an equitable adjustment in the price, delivery schedule, or both, where appropriate. THE TERMS AND CONDITIONS OF THIS CONTRACT WILL APPLY AT ALL TIMES TO ANY PURCHASE ORDERS ISSUED BY THE STATE OR ANY AUTHORIZED USER UNDER THIS CONTRACT. ALL CONTRACTUAL OBLIGATIONS UNDER THIS CONTRACT IN CONNECTION WITH A PURCHASE ORDER PLACED BY AN AUTHORIZED USER ARE THE SOLE OBLIGATION OF THE AUTHORIZED USER PLACING THE ORDER AND NOT THE RESPONSIBILITY OF THE STATE.
 - b. Delivery Procedure for Deliverables. Contractor shall deliver all Deliverables within the timeframe set forth in the applicable Purchase Order, FOB destination, with such destination being the "ship to" address as specified in the applicable Purchase Order. Contractor shall bear all risk of loss of or damage to the Deliverable until receipt of delivery at the “ship to” address, and shall arrange and pay for all transportation and insurance sufficient to fully protect the Deliverable while in transit. Each shipment shall include a packing slip indicating the Authorized User's order number, a description of the Deliverable shipped and the quantity shipped. If any loss to, or damage of, the Deliverable occurs prior to receipt of delivery at the “ship to” address by the Authorized User, Contractor shall immediately provide a replacement Deliverable. Title shall pass upon receipt of delivery. Contractor shall make available all appropriate or related user Documentation at the time of delivery of the first unit of each different Deliverable type. Deliverables delivered without the appropriate and required Documentation shall be considered "shipped short" until the applicable Documentation has been received.
 - c. EMS Software Installation.
 - i. Unless otherwise set forth in the Statement of Work or the applicable Purchase Order, Contractor will deliver, install, and configure the EMS Software in accordance with the criteria set forth in the Statement of Work.



- ii. Unless otherwise set forth in the Statement of Work or applicable Purchase Order, Contractor is responsible for ensuring the relevant Operating Environment is set up and in working order to allow Contractor to deliver and install the EMS Software. Contractor will provide the Authorized User with such notice as is specified in the Statement of Work, prior to delivery of the EMS Software to give the Authorized User sufficient time to prepare for Contractor's delivery, and if applicable, installation of the EMS Software. If the Authorized User is responsible for site preparation or installation, Contractor will provide such assistance as Authorized User requests to complete such preparation and installation on a timely basis.
 - iii. During the Term, Contractor shall provide the State with all Maintenance Releases and New Versions in accordance with the Statement of Work (Section 1.5D, Modification Requirements), each of which will constitute EMS Software and be subject to the terms and conditions of this Contract and the License Agreement.
 - iv. The State has no obligation to install or use any Maintenance Release or New Version. If the State wishes to install any Maintenance Release or New Version, the State shall have the right to have such Maintenance Release or New Version installed, in the State's discretion, by Contractor or other authorized party as set forth in the Statement of Work.
- d. Deliverable Installation. Unless otherwise specified in the Statement of Work or applicable Purchase Order, Contractor shall provide the initial installation of all Deliverables at no additional charge. Installation shall include: unpacking, removal of all shipping and packing materials from the premises, positioning, connecting to internal utility services, and related necessary services to allow for Testing and Acceptance by the Authorized User. All Deliverable installations shall comply with building and facilities standards established by the State or Authorized User. If the Authorized User installs the Deliverable, Contractor shall provide all reasonably necessary telephone assistance at no additional cost during installation.
- e. Acceptance. Acceptance procedures for Services, EMS Software and Deliverables is set forth in the Statement of Work. Upon completion of testing set forth in the Statement of Work, the State or Authorized User will notify Contractor of its acceptance ("**Acceptance**"), provided such Acceptance occurs and is completed within fifteen (15) calendar days of delivery to the ship to address, after which it will be deemed accepted by the Authorized User or the State, as applicable.

9. Invoicing and Payment.

- a. Invoicing. Contractor will invoice the State or Authorized user for Fees in accordance with the requirements set forth in the Statement of Work. Contractor must submit each invoice in electronic format, via such delivery means and to such address as are specified by the State or Authorized User. Each separate invoice must:
- i. clearly identify this Contract;
 - ii. list each Fee item separately;
 - iii. include sufficient detail for each line item to enable the State or Authorized User to satisfy its accounting and charge-back requirements;



- iv. for Fees determined on a time and materials basis, report details regarding the number of hours performed during the billing period, the skill or labor category for such Contractor Personnel and the applicable hourly billing rates;
 - v. include such other information as may be required by the State or Authorized User; and
 - vi. any other requirements set forth in the Statement of Work.
- b. Payment. Invoices are due and payable by the State, within forty-five (45) calendar days after Acceptance, provided the State determines that the invoice was properly rendered. The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <http://www.michigan.gov/cpexpress> to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment. Invoices are due and payable by Authorized Users in accordance with the Authorized User's standard payment procedures.
- c. Payment Disputes. The State or Authorized User may withhold from payment any and all payments and amounts it disputes in good faith, pending resolution of such dispute, provided that the State or Authorized User:
- i. timely renders all payments and amounts that are not in dispute;
 - ii. notifies Contractor of the dispute prior to the due date for payment, specifying in such notice (A) the amount in dispute; and, (B) the reason for the dispute set out in sufficient detail to facilitate investigation by Contractor and resolution by the parties;
 - iii. works with Contractor in good faith to resolve the dispute promptly; and
 - iv. promptly pays any amount determined to be payable by resolution of the dispute.
- d. Not to Withhold Services. Contractor shall not withhold any Services or Deliverables or fail to perform any obligation hereunder by reason of the State's or Authorized User's good faith withholding of any payment or amount or any dispute arising therefrom.
- e. Firm Pricing. Unless otherwise set forth in the Statement of Work, all Fees set forth in this Contract are firm and will not be increased during the Term, or any renewal thereof. For purpose of clarity, the parties may negotiate pricing for replacement hardware or components that reach end of life.
- f. Taxes. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services or Deliverables purchased under this Contract are for the State's exclusive use or Authorized users. Notwithstanding the foregoing, all Fees are inclusive of taxes, and Contractor is responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state, or local governmental entity on any amounts payable by the State under this Contract.
- g. Right of Setoff. Without prejudice to any other right or remedy it may have, the State and Authorized Users reserve the right to set off at any time any amount owing to it by Contractor against any amount payable by the State or Authorized User to Contractor under this Contract.
10. **Performance of Services**. Contractor will provide all Services and Deliverables in a timely, professional and workmanlike manner and in accordance with the terms, conditions, and specifications set forth in this Contract and the Statement of Work.



a. State Standards

- i. To the extent that Contractor has access to the State's computer system or will be handling State Data, Contractor must adhere to all existing standards as described within the comprehensive listing of the State's existing technology standards at <http://www.michigan.gov/dmb/0,4568,7-150-56355-108233--00.html>
- ii. To the extent that Contractor has access to the State's computer system, Contractor must comply with the State's Acceptable Use Policy, see http://michigan.gov/cybersecurity/0,1607,7-217-34395_34476---00.html. All Contractor personnel will be required, in writing, to agree to the State's Acceptable Use Policy before accessing the State's system. The State reserves the right to terminate Contractor's access to the State's system if a violation occurs.

b. Contractor Personnel

- i. Contractor is solely responsible for all Contractor personnel and for the payment of their compensation, including, if applicable, withholding of income taxes, and the payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits.
- ii. Prior to any Contractor personnel performing any Services, Contractor will:
 1. ensure that such Contractor personnel have the legal right to work in the United States; and
 2. require such Contractor personnel to execute written agreements, in form and substance acceptable to the State or Authorized User, that bind such Contractor personnel to confidentiality provisions that are at least as protective of the State's information (including all Confidential Information) as those contained in this Contract.
- iii. Contractor and all Contractor Personnel will comply with all rules, regulations, and policies of the State or Authorized User that are communicated to Contractor in writing, including security procedures concerning systems and data and remote access, building security procedures, including the restriction of access by the State or Authorized User to certain areas of its premises or systems, and general health and safety practices and procedures.
- iv. The State or Authorized User reserves the right to require the removal of any Contractor Personnel found, in the judgment of the State or Authorized User, to be unacceptable. The request must be written with reasonable detail outlining the reasons for the removal request. Replacement personnel for the removed person must be fully qualified for the position. If the State or Authorized User exercises this right, and Contractor cannot immediately replace the removed personnel, the parties agree to negotiate an equitable adjustment in schedule or other terms that may be affected by the required removal.

- c. Background Checks.** Upon request, Contractor must perform background checks on all employees and subcontractors and its employees prior to their assignment. The scope is at



the discretion of the State or Authorized User and documentation must be provided as requested. Contractor is responsible for all costs associated with the requested background checks. The State or Authorized User, in its sole discretion, may also perform background checks.

d. **Contractor's Key Personnel**

- i. The State has the right to recommend and approve in writing the initial assignment, as well as any proposed reassignment or replacement, of any Key Personnel. Before assigning an individual to any Key Personnel position, Contractor will notify the State of the proposed assignment, introduce the individual to the State's Program Manager, and provide the State with a resume and any other information about the individual reasonably requested by the State. The State reserves the right to interview the individual before granting written approval. In the event the State finds a proposed individual unacceptable, the State will provide a written explanation including reasonable detail outlining the reasons for the rejection.
- ii. Contractor will not remove any Key Personnel from their assigned roles on this Contract without the prior written consent of the State, not to be unreasonably withheld. The Contractor's removal of Key Personnel without the prior written consent of the State is an unauthorized removal ("**Unauthorized Removal**"). An Unauthorized Removal does not include replacing Key Personnel for reasons beyond the reasonable control of Contractor, including illness, disability, leave of absence, personal emergency circumstances, resignation, or for cause termination of the Key Personnel's employment. Any Unauthorized Removal may be considered by the State to be a material breach of this Contract, in respect of which the State may elect to terminate this Contract for cause under **Section 20**.
- iii. It is further acknowledged that an Unauthorized Removal will interfere with the timely and proper completion of this Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to fix the actual damage sustained by the State as a result of any Unauthorized Removal. Therefore, Contractor and the State agree that in the case of any Unauthorized Removal in respect of which the State does not elect to exercise its rights under **Section 20**, Contractor will issue to the State the corresponding credits set forth below (each, an "**Unauthorized Removal Credit**"):
 1. For the Unauthorized Removal of any Key Personnel designated in the Statement of Work, the credit amount will be \$1,000.00 per individual if Contractor identifies a replacement approved by the State and assigns the replacement to shadow the Key Personnel who is leaving for a period of at least 30 calendar days before the Key Personnel's removal.
 2. If Contractor fails to assign a replacement to shadow the removed Key Personnel for at least 30 Calendar Days, in addition to the \$1,000.00 credit specified above, Contractor will credit the State \$1,000.00 per Business Day for each day of the 30 calendar Day shadow period that the replacement Key Personnel does not shadow the removed Key Personnel, up to \$30,000.00 maximum per individual. The total Unauthorized Removal Credits that may be assessed per Unauthorized Removal and failure to provide 30 Calendar Days of shadowing will not exceed \$31,000.00 per individual.



- iv. Contractor acknowledges and agrees that each of the Unauthorized Removal Credits assessed under **Subsection iii** above: (i) is a reasonable estimate of and compensation for the anticipated or actual harm to the State that may arise from the Unauthorized Removal, which would be impossible or very difficult to accurately estimate; and (ii) may, at the State's option, be credited or set off against any Fees or other charges payable to Contractor under this Contract.
- e. **Subcontractors.** Contractor will not, without the prior written approval of the State, which consent may be given or withheld in the State's sole discretion, engage any Third Party to perform Services. The State's approval of any such Third Party (each approved Third Party, a "**Permitted Subcontractor**") does not relieve Contractor of its representations, warranties or obligations under this Contract. Without limiting the foregoing, Contractor will:
 - i. be responsible and liable for the acts and omissions of each such Permitted Subcontractor (including such Permitted Subcontractor's employees who, to the extent providing Services or Deliverables, shall be deemed Contractor Personnel) to the same extent as if such acts or omissions were by Contractor or its employees;
 - ii. name the State a third party beneficiary under Contractor's Contract with each Permitted Subcontractor with respect to the Services;
 - iii. be responsible for all fees and expenses payable to, by or on behalf of each Permitted Subcontractor in connection with this Contract, including, if applicable, withholding of income taxes, and the payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits

11. **Notices.** All notices and other communications required or permitted under this Contract must be in writing and will be considered given and received: (a) when verified by written receipt if sent by courier; (b) when actually received if sent by mail without verification of receipt; or (c) when verified by automated receipt or electronic logs if sent by facsimile or email.

If to State: Sue Cieciva DTMB Procurement Constitution Hall 525 West Allegan Street PO Box 30026 Lansing, MI 48909 Email: ciecivas@michigan.gov Phone: (517) 284-7007	If to Contractor: Gio Constantiello Dominion Voting Systems 1201 18 th Street, Suite 210 Denver, CO 80202 Email: gio.costantiello@dominionvoting.com Phone: (416) 762-8683 x 241
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12. **Insurance Requirements.** Contractor must maintain the insurances identified below and is responsible for all deductibles. All required insurance must: (a) protect the State from claims that may arise out of, are alleged to arise out of, or result from Contractor's or a subcontractor's performance; (b) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (c) be provided by a company with an A.M. Best rating of "A" or better and a financial size of VII or better.

Insurance Type	Additional Requirements
Commercial General Liability Insurance	
<u>Minimal Limits:</u> \$1,000,000 Each Occurrence Limit	Contractor must have their policy endorsed to add "the State of Michigan, its departments,

CONTRACT #071B7700117



<p>\$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit \$2,000,000 Products/Completed Operations</p> <p><u>Deductible Maximum:</u> \$50,000 Each Occurrence</p>	<p>divisions, agencies, offices, commissions, officers, employees, and agents” as additional insureds using endorsement CG 20 10 11 85, or both CG 2010 07 04 and CG 2037 07 0.</p>
Automobile Liability Insurance	
<p><u>Minimal Limits:</u> \$1,000,000 Per Occurrence</p>	
Workers' Compensation Insurance	
<p><u>Minimal Limits:</u> Coverage according to applicable laws governing work activities.</p>	<p>Waiver of subrogation, except where waiver is prohibited by law.</p>
Employers Liability Insurance	
<p><u>Minimal Limits:</u> \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease.</p>	
Crime Insurance	
<p><u>Minimal Limits:</u> \$1,000,000 Employee Theft Per Loss</p>	<p>Contractor must have their policy: (1) cover forgery and alteration, theft of money and securities, robbery and safe burglary, computer fraud, funds transfer fraud, money order and counterfeit currency, and (2) endorsed to add “the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents” as Loss Payees.</p>
Professional Liability (Errors and Omissions) Insurance	
<p><u>Minimal Limits:</u> \$5,000,000 Each Occurrence \$5,000,000 Annual Aggregate</p> <p><u>Deductible Maximum:</u> \$50,000 Per Loss</p>	
Property Insurance	
<p>The Contractor is responsible for Property Insurance covering any loss or damage to State-owned owned property that results from this agreement including cargo while in transit, and State-owned office space used by the Contractor for any reason under this Contract, together with State-owned equipment, software and other contents of the office space, including without limitation, those contents used by the Contractor to provide the Services to the State, up to its replacement value, where the property is under the care, custody and control of the Contractor.</p>	<p>The State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents must be endorsed on the policy as a loss payee as its interests appear.</p>



If any of the required policies provide claim-made coverage, the Contractor must: (a) provide coverage with a retroactive date before the effective date of the contract or the beginning of Services; (b) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the Services; and (c) if coverage is canceled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, Contractor must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

Contractor must: (a) provide insurance certificates to the Contract Administrator, containing the agreement or purchase order number, at Contract formation and within 20 calendar days of the expiration date of the applicable policies; (b) require that subcontractors maintain the required insurances contained in this Section; (c) notify the Contract Administrator within 5 business days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

This Section is not intended to and is not be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State).

13. Reserved

- 14. Extended Purchasing Program.** This Contract is extended to MiDEAL members. MiDEAL members include local units of government, school districts, universities, community colleges, and nonprofit hospitals. A current list of MiDEAL members is available at www.michigan.gov/mideal. Upon written agreement between the State and Contractor, this Contract may also be extended to: (a) State of Michigan employees and (b) other states (including governmental subdivisions and authorized entities).

If extended, Contractor must supply all Services, EMS Software and Deliverables at the established Contract prices and terms. The State reserves the right to negotiate additional discounts based on any increased volume generated by such extensions.

Contractor must submit invoices to, and receive payment from, extended purchasing program members on a direct and individual basis. ALL CONTRACTUAL OBLIGATIONS UNDER THIS CONTRACT IN CONNECTION WITH A PURCHASE ORDER PLACED BY A MIDEAL MEMBER ARE THE SOLE OBLIGATION OF THE MIDEAL MEMBER PLACING THE ORDER AND NOT THE RESPONSIBILITY OF THE STATE

- 15. Independent Contractor.** Contractor is an independent contractor and assumes all rights, obligations and liabilities set forth in this Contract. Contractor, its employees, and agents will not be considered employees of the State. No partnership or joint venture relationship is created by virtue of this Contract. Contractor, and not the State, is responsible for the payment of wages, benefits and taxes of Contractor's employees and any subcontractors. Prior performance does not modify Contractor's status as an independent contractor.
- 16. Assignment.** Contractor may not assign this Contract to any other party without the prior written approval of the State. Upon notice to Contractor, the State, in its sole discretion, may assign in whole or in part, its rights or responsibilities under this Contract to any other party.
- 17. Change of Control.** Contractor will notify the State, within 90 calendar days of the effective date, of a change in Contractor's organizational structure or ownership. For purposes of this Contract, a change in control means any of the following: (a) a sale of more than 50% of Contractor's stock resulting in a circumstance described by (e); (b) a sale of substantially all of Contractor's assets; (c) a change in a majority of Contractor's board members; (d) consummation of a merger or consolidation of Contractor with any other entity; (e) a change in more than 50% ownership through a transaction or series of transactions; (f) or the board (or the stockholders) approves a plan of complete liquidation. A change



of control does not include any consolidation or merger effected exclusively to change the domicile of Contractor, or any transaction or series of transactions principally for bona fide equity financing purposes.

In the event of a change of control, Contractor must require the successor to assume this Contract and all of its obligations under this Contract.

18. **Liquidated Damages.** Liquidated damages, if applicable, will be assessed as described in the Statement of Work.
19. **Stop Work Order.** The State may suspend any or all activities under the Contract at any time. The State will provide Contractor a written stop work order detailing the suspension. Contractor must comply with the stop work order upon receipt. Within 90 calendar days, or any longer period agreed to by Contractor, the State will either: (a) issue a notice authorizing Contractor to resume work, or (b) terminate the Contract. The State will not pay for Services or Deliverables, Contractor's lost profits, or any additional compensation during a stop work period. The State or Authorized User, as applicable will pay for any Services or Deliverables that have been ordered, prior to the issuance of the Stop Work Order.
20. **Termination for Cause.** The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State: (a) endangers the value, integrity, or security of any State or Authorized User location, data, or personnel; (b) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; (c) engages in any conduct that may expose the State or an Authorized User to liability; (d) breaches any of its material duties or obligations under this Contractor, including but not limited to obtaining and maintaining, throughout the Term of the Contract, Federal and/or State voting system certification; or (e) fails to cure a breach within the time stated in a notice of breach provided Contractor shall be afforded no less than thirty (30) days to cure any such breach under this Contract unless otherwise mutually agreed upon by the parties. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

If the State terminates this Contract under this Section, the State will issue a termination notice specifying whether Contractor must: (a) cease performance immediately, or (b) continue to perform for a specified period. If it is later determined that Contractor was not in breach of the Contract, the termination will be deemed to have been a termination for convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in **Section 21**.

The State will only pay for amounts due to Contractor for Services and Deliverables accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination, including any prepaid Fees for support and maintenance services. Further, Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, and court costs. For purposes of clarity, Contractor will not be responsible for any transition costs or costs of obtaining substitute Services or Deliverables.

21. **Termination for Convenience.** Upon thirty (30) days prior written notice, the State may terminate this Contract in whole or in part without penalty and for any reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance of the Services immediately, or (b) continue to perform the Services in accordance with **Section 22**. If the State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities. The State or Authorized User, as applicable will pay for any Services or Deliverables that have been Accepted, prior to the effective date of the termination.



22. **Transition Responsibilities.** Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 90 calendar days)(the “**Transition Period**”), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Services and Deliverables to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Services and Deliverables to the State or its designees. Such transition assistance may include, but is not limited to: (a) continuing to perform the Services at the established Contract rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Services and Deliverables, training, reports and other documentation, to the State or the State’s designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all materials, data, property, and confidential information provided directly or indirectly to Contractor by any entity, agent, vendor, or employee of the State; (d) transferring title in and delivering to the State, at the State’s discretion, all completed or partially completed Deliverables prepared under this Contract as of the Contract termination date; and (e) preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts (collectively, “**Transition Responsibilities**”). This Contract will automatically be extended through the end of the transition period.
23. **General Indemnification.** Contractor must defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to third party claims arising out of: (a) any breach by Contractor (or any of Contractor’s employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable) of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract; (b) any infringement, misappropriation, or other violation of any Intellectual Property Right or other right of any third party, excluding any Third-Party Products; and (c) any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to the negligence or misconduct of Contractor (or any of Contractor’s employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable).

The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations.

The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; and (iii) employ its own counsel. Contractor will not, without the State’s written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. To the extent that any State employee, official, or law may be involved or challenged, the State may, at its own expense, control the defense of that portion of the claim; provided that, in such event, Contractor will be relieved of its obligations under this Section with respect to that particular claim.

Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

24. **Infringement Remedies; Exclusions.** Excluding any Third-Party Products, if, in either party’s opinion, any of the Services, EMS Software or Deliverables supplied by Contractor or its subcontractors, or its operation, use or reproduction, is likely to become the subject of a copyright, patent, trademark, or trade secret infringement claim, Contractor must, at its expense do one of the following at State’s option: (a) procure for the State the right to continue using the Services or Deliverables, or if this option is not reasonably available to Contractor, (b) replace or modify the same so that it becomes non-infringing, or if this option is not reasonably available to Contractor, (c) accept its return by the State with appropriate credits to the State against Contractor’s charges and reimburse



the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it. Contractor will not defend or indemnify the State if any claim of infringement or misappropriation (a) is asserted by an affiliate of the State; (b) results from the State's design or alteration of any Services, EMS Software or Deliverables; (c) results from use of any Deliverable or EMS Software in combination with any non-Contractor product, except to the extent, if any, that such use in combination is restricted to the EMS Software system designed by Contractor or Contractor has directed such use; (d) relates to Third-Party Products; or (e) arises from State-specified customization work undertaken by Contractor or its designees that are made in response to State specifications. THIS SECTION 24 AND THE STATE'S INDEMNIFICATION RIGHTS UNDER SECTION 23 STATES THE ENTIRE LIABILITY OF CONTRACTOR AND STATE'S SOLE AND EXCLUSIVE REMEDIES FOR INFRINGEMENT AND INTELLECTUAL PROPERTY MISAPPROPRIATION; PROVIDED THAT, THE STATE MAY ALSO TERMINATE THIS CONTRACT FOR CAUSE.

25. **Limitation of Liability.** NEITHER PARTY WILL BE LIABLE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, OR SPECIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS AND LOST BUSINESS OPPORTUNITIES. IN ADDITION, IN NO EVENT WILL THE STATE'S OR THE CONTRACTOR'S AGGREGATE LIABILITY TO THE OTHER OR TO ANY AUTHORIZED USER UNDER THIS CONTRACT EXCEED THE MAXIMUM AMOUNT OF FEES SPECIFIED IN THE STATEMENT OF WORK WITH RESPECT TO THE STATE OR THE MAXIMUM AMOUNT OF FEES SPECIFIED IN THE APPLICABLE PURCHASE ORDER FOR SUCH AUTHORIZED USER.
26. **Disclosure of Litigation, or Other Proceeding.** Contractor must notify the State within 14 calendar days of receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "**Proceeding**") involving Contractor, a subcontractor, or an officer or director of Contractor or subcontractor, that arises during the term of the Contract and that could reasonably be expected to affect Contractor's ability to comply with this Agreement, including: (a) a criminal Proceeding; (b) a parole or probation Proceeding; (c) a Proceeding under the Sarbanes-Oxley Act; (d) a civil Proceeding involving: (1) a claim that might reasonably be expected to adversely affect Contractor's viability or financial stability; or (2) a governmental or public entity's claim or written allegation of fraud; or (e) a Proceeding involving any license that Contractor is required to possess in order to perform under this Contract.
27. **State Data.** The State's data ("**State Data**"), which will be treated by Contractor as Confidential Information, includes all of the State's or Authorized User's data collected, used, processed, stored, or generated as the result of the Services. Contractor is provided a limited license to State Data for the sole and exclusive purpose of providing the Services, including a license to collect, process, store, generate, and display State Data only to the extent necessary in the provision of the Services. Contractor must: (a) keep and maintain State Data in strict confidence, using such degree of care as is appropriate and consistent with its obligations as further described in this Contract and applicable law to avoid unauthorized access, use, disclosure, or loss; (b) use and disclose State Data solely and exclusively for the purpose of providing the Services, such use and disclosure being in accordance with this Contract, any applicable Statement of Work, and applicable law; and (c) not use, sell, rent, transfer, distribute, or otherwise disclose or make available State Data for Contractor's own purposes or for the benefit of anyone other than the State without the State's prior written consent. This Section survives the termination of this Contract.
28. **Non-Disclosure of Confidential Information.** The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged communication not intended to be disclosed to third parties. The provisions of this Section survive the termination of this Contract.



- a. Meaning of Confidential Information. For the purposes of this Contract, the term “**Confidential Information**” means all information and documentation of a party that: (a) has been marked “confidential” or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked “confidential” or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked “confidential” or with words of similar meaning; and, (c) should reasonably be recognized as confidential information of the disclosing party. The term “Confidential Information” does not include any information or documentation that was or is: (a) subject to disclosure under the Michigan Freedom of Information Act (FOIA) by the receiving party; (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party’s proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf of, the receiving party). For purposes of this Contract, in all cases and for all matters, State Data is deemed to be Confidential Information.
- b. Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to a subcontractor is permissible where: (a) use of a subcontractor is authorized under this Contract; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the subcontractor’s responsibilities; and (c) the receiving party obligates the subcontractor in a written contract to maintain the disclosing party’s Confidential Information in confidence. At a party’s request, any employee or any subcontractor may be required to execute a separate agreement to be bound by the provisions of this Section.
- c. Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract and each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.
- d. Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, the immediate termination without penalty to the terminating party, of this Contract or any Statement of Work corresponding to the breach or threatened breach.
- e. Surrender of Confidential Information upon Termination. Upon termination of this Contract or a Statement of Work, in whole or in part, each party must, within 5 calendar days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party’s possession, custody, or control. Should Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and must certify the same in writing within 5 calendar days from the date of termination to the other party.



29. **Data Privacy and Information Security.** Without limiting Contractor's obligation of confidentiality as further described, Contractor is responsible for establishing and maintaining a data privacy and information security program, including physical, technical, administrative, and organizational safeguards, that is designed to: (a) ensure the security and confidentiality of State Data; (b) protect against any anticipated threats or hazards to the security or integrity of State Data; (c) protect against unauthorized disclosure, access to, or use of State Data; (d) ensure the proper disposal of State Data; and (e) ensure that all employees, agents, and subcontractors of Contractor, if any, comply with all of the foregoing.

30. **Records Maintenance, Inspection, Examination, and Audit.** The State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain, and provide to the State or its designee and the auditor general upon request, all financial and accounting records related to the Contract through the term of the Contract and for 4 years after the latter of termination, expiration, or final payment under this Contract or any extension ("**Audit Period**"). If an audit, litigation, or other action involving the records is initiated before the end of the Audit Period, Contractor must retain the records until all issues are resolved.

Within 10 calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Services are being performed, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If any financial errors are revealed, the amount in error must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of the Contract must be paid or refunded within 45 calendar days.

This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Services in connection with this Contract.

31. **Warranties and Representations.**

- a. Authority. Contractor represents and warrants to the State that:
 - i. It is duly organized, validly existing, and in good standing as a corporation or other entity as represented under this Contract under the laws and regulations of its jurisdiction of incorporation, organization, or chartering;
 - ii. It has the full right, power, and authority to enter into this Contract, to grant the rights and licenses granted under this Contract, and to perform its contractual obligations;
 - iii. The execution of this Contract by its Representative has been duly authorized by all necessary organizational action; and
 - iv. When executed and delivered by Contractor, this Contract will constitute the legal, valid, and binding obligation of Contractor, enforceable against Contractor in accordance with its terms.
- b. Pass through Warranties. Contractor further represents and warrants to the State that:
 - i. it shall pass through all manufacturer supplied end-user warranties to the Authorized User or the State, as applicable, and that with respect to all of the Deliverables provided hereunder, it has obtained from manufacturers of such Deliverables provided hereunder and will assign or pass through to each Authorized User the following representations and rights from said manufacturers: that said manufacturers agree to defend, indemnify and hold



harmless Contractor and the end user customer at manufacturer's expense from and against any claim, charge, demand, proceeding, suit, liability, loss, cost, expense, order, decree, attorneys fees, court costs, trial or appeal and judgments including damages of any kind resulting from, arising out of or in connection with any actual or claimed: (a) personal injury (including death), property damage or loss of any nature whatsoever alleged to have occurred as a result of the use of any of the Deliverable, (b) any defect in material, workmanship or design and (c) patent, trademark or copyright infringement with respect to any of the Deliverables. Notwithstanding the foregoing, the State and Authorized Users acknowledge that all Third Party Products which have been purchased by the Contractor for the State or Authorized Users hereunder are owned by parties other than Contractor. The State and Authorized Users further acknowledge that except for the payment to Contractor for the Third Party Products, all of its rights, warranties and obligations with respect thereto flow from and to the Third Parties. Contractor is only obligated to pass through the foregoing rights, warranties and obligations as may be provided by the Third Party.

- c. EMS Software and Deliverable Representations and Warranties. Contractor further represents and warrants to the State that:
- i. except for any Third Party Products used in conjunction with the EMS Software or any Deliverable (including System Software) provided hereunder, it is the legal and beneficial owner of the entire right, title and interest in and to the EMS Software and Deliverables (including any System Software), including, all Intellectual Property Rights relating thereto necessary to perform hereunder;
 - ii. it has, and throughout the license term, will retain the unconditional and irrevocable right, power and authority to grant and perform the license hereunder;
 - iii. the EMS Software and Deliverables (including any System Software), and the State's use thereof, is and throughout the license term will be free and clear of all encumbrances, liens and security interests of any kind;
 - iv. when used by the State or any Authorized User in accordance with this Contract, the EMS Software or Deliverable (including any System Software) as delivered or installed by Contractor does not or will not infringe, misappropriate or otherwise violate any Intellectual Property Right or other right of any third party;
 - v. Contractor uses industry standard software and tools designed to ensure that the EMS Software or any System Software does not or will not at any time during the license term contain any Harmful Code;
 - vi. when delivered, the EMS Software and System Software shall be at the current State certified release level unless otherwise requested by the State or Authorized Users; and
 - vii. all Documentation is and will be complete and accurate in all material respects when provided to the State such that at no time during the license term will the EMS Software or any Deliverables (including any System Software) have any material undocumented feature.
- d. Performance Warranty.



- i. Contractor warrants that during the Term of the Contract: (A) the EMS Software and the Deliverables (including System Software, but, excluding any Third-Party Products) will function in conformity with this Contract, the specifications set forth in the Statement of Work, and the Documentation; and (B) all Deliverables (but excluding any Third-Party Products) will be free of damage or defect in design, material and workmanship, and will remain so under ordinary use as contemplated by this Contract, the specifications set forth in the Statement of Work, and the Documentation. Contractor will, at the State's discretion, replace or repair any Contractor hardware that does not comply with this warranty, at no additional charge to State. The foregoing warranty shall not include the repair or replacement of any Deliverable components that are consumed in the normal course of operating the Deliverables, including printer ribbons, printer cartridges, paper rolls, backup batteries, removable media storage devices or marking devices. These warranties are effective provided that (I) the State or Authorized User promptly notifies Contractor of the failure of performance or defect and is otherwise in compliance with its obligations hereunder, (II) the Deliverable, EMS Software or System Software to be repaired or replaced has not been repaired, changed, modified or altered except as authorized or approved by Contractor, (III) the Deliverable, EMS Software or System Software to be repaired or replaced is not damaged as a result of accident, theft, vandalism, neglect, abuse, use which is not in accordance with instructions or specifications furnished by Contractor or causes beyond the reasonable control of Contractor or the State or Authorized User, including, but not limited to, acts of God, fire, riots, acts of war, terrorism or insurrection, labor disputes, power failures, surges or electrical damage, transportation delays, governmental regulations and utility or communication interruptions, and (IV) the State or Authorized User has installed and is using the most recent Update, provided to it by Contractor. This warranty is void for any units of a Deliverable which: (i) have not been stored or operated in a temperature range according their specifications, (ii) have been severely handled so as to cause mechanical damage to the unit, or (iii) have been operated or handled in a manner inconsistent with reasonable treatment of an electronic product.
- ii. Contractor further warrants that the EMS Software and the Deliverables (including System Software) will operate in conjunction with the Third Party Products during the Term of the Contract, provided that (i) the State or Authorized User has installed and is using the most recent State certified update provided to it by Contractor, and (ii) the Third Party Products are performing in accordance with their own specifications and documentation in all material respects and are not defective in material or workmanship. In the event of a breach of this warranty, Contractor will, in accordance with Section 1.6 of the Statement of Work, use commercially reasonable efforts to remedy or provide a suitable workaround for defects, errors or malfunctions in the EMS Software or the Deliverables (including System Software) that is causing such breach to occur. The State and Authorized Users acknowledge that Contractor has merely purchased the Third Party Products for resale to State or Authorized User, and that the proprietary and intellectual property rights to the Third Party Products are owned by parties other than Contractor. Subject to the Statement of Work, the State and Authorized User further acknowledge that except for the payment to Contractor for the Third Party Products, all of its rights and obligations with respect thereto flow from and to the Third Parties.
- iii. If the Contractor breaches any of the warranties set forth in this **Subsection d** Contractor will, upon written notice from the State, remedy such breach in

**Schedule C**

Pricing

36. **Governing Law.** This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in Michigan Court of Claims. Contractor consents to venue in Ingham County, and waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint agents in Michigan to receive service of process.
37. **Non-Exclusivity.** Nothing contained in this Contract is intended nor will be construed as creating any requirements contract with Contractor. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Services or Deliverables from other sources.
38. **Force Majeure.** Neither party will be in breach of this Contract because of any failure arising from any disaster or acts of god that are beyond their control and without their fault or negligence. Each party will use commercially reasonable efforts to resume performance. Contractor will not be relieved of a breach or delay caused by its subcontractors. If immediate performance is necessary to ensure public health and safety, the State may immediately contract with a third party.
39. **Dispute Resolution.** The parties will endeavor to resolve any Contract dispute in accordance with this provision (the “**Dispute Resolution Procedure**”). The dispute will be referred to the parties' respective Contract Administrators or Program Managers. Such referral must include a description of the issues and all supporting documentation. The parties must submit the dispute to a senior executive if unable to resolve the dispute within 15 business days. The parties will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance.
- Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' senior executive and either concludes that resolution is unlikely, or fails to respond within 15 business days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This Section does not limit the State's right to terminate the Contract.
40. **Media Releases.** News releases (including promotional literature and commercial advertisements) pertaining to the Contract or project to which it relates must not be made without prior written State approval, and then only in accordance with the explicit written instructions of the State.
41. **Severability.** If any part of this Contract is held invalid or unenforceable, by any court of competent jurisdiction, that part will be deemed deleted from this Contract and the severed part will be replaced by agreed upon language that achieves the same or similar objectives. The remaining Contract will continue in full force and effect.
42. **Waiver.** Failure to enforce any provision of this Contract will not constitute a waiver.
43. **Survival.** The provisions of this Contract that impose continuing obligations, including warranties and representations, termination, transition, insurance coverage, indemnification, limitations of liability, and confidentiality (and any surviving provisions in the License Agreement), will survive the expiration or termination of this Contract.
44. **Entire Agreement.** This Contract, including its Schedules, constitutes the sole and entire agreement of the parties to this Contract with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings and agreements, both written and oral, with respect to such subject matter. In the event of any conflict between the terms of this Contract and those of the

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Statement of Work or other Schedule, the following order of precedence governs: (a) first, this Contract; and (b) second, the Statement of Work or other Schedule. NO TERMS ON CONTRACTOR'S WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP, CLICK-THROUGH OR OTHER NON-NEGOTIATED TERMS AND CONDITIONS PROVIDED WITH ANY OF THE SERVICES, EMS SOFTWARE, DELIVERABLES, OR DOCUMENTATION HEREUNDER WILL CONSTITUTE A PART OR AMENDMENT OF THIS CONTRACT OR IS BINDING ON THE STATE OR ANY AUTHORIZED USER FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY THE STATE AND THE AUTHORIZED USER, EVEN IF ACCESS TO OR USE OF SUCH SERVICE, EMS SOFTWARE, DELIVERABLE OR DOCUMENTATION REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.



STATE OF MICHIGAN

Voting System Hardware, Firmware, Software and Service

SCHEDULE A STATEMENT OF WORK CONTRACT ACTIVITIES

This Contract is for voting systems approved for use in Michigan for the Michigan Department of State (MDOS) and includes hardware and firmware (tabulators and all related components, including those for use by voters with disabilities); related Election Management System (EMS) software provided to counties and select local jurisdictions; initial and extended service and maintenance; training and training documentation for county/local jurisdiction clerks and election staff and replacement components/consumables.

This is a multiple-vendor contract award with vendor selection coordinated at the county level and will be a gradual rollout. The rollout is anticipated to begin in conjunction with the August 2017 election, with the anticipated statewide completion by the August 2018 primary election. These schedules will be coordinated at the county level. The accessible voting system component will be rolled out in conjunction with the new voting system. Ownership will be granted directly to the counties and local jurisdictions. Upon agreement with jurisdictions in a county, ownership may be granted to the county for jurisdictions within the county.

A detailed list of the voting system components covered by this Contract, along with associated firmware and EMS software (including version numbers), is included in Exhibit 1 to Schedule A, Federal Voting System Testing / Certification Matrix.

BACKGROUND

In Scope:

This Contract includes:

- Purchase of voting system tabulators and all related components (Election Day precincts: one tabulator per precinct; and Absent Voter Counting Board, based on a formula determined by the State.) In addition, one tabulator per county.
- Purchase of accessible voting system components, for use by voters with disabilities (one per Election Day polling location [with some exceptions]). In addition, one accessible device per county.
- Related Election Management System or 'EMS' software. Two EMS software options will be available at the county level:
 - 1) **Full EMS ("Program Your Own")**, for counties that fully program their elections internally (without reliance on the voting system Contractor/subcontractor for programming); and
 - 2) **Accumulation-Only EMS**, for counties that rely on the voting system Contractor/subcontractor for programming; the accumulation-only functionality for these counties includes the capability to burn media, read media, transmit results and produce accumulation reports.
- Initial training and training documentation for county/local jurisdiction clerks and election staff.
- Voting System component / consumables costs (replacement or additional components not already covered in initial purchase).



- Initial system/software service and maintenance (acquisition year + four years).
- Extended service and maintenance (after the expiration of the initial service and maintenance period, + 5 years). Note: in the absence of a State appropriation, local counties and jurisdictions will be solely responsible for the cost of extended service and maintenance.
- Preventative maintenance (every two years).
- NOTE: The Contractor shall provide the State with one full set of all system components at no charge (precinct tabulator; AVCB tabulator; accessible voting device; full EMS software (“Program Your Own” version); all related training and documentation).

Anticipated Key Implementation Timeframes:

Initial acquisition and implementation is expected to progress over the following anticipated planned phases:

- Early to Mid 2017: For counties / jurisdictions that plan to implement the new system’s first use in Michigan’s August 8, 2017 election;
- Mid-2017: For counties / jurisdictions that plan to implement the new system’s first use in Michigan’s November 7, 2017 election;
- Early 2018: For counties / jurisdictions that plan to implement the new system’s first use in Michigan’s May 8, 2018 election;
- Mid-2018: For counties / jurisdictions that plan to implement the new system’s first use in Michigan’s August 7, 2018 primary election.
- Statewide implementation is expected to be completed by August 2018.

Detailed Specifications

1. Specifications

Exhibit 2, Attachments 1.1 – 1.4 to Schedule A contain detailed technical specifications and requirements for Michigan’s next generation voting system.

1.1 Voting System HARDWARE Technical Requirements

Exhibit 2, Attachment 1.1 to Schedule A lists detailed voting system **hardware** technical specifications and requirements. This attachment is broken into several categories, including:

- A. Ballot Counter / Tabulator Requirements
- B. Ballot Requirements
- C. Memory Device Requirements
- D. Ballot Box Requirements
- E. COTS (Commercial Off the Shelf) Options
- F. Reliability Requirements
- G. Security Requirements

Refer to Exhibit 2, Attachment 1.1 to Schedule A for additional details of these requirements.

1.2 Voting System ELECTION MANAGEMENT SYSTEM (EMS) SOFTWARE Technical Requirements

Exhibit 2, Attachment 1.2 to Schedule A lists detailed voting system **Election Management System (EMS) software** technical specifications and requirements. This attachment is broken into several categories, including:

- A. Election Management System (EMS) General Requirements
- B. EMS Programming Requirements
- C. Ballot Programming and Layout Requirements

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- D. Election Night Reporting (ENR) Capabilities / Requirements
- E. Reports Requirements
- F. Audit Capabilities / Requirements
- G. System / Software Ownership Requirements

Refer to Exhibit 2, Attachment 1.2 to Schedule A for additional details of these requirements.

1.3 Voting System ABSENTEE VOTING (AV) Technical Requirements

Exhibit 2, Attachment 1.3 to Schedule A lists detailed voting system **absentee voting (AV)** technical specifications and requirements. This attachment is broken into the following categories:

- A. AV Processing General Requirements
- B. High Speed AVCB Tabulator Requirements

Refer to Exhibit 2, Attachment 1.3 to Schedule A for additional details of these requirements.

1.4 Voting System ACCESSIBLE VOTING SYSTEM COMPONENT Technical Requirements

Exhibit 2, Attachment 1.4 to Schedule A lists detailed voting system **Accessible Voting System Component** technical specifications and requirements. This attachment is broken into several categories, including:

- A. Accessible Voting System General Requirements
- B. Accessible Voting System – Use of Touch Screen Interface Requirements
- C. Accessible Voting System – Use of Paper Ballots (Requirements related to 3 possible scenarios)
- D. Reliability Requirements

Refer to Exhibit 2, Attachment 1.4 to Schedule A for additional details of these requirements

1.5 State and Federal Testing / Certification Requirements

A. Federal Testing and Certification Requirements

Contractor's system shall have been tested and successfully completed all certification steps required by the U.S. Election Assistance Commission (EAC) before the system will be approved for implementation in Michigan. Documentation detailing the system to be implemented in Michigan is included in **Exhibit 1 to Schedule A, Federal Voting System Testing / Certification Matrix**.

For systems still in the process of obtaining EAC certification, the Contractor shall provide a copy of the EAC certification prior to final State certification and prior to a Purchase Order being placed for the system in any county. If the Contractor's system is not EAC certified by March 31, 2017, the State reserves the right to terminate this Contract and remove it from the program.

Contractor authorizes the State of Michigan to independently verify the status of any system's (or upgrades) Federal testing and certification status with the identified VSTL and the EAC, and authorize the identified VSTL and the EAC to provide information to the State of Michigan.

NOTE: Also see Section **1.5 D – Modification Requirements** (below), related to compliance requirements with future Federal standards.

B. State Testing and Certification Requirements

All voting systems approved for use in Michigan must complete the State voting system certification process, as required by Michigan Election Law. For systems that have not yet completed EAC certification, the State will coordinate the details and timeframes for completing final State certification and testing.

In sum, this process is designed to ensure that that all voting systems approved for use in Michigan comply with all applicable requirements of Michigan Election Law, 1954 PA 116, MCL 168.1 *et seq.*, and related Rules for Electronic Voting Systems, Mich Admin Code R 168.771 *et seq.*

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C. State Uniform Data Format

Contractor agrees and will comply with Michigan-specific uniform data format requirements and Federal IEEE Standards. **Exhibit 6 to Schedule A, Michigan QVF Export File Format** contains the State's current uniform data structure for use with Contractor's voting system EMS software.

Federal IEEE Standards: Upon finalization of voting system uniform data format standards currently under development at the Federal level (commonly referred to as IEEE standards), Contractor shall work with the State to seamlessly convert the State uniform data structure to comply with and implement the IEEE uniform data format at an agreed-upon time.

D. Modification Requirements

In the event that any modifications become available and/or necessary after delivery due to changes in the applicable Federal and/or State certification standards and/or laws that occur during the Contract period, the Contractor and the State will jointly review and agree upon the scope of, and cost for, any modifications required by such subsequent changes in Federal and/or State certification requirements and/or law. As part of this determination process, the Contractor shall thoroughly review the impact of such changes and develop a scope of work and cost analysis for review and approval by the State before proceeding with any applicable modifications.

System changes that are implemented through this process shall be accepted through the change notice process and included in the Contract as described in **Section 4** in the Contract Terms.

The Contractor shall provide written notice to the State Program Manager of any system modifications made on behalf of jurisdictions outside the State of Michigan. Such notice shall be provided no later than one month after the modification is made available.

1.6 Service and Maintenance

The Contractor shall maintain a physical presence in Michigan. The Contractor must include a proposed regional office structure and regional service and maintenance plan. This plan shall include the number and names of support personnel and geographic location/region assigned to each.

If a subcontractor is to be used for service and maintenance, the subcontractor must be identified, along with any Key Personnel (see **Section 3.3**); as well as relevant experience the subcontractor has with relation to the service and maintenance of the system being proposed.

In order to achieve the best possible level of service for Michigan customers, the Contractor will utilize two subcontractors. The two subcontracting companies, Grand Rapids-based ElectionSource and Governmental Business Systems (GBS), have an existing footprint in the State of Michigan, having provided services and support to a wide range of county customers for many years. The Contractor, together with ElectionSource and GBS, will work to ensure that the regional office structure, service and maintenance plan meets the needs of Michigan county customers.

In order to ensure adequate service coverage, ElectionSource proposes to open up an additional office located in South-East Michigan, which will add at least four new positions including - but not limited to - experienced service technicians, an elections programmer, and customer services liaisons for counties in the region.

Similarly, Governmental Business Services (GBS) Michigan-based personnel possess extensive experience in election supply/services in Michigan. Every GBS account manager's office will be equipped with back-up voting equipment, spare parts and any other ancillary supply items germane to the ImageCast product line. All GBS staff (based and/or assigned to Michigan) have been thoroughly trained on every aspect of the Democracy Suite system. A larger inventory of Dominion Voting products will also be maintained at GBS' corporate office in Lisle, Illinois, a 90-minute drive to the Michigan state line.

The Contract includes initial, ongoing and extended service and maintenance to include all of the following:

A. Service and Maintenance

The Contract shall cover an initial service and maintenance period on all Deliverables, System Software, and EMS Software (as those terms are defined under the Contract Terms) that shall be in effect throughout the acquisition



year + 4 years (the “**Initial Service Period**”), and shall be provided be at no additional cost. Extended service and maintenance on all Deliverables, System Software, and EMS Software shall cover the time period from the expiration of the Initial Service Period + 5 years (the “**Extended Service Period**”). Both the Initial Service Period and the Extended Service Period must cover all Deliverables, System Software and EMS Software, including any parts and labor. During the contract period, the Contractor shall repair or replace any Deliverable, System Software and/or EMS Software that becomes inoperable, is defective in material or workmanship, or otherwise fails to perform substantially in accordance with the Documentation and Contract requirements.

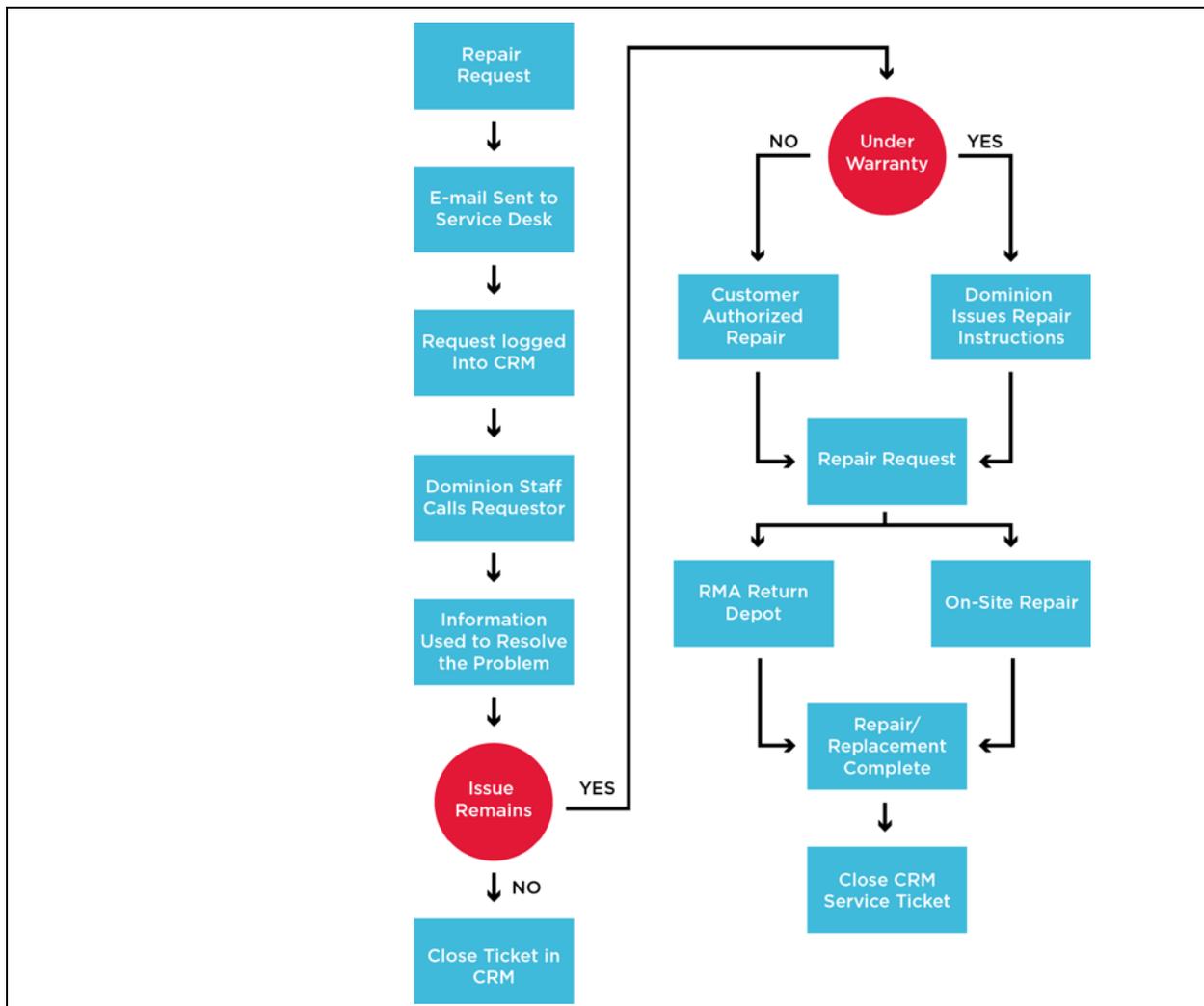
Deliverables and System Software:

During the term of the Contract, Contractor shall provide the following support and maintenance services (including unlimited telephonic support and all necessary travel and labor) to maintain the Deliverables and associated System Software in accordance with the Documentation and Contract requirements:

1. Upgrades to System Software. Make available to the State and any Authorized User no later than the first day of general release, or such other time as may be mutually agreed upon by the parties, copies of the System Software and documentation revised to reflect any enhancements (including New Versions and upgrades) to the System Software. Acceptance of system upgrades will proceed as outlined in **Section 1.5D, Modification Requirements**.
2. Known Defects. Contractor shall promptly notify the State and any Authorized User of any defects or malfunctions in the Deliverable, associated System Software or Documentation of which it learns from any source, correct any such defects or malfunctions or provide a workaround until corrected within five (5) Business Days of knowledge of such defect or malfunction and provide the State or Authorized User with corrections of same, at no additional cost to the State or Authorized User. If the correction of known defects requires Federal or State certification, acceptance of the correction will proceed as outlined in **Section 1.5D, Modification Requirements**.
3. Coverage. See Section 1.6(C)(1) below.
4. Service Levels. Respond to problems with the Deliverable identified by the State or an Authorized User in no more than two (2) hours after notification. Resolve all problems as specified in Section 1.6(C)(2) below. For purposes of this section, “resolve” means that Contractor has provided all parts, components and services required to correct the defect and restore such Deliverable so that it functions as warranted, and the State or Authorized User has confirmed such correction and its acceptance of it in writing; or Contractor shall replace it, so that it functions as warranted, and the State or Authorized User has confirmed such replacement and its acceptance of it in writing. Services provided by Contractor to correct the defect shall be on-site, and Contractor shall be solely responsible for any shipping cost to return any Deliverable to Contractor.

Contractor and its subcontractors address warranty, repair, and maintenance in a comprehensive and effective manner as characterized by the following:

- **Engineering** – Key components are designed with redundancy.
- **Manufacture Quality** – 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** – Contractor and its subcontractors provide preventative maintenance as required by the Contract and as presented in this section.
- **Repair** – Contractor maintains distributed warehouse of spare parts. Contractor maintains spare systems in depots as contingency replacements.
- **Readiness** – During the identified pre-election period, Contractor and its subcontractors will comply with all requirements for enhanced response time to all repair requests. All staff are available as required in the Contract. These technicians are well trained, experienced, and have spare systems available to them to ensure required timelines can be met.
- **Tracking and Reporting** – Contractor and its subcontractors utilize its Automated Ticket Tracking (ATT) system to manage repair and maintenance tickets. This is the same ticket tracking system that is used for problem escalation.



Since voting systems are unique in that they must be available and fully operational on every voting day, the Contractor and its subcontractors will offer only one level of service to all of its customers. This is the highest possible level of service. Every problem or issue will be addressed as high priority.

The Contractor and its subcontractors use a CRM database to capture service calls so no issue is overlooked. The CRM system tracks service request 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/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. The diagram on the previous page summarizes this process.

If a failed component is under warranty, Contractor's subcontractors will schedule an onsite visit by a technician to repair / rectify the defective or failed component. Where a failed or defective component is not covered by warranty, the State or Authorized User may request an on-site visit to assess and repair the failed / defective component. Normal rates will apply.



5. Remedies. If Contractor is unable to make the Deliverable conform, in all material respects, to the Contract requirements and Documentation within thirty (30) calendar days following written notification by the State or an Authorized User, Contractor shall, at the State's or such Authorized User's request, return all monies paid by the State or such Authorized User per the direction of the State Program Manager for the non-conforming Deliverable and Documentation and such other related Service(s) rendered unusable, including any prepaid maintenance fees associated with that Deliverable.

Contractor will accept return of the Deliverable and refund to the State a pro rata portion of the purchase price paid to Contractor for the defective Deliverable, such refund based on a straight line depreciation over a ten (10) year term beginning on the date of purchase.

EMS Software: During the term of the Contract, Contractor shall provide the following support and maintenance services (including unlimited telephonic support and all necessary travel and labor) to maintain the EMS Software in accordance with the Documentation and Contract requirements:

1. Maintenance Releases and New Versions. Contractor shall provide to the State and Authorized Users, at no additional charge, and no later than the first day of general release or such other time as may be mutually agreed upon by the parties, with all Maintenance Releases and New Versions (as those terms are defined in the Contract Terms) of the EMS Software. Acceptance of maintenance releases and new versions will proceed as outlined in **Section 1.5D, Modification Requirements**.
2. Known Defects. Promptly notify the State and all Authorized Users of any defects or malfunctions in the EMS Software or Documentation of which it learns from any source other than the State or an Authorized User and provide to all Authorized Users a correction of any such defects or malfunctions, or a work around until a correction is available, within five (5) days of Contractor's knowledge of such defect or malfunction. If the correction of known defects requires Federal or State certification, acceptance of the correction will proceed as outlined in **Section 1.5D, Modification Requirements**.
3. Coverage. See Section 1.6(C)(1) below.
4. Service Levels. Respond to problems with the EMS Software identified by the State or an Authorized User in no more than two (2) hours after notification. Resolve all problems according to the following:
 - Priority 1 (EMS Software inoperable) within one week.
 - Priority 2 (certain processing interrupted or malfunctioning but EMS Software able to process) within two weeks.
 - Priority 3 (minor intermittent malfunctioning, EMS Software able to process data) within 30 days.

The level of severity (e.g., Priority 1, 2, or 3), shall be defined by the State or Authorized User. For purposes of this section, "resolve" means that Contractor has corrected the problem that prompted the support request so that the EMS Software functions as warranted, and that the State or Authorized User has confirmed such correction and its acceptance of it in writing; or Contractor shall reinstall the EMS Software, so that it functions as warranted, and the State or Authorized User has confirmed such reinstallation and its acceptance of it in writing.

Should the EMS Software be found inoperable (following priority 1 standards) and cannot be repaired, a new installation of the EMS Software will be performed on-site and all testing of the software will be performed.

When responding to priority 2 issues, the Contract and its subcontractors will ensure that on-site testing is performed on the computer system and EMS Software to determine the cause of the problem with the EMS Software. Contractor may provide assistance to perform programming for Authorized User in the event that they cannot use the software while testing is being performed.

Similarly with priority 3 problems (minor intermittent malfunctioning, EMS Software able to process data), on-site testing will be performed on the system to determine the cause of the problem with the EMS

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Software within 30 days. Contractor may also provide assistance to perform programming for Authorized Users in the event that they cannot use the software while testing is being performed.

Service Requests will be completed for each Priority type. The Service Request will consist of the following information:

- Authorized User information
 - Date the Service Request was submitted
 - Reason for the Service Request
 - Technician performing the service/repair
 - Explanation of diagnosis and service performed
 - Length of time service/repair was performed
 - Date Service Request was completed
 - Copies of Service Requests will be given to the Authorized User and to the State for record keeping.
5. **Remedies.** If Contractor is unable to make the EMS Software conform, in all material respects, to the Contract requirements and Documentation within thirty (30) calendar days following written notification by the State or an Authorized User, Contractor shall, at the State's or such Authorized User's request, cancel the license to such EMS Software, accept return of such EMS Software and Documentation, if applicable, rendered unusable, and return all monies paid by the State or such Authorized User per the direction of the State Program Manager for the non-conforming EMS Software and Documentation and such other related Service(s) rendered unusable, including any prepaid maintenance fees associated with the EMS Software.

Contractor will accept return of the EMS Software and refund to the State a pro rata portion of the license fee paid to Contractor for the EMS Software, such refund based on a straight line amortization over a ten (10) year term beginning on the date of purchase.

B. Preventative Maintenance (Tabulators/accessible voting system components only)

- Biennial (every two years) preventative maintenance package
- Preventative maintenance must consist of standard steps and checklists for each tabulator/accessible voting system component

Service and maintenance also includes preventative maintenance (PM) for tabulators / accessible voting system components throughout the contract term. Preventative maintenance includes both remedial and preventative maintenance services, including all labor and parts except consumables such as printer cartridges, paper rolls, and backup batteries that can be accessed/changed by the local jurisdiction. NOTE: batteries associated with the system motherboard shall be covered by warranty.

Refer to Schedule C-Pricing for pricing on all consumables, as well as information on how and when to obtain replacement consumables, and consumables that are available commercially off-the-shelf (COTS).

Contractor and its subcontractors shall provide preventative maintenance on a biennial basis (every two years). Preventative maintenance schedules for individual counties shall be finalized with input and approval by the individual counties. See **Section 1.6C(4)** below.

Preventative maintenance must consist of standard steps and checklists for each ImageCast precinct tabulator, ImageCast X accessible voting system component and ImageCast Central high speed AVCB tabulator. Refer to **Exhibit 3 to Schedule A Preventative Maintenance Checklists**. The State has final approval over all preventative maintenance checklists.

Preventative maintenance for Contractor's Democracy Suite is designed to minimize all maintenance, and is primarily focused on the mechanical components.

The State of Michigan requires assurances from the Contractor that the purchased system has high availability, will be well maintained, and repaired promptly. The Contractor shall provide these assurances as follows:



The Contractor's subcontractors will be responsible for repairing Voting System components and performing preventative maintenance during the warranty period. Warranty and repair parts shall be new. The Contractor's subcontractors will track and retain documentation on maintenance and repair activities. The Contractor will coordinate all repair and maintenance actions with the State or Authorized User. The jurisdictions will be given written documentation to confirm completion of work performed and status of the Voting System.

The Contractor provides standard costs for all consumables as well as information on how and when to obtain replacement consumables, and consumables that are available COTS. Refer to **Schedule C – Pricing**.

C. Technical Support Response Requirements

- Help Desk Telephone Support
- Equipment Repair/Replace
- Reporting Requirements
- Support Personnel

NOTE: counties and local jurisdictions may contract and pay separately for Election Day Support, which will entail dedicated Election Day support resources and specific additional requirements beyond what is listed here. Counties and local jurisdictions will not be limited in the number of help desk calls.

1. Help Desk Telephone Support

- a. Toll-Free Number: 1-886-654-8683 (VOTE)

Contractors must provide a single toll-free number for Help Desk Support.

This toll-free number must allow callers to speak directly to live support representatives that are equipped to handle Michigan customer service, technical support, and other needs identified in the Contract.

In addition, the Contractor and its subcontractors will also provide local ongoing technical support. Each county, depending on the specifics of their contract agreement, will have the option of having an Election Day support team in their county that they can contact directly.

- b. Timeframe availability: Help Desk support is available during regular business hours (Mon-Fri, 8 am – 5 pm, Michigan local time) and 6 am – midnight on Election Day. In addition, support personnel have company cell phones for after-hours support.

- c. Response time for calls: Response to calls is required within two hours of receipt of the call.

Contractor's process for escalating and ensuring all Election Day support calls are handled and resolved as expeditiously as possible, is as follows:

The Contractor and its subcontractors will use an automated ticket tracking system. The target resolution time serves as a trigger point for escalation of the problem. The following table characterizes types, severity, and response times for problems.

Phase	Initial Response	Estimation Response	Subsequent Responses	Target Resolution Time
Election Day	Immediate	30 minutes	30 minutes	1 Hour
Ballot Programming ¹	Immediate	1 Hour	Every 2 hours	4 Hours
Pre-Election Period ²	Immediate	4 hours	Each Calendar Day	1 Business Day
Non-Election Period	Immediate	Next Business Day	Each Business Day	As Agreed

1. The period beginning with the release of final geopolitical data for a given election, and ending with the creation of the approved ballot images and election files.
2. The period beginning 60 days prior to a scheduled election and ending on certification of official results reports.

- d. For local jurisdictions contracting for Election Day support, an after-hours “emergency” toll-free number must be available for on-call service and support.



Contractor's toll-free number for support is 1-886-654-8683 (VOTE). The Contractor shall provide Election Day support from 6:00 am until all counties report in, with live call center to dispatch technician, if needed.

2. Equipment Repair/Replace

- a. Contractor must maintain a reasonable supply of certified manufacturer replacement parts and components at distributed warehouses necessary to repair malfunctioning equipment and return it to service as soon as possible. Contractor's subcontractor, ElectionSource, for example, maintains spare systems in its Grand Rapids office and in depots as contingency replacements. Technicians must be equipped with all commonly required spare parts.
- b. Equipment repair shall occur on-site, unless there is a demonstrable need to ship the equipment off-site for service, repair, or replacement. (See paragraph e. below.)
- c. Equipment shall be repaired or replaced within ten business days. On Election Day, equipment shall be repaired or replaced as soon as possible that day. Contractor shall have a process for escalating and ensuring all Election Day equipment problems are handled and repaired/replaced as expeditiously as possible. Prior to Election Day, repaired/replaced equipment shall be available to allow for adequate time for pre-election testing and successful use on Election Day.
- d. In the event of inoperability on Election Day, the Contractor and its subcontractors will have technicians strategically placed throughout the state in order to be no more than one hour away from trouble calls on Election Day. Technicians will have parts and loaner equipment available at no cost to the local jurisdictions.
- e. If a demonstrable need exists to ship equipment for service, repair, or replacement, the Contractor shall pay the full cost of shipping and all related expenses, including packing materials.

3. Reporting Requirements

- a. Contractor shall promptly provide the counties and local jurisdictions with written information on any tabulator/accessible voting system hardware, firmware and/or EMS software problems that are encountered wherever the equipment is in use (inside or outside of Michigan), along with written instructions explaining the solution to those problems. Copies of these communications shall also be provided to the State's Contract Administrator and Program Manager at the time of issuance to the counties and local jurisdictions. The State's Contract Administrator and Program Manager shall also receive prompt written notice whenever a problem exists that may affect multiple jurisdictions.
- b. Contractor shall provide written reports on a monthly basis (or on a regular timeframe mutually agreed upon between the State and the Contractor) that summarize all service and maintenance work completed during the reporting period; all service and maintenance work scheduled for the upcoming reporting period; and any unresolved problems or other issues that may affect multiple jurisdictions. These reports shall be submitted via email to the State's Program Manager.
- c. Contractor shall promptly notify the State's Contract Administrator and Program Manager in writing of any material errors or defects in the tabulator/accessible voting system hardware, firmware, software and/or EMS software deliverables known, or made known to Contractor from any source (inside or outside of Michigan) during the Contract term that could cause the production of incomplete, inaccurate, or otherwise materially incorrect, results. Contractor shall immediately initiate actions as may be commercially necessary or proper to effect corrections of any such errors or defects.

4. Support Personnel

The Contractor shall provide well-trained and knowledgeable election service technicians for all activities that are the Contractor's responsibility. The Contractor must maintain election service technicians in various areas of the state to meet the counties' and local jurisdictions' service and maintenance needs and to conform with response time requirements. Counties and local jurisdictions have the right of approval for any support personnel provided at the county/local level.

The Contractor and its subcontractors will provide qualified technicians and a range of necessary parts on-site to enable immediate repairs to commonly identified problems. Technicians are factory trained and can handle most repairs on-site. However, the sophisticated nature of the ImageCast system may require that some systems are repaired in Contractor's depot facility. In this event, a spare will be provided if needed to meet an election deadline. Technicians will have cell phones and company vehicles.

For preventative maintenance visits and when service and maintenance needs require an in-person visit by an election service technician, Contractor staff must work with counties and local jurisdictions to establish mutually agreeable timeframes and locations for repairs and preventative maintenance services. The Contractor must develop a proposed preventative maintenance schedule for review and approval by the counties and local

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jurisdictions; counties/local jurisdictions are not responsible for developing this schedule. It will be up to the counties and/or local jurisdiction to select on-site vs. centralized locations for preventative maintenance.

While on-site, election service technicians must establish contact with the designated jurisdiction representative upon arrival and before leaving. Contractor staff must provide jurisdiction staff with a copy of the completed Preventative Maintenance Checklist, a written status report upon completion of support/maintenance work, indicating the work that was completed, any outstanding issues and the plan for resolving those issues.

All service technicians shall:

- a. Be well trained, professional, knowledgeable and experienced in the maintenance and repair of tabulators, accessible voting components, firmware and EMS software; and capable of replacing malfunctioning equipment in county/local jurisdiction offices, storage facilities and/or the polling place.
- b. Have reliable dedicated transportation of sufficient size to accommodate the transport of voting equipment as needed.
- c. Maintain a reasonable supply of certified manufacturer replacement parts and components necessary to repair malfunctioning equipment and return it to service.
- d. Have cellular telephones or other means of real-time communication, and must provide this information to the designated jurisdiction representatives.

1.7 Product Recall Requirements and Procedures

Any issues with the voting system will always be immediately addressed by working directly with the Bureau of Elections and the State. In the case of a recall, Contractor's response plan starts with defining a plan that is acceptable to all parties, performing the recall, and repeating acceptance testing.

Contractor's procedures related to product recall, covering how and when it is determined that a product recall is needed, how information on product recalls is communicated to customers and how product recalls are tested, scheduled, deployed and completed are described as follows:

Firstly, to communicate and formulate a product recall plan:

1. Notify Contractor's communications assigned contact with the State by telephone without delay to discuss the recall situation, and begin to create the recall plan which would cover scheduling, retesting, and redeployment
2. Provide the State with a Product Advisory Notice document so the information is in writing
3. Notify the counties by telephone and then in writing
4. Notify remaining jurisdictions by telephone and then in writing
5. Finalize recall plan

Finally, execute the agreed recall plan with the State, which could follow the following suggested steps:

1. Provide release notes and test results to the State
2. Repeat certification testing
3. If the recall is on physical units:
 - a. Return units that are being recalled to the repair facility
 - b. Update the units at repair facility
 - c. Return units to customer sites
 - d. Perform acceptance testing
4. If the recall is on software:
 - a. Distribute the software to customer sites
 - b. Reinstall the software
 - c. Perform acceptance testing

1.8 Quality Assurance Program

Contractor must have Quality Assurance programs in place for the voting system, accessible voting system components and related EMS software products, covering ongoing programs that test, validate and upgrade hardware, firmware, software and other key components.

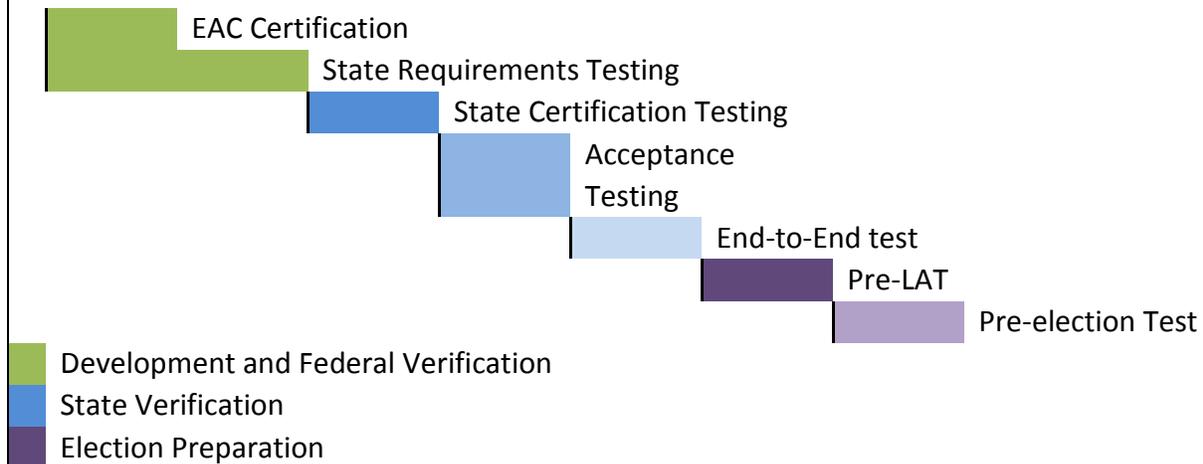
Contractor uses multi-level quality assurance and quality control processes to ensure that all elements of its integrated voting system perform properly with every use. Contractor uses a top tier contract manufacturer, based in the United States, and recognized as a leader in the industry for manufacturing. Internal acceptance testing is performed on each voting system on receipt from the manufacturer. By the time its products are purchased by the State or Authorized End User, they have gone through three full rounds of acceptance testing. Independent reviews of election databases are



conducted prior to Logic & Accuracy testing. Contractor recommends (and supports their customers to conduct) precinct-level pre-election testing.

In addition to this rigorous testing and control program designed to catch errors, Contractor regularly conducts process audits of our acceptance testing, and programming processes to ensure that errors never occur.

Testing Phase Summary



Contractor tests its equipment to the highest standards in the industry. Contractor's test plan is multi-layered, and designed to complement County tests. Key attributes of the test plan are as follows:

1. EAC Certification – Contractor's products are certified as EAC compliant. This is the highest certification standard in the industry and is your assurance that all products have undergone the highest level of testing.
2. State Requirements Testing – Contractor's Engineers work to configure the EAC certified platform to meet Michigan's specific certification requirements.
3. State Certification Testing – Contractor's team works with the State board to demonstrate compliance of the system with state requirements.
4. Acceptance Testing – Each component of the system is tested for functionality on site at the customer warehouse. Contractor's subcontractor will provide training and documentation to county officials to assist them in undertaking this task.
5. End-to-End test – Contractor and its subcontractors will work with the county to conduct end-to-end testing. Contractor recommends that this test is completed following EMS training on a project reflecting Election Day requirements. In this test, an election project is created, and a representative sample of tabulators is programmed. Test ballots with known results are prepared and cast. Results are uploaded into the election management system and reports generated. The results are then compared to the expected outcomes to verify the system is performing properly. This test is performed on site at the customer warehouse.
6. Pre-Election Logic & Accuracy Testing – In advance of all elections Dominion Voting recommends that Logic & Accuracy Testing of each voting system is tested with final Election Day ballots. This complete end-to-end test provides certainty that the system will perform as planned on Election Day. This test is performed on site at the customer warehouse.
7. Pre-election test – Contractor advocates the use of a pre-election system readiness test. Prior to the beginning of voting, following the distribution of election systems to the precincts, customers have the option to run a small, mock-election. This test familiarizes poll staff in election night procedures, and provides additional assurance that all elements of the system are functioning properly after transport.
8. Automated Test Deck Creation – The creation of automated, comprehensive test decks is an optional service provided by Contractor to assist customers in conducting Logic & Accuracy testing. Using the Election Day database a series of pre-marked ballots are generated based on a computer algorithm designed to provide the highest assurance of system accuracy. When scanned these decks create known outcomes that can be compared with tabulated results. The elimination of error due to mistakes in hand-marking provides a higher degree of confidence in test results.

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Available system upgrades shall be communicated and offered through the life of this Contract as described in **Section 1.5 D** (State Certification Process, Modification Requirements).

1.9 Incentives

Contractor offers a trade-in allowance incentive program for legacy tabulators and ballot marking devices, whereby the Contractor would take possession and ownership of existing voting systems, to assist counties and local jurisdictions in disposing of voting systems currently in place in the State of Michigan. **Refer to Schedule C, Pricing** for trade-in discount program available under this Contract.

2. Service Levels

2.1 Time Frames – Order Placement and Processing

Refer to the Background and Purpose section (under *KeyTimeframes*), for detail on the planned multiple purchasing phases.

After Contract execution, a vendor selection process will occur at the County level. Counties, in consultation with their local jurisdictions, will select a single system for the county. MCL 168.771a. Counties will also work with their local jurisdictions to determine a local funding plan (if necessary) and select a purchase phase for each jurisdiction.

Given the State's proposed implementation approach and timeframes, Contractor has provided details on the planned timeframes for delivery, testing and training for each purchase phase.

The State of Michigan requires a comprehensive implementation that is based on well-established principles of project management. The structure of the plan includes key milestones, which allow Michigan to see tangible progress.

Procurement and Delivery

Initiation of the procurement and delivery phase begins immediately on receipt of a signed purchase order from the State (POs will be issued for each county).

Contractor maintains a moderate inventory of all components, consumables, and parts that are available for immediate delivery. Through a network of suppliers, Contractor is able to procure supplies and consumables within 15-30 days to replenish inventory. When hardware orders are received, production is increased accordingly.

During the procurement phase of the project, all of the commercial off the shelf components used in Contractor's election system are purchased.

Hardware Manufacturing – Tabulators provided to counties in Michigan will be newly manufactured by Flextronics in their Plano, Texas manufacturing facility. Approximately ninety (90) days is required to procure all necessary components and complete manufacturing of the first tabulator, with the final system ready for delivery to the client approximately 14 days later. At this time purchase orders for ancillary equipment (i.e., buttons, additional compact flash cards, etc.) and any election consumables are generated.

Responsibility – County

Documentation

Finalize user documentation – All Dominion products are supplied with comprehensive technical documentation used by local election officials in the process of certifying and accepting voting systems. In addition, user documentation, forms and quick reference guides will be provided to reflect the specific needs of Michigan users.

Responsibility – County

Acceptance Testing of Election Equipment

County officials must formally accept all tabulators. To ensure complete functionality at the time of delivery, Dominion Voting follows a rigorous acceptance testing process.

County Acceptance – Counties are responsible for system acceptance testing. However, Dominion subcontractors will provide support to individual counties for acceptance testing. Acceptance testing involves:

Tabulator Acceptance Testing:

1. Physical inspection of tabulator
2. Functional testing using provided test materials, including the State-provided Acceptance Checklist

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 the tabulator
3. Record sample ballot audio
4. Directly load sample results from tabulator memory cards
5. Create Election Results Reports

County representatives will verify that the acceptance test has been successful, and complete a *Receipt/Acceptance* form to be submitted to the State.

Acceptance testing is an essential part of the quality assurance process. Dominion’s goal is that all election equipment arrives at the client warehouse in perfect condition, however it is normal to see a small number of tabulators that fail initial acceptance. Where the equipment in question can easily be repaired, the on-site Dominion subcontractor hardware technician will address these deficiencies immediately. When this is not possible, the equipment in question will be returned to our central depot and replaced.

Responsibility – County, Subcontractor

System Training

EMS Training – Dominion and its subcontractors will provide on-site training to County officials in the use of the election management system.

Responsibility – Dominion, Subcontractor

Tabulator and Accessible Voting System Training – Dominion and its subcontractors will provide on-site training to County officials in the use of the tabulator(s) and the accessible voting devices.

Responsibility – Dominion, Subcontractor

Refer to **Section 9.9 Project Plan** for further details. Also refer to **Section 2.2 (Delivery)**, **Section 2.6 (Training)** and **Section 5 (Ordering)** for additional details.

2.2 Delivery

Contractor shall develop a county-by-county implementation plan for delivering and conducting acceptance testing in each county/jurisdiction prior to each purchasing phase. Delivery plans, timeframes and locations must be mutually agreed upon between the Contractor and the County.

Voting systems, accessible voting system components, related EMS software and all related components must be delivered and acceptance testing completed no later than 90 calendar days prior to the system’s first use. Acceptance testing will consist of accuracy tests as prescribed under the Electronic Voting System Promulgated Rules, Mich Admin Code R 168.771 *et seq.* and State standard test deck processes, for both primary and general elections.

2.3 RESERVED

2.4 RESERVED

2.5 RESERVED

2.6 Training

Training Plan Overview

The State of Michigan requires a robust state-of-the-art training approach to fully internalize the new voting system solution into the voting operations of the state. All levels of staff - from poll workers to highly technical IT personnel - need to not only understand the new technology, but also how it integrates with the procedures and practices of Michigan elections.

Contractor and its subcontractors also understand that some election jurisdictions may have additional or special needs. For instance, a large County with a full time IT department will have different training requirements than a small County where there may not be a full time Elections Director. Given the unique circumstances of each Michigan county customer, Dominion and its subcontractors will work closely with each jurisdiction to ensure that the training program is customized to meet the County’s specific needs.

Training is the primary tool for organizational change integration. The voting system solution will require election workers to learn a new suite of hardware, software, and procedures. Our suite of training materials (documents, presentation, guides,



reference cards, web resources, and self-paced learning) all contribute to integrating the new solution into the day-to-day routine of the organization.

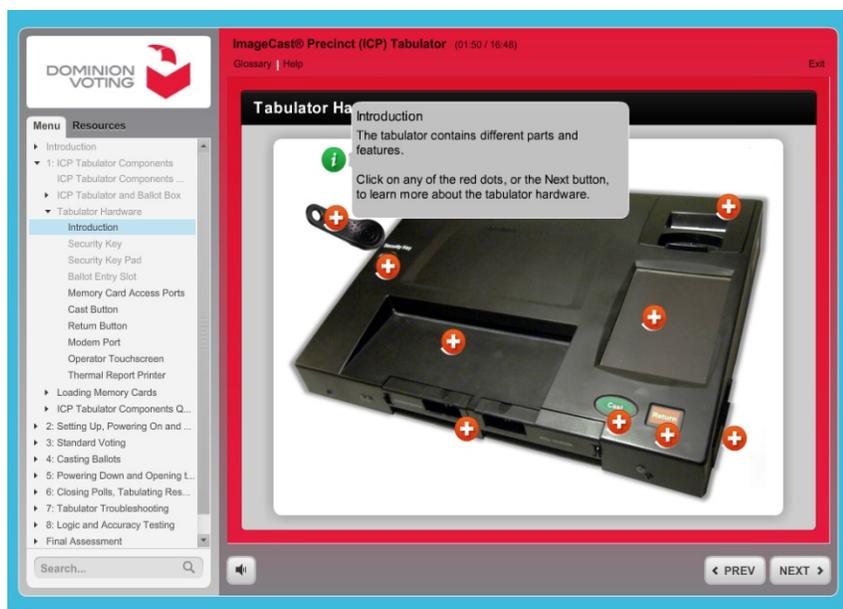
- A. Training Documentation - within 30 calendar days after Contract execution, the Contractor shall provide 10 copies of user manuals and step-by-step procedures for using the voting system and all components, accessible voting system components and EMS software to the State Program Manager or designee. Contractor and its subcontractors prepare all needed training material, which includes training manuals, training videos, quick reference guides, website instructional courses, and technical reference manuals when necessary. This material shall be provided both in paper and electronic (e.g., pdf) form. Delivery of equipment and software to the Counties and local jurisdictions must include at least one complete set of training documentation (both electronic (e.g. pdf) and paper form) for each County and local jurisdiction. Contractor and its subcontractors understand that training must support the local county election process. Contractor works in conjunction with county election staff to define training for each county so it will fit into the county's normal election process.
- B. Electronic Training Modules – Within 30 calendar days after Contract execution, the Contractor shall provide an electronic training course (e.g., video, web-based, etc.) that can be viewed, downloaded, and published online by the State, county and local election officials, covering end-to-end operation of the system; step-by-step procedures covering equipment set up, processing and close-down procedures; and other relevant information related to the use of the voting system and its components, and accessible voting system components. The electronic training module must be no longer than 30 minutes in length and be suitable for use as part of a training program for election inspectors (Election Day precinct workers). The electronic training modules must be provided in a format that allows the State to utilize the content (in whole or in part) in State-specific online training courses.

The Contractor offers flexibility to deliver training in multiple formats that gives the State or Authorized End User a choice of many different delivery methods for training. One aspect of the customization is utilizing different formats when creating training, including instructor-led classes in person, instructor-led classes online, and self-paced online eLearning.

Often, election preparation schedules prevent the delivery of training at the optimal time for retention on Election Day. This can be particularly apparent in small counties, where a very limited team is responsible for all election related activities. In these situations the use of in person, instructor-led hands-on training, complemented with self-paced online eLearning courses not only allows the benefit of practical hands-on equipment experience to users (and their supervisors) but also provides the opportunity to refresh knowledge immediately prior to the election. Similarly, the Contractor has made extensive use of video training for locations where eLearning was not felt to be practical.

Self-Paced e-learning –Contractor offers a complete library of self-paced e-learning courses which includes both hardware and software training. These courses are designed to deliver training in a unique format while still keeping the student engaged and active.

Contractor's online training courses provide step-by-step explanations of the needed information. Contractor uses eLearning tools such as Captivate and Articulate to create interactive and engaging training. At the end of a course, a student is required to pass an assessment in order to receive a certificate of completion.



- C. In-Person Training – Contractor’s plan for training State staff and local election officials (including but not limited to county and local clerks) on the operation and use of the new voting system, accessible voting system components and EMS software, includes, but will not be limited to the following:
- a. Use of the EMS to set up an election and design and layout ballots
 - b. Programming of tabulators and related component(s)
 - c. Programming of accessible voting system component(s)
 - d. Programming and use of tabulators and related component(s) used in AVCBs
 - e. Preparation of tabulators and accessible voting system components, including setup and pre-election testing
 - f. Election day operations from the opening to the closing of the polls
 - g. Processing of voters and absentee ballots
 - h. Processing write-in votes
 - i. Adjudicating ballots that may require manual review
 - j. Troubleshooting – identifying and resolving basic problems (issues that do not require a service call)
 - k. Security, including safeguards to prevent and detect tampering
 - l. Tabulation of results
 - m. Electronic transmission of election results
 - n. Printing standard reports
 - o. Customizing reports
 - p. Checks and balances – methods for ensuring the accuracy of precinct results
 - q. Full understanding of audit procedures



- r. Any special requirements related to conducting a recount using the tabulator
- s. Records preservation
- t. How and when to place service calls
- u. Any other pertinent processing steps as recommended by the Contractor

Through each stage of the implementation process, Contractor and its subcontractors' support staff assigned to the implementation project will provide hands-on training to election staff for the operation of the election management system.

State Staff and Local Election Officials Training

Contractor and its subcontractors will provide in-depth and hands-on training to elections staff personnel in all functional areas of the voting system(s) implementation. Dominion and its subcontractors will work with the State and local elections staff to determine which key staff members need specialized training. It is recommended that all department personnel receive training on how to operate the Democracy Suite system so that they will understand the implementation and can answer questions from the general public.

With regards to specific functional areas, it is recommended to limit the training to those departmental personnel with responsibilities specific to those functional areas. Cross training can be performed at a later date.

Poll Worker Training

Contractor and its subcontractors recommend that each jurisdiction divide the poll worker training program into classes with as few poll workers as is feasible given the available trainers, training facilities, and the limited time on the election calendar. Past implementations have proven that it is very important for all poll workers to have a chance to operate the machines "hands-on" in class, or at least participate in a small group and review. This allows poll workers to operate equipment while others observe and ask questions.

Contractor and its subcontractors will assist each jurisdiction in integrating the new voting system training into its current poll worker-training program's content and format, as well as in the development of training materials, and providing "train the trainers" courses.

Such a change in voting systems requires a change in polling place forms and procedures and as such, Dominion and its subcontractors will provide sample forms from previous implementations and will assist in redesigning forms and procedures accordingly.

The goal is to assist in training poll workers to comfortably, confidently operate voting machines and readily provide voters with simple instructions and assistance in voting on them.

Curriculum

Contractor's standard course offerings include the full range of the Democracy Suite classes. Training agendas and curriculum particular to the resources, staff and needs of each jurisdiction will be developed as part of the implementation meetings.

Precinct Tabulator and Accessible Voting Systems Training

This course provides an introduction to the Contractor's ImageCast Precinct tabulator and the ImageCast X used for accessible voting. Topics include:

- Setup of the equipment
- Security, including safeguards to prevent and detect tampering
- Opening polls
- Processing ballots
- Processing write-in votes
- Accessible voting
- Closing polls
- Electronic transmission of election results
- Acceptance testing
- Troubleshooting - identifying and resolving basic problems (issues that do not require a service call)
- Performing Logic & Accuracy testing

Absentee Voter Counting Board Systems Training



This course provides an introduction to the ImageCast Central. Topics include:

- Setup of the equipment
- Security, including safeguards to prevent and detect tampering
- Opening polls
- Processing ballots
- Adjudicating ballots that may require manual review
- Processing write-in votes
- Closing polls
- Acceptance testing
- Troubleshooting - identifying and resolving basic problems (issues that do not require a service call)
- Performing L&A

Democracy Suite EMS Training:

This course introduces election programming concepts in EMS. Topics include:

- System security
- Creating and editing geo-political data (if applicable)
- Creating and editing offices and contests (if applicable)
- Adding choices (if applicable)
- Creating and editing ballot layout (if applicable)
- Programming tabulators (if applicable)
- Creating Audio Files for accessible voting (if applicable)
- Records preservation
- Creating Memory Cards
- Tabulating Results
- Election Night Reporting (Results Tally & Reporting, including customizing and printing reports)
- Checks and balances – methods for ensuring the accuracy of precinct results
- Full understanding of audit procedures
- Any special requirements related to conducting a recount using the tabulator

D. Refer to Contractor’s course descriptions in the training plan below for details related to the conduct of in-person training, including the length of the training session; proposed structure for the sessions (e.g., multiple day training; separate courses covering specific topics, such as EMS-only training; number of contractor staff hours per session; recommended number of participants per session; and use of alternative training formats, such as *train-the-trainer*).

Contractor’s standard course offerings include the full range of the Democracy Suite classes. As noted above, training agendas and curriculum particular to the resources, staff and needs of each jurisdiction will be developed as part of the implementation meetings.

The following is the Contractor’s class listings with the recommended target audience, number of hours or days for the training, and the recommended number of participants per session. Train-the-trainer courses are recommended for larger counties, and include additional topics such as training techniques and presentation skills.

Precinct Tabulator and Accessible Voting Systems Training

Training Class	Target Audience	Number of Days/ Hours	Max Number of Students
Precinct Tabulator and Accessible Voting Systems Training	Election Administrators, Clerks, Poll Workers’ Trainers, Poll workers, Election Day Technicians	3 Days / 24 hours	25 students with two trainers
Train the Trainer (recommended for larger counties)	Poll Workers’ Trainers, Clerks, Election Administrators	3 Days / 24 hours	15 students with two trainers

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Poll Worker Training (optional)	Poll Workers, Election Administrators	1 Day / two 4-hour sessions	25 students with one trainer
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Absentee Voter Counting Board Systems Training

Training Class	Target Audience	Number of Days/ Hours	Max Number of Students
Absentee Voter Counting Board Systems Training	Election Administrators, Clerks	1 Day / 8 hours	8 students with one trainer

Democracy Suite Election Management System

Training Class	Target Audience	Number of Days/ Hours	Max Number of Students
Democracy Suite EMS Training – including Election Event Designer and Results Tally & Reporting	Election Administrators, Clerks	5 Days / 40 hours	8 students with one trainer
Results Tally & Reporting training (optional)	Election Administrators, Clerks	1 Day / 8 hours	8 students with one trainer
Results Transfer Manager training (optional)	Election Administrators, Clerks	1 Day / 8 hours	10 students with one trainer
ImageCast Communications Manager training (optional)	Election Administrators, Clerks	3 Days / 24 hours	8 students with one trainer

- E. Counties shall have final approval of their individual Contractor-conducted training plans, including the number of sessions, locations and participants per session.

Contractor and its subcontractors' staff will work closely with the counties to determine the best location(s) to accommodate all attendees. Training can be held at a County office location, local school, and/or town hall. The location of training will be determined by a series of factors such as the number of attendees, proper resources available to conduct the training effectively, and the County's personal preference.

In addition to onsite County training, Contractor and its subcontractors will offer training in its Grand Rapids and planned South-East Michigan office locations. These centers provide a classroom setting where qualified instructors reinforce classroom training with hands-on lab exercises conducted on operating equipment and software.

- F. The Contractor shall assist county and local election officials (if requested) in conducting comprehensive training for election inspectors (Election Day precinct workers) prior to the primary and general elections in the first year of use.

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As each jurisdiction's implementation may comprise the full 2017 or 2018 election cycles, Contractor and its subcontractors' support staff will continue to be dedicated to the counties and jurisdictions in the provision of training and hands-on application for each election through 2017 or 2018 as applicable. Election personnel will be provided repetitive practice and experience in practical application over election cycles, building confidence in the system and their abilities.

2.7 RESERVED

2.8 Meetings, Project Updates and Reports

The Contractor's State Project Manager and other identified Key Personnel must attend the following meetings:

- Initial contract kick-off meeting within 10 business days of Contract execution.
- Weekly update meetings after the initial kick-off meeting through the completion of the first planned implementation phase. Decisions on whether these updates take place via phone vs. in person meetings shall be at the discretion of the State.
- Monthly update meetings after the completion of the first implementation phase, through the life of the contract. Decisions on whether these updates take place via phone vs. in person meetings shall be at the discretion of the State.
- Written weekly updates, after the initial kick-off meeting through the completion of the first planned implementation phase. Written weekly updates will summarize work completed during the reporting period; planned work for the upcoming reporting period; issues affecting the timely and/or successful completion of planned milestones, along with the effect on planned timelines and resolution plan for each issue.
- Written monthly updates, after the completion of the first implementation phase, through the life of the contract. Written monthly updates will summarize work completed during the reporting period; planned work for the upcoming reporting period; issues affecting the timely and/or successful completion of planned milestones, along with the effect on planned timelines and resolution plan for each issue.
- Written updates after each Election Day, which identify and categorize service calls, equipment failures and resolution for all issues identified 14 calendar days prior to each election (up to and including Election Day), for each election in which the Contractor's voting system is used. These updates must be provided within 14 calendar days after each election.
- Annual reports prior to billing - during the extended service/maintenance period, a listing of all counties and jurisdictions and associated annual charges shall be provided to the State Program Manager at least 30 calendar days prior to the annual billing cycle.

The State may require other meetings and reports as it deems appropriate.

3. Staffing

3.1 Contractor Representatives

The Contractor shall appoint a **State Project Manager**, specifically assigned to State of Michigan accounts, that will respond to State inquiries regarding the Contract Activities, answering questions related to ordering and delivery, ongoing service and maintenance, warranties, Election Day support, and other key requirements covered by the Contract (the "Contractor Representative"). The State Project Manager shall maintain a presence in the State of Michigan.

State Project Manager

Gio Costantiello

State Project and Contract Manager

Phone: (416) 762-8683 x241, Mobile: (416) 580-0084

Email: gio.costantiello@dominionvoting.com

The Contractor shall also appoint a designated **State Customer Service Manager**, who will maintain a presence in the State of Michigan and shall work with and support counties and local jurisdictions on an ongoing basis through the life of the Contract.

State Customer Service Manager

Nicole Nollette

Executive Vice President, Operations

Phone: 866-654-8683 x9223

Mobile: 702-786-7131

Email: nicole.nollette@dominionvoting.com

The Contractor shall provide written notice to the Contract Administrator at least 30 calendar days before removing or assigning a new Contractor Representative.

3.2 Customer Service Toll-Free Number

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In addition to the requirements listed in **Section 1.6 (Service and Maintenance)**, the Contractor shall provide a Customer Service toll-free number for the State, counties and local jurisdictions to make contact with the Customer Service Support personnel. See other support requirements lists in **Section 1.6**.

In addition to the requirements listed in **Section 1.6 (Service and Maintenance)**, the Contractor must specify its Technical Support toll-free number for the State, counties and local jurisdictions to make contact with the Contractor for technical support, repairs and maintenance. The Contractor must be available for calls and service during the hours of 8 am to 5 pm local time. These availability hours must be expanded during key Election Day support timeframes as identified in **Section 1.6**.

NOTE: A single toll-free number will be used for both overall Customer Service, Help Desk Support and Technical Support.

Customer Service, Help Desk Support and Technical Support

Toll-Free Number: 1-886-654-8683 (VOTE)

3.3 Disclosure of Subcontractors

The Contractor intends to utilize the following subcontractors to fulfill the requirements of this Contract. The Contractor must provide prior written notice of all of the following:

The legal business name; address; telephone number; a description of subcontractor's organization and the services it will provide; names and titles of all subcontractor staff that will be assigned to the Michigan contract, along with each individual's role and responsibilities; and information concerning subcontractor's ability to provide the Contract Activities.

The relationship of the subcontractor to the Contractor.

Whether the Contractor has a previous working experience with the subcontractor. If yes, provide the details of that previous relationship.

A complete description of the Contract Activities that will be performed or provided by the subcontractor.

A complete description of the subcontractor's prior experience that illustrates the subcontractor's relevant qualifications for completing the planned work they will be assigned under this Contract.

Any planned change to subcontractor staff must be communicated to the State Contract Administrator and Program manager at least 30 calendar days prior to the planned change. The State has the right of approval for any subcontractors provided.

Of the total Contract value, the price of the subcontractor's work.

ElectionSource

Legal Business Name	Miller Consultations & Elections, Inc. DBA -ElectionSource
Address and telephone number	4615 Danvers Dr. SE Grand Rapids, MI 49512 phone: 616.464.2283, 888.742.8037 fax: 616.464.0926 www.electionsource.com
Organization description	ElectionSource is a leader in the election industry, providing turnkey election services, support and products. Our experienced staff has over 100 years of combined experience working on elections with governments, unions, homeowners associations and fraternal organizations all across the nation.
Working experience with Contractor	ElectionSource and Contractor have been providing the best in innovation, integration, and accessibility, while providing simplicity of use and the transparency to meet customer's election needs for over 16 years.
Contract activities' description	Preventative maintenance, EMS support services, poll worker training, staff training, project management reporting, product installation, and acceptance testing. EMS and tabulator support.
A complete description of the subcontractor's prior experience that illustrates the subcontractor's relevant qualifications for completing the planned work they will be assigned under this Contract.	ElectionSource currently employs 15 full time people and another 5 part time people that have a combined total of over 150 years' experience in elections. During peak election times, ElectionSource employs up to 30 people in the State of Michigan. Many of these employees will provide service and support to this Contract. Several people will play a key role in each jurisdiction. Refer below to the ElectionSouce staff members assigned to the Michigan contract, their roles, and responsibilities.

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<p>Names and titles of all subcontractor staff that will be assigned to this Contract, along with each individual contract, along with each individual's role and responsibilities.</p>	<p>Jeff DeLongchamp – President Oversee all staff to ensure deadlines and tasks are met. Provide additional support for software, testing, product implementation, project management, and delivery.</p> <p>Steve DeLongchamp – Vice President Provide additional support to Project Managers. Assist with planning and the resolution of issues that can arise during project implementation. Act as an internal, oversight mechanism monitoring project implementation.</p> <p>Andrea Richardson – Elections Administrator Provide additional support to Project Managers. Assist with planning and the resolution of any issues that may arise during project implementation.</p> <p>John Keefer – Technical Services/Testing Manager Provide scheduling and performing state-wide biannual maintenance. Assist with product installation, acceptance testing, and act as resolution mechanism for issues that arise with hardware.</p> <p>Amy Burns – Executive Assistant & Sales Support Provide assistance to the President of ElectionSource with projects, commissions, reports, clients and scheduling. Provide sales and scheduling support.</p> <p>Gerrid Uzarski – Regional Sales Manager Will help maintain current points of contact and establish new points of contact. Work closely with Commissioners, Election Directors, County Clerks, Local Clerks, and other personnel responsible for carrying out elections. Assist in testing equipment.</p> <p>Additional Testing, Implementation, Training and Programming support: Mike Kelava – IT Manager Assist with training, programming, software installation, server set up, programming, software support and training, and ordering of PC equipment</p> <p>Logan McGregor – Technician Provide testing and implementation support</p> <p>Matt Bosker – Elections Specialist Provide training support, software support, and programming</p>
<p>Relationship of subcontractor to Contractor</p>	<p>Sales representative/distributor for Contractor.</p>
<p>Complete descriptions of the Contract Activities that will be perform or provided by the subcontractor.</p>	<p>Project Management and Product Implementation:</p> <p>The Lead Project Team Manager is a key part of ElectionSource's organizational structure. The Lead Project Team Manager will work with Dominion to coordinate the shipping of equipment and software for each jurisdiction. The Lead Project Manager will then turn over coordination of setup and training of voting equipment to the County assigned Project Managers who will then oversee this process.</p> <p>Our County Project Managers will work with each county to develop and implement a plan that best suits the needs of all the municipalities within the county. ElectionSource will then provide progress reports to each of the counties on a regular basis. Our County Project Managers will work with all our team leaders and support technicians to provide</p>

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	<p>the necessary training and support needed by each county. Their goal is to provide a level of training that will allow the municipalities to be self-sufficient needing only minimal support from our technicians.</p> <p>Other activities provided by subcontractor, but not limited to, are:</p> <ul style="list-style-type: none"> • Equipment Training • EMS/Software Training • On-site Election Day Support • Programming/Coding Support • Consultations • Computer Equipment Set-Up/Installation • Maintenance • Acceptance Testing • Election Data Delivery • Equipment Installation
Governmental Business Systems	
Legal Business name	Governmental Business Systems
Address and telephone number	4995 Varsity Dr., Unit C Lisle, IL 60532 Phone: 888.640.8683 Fax: 630.241.4295 Website: www.gbsvote.com
Organization description	Supplier of election related supplies, voting hardware and software.
Working experience with Dominion	Market and support DVS election related products.
Contract activities' description	Provide local Level 1 hardware support & preventative maintenance, EMS support, poll worker training, Logic & Accuracy support.
A complete description of the subcontractor's prior experience that illustrates the subcontractor's relevant qualifications for completing the planned work they will be assigned under this proposal.	Currently support 35 counties in Michigan using AccuVote optical scan. GBS provides a multitude of election services to the vast majority of these accounts including programming/coding support, ballot printing, precinct kits, election supplies, equipment maintenance, pollworker training and related support services. GBS' account managers possess an aggregate of over 50 years of hands-on election experience working with election officials from every entity who assume a role & responsibility in this process.
Names and titles of all subcontractor staff that will be assigned to the Michigan contract, along with each individual's role and responsibilities	<p>Tim Allshouse - Account Manager Account Manager responsible for customer account management, sales, and support of the Democracy Suite voting system in Southern Michigan</p> <p>Kurt Knowles - Account Manager Account Manager responsible for customer account management, sales, and support of the Democracy Suite voting system in Northern Lower Michigan</p> <p>Dave Carmody - Account Manager Account Manager responsible for customer account management, sales, and support of the Democracy Suite voting system in the Upper Peninsula of Michigan</p> <p>Larry Calvert - Director of Election Services Direct staff and provide customer support, consulting and election programming / coding</p> <p>Tiffany Tuominen - Manager of Customer Service Will assist with election programming, pre-press file preparation, customer/technical support, and ensuring timely delivery of election products/services to meet federal requirements.</p>

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<p>Relationship of subcontractor to Contractor A complete description of the Contract Activities that will be performed or provided by the subcontractor</p>	<p>Dealer for DVS products and services.</p> <p>Activities provided by subcontractor, but not limited to, are:</p> <ul style="list-style-type: none"> • Equipment Training • EMS/Software Training • On-site Election Day Support • Programming/Coding Support • Consultations • Computer Equipment Set-Up/Installation • Maintenance • Acceptance Testing • Election Data Delivery • Equipment Installation
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3.4 Security

The Contractor will be subject to the following security procedures:

On a case-by-case basis, the State may investigate the Contractor's personnel before they may have access to State facilities, data and systems. The scope of the background check is at the discretion of the State and the results shall be used to determine Contractor personnel eligibility for working within State facilities and systems. The investigations shall include Michigan State Police Background checks (ICHAT) and may include the National Crime Information Center (NCIC) fingerprints. Proposed Contractor personnel may be required to complete and submit an RI-8 Fingerprint Card for the NCIC Fingerprint Check. Any request for background checks shall be initiated by the State and shall be reasonably related to the type of work requested.

All Contractor personnel shall also be expected to comply with the State's security and acceptable use policies for State IT equipment and resources. Furthermore, Contractor personnel shall be expected to agree to the State's security and acceptable use policies before the Contractor personnel shall be accepted as a resource to perform the work for the State. It is expected the Contractor shall present these documents to the prospective employee before the Contractor presents the individual to the State as a proposed resource. Contractor staff shall be expected to comply with all physical security procedures in place within the facilities where they are working.

The Contractor's staff may be required to make deliveries to or enter State, county and local jurisdiction facilities. The Contractor must: (a) ensure the security of State, county and local jurisdiction facilities, (b) use uniforms and ID badges, etc., (c) perform background checks as requested by the State and/or Authorized User through services such as Checkmate, www.intantcheckmate.com, and (d) determine the scope of the background checks, which will include detailed information such as arrest records, phone numbers, contact information, previous arrests, criminal convictions, traffic citations, and sex offender status, in accordance with applicable laws.

The Contractor will provide the following additional security measures to ensure the security of State, county and local jurisdiction facilities.

Prior to making deliveries the local jurisdiction and or county facilities will be contacted by phone. Through consultation, a time and date along with who will be making the deliveries will be established. At that time, what we will be delivering, how we will be making the delivery and how we will be transporting the delivery product will be finalized, setting a clear picture of who and what to expect.

Contractor and its subcontractors will implement all necessary securities to ensure the protection of the complete election system and processes involved. At the beginning of the project planning, along with the State, County and local jurisdictions, the Contractor and its subcontractors will contract, if necessary, with an accredited securities firm to conduct a site survey and assessment of the security and safety of the buildings and all election related facilities to determine the necessary measures to be taken. In addition to physical security and access, personnel background checks will be conducted as needed.

4. Pricing

4.1 Price Term

Refer to the Pricing Matrix included in **Schedule C for all pricing**. Prices listed in Schedule C are fixed for the contract term, and represent the maximum prices per item. Notwithstanding the foregoing, the Contractor is authorized to negotiate pricing with individual counties that are lower than the prices listed in Schedule C. Any and all lower negotiated prices must be communicated to the Program Manager immediately as they are finalized.

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4.2 Price Changes

Aside from negotiations as outlined in Section 4.1 Price Term, price changes may only be considered after the expiration of the initial service/maintenance period (acquisition year + 4 years); and **only for component replacement/additional parts** (applicable to Cost Table 4 only – see **Schedule C.**) Adjustments will be based on changes in actual Contractor costs. Any request must be supported by written evidence documenting the change in costs. The State may consider sources, such as the Consumer Price Index; Producer Price Index; other pricing indices as needed; economic and industry data; manufacturer or supplier letters noting the increase in pricing; and any other data the State deems relevant.

Following the presentation of supporting documentation, both parties will have 30 calendar days to review the information and prepare a written response. If the review reveals no need for modifications, pricing will remain unchanged unless mutually agreed to by the parties. If the review reveals that changes are needed, both parties will negotiate such changes, for no longer than 30 days, unless extended by mutual agreement.

The Contractor remains responsible for Contract Activities at the current price for all orders received before the mutual execution of a Change Notice indicating the start date of the new Pricing Period.

5. Ordering

5.1 Authorizing Document

The appropriate authorizing document for the Contract will be a written Purchase Order, which will be initiated at the State level for each county for each planned purchase period. All orders are subject to the State's standard contract terms.

Initial purchase orders will be placed by State purchasing officials. Counties and local jurisdiction election officials (county, city and township clerks) will be eligible to purchase additional voting systems and voting system components, over and above what is included in the State-issued purchase order at the established Contract prices and terms. Refer to **Contract Terms, Section 14 Extended Purchasing Program**. Also, Refer to Section 7.1 Acceptance, Inspection and Testing "Counties will work with the State to finalize the list of jurisdictions that will accept delivery and implement the new voting system for each planned purchase phase. The State will initiate each county-based Purchase Order (PO) for each purchase phase based on this plan."

The State will generate each Purchase Order only after a finalized funding plan has been established for each county and local jurisdiction in the county; after a Grant Agreement has been executed with the county and each local jurisdiction which specifies ownership and payment obligations for the county and each local jurisdiction; and the State has received payment from the county and each local jurisdiction for their individual portions of the county/local funding plan.

As an alternative to counties and local jurisdictions making direct payments to the State for the local funding component, the Contractor may execute an agreed upon payment plan between the Contractor, county, and local jurisdictions within the county. Any separate agreements of this type must be transmitted to the State Program Manager prior to issuance of the Purchase Order.

Upon issuance of each State-issued PO on behalf of the county, the Contractor will work with each county to finalize each jurisdiction's delivery plan, including timeframes and locations.

5.2 Order Verification

The Contractor must have internal controls to verify abnormal or excessive orders and to ensure that only authorized individuals place orders.

5.3 Minimum Order

There is no minimum order requirement.

6. Delivery

6.1 Delivery Programs

Contractor will provide delivery programs tailored to the needs of the State and Authorized End Users in delivery of the Contract Activities.

Contractor's standard service is "ground", which typically delivers in five (5) days. However, Contractor uses a variety of carriers allowing flexibility in choosing the delivery method required by both the size of the shipment and the State or Authorized End User's specific dock/receiving setup.

A full truckload is approximately 25 full pallets of machines/accessories or 56 ballot boxes. Contractor uses truckload and LTL (less than truckload) carriers, FedEx and US mail to ship products.

Moreover, should more expedited shipping be requested by the State or Authorized End User, this will be available at an additional cost. Contractor will make every effort to ensure that the State or Authorized End User's expedited delivery time-

frame is met and that additional charges to the State or Authorized End User for the expedited delivery, if any, will be minimized.

With regards to providing expedited shipping, the State or Authorized End Users will have the option to request it at an additional cost. Limitations on expedited service include timing of receipt of requests, the size of the shipment, and location of customer. Any requests received after noon (12:00pm) will not be typically shipped until the following day. However, depending on the location/zip code of the customer's warehouse/office, FedEx may not be able to deliver early the following day/next day.

Shipments requiring pallets generally do not deliver the following day. Contractor uses standard pallets in various sizes to accommodate the size of the merchandise/packages. These are typically made of wood and are stackable and re-useable. The transportation method used will depend on the size of the order/number of pallets.

The Contractor ensures the best transportation rates for every order since they receive bids from multiple carriers at the time. The Contractor can deliver to warehouses with standard loading docks as well as to smaller offices that require inside deliver/white glove service.

6.2 Packaging and Palletizing

Packaging must be optimized to permit the lowest freight rate. Shipments must be palletized whenever possible using manufacturer's standard 4-way shipping pallets.

7. Acceptance

7.1 Acceptance, Inspection and Testing

Counties will work with the State to finalize the list of jurisdictions that will accept delivery and implement the new voting system for each planned purchase phase. The State will initiate each county-based Purchase Order (PO) for each purchase phase based on this plan.

Upon issuance of each State-issued PO on behalf of the county, the Contractor will work with each county to finalize each jurisdiction's delivery plan, including timeframes and locations.

With respect to delivery and installation of EMS, the Contractor shall provide an EMS delivery/installation plan that allows for EMS software installation to be handled by the counties and local jurisdictions. If such an arrangement is proposed and mutually agreed upon, Contractor must provide detailed software installation instructions to counties and local jurisdictions at the time of EMS delivery. In addition, Contractor must provide technical phone support to assist counties and local jurisdictions with software installation.

The Contractor's minimum system requirements, including the required/relevant Operating System, to ensure successful operation of the EMS are listed as follows. Contractor provides these requirements for both the full EMS and the accumulative only EMS options.

The following table includes the minimum requirements for the recommended express hardware configuration:

EMS EXPRESS HARDWARE CONFIGURATION		
Component	Minimum	Recommended
Motherboard	Motherboard with integrated sound controller and SATA controller	Motherboard with integrated sound controller and SATA controller. RAID functionality or separate hardware RAID controller
CPU	Intel i5 series	Intel i7 series
RAM	4GB	8GB
HDD	Single 500GB	Dual 500GB in RAID 1 mode (mirror)
Additional	USB Compact Flash card reader	USB Compact Flash card reader
	USB iButton Security Key reader	USB iButton Security Key reader
	19" or higher monitor for desktop PCs	19" or higher monitor for desktop PCs
	Keyboard and mouse	Keyboard and mouse
	Headset or headphones with microphone	Headset or headphones with microphone
	Internal or external DVD R/W	Internal or external DVD R/W

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The following tables include the minimum requirements for the standard recommended hardware and software configuration:

EMS STANDARD HARDWARE CONFIGURATION: CLIENT		
Component	Minimum	Recommended
Motherboard	Motherboard with integrated sound controller and SATA controller	Motherboard with integrated sound controller and SATA controller
CPU	Intel i5 series	Intel i7 series
RAM	4GB	8GB
HDD	Single 500GB	Single 500GB
Additional	USB Compact Flash card reader	USB Compact Flash card reader
	USB iButton Security Key reader	USB iButton Security Key reader
	19" or higher monitor for desktop PCs	19" or higher monitor for desktop PCs
	Keyboard and mouse	Keyboard and mouse
	Headset or headphones with micro-phone	Headset or headphones with microphone
	Internal or external DVD R/W	Internal or external DVD R/W

EMS STANDARD HARDWARE CONFIGURATION: SERVER		
Component	Minimum	Recommended
Motherboard	Single core CPU with integrated SATA controller	Dual quad core CPU with integrated SATA controller and RAID functionality or separate hardware RAID controller
CPU	Intel Xeon L5500 series	Intel Xeon E5 series
RAM	8GB	16GB
HDD	Dual 500GB	Dual 500GB in RAID 1 mode, and 4x 500GB in RAID 10 mode
Additional		PCI-E card SATA controller with RAID 10 functionality, or compatible
	Internal or external DVD R/W	Internal or external DVD R/W
	Single or dual power supply	Single or dual power supply
	Optional monitor, keyboard, and mouse	Optional monitor, keyboard, and mouse

Note: Express and Standard refer to the hardware architecture for EMS (either Full or Accumulation only). Express is for smaller jurisdictions with less server infrastructure requirements (desktop and tower servers) and Standard is for larger jurisdictions that require higher performance IT infrastructure (rack servers for example). Contractor can install either version of software on either Express or Standard however performance is what determines which IT infrastructure Contractor recommends.



EMS SOFTWARE CONFIGURATION						
EMS Software Configurations	Express Software Configuration	Standard Server Configuration	Standard Client Configuration	Enterprise Application Server	Enterprise Database Server	Enterprise Client
Adobe Acrobat Reader 10.1.1	X		X			X
Cepstral Voices	X	X	X	X		
Dallas 1-Wire Device Driver 4.0.3	X					X
EMS Client components	X		X			X
EMS Server components	X	X		X		
Java Runtime Environment 6.0.290	X	X	X	X		X
Microsoft .NET Framework 4.0	X	X	X	X	X	X
Microsoft Access Database Engine	X		X			X
Microsoft IIS 7.5	X	X		X	X	
Microsoft SQL Server 2008 R2 Express	X					
Microsoft SQL Server 2008 R2 Reporting Services only and Service Pack 2 (SP2) Installed				X		
Microsoft SQL Server 2008 R2 Standard with Service Pack 1 (SP1) Installed		X			X	
Microsoft SQL Server 2008 R2 with Advanced Series and Service Pack 1 (SP1) Installed	X					
Microsoft Visual C++ x86 Redistributable	X	X	X	X		X
Microsoft Visual J# 2.0	X	X	X	X		X
Optional additional fonts	X	X	X	X		X
Optional Avast! antivirus software	X	X	X	X	X	X
Optional eSATA card		X				
Optional Excel 2010	X		X			X
Optional printer drivers	X		X			X
Optional Uninterruptable Power Supply drivers	X	X		X	X	
Windows 7 Professional x64 with Service Pack 1 (SP1) Installed	X		X			X
Windows Server 2008 R2 with Service Pack 1 (SP1) Installed		X		X	X	

For more information about the EMS configuration options, including operating system and hardware/software requirements, see **Schedule C, Pricing; Cost Table 5**.

Upon receipt of the systems at the county and local jurisdiction level, each jurisdiction will be responsible for testing and accepting their designated systems, based upon a checklist developed by the State. Each county and jurisdiction receiving voting systems, accessible voting system components and related EMS software will be required to complete a *Receipt/Acceptance* form and submit it to the State. Acceptance test criteria will include a logic/accuracy test (for tabulators/accessible devices) and a confirmation of successful installation of the approved version of EMS software (where applicable). If defects are uncovered during testing that result in an unsuccessful test, affected system component(s) will be rejected and Contractor must replace and re-test the component(s) within 10 business days. Once all voting systems and EMS software is tested and accepted a completed *Receipt/Acceptance* form (developed by the State) will be completed and returned by each jurisdiction in in the county for each purchase phase documenting

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successful completion of required testing; at which point, the State will release payment on the State-issued county-based PO.

7.2 Final Acceptance

Final acceptance of each local county and jurisdiction order will be accomplished via the receipt/acceptance process described in **Section 7.1** and **Section 8e** in the Standard Contract Terms.

8. Invoice and Payment

8.1 Invoice Requirements

All invoices submitted to the State must include: (a) contract number; (b) Purchase Order number; (c) county name; (d) listing of all delivered components, itemized and listed by jurisdiction; (e) unit prices; (f) total price per item, per jurisdiction; (g) ship to address; (h) jurisdiction contact; (i) total price per jurisdiction; and (k) total price per county / Purchase Order (less any agreed upon payment arrangement made between the Contractor and the County).

Invoices must be forwarded to the State only after all equipment and components listed on the Purchase Order have been delivered. The State will release payment to the Contractor for the State portion of the invoice amount, upon the successful completion of acceptance testing and submission of completed Receipt/Acceptance forms from the county and each local jurisdiction listed on the Purchase Order. Note that the State portion of the invoice amount will equal 100% of the total invoice if the State has collected the local funding component up front.

8.2 Payment Methods

The State will make payment for Contract Activities as outlined in **Sections 5.1, 7.1 and in Section 9, Invoicing and Payment, in the Standard Contract Terms**. Payment will be made by Electronic Funds Transfer (EFT).

9. Additional Requirements

9.1 Environmental and Energy Efficient Products

The Contractor has identified the following energy efficient, bio-based, or otherwise environmental friendly products used in the products, including relevant third-party certification.

Contractor's Products

Some materials used in Contractor's product line are RoHS (Restriction of Hazardous Substances) and Energy Star compliant.

Contractor's plastic ballot boxes and covers are made from polypropylene and ABS which are recyclable. Units have a 10-year+ lifespan, and are either recycled in specialized facilities, or donated to a non-profit organization which uses them in the developing world.

Units are shipped in recyclable corrugated cardboard boxes. Contractor reuses these boxes as many times as possible before recycling.

Fedex Packaging is both recyclable and can be re-used for shipping. Labels are printed on 100% Recycled FSC-Certified Copy Paper. It is recycled without using chlorine or chlorine compounds, acid free, 100% post-consumer recycled content.

9.2 Hazardous Chemical Identification

In accordance with the federal Emergency Planning and Community Right-to-Know Act, 42 USC 11001, *et seq.*, as amended, the Contractor must provide a Material Safety Data Sheet listing any hazardous chemicals, as defined in 40 CFR §370.2, to be delivered. Each hazardous chemical must be properly identified, including any applicable identification number, such as a National Stock Number or Special Item Number.

The Contractor identifies the following hazardous chemicals that will be provided under this Contract.

The ImageCast Precinct tabulator uses leaded solder paste. There are two types of battery backup systems that the Contractor's voting systems use. The first is based off Lithium Ion technology. The second battery is based off of sealed Lead Acid technology. The Contractor will provide more detailed information and the MSDS for both these materials upon request.

9.3 Mercury Content

Pursuant to MCL 18.1261d, mercury-free products must be procured when possible. The Contractor does not intend to provide products containing mercury under this Contract.

9.4 Brominated Flame Retardants

The State prefers to purchase products that do not contain brominated flame retardants (BFRs) whenever possible. The Contractor must disclose whether the products contain BFRs. The electronics circuit boards contained in the Contractor's product contain flame retardant bromine **Tetrabromobisphenol A** (TBBPA). This bromine is a part of the polymer of the circuit board and it is not regulated by RoHS or WEEE directives under their listing of restricted chemicals. This bromine



(TBBPA) is complexed in the resin of almost all PCB's produced today. Please see the Exhibit A – 9.4. TBBPA Factsheet included for more details.

9.5 License Agreement

The State and Counties that receive and use EMS software will be required to sign a software license agreement. Refer to Schedule B-Software License Agreement.

9.6 Key Personnel

The Contractor must appoint a **State Project Manager** and **State Customer Service Manager**. See other details in **Section 3.1**. These individuals shall be directly responsible for the day to day operations of the Contract (“Key Personnel”). Key Personnel must be specifically assigned to the State account, be knowledgeable on the contractual requirements, and respond to State inquires within 24 hours.

State Project Manager

Gio Costantiello
 State Project and Contract Manager
 Phone: (416) 762-8683 x241, Mobile: (416) 580-0084
 Email: gio.costantiello@dominionvoting.com

State Customer Service Manager

Nicole Nollette
 Executive Vice President, Operations
 Phone: (866) 654-8683 x9223, Mobile: (702) 786-7131
 Email: nicole.nollette@dominionvoting.com

Contractor's Key Personnel must be available for meetings and updates as outlined in **Section 2.8**.

The Contractor may not remove or assign Key Personnel without the prior consent of the State. Prior consent is not required for reassignment for reasons beyond the Contractor's control, including illness, disability, death, leave of absence, personal emergency circumstances, resignation, or termination for cause. The State may request a résumé and conduct an interview before approving a change. The State may require a 30 calendar day training period for replacement personnel. Also refer to **Section 10** in the Standard Contract Terms.

9.7 Non-Key Personnel

The Contractor must notify the Contract Administrator at least 10 calendar days before removing or assigning non-key personnel.

Team Member	Role
Alex Soto Vasquez	Product Support Specialist
Nick Mantzios	Product Support
Xenofon Marangos	Senior Systems Manager
Goran Obradovic	Product Development
Ronald Morales	Product Support
Penelope Starr	Marketing and Voter Outreach Support
Steve Moreland	Manufacturing & Delivery
James Hoover	Printer Liaison, General Project Support
Steve Popoulias	Customer Service Manager

9.8 Organizational Chart
 The Contractor has provided the following overall organizational chart that details staff members, by name and title, including subcontractors, as well as each member's area of responsibility.

	DOMINION	ELECTION SOURCE	GBS	
ACCOUNT MANAGEMENT	<p>Gio Costantiello <i>State Project and Contract Manager</i></p> <p>Mike Frontera <i>State Customer Service Manager</i></p>	<p>Jeff DeLongchamp <i>President</i></p> <p>Steve DeLongchamp <i>Vice-President</i></p> <p>Amy Burns <i>Sales Support</i></p> <p>Gerrid Uzarski <i>Regional Sales Manager</i></p>	<p>Tim Allshouse <i>Account Manager</i></p> <p>Kurt Knowles <i>Account Manager</i></p> <p>Dave Carmody <i>Account Manager</i></p>	
INSTALLATION & TECHNICAL SUPPORT	<p>Xen Marangos <i>Solutions Integrator</i></p> <p>Ronald Morales <i>Product Support</i></p> <p>Nick Mantzios <i>Product Support</i></p>	<p>John Keefer <i>Technical Services/ Testing Manager</i></p> <p>Mike Kelava <i>IT Manager</i></p> <p>Mitch Erwin <i>Technician</i></p> <p><i>Other staff as required</i></p>	<p>Larry Calvert <i>Director of Election Services</i></p> <p><i>Other staff as required</i></p>	
ELECTION SERVICES SUPPORT	<p>Steve Papoulias <i>Customer Service Manager</i></p> <p>Alex Soto Vasquez <i>Product Support Specialist</i></p> <p><i>Other staff as required</i></p>	<p>Matt Bosker <i>Elections Specialist</i></p> <p>Andrea Richardson <i>Elections Administrator</i></p> <p><i>Other staff as required</i></p>	<p>Tiffany Tuominen <i>Manager of Customer Service</i></p> <p><i>Other staff as required</i></p>	
CORPORATE SUPPORT	<p>Waldeep Singh <i>Executive Sponsor</i></p>	<p>Goran Obradovic <i>Product Development</i></p>	<p>Steve Moreland <i>Manufacturing and Delivery</i></p>	<p>James Hoover <i>Printer Liaison General Project Support</i></p>

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<p>9.9 Project Plan</p> <p>The Contractor will carry out this project under the direction and control of the State Program Manager. Within 30 calendar days of the Effective Date, the Contractor will submit a project plan to the Program Manager for final approval. The plan must include: (a) the Contractor's organizational chart with names and titles of personnel assigned to the project, which must align with the staffing stated in accepted proposals; and (b) the project breakdown showing sub-projects, tasks, and resources required.</p>

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Exhibit 1 to Schedule A

Federal Voting System Testing / Certification Matrix

Contractor has provided the following detailed information on currently certified voting systems and the voting system(s) for use in Michigan.

Definitions:

- EAC: United States Election Assistance Commission
- VSTL: Voting System Test Laboratory, accredited by the US Election Assistance Commission
- Currently Certified System(s) (Table A): These are your company’s end-to-end voting system(s) for which EAC certification has already been obtained, if any.
- Michigan Proposed Voting System Configuration (Seeking Federal Certification) (Table B): This is the end-to-end base voting system proposed for use in Michigan, if the proposed Michigan system has not yet obtained EAC certification.
- Proposed Modification to Base Michigan Voting System Configuration (Table C): Voting system that allows for secure electronic transmission of unofficial Election Night results from the precincts to the local counties/jurisdictions and the State. If the base voting system proposed for Michigan (Table A or B) allows for electronic transmission, please state this in your response, and leave Table C blank.

A) Currently Certified System(s)

Does your company have an existing end-to-end voting system that has completed Federal testing and the U.S. Election Assistance Commission (EAC) certification process? For these purposes, an end-to-end voting system includes use of a paper ballot, tabulator, accessible voting device (for use by individuals with disabilities) and related Election Management System (EMS) software.

Yes

No

If you answered “Yes”, complete the following table to provide information on your company’s currently-certified system(s) that utilize a paper ballot – attach additional tables/pages if necessary. If you answered “No”, proceed to Table B:

	Contractor Response
Product / System Name	Democracy Suite 4.14-D
Model or Version #	4.14-D
Components – list all system components of the currently certified end-to-end voting system(s) as described above, including Software/Firmware version or Hardware version of each component. Add lines if necessary, or provide a separate attachment, clearly labeled ‘CURRENTLY CERTIFIED VOTING SYSTEM COMPONENTS’	Please see pp. 7-9 in the attached EAC Scope of Certification document for Democracy Suite 4.14-D.
Name / Location of VSTL	National Technical Systems, Huntsville, AL
Date VSTL testing completed	October 20, 2014
Date EAC certification issued	November 25, 2014
EAC Certification Number	DVS-DemSuite4.14-D
List the U.S. state(s) in which this system is in use, if any	Iowa, Minnesota, Missouri, Nevada, New York, Ohio, Puerto Rico, Tennessee, Washington, Wisconsin, Utah

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<p>Is a currently-certified system proposed for use in Michigan?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>If 'Yes', list the model or version number proposed for use in Michigan:</p> <p>_____</p> <p>If 'No', complete Table B.</p>
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B) Michigan Proposed Voting System Configuration (Seeking Federal Certification)

Provide information on the base voting system proposed for use in Michigan, if Federal certification has not yet been obtained:

	Bidder Response
Product / System Name	Democracy Suite 5.0
Model or Version #	5.0
Components – list all system components of the proposed base Michigan voting system configuration, including Software/Firmware version or Hardware version of each component. Add lines if necessary, or provide a separate attachment, clearly labeled 'PROPOSED BASE MICHIGAN VOTING SYSTEM COMPONENTS'	Please see the attached D-Suite 5.0 System Configuration List document for details on the system components of the proposed base Michigan voting system configuration.
Name / Location of VSTL	Pro V&V, Huntsville, AL
VSTL Testing Status*	<p>Complete 1 OR 2 below:</p> <p>1) VSTL testing completed: <u>December 1, 2017</u> Date</p> <p>2) VSTL testing not yet complete:</p> <p>a) Date submitted or will be submitted to VSTL: _____</p> <p>b) Estimated VSTL testing completion date: _____ This estimated date was determined / provided by (check one): Vendor <input type="checkbox"/> VSTL <input type="checkbox"/></p> <p>c) Current status (summarize, in detail, the proposed system's status with respect to VSTL testing): Dates and testing status updates can be provided on a bi-weekly basis after submission of this bid.</p>
EAC Certification Status*	a) Date submitted or will be submitted to EAC: <u>April 15, 2016</u>



<p>and proposed MODIFICATION TO BASE SYSTEM</p>	<p>The ImageCast Listener add-on component incorporates with the Democracy Suite EMS Server and adds a dedicated server, using an encrypted TCP/IP-based protocol, to receive results data. An industry-standard firewall appliance is used to isolate the EMS network from the external network.</p> <p>Both ImageCast Precinct tabulators and the Results Transfer Manager module communicate with the ImageCast Listener server. The Results Transfer Manager can also transmit data to shared folders on a network.</p> <p>The ImageCast Precinct model 321-C contains an internal dial-up modem; wireless 3G modems are available as external devices. The ImageCast Precinct requires a different Device Configuration File to enable the results transmission capabilities. No other functional differences exist between the two versions.</p>
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*NOTE: If VSTL report has been issued, also attach the report.

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Exhibit 2 to Schedule A
Technical Requirements
See separate Excel spreadsheet document.

	
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Exhibit 3 to Schedule A
Preventative Maintenance Checklists



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ImageCast Precinct Sample Preventative Maintenance Checklist



Image Cast Precinct Optical Scanner
Maintenance Checklist
Version 2.1

Serial # _____ Printer Serial # _____
Date: 8/13/2015 Tech: John Keefer

Step #	Description	Expected Results	Pass	Fail	Comments
Inspection Stage					
1	Inspect ICP-BMD	No scratches, dents or cracks			
2		ICP has all labels/ No Extra			
3		CF Card, AVS, Ports, and Printer Doors			
4		Headphones, ATI and cables Present			
5		Approved AC/DC Power Adapter Present			
Power Up, and Verification					
6	System Power Up	Insert 2 CF cards with FN Election			
7		Connect ATI, Headphones and Printer			
8		Verify Paper Roll and Print Cart. Loaded			
9		Connect Approved AC/DC Power Adapter			
10		LCD Software Version	NA	NA	Version:
11		Loader Software Version	NA	NA	Version:
12		O/S Software Version	NA	NA	Version:
13		Verify Correct Time and Date			
Diagnostics					
14	Complete Diagnostics	Clean Scan Heads with Cleaner Ballot			
15		Enter Diagnostics Mode			
16		Run Complete Diagnostics			
17		Memory Diagnostics			
18		Compact Flash Diagnostics			
19		EEPROM Diagnostics			
20		Thermal Printer Diagnostics			
21		LCD Diagnostics			
22		ATI Diagnostics			
23		Audio Diagnostics			
24		USB Printer Diagnostics			
25		Internal Clock Diagnostics			
26		Power Diagnostics			
27		Unplug AC Adapter	NA	NA	
28		Insert Blank Ballot/Scanner Diagnostics			
29		Observe Battery Status			
30		Print Diagnostic Report			
31		Exit Diagnostics and Restore AC Power			
Functionality					
32	Election Project Testing	Open Polls and Print Status Report			
33		Verify Ballots cast are Zero			
34		Insert 1 OV Ballot, Override Warning			
35		Insert 1 Blank Ballot, Override Warning			
36		Insert 1 Wrong Pct. Ballot, Try to Override			
37		Insert 1 Marked Ballot from ADA Session			
38		Process Remainder of Test Deck			
39		Close Polls, Verify Results, Re-Zero			
40		Power Down and Store Unit			

Please list any repairs or required follow-up:

Tech: John Keefer _____ Signature of Clerk/Auditor _____

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ImageCast Central Sample Preventative Maintenance Checklist



ImageCast Central Count
Maintenance Checklist
Version 2.1

Serial: _____
Date: 8/13/2015 Tech: _____

Step #	Description	Expected Results	Pass	Fail	Comments
Inspection Stage					
1	Inspect ICC	No scratches, dents or cracks			
2		ICC has all labels/ no extra			
3		USB Cable Type A to Type B present			
4		Approved AC/DC Power adapter present			
5		Laptop with current ImageCast Central			
6		ibutton Reader/Writer			
Power Up					
7	System Power Up	Connect USB cable to scanner/laptop			
8		Connect ibutton reader to laptop			
9		Connect AC adapter to scanner			
10		Connect AC adapter to laptop			
11		Power Up Scanner before laptop			
12		Power on laptop			
13		Insert FN ibutton			
14		Connect AC adapter to scanner			
15		Connect AC adapter to laptop			
16		Power Up scanner before laptop			
17		Power on laptop			
18		Insert FN ibutton			
19	Open Image Cast Central Software				
Cleaning					
20	ICC Cleaning	Clean scanner exterior			
21		Clean Document Feed Inlet			
22		Clean Transport Path			
23		Clean Sensors Top and Bottom			
24		Open Upper Unit, clean scanning glass			
25		Remove pickup, feed, and retard rollers			
26		Clean pad on retard roller cover			
27		Clean rollers and re-install			
28		Close scanner			
Election Project Testing					
29	Scanning	Load Famous Names Election			
30		Load FN ICC Test Deck			
31		Navigate to CONFIGURATION			
32		Hit Scan options			
33		Deselect all Stop Scan on options			
34		Select Continuous Scan			
35		Select Only one scan per batch , hit OK			
36		Return to SCANNING hit SCAN			
37		After scanning hit ACCEPT BATCH			
38		Navigate to FN Election Folder			
39		Verify images are clear and accurate			
40		Navigate to CONFIGURATION			
41		Hit CLOSE TABULATOR , click OK			
42		Navigate to STATUS			
43		Click SHOW RESULTS			
44		Verify totals			
45		Shutdown software, scanner, then Laptop			

Please list any required follow-up:

Tech: 0 Signature of Clerk/Auditor _____



DOMINION ICX PREVENTATIVE MAINTENANCE CHECKLIST
SID-XXV
 Preventative Maintenance Checklist

<i>Items to Test / Inspect</i>	<i>OK</i>	<i>Not OK</i>	<i>Notes</i>
1. Top Door (Larger)			
A. Confirm Hinges Swing Freely	<input type="radio"/>	<input type="radio"/>	
B. Inspect/Test Magnet on Side of Door for Proper Operation	<input type="radio"/>	<input type="radio"/>	
C. Inspect Hasp/Staple for Proper Operation	<input type="radio"/>	<input type="radio"/>	
D. Inspect USB & MicroSD Connectors	<input type="radio"/>	<input type="radio"/>	
2. Battery Inspection			
A. Inspect Battery PCB Connection with Battery	<input type="radio"/>	<input type="radio"/>	
B. Inspect Battery is Secure Under Bracket	<input type="radio"/>	<input type="radio"/>	
C. Inspect Battery PCB Cable Connection to Main Unit	<input type="radio"/>	<input type="radio"/>	
3. Bottom Door (Smaller)			
A. Confirm Hinges Swing Freely	<input type="radio"/>	<input type="radio"/>	
B. Inspect/Test Magnet on Side of Door for Proper Operation	<input type="radio"/>	<input type="radio"/>	
C. Inspect Hasp/Staple for Proper Operation	<input type="radio"/>	<input type="radio"/>	
D. Inspect Cable Routing through Plastic Bushing	<input type="radio"/>	<input type="radio"/>	
E. Confirm DC-IN Power is Properly connected to Main Unit	<input type="radio"/>	<input type="radio"/>	
4. VESA Stand / General			
A. Inspect Cable Routing Inside I/O Cover	<input type="radio"/>	<input type="radio"/>	
B. Inspect Cables for Any Wear or Damage	<input type="radio"/>	<input type="radio"/>	
C. Inspect Card Reader in Base (Front)	<input type="radio"/>	<input type="radio"/>	
D. Confirm System can Tilt on Stand	<input type="radio"/>	<input type="radio"/>	
5. Electrical / Technical			
A. Confirm Main Power Cable Connection Between Base and Outlet	<input type="radio"/>	<input type="radio"/>	
B. Confirm Button under Bottom Door Turns Green when Power is Applied	<input type="radio"/>	<input type="radio"/>	
C. Confirm the LCD Touch is Functional	<input type="radio"/>	<input type="radio"/>	
D. Confirm the Battery is Fully Charged and has at Least 2 Hours of Runtime Available. If not, it is Recommended to Replace the Battery (Refer to Battery Test Procedure)	<input type="radio"/>	<input type="radio"/>	
E. Confirm Input Connectors Functionalities (I.e. USB's, LAN, Audio, etc.)	<input type="radio"/>	<input type="radio"/>	

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Exhibit 4 to Schedule A
Voting System Description

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Paper Ballot – Providing a Permanent Record of Voter Intent

Highlights

- Dominion's Democracy Suite Election Management System (EMS) creates **tabulator-ready PDF optical scan ballot artwork files** and **election files for the ImageCast X and ImageCast Precinct**.
- These optical scan paper ballot artwork files are full-sized press-ready ballots generated in industry-standard PDF format and containing **all required ballot elements and the unique ballot ID barcode** that distinguishes each ballot style.
- A range of modern printing technologies can easily print ImageCast optical scan and verifiable choice summary ballots.
- The optical scan paper ballot is 8.5" inch wide and can vary between 11"-22" in length. It can be printed in four colors and has been tested and **certified for use up to its maximum length of 22"**. The ImageCast X prints a verifiable choice summary ballot that is 8.5" wide and 11" in length.
- The optical scan paper ballot can also be **double sided and, if necessary, can be made up of multiple pages** to accommodate a ballot with offices and candidates that might exceed one double-sided page.
- Dominion also offers **optional infrared security paper** for additional peace of mind.



Ballot artwork

Ballot artwork – Optical Scan Paper Ballots

Dominion's Democracy Suite Election Management System (EMS) creates tabulator-ready PDF ballot artwork files for hand-marked ballots. Ballot artwork files are created as complete ballot images, without trim lines or crop marks, and are designed to directly print on digital 4-color sheet-fed xerographic or other electro-photographic printers (most B-sized laser printers). Ballot artwork is generated in industry-standard PDF format and CMYK color space. Ballot artwork files are full-sized press-ready ballots containing all required ballot elements and the unique ballot ID barcode that distinguishes each ballot style. Each file contains one or two ballot images: a front image (if the ballot is single-sided) or paired front and back ballot images. All fonts used in the ballot artwork are embedded in the PDF file. 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.

Ballot artwork and style – ImageCast X electronic ballot and Verifiable Choice Summary Ballots

Dominion's Democracy Suite Election Management System (EMS) creates the electronic ballots for the ImageCast X as well as the verifiable choice summary ballots that are printed at the end of the voting session on the ImageCast X. The verifiable choice summary ballot PDF files are generated for each ballot style with ballot headers only, and the voter's choices are printed once they have completed their voting session on the ImageCast X.



Optical Scan Paper Ballot

OFFICIAL BALLOT / BOLETA OFICIAL
 GENERAL ELECTION / ELECCIONES GENERALES
 FAMOUS COUNTY, CALIFORNIA / CONDADO DE FAMOSO, CALIFORNIA
 MARCH 16, 2010 / 16 DE MARZO DE 2010

IMPORTANT INSTRUCTIONS TO VOTERS - To vote, **COMPLETELY** fill in the oval (as shown in the picture) to the right of your choice. Use **BLUE or BLACK ink only**. **DO NOT** use RED INK. In order to vote for a qualified write-in candidate, **PRINT** the name of the candidate in the blank space provided at the bottom of the contest, and **COMPLETE THE OVAL FOR THE WRITE-IN AS WELL**. Vote only for as many candidates as indicated. If you vote for too many candidates (overvote), or make a mistake on your ballot, return the spoiled ballot to a poll official and you will be issued a new one.

INSTRUCCIONES IMPORTANTES PARA LOS ELECTORES: Para votar, complete **TOTALMENTE** el óvalo (según las indicaciones del cuadro) a la derecha de su opción. Utilice la tinta **AZUL o NEGRA solamente**. No utilice la TINTA ROJA. Para votar por un candidato inscrito calificado, **IMPRIMA** el nombre del candidato en el espacio en blanco proporcionado en la parte inferior de la competencia, y **RELLENE EL ÓVALO PARA EL VOTO TAMBIÉN**. Vote solamente por tantos candidatos según lo indicado. Si usted vota por demasiados candidatos (sobrevoto), o incurre en una equivocación en su balota, vuelva la balota estropeada a un funcionario de la encuesta y le darán una nueva.

VOTE BOTH SIDES OF BALLOT / VOTE EN AMBOS LADOS DE LA BOLETA

FEDERAL	STATE - ESTADO	SCHOOL - ESCUELA
<p>PRESIDENT AND VICE PRESIDENT PRESIDENTE Y VICEPRESIDENTE Vote For 1 Party / Voto por 1 partido</p> <p>JACK BENNY for Vice President / por Vicepresidencia <input type="radio"/></p> <p>E. ROCHESTER ANDERSON <input type="radio"/></p> <p>FRED ASTAIRE for Vice President / por Vicepresidencia <input type="radio"/></p> <p>OSWALD ROBERTS for Vice President / por Vicepresidencia <input type="radio"/></p> <p>WRITE-IN ACUSETADO <input type="radio"/></p>	<p>MEMBER, STATE ASSEMBLY MIEMBRO DE LA ASEMBLEA ESTATAL DISTRICT 8 / DISTRITO 8 Vote For 1 / Voto por 1</p> <p>RICARDO MONTALBAN <input type="radio"/></p> <p>DEAN MARTIN <input type="radio"/></p> <p>WRITE-IN ACUSETADO <input type="radio"/></p>	<p>MEMBER, FAMOUS COUNTY BOARD OF EDUCATION MIEMBRO DEL CONEJO DE EDUCACION DE CONDADO FAMOSO Vote For No More Than 4 / Voto por no más de 4</p> <p>NATALE WOOD <input type="radio"/></p> <p>EVA GABOR <input type="radio"/></p> <p>REDD FOX <input type="radio"/></p> <p>BOB DENVER <input type="radio"/></p> <p>JOHNNY CARSON <input type="radio"/></p> <p>YUL BRYNNER <input type="radio"/></p> <p>MARLON BRANDO <input type="radio"/></p> <p>INGRID BERGMAN <input type="radio"/></p>
<p>UNITED STATES REPRESENTATIVE REPRESENTANTE DE LOS ESTADOS UNIDOS DISTRICT 1 / DISTRITO 1 Vote For 1 / Voto por 1</p> <p>SPENCER TRACY <input type="radio"/></p> <p>TED KNIGHT <input type="radio"/></p> <p>WRITE-IN ACUSETADO <input type="radio"/></p>	<p>JUDICIAL JUDGE OF THE SUPERIOR COURT JUEZ DEL TRIBUNAL SUPERIOR SEAT 2 / OFICINA NUMERO 2 Vote For 1 / Voto por 1</p> <p>ART CARNEY <input type="radio"/></p> <p>HUMPHREY BOGART <input type="radio"/></p> <p>WRITE-IN ACUSETADO <input type="radio"/></p>	<p>CITY - CIUDAD MAYOR OF SILVER CITY MEJOR DE SILVER CITY Vote For 1 / Voto por 1</p> <p>RICHARD MULLIGAN <input type="radio"/></p> <p>BURT LANCASTER <input type="radio"/></p> <p>WRITE-IN ACUSETADO <input type="radio"/></p>

Fold Line

Fold line is centered between ballot markers

Fold Line

Panel length more than 3.5"

Fold Line

Fold line does not "touch" voter response position

Fold Line

Example of Fold Line placement

ImageCast X Verifiable Choice Summary Ballot

Ballot Header:

Contains relevant election event information as well as the ballot style



2D Barcode: The voter's choices are encrypted and digitally signed in the barcode. This barcode can only be scanned and decrypted by an ImageCast Tabulator.



Verifiable Choice Summary: The ballot contains a list of all contests and a summary of the voter's selections and non-selections (undervote or blank contest).



Official Ballot
City and County of Denver
Municipal General Election
Tuesday, May 3, 2011

Boleta Oficial de Votación
Ciudad y Condado De Denver
Elección General Municipal
3 de mayo del 2011

Ballot Style: 109



Office of Mayor
Vote for Doug Linkhart
Office of Auditor
Vote for Dennis Gallagher
Office of Clerk and Recorder
BLANK CONTEST
Office of Councilmembers At-Large
BLANK CONTEST
Office of Councilmember District 2
BLANK CONTEST



Ballot Printing

Ballot Printing – Optical Scan Paper Ballots

ImageCast paper ballots can be easily printed by a range of modern printing technologies.

- Small quantities of tabulator-ready ballots can be printed with a conventional B-size laser printer (600 dpi min., pre-calibrated), directly onto pre-cut blank ballot stock. ImageCast ballot artwork files are pre-configured for this use. In-house laser printing of ImageCast proofing and test ballots allows a jurisdiction to quickly and easily test the Democracy Suite EMS election project setup and tabulation options.
- Most jurisdictions choose a Dominion-certified print vendor to produce the ballots that will be used for their election. ImageCast ballots are produced by conventional offset lithographic presses, or high-speed digital xerographic or other electro-photographic presses.
- Ink jet printers, from small desktop units to high-speed web print engines, have produced millions of ImageCast ballots.

Common to all successful ballot printing methods is the strict adherence to Dominion's ImageCast ballot specifications, which have been provided to the State of Michigan as part of this RFP response.

Ballot Printing – ImageCast X Verifiable Choice Summary Ballots

The ImageCast X comes with a commercial off-the-shelf conventional laser printer that prints the verifiable choice summary ballot at the end of the voting session. The Canon LBP151dw laser printer is currently used with the ImageCast X.

Ballot Printer Qualification

Dominion licenses and qualifies ballot printers to produce and sell ballots for Dominion ImageCast tabulators. Dominion will be happy to work closely with a ballot printer of the counties' choice to ensure they receive the qualification and are able to print Dominion's licensed ImageCast optical scan paper ballots.

The printer training and qualification program is designed to ensure the production of high quality ballots, with low defect rates and high-levels of customer satisfaction. Qualification includes on-site ballot production instruction, ballot inspection procedures and tools, ballot QA programs and ballot printing tests. The program offers a fair and open ballot printer training and certification process, geared for range of commercial or governmental print operations. Dominion encourages customers to require the use of certified ballot printers for all print contracts.

Ballot Paper

The text and cover paper stocks that have been tested and approved for manufacturing ImageCast optical scan paper ballots are:

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Approved Papers			
<ul style="list-style-type: none"> - Cascades Fine Paper - International Paper 	<ul style="list-style-type: none"> - Rolland Opaque 50 - Accent Opaque 	80# and 100# Text	Bright White, Smooth Finish
<ul style="list-style-type: none"> - Cascades Fine Paper - International Paper 	<ul style="list-style-type: none"> - Rolland Opaque 50 - Accent Opaque 	65# cover	Bright White, Smooth Finish

We recommend 100# text paper stock for use with the ImageCast X.

ImageCast Security Paper

Dominion’s custom ballot authentication system is built around an (optional) secure ballot paper stock and in-tabulator authenticators that include:

- Custom ballot stock that incorporates an invisible infrared-reactive agent, built into the paper as it is manufactured.
- Matching non-contact paper sensor/authenticators are built into the ImageCast tabulators.

This combination of technologies assures that:

- Secure ballots cannot be counterfeited or duplicated, yet can be simply printed by our certified printers and by our customers.
- An ecologically-sound paper product will put us in the vanguard of responsible paper users.

Additional Security Paper Features:

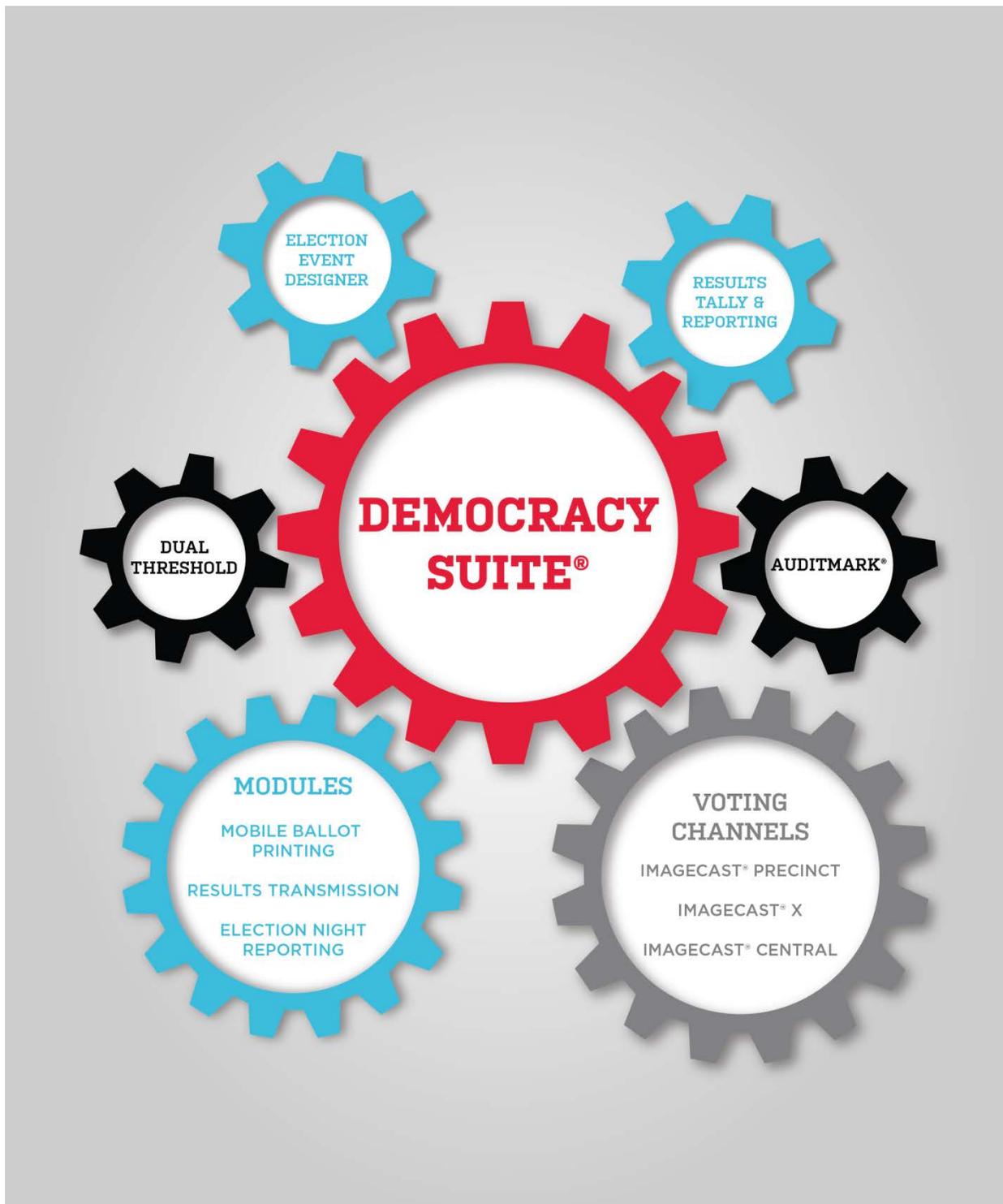
- Special coating to improve toner adhesion
- Reduced porosity to limit pen bleed-through
- Binders to limit curl induced by xerographic printers
- Improving fold tear strength
- Improving ballot stacking

Sample Ballots

Sample ballots can be found in Appendix 2 – Sample Ballots and Reports



Democracy Suite Election Management System – The engine that powers your entire election





Highlights

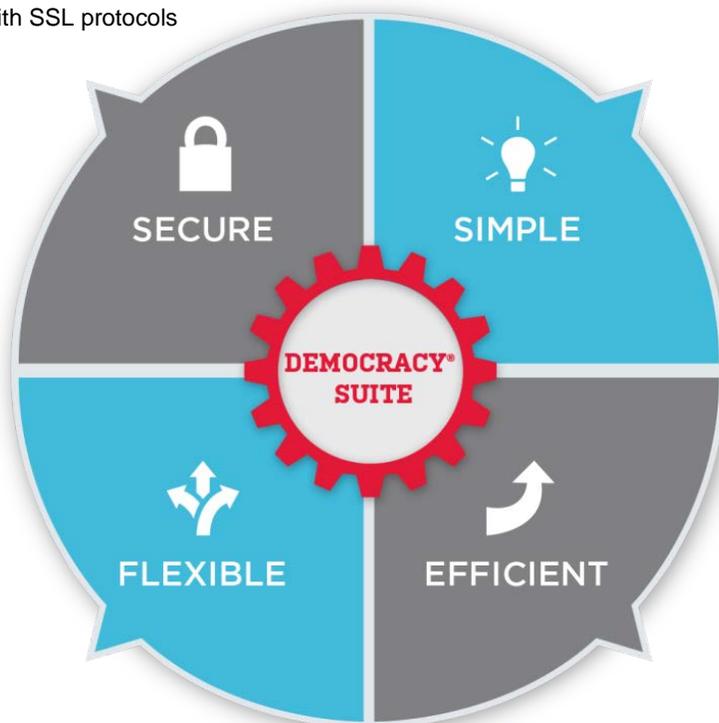
- Democracy Suite powers the entire voting system out of a **single comprehensive database**, with all the tools needed to simplify and streamline the process.
- All voting channels – whether absentee ballots, accessible voting, or precinct-based voting – are supported and powered by Democracy Suite.
- 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.**
- It is designed to **suit the needs and requirements of jurisdictions large and small**, and can be easily scaled to support any size jurisdiction.
- The **counties 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 modules:
 - Through the **Election Event Designer (EED)**, the election definitions of each jurisdiction such as districts, races, and candidates can be input or imported. The Election Data Translator utility allows the import of the election definition from the Michigan QVF file further simplifying the election definition process for the County Administrator.
 - 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 State-wide election results. The module exports results in a data format compliant with the Michigan Standard Results File Format.
- The system allows for the **configuration and creation of a wide range of reports** that can be easily accessed or customized.



Benefits of Democracy Suite

The Democracy Suite technology platform delivers an improved experience for the voter, long-term sustainability, operational efficiencies, transparency and cost-savings.

- Designed to meet the latest EAC VVSG requirements with industry leading FIPS 140-2 compliant security protocols
- Complete end-to-end system auditability
- Symmetric and asymmetric encryption for data confidentiality
- All communications channels are encrypted with SSL protocols
- Reduced complexity for election officials, as programming and results consolidation takes place out of a single unified database
- With easy-to-use, intuitive user interfaces across the entire product line, your staff and poll workers are able to confidently carry out the tasks in their workflow
- Improved and user-friendly experience for voters



- Capable of handling many types of elections, voting rules (i.e. straight party, open or closed primaries, etc.), and a range of jurisdiction sizes
- A diverse range of EMS modules and voting channel singular devices with flexible configurations to meet jurisdictional needs
- Built-in tools to help you simplify and streamline your process, increase productivity, and save you time and money
- Save and re-use ballot templates, election event definitions, and report templates so you can quickly and easily generate future election projects



Election Event Designer

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 the Michigan QVF file further simplifying the election definition process for the County Administrator. Election definition data from may be exported or copied from prior election databases to speed up the process of coding subsequent elections. Sample Election Data Translator import files can be found in Appendix 2a – Sample Election Data Translator Imports.

Election Event Designer uses the County'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.

The EMS system uses Cepstral, a third-party text-to-audio synthesizer, to automatically generate audio ballots for the ImageCast X Ballot Marking Device. 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 Swifftalker 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 Precinct, ImageCast X, and ImageCast Central.

The ImageCast Precinct tabulators are defined and configured in the Election Project and these parameters are passed to the voting machines via the election files on the



Compact Flash memory card. Tabulators are automatically configured to know which ballot styles to accept, 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 County and never needs to make a decision regarding the tabulator's settings at the voting location.

The ImageCast X Ballot Marking Devices are also defined and configured in the Election Project and these parameters are passed to the ImageCast X devices via the election files on a USB. The ImageCast X will store all available ballot styles, and will present the correct ballot style to the voter when the voter inserts their Smart Card and activates the voting session. No results are stored on the ImageCast X. The ImageCast X prints a paper Verifiable Choice Summary Ballot at the end of the voting session, which the voter inserts into the ImageCast Precinct. All results files are stored on the ImageCast Precinct.

Sample Election Event Designer reports can be found in Appendix 2b – Sample Election Event Designer Reports.

Results Tally and Reporting

The EMS Results Tally and Reporting (EMS RTR) module is used on Election Night upon close of polls to accumulate results from tabulators and generate results reports. The application allows for the direct transmission of results to the ImageCast Listener server from the precinct or the AVCB through secure wireless or dial-up modem transmission, or from a designated hub using the Results Transfer Manager. For more information on transmission options, please see the Results Accumulation section below.

For the EMS RTR module, inputs represent encrypted and signed election result files (proprietary format), log files (plain text) and scanned ballot images with AuditMark, produced by the Precinct and Central tabulators (PNG and TIFF images). Outputs represent a variety of election result reports, as well as auditing information (XML, HTML, CSV, MS Excel and PDF formats).

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, pre-defined 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.

RTR features a one-click results export in CSV format that is fully compliant with the Michigan Standard Results File Format. In addition, the module features numerous export types for compatibility with third-party web-based Election Night Reporting software. As is currently the case in states such as Florida and New Mexico – which also have state-standardized export formats - Dominion will stay current and compliant with the Michigan Bureau of Elections' evolving standard, and releases updates to the export file as the standard changes. After approval from the Bureau of Elections, an independent update file is easily imported into the EMS Server, eliminating the need for recertification or reinstallation of the entire application.

Sample Results Tally and Reporting reports can be found in Appendix 2c – Sample Results Tally & Reporting reports.



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.

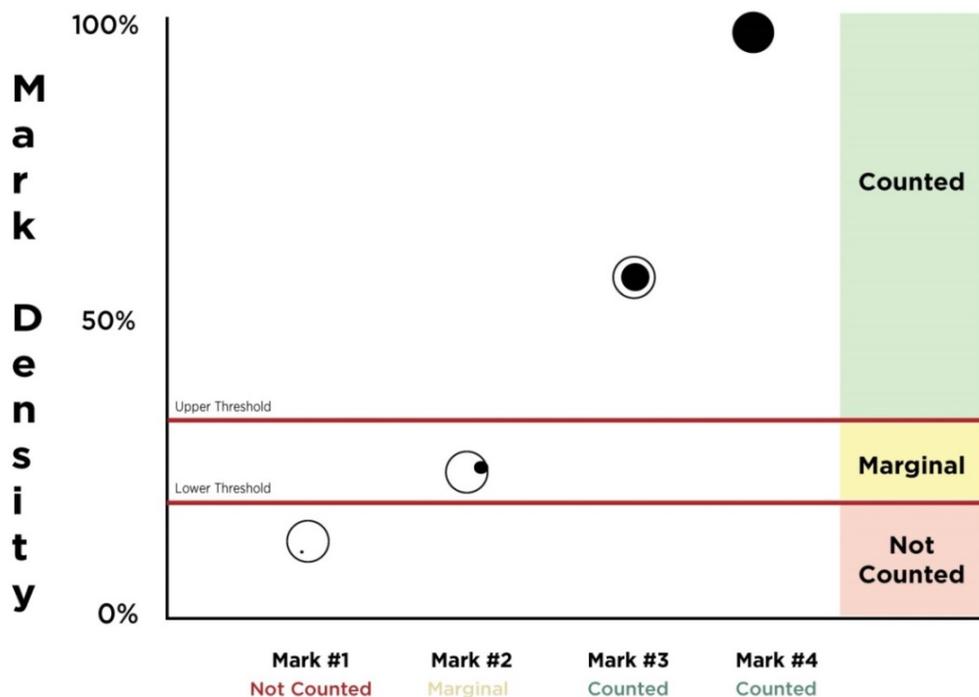
Dominion Voting Systems has invested in the development of proprietary technology that truly sets its products apart from the competition. Dominion's core technologies focus on ensuring two key aspects of the electoral process – **accuracy and transparency**.

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 is 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's Exclusive Digital Ballot AuditMark

Dominion's AuditMark technology will allow the State of Michigan 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.

Hand-marked Ballot Image with Audit Trail:

This is a sample ballot image for a centrally-processed ballot. All ballots are imaged and stored for auditing purposes. The image contains:

1. Image of front side of ballot (if the reverse side of the ballot is used, the image is also captured)
2. Clear image of all text, ballot identifiers, candidates and voter markings.
3. **AuditMark:** Ballot-level audit trail feature showing the results interpreted by the system for this ballot.

FAMOUS NAMES
Demonstration Ballot

DOMINION VOTING

To VOTE: Completely fill in the oval , next to your choice like this Mark with a blue or black ink pen, or with a pencil.

FEDERAL OFFICES	STATE OFFICES	PROPOSITIONS
UNITED STATES SENATOR (Vote for ONE)	STATE SENATOR 37th DISTRICT (Vote for ONE)	
EVERETT DIRKSEN VIRGINIA PARTY	FLORENCE NIGHTINGALE VIRGINIA PARTY	
CHARLES CURTIS OHIO PARTY	ANDREW CARNEGIE OHIO PARTY	
JOHN HANCOCK CALIFORNIA PARTY	FRANCIS SCOTT KEY CALIFORNIA PARTY	
Write-in	Write-in	
UNITED STATES REPRESENTATIVE (Vote for ONE)	NONPARTISAN OFFICES	
WILLIAM B. WILSON VIRGINIA PARTY	BOARD OF EDUCATION (Vote for ONE)	
ROBERT LA FOLLETTE OHIO PARTY	BOOKER T. WASHINGTON	
W.C. REDFIELD CALIFORNIA PARTY	ALBERT EINSTEIN	
Write-in	THOMAS ALVA EDISON	
	HELEN KELLER	
	Write-in	

00002_00001_000001.tif scanned at 2:31 PM on 12/12/2013.

UNITED STATES SENATOR
Vote for EVERETT DIRKSEN
UNITED STATES REPRESENTATIVE
Vote for ROBERT LA FOLLETTE
STATE SENATOR, 37TH DISTRICT
Vote for ANDREW CARNEGIE
BOARD OF EDUCATION
Vote for THOMAS ALVA EDISON

00002_00001_000001.tif scanned at 2:31 PM on 12/12/2013.

UNITED STATES SENATOR
Vote for EVERETT DIRKSEN
UNITED STATES REPRESENTATIVE
Vote for ROBERT LA FOLLETTE
STATE SENATOR, 37TH DISTRICT
Vote for ANDREW CARNEGIE
BOARD OF EDUCATION
Vote for THOMAS ALVA EDISON



Verifiable Choice Summary Ballot Image with Audit Trail:

This is a sample ballot image for a centrally-processed verifiable choice summary ballot. All ballots are imaged and stored for auditing purposes. The image contains:

1. Image of the Verifiable Choice Summary Ballot.
2. Voter's choices are encrypted and digitally signed in the secure barcode image that can only be scanned and decrypted by Dominion's ImageCast tabulators.
3. Clear image of all text, ballot contest headings, and voter choices.
4. **AuditMark:** Ballot-level audit trail feature showing how the tabulator decrypted the barcode image and counted the voter's choices. Comparing the AuditMark to the written summary verifies that the system accurately recorded the voter's selections.

Ballot Style: 101

Official Ballot
City and County of Denver
Municipal General Election
Tuesday, May 3, 2011



Office of Mayor
Vote for Doug Linkhart
Office of Auditor
Vote for (WRITE-IN) DANIEL OMALLEY
Office of Clerk and Recorder
Vote for Debra Johnson
Office of Councilmembers At-Large
UNDER_VOTE_BY 1
Vote for Rich Gonzales
Office of Councilmember District 2
Vote for Edward S. Valdez
Office of Referred Question
Vote for YES/FOR

Boleta Oficial de Votación
Ciudad y Condado De Denver
Elección General Municipal
3 de mayo del 2011

00004_00007_000001.tif scanned at 16:31:37 on 04/05/15.
Ballot ID: 1 Poll ID: 101

Mayor
Doug Linkhart
Auditor
Write-in 'DANIEL OMALLEY'
Clerk & Recorder
Debra Johnson
Council at Large
UNDER-VOTE BY: 1
Rich Gonzales
Councilmember 2
Edward S. Valdez
Referred Question
YES/SI

00004_00007_000001.tif scanned at 16:31:37 on 04/05/15.
Ballot ID: 1 Poll ID: 101

Mayor
Doug Linkhart
Auditor
Write-in 'DANIEL OMALLEY'
Clerk & Recorder
Debra Johnson
Council at Large
UNDER-VOTE BY: 1
Rich Gonzales
Councilmember 2
Edward S. Valdez
Referred Question
YES/SI





The AuditMark Advantage

Transparency: Our system is the only one that stores a complete image of every ballot cast, along with the audit trail for that ballot visually affixed to the image.

Accuracy: 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.

Trust: 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-counts



ImageCast Precinct – The world’s most reliable optical scan tabulator

Highlights

- The ImageCast Precinct is one of the most widely used tabulators with over **100,000 units deployed worldwide**
- It is one of **the most reliable optical scan tabulators**, that safely stores and tabulates each vote from every ballot – including hand-marked ballots and verifiable choice summary ballots
- It is designed to be easy-to-use for both voters and poll workers
- Lightweight (14lbs), easy to store, carry and set-up
- Designed by engineers to withstand the most challenging environments



The ImageCast Precinct tabulator is a lightweight, robust and easy-to-use optical scan tabulator. With major deployments including 82,000 units in Philippines, 11,000 units in New York, and 2,500 units in Mongolia, the ImageCast Precinct is the most reliable optical scanner ever developed.

The system scans marked paper ballots, interprets voter marks on the paper ballot and safely stores and tabulates each vote from each paper ballot. The ImageCast Precinct is also designed to read and tabulate verifiable choice summary ballots produced on the ImageCast X, which include a 2D barcode read by the scanner, as well as a human-readable text summary of the voter’s selections.

The ImageCast Precinct reads single and double-sided ballots in four orientations, and accepts striping and colored headers to distinguish ballots.

The ImageCast Precinct is designed to be “plug and play,” making it very straightforward and quick to set up for poll workers. The ImageCast Precinct will power on upon plugging in the AC power cord. The poll worker will apply their iButton and enter their credentials to open the polls and print the zero tape, and the ImageCast Precinct tabulators are ready to commence standard voting and accept ballots.



At the polling place, the voter makes their selections by filling in the voting targets next to their choices, or makes their selections on the ImageCast X ballot marking device which then prints a paper ballot. The voter then inserts their ballot directly into the ImageCast Precinct, which performs the following functions:

- Scans the ballot and interprets the digital image to tabulate the voter's choices
- Appends to the bottom of the ballot image a record of how that ballot was counted on Election Day (known as the AuditMark)
- Redundantly stores and tallies the results
- Prints cumulative totals of all votes cast after the polls have been closed

Standard features

- 200 dpi scanner
- Security detector (optional)
- Internal diverter
- VVSG 2005 security
- 2 memory cards
- AuditMark capability
- Ultra-sonic multi-feed detector that prevents the device from accepting more than one ballot a time.



ImageCast Precinct on the Dominion Ballot Box

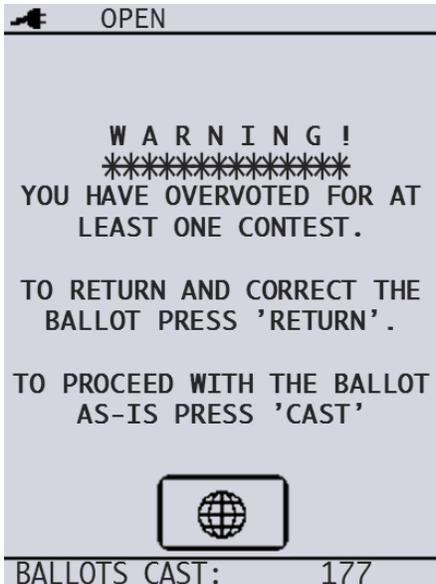


The ImageCast Precinct – a lightweight but robust and versatile tabulator



Sample ImageCast Precinct Screenshots

The ImageCast Precinct tabulator provides feedback, messages, and instructions to voters and poll workers.



As discussed in response to requirement 1.1.A.8 in Exhibit A – Attachment 1.1, the ImageCast Precinct display alerts voters to any and all voter/ballot errors with clear language describing the error, before accepting the ballot for tabulation. The example at left shows the tabulator’s message after detecting an overvoted contest, giving the option for the voter to either cast their ballot as-is, or return it for correction.



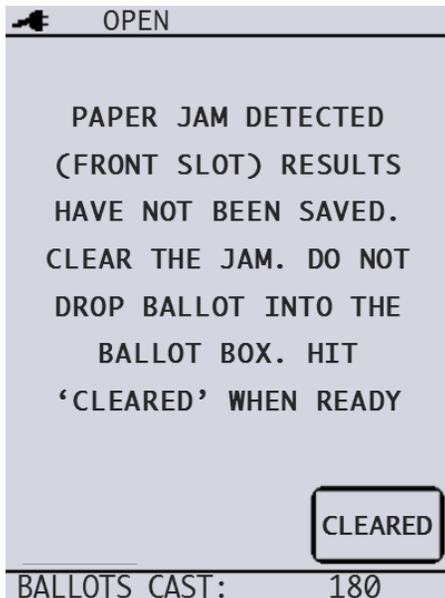
As discussed in response to requirement 1.1.A.13 in Exhibit A - Attachment 1.1, the ImageCast Precinct display shows the total number of ballot cards cast.



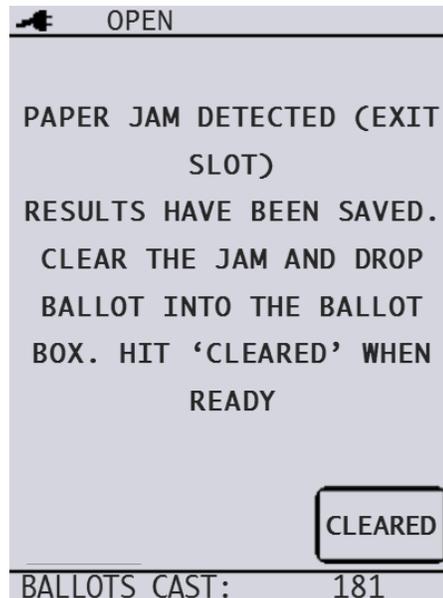
As discussed in response to requirement **1.1.A.27 in Exhibit A - Attachment 1.1**, the ImageCast Precinct has a fitted, lockable, and sealable hard plastic lide (the ballot box cover) that completely covers the unit, protecting it from direct water contact.

As discussed in response to requirement **1.1.F.3 in Exhibit A – Attachment 1.1**, the ImageCast Precinct tabulator presents clear messages to the user if a paper jam is detected. Paper jams in the ImageCast Precinct tabulator are rare, but can occur due to such reasons as wrinkled or bent edges on the ballot.

When a paper jam occurs, the screen displays the message “PAPER JAM DETECTED...” with a button labeled “CLEARED” at the bottom-right corner. Paper jams can occur at the ballot entry slot as soon as the ballot is fed into the tabulator or at the exit slot when the ballot is being dropped into the ballot box. In each scenario, the screen will display the relevant message as shown below:



Paper jam message (entry slot)



Paper jam message (exit slot)



ImageCast Precinct Report Tapes

ImageCast Precinct Zero Tape

Lenawee County

MI Lenawee 2012
 Primary 20150825
 Tuesday, August 07, 2012

Tabulator Name
 City of Adrian, PI IOP

Tabulator ID
 601

Voting Location
 City of Adrian, Precinct 1

 Unit Model: PCOS320A (Rev 107)
 Unit Serial: WLDAFBH0010
 Protective Counter: 5643
 Software Version: 4.14.17-US

Total Scanned: 0
 Total Voters: 0

REP US Senator (1)	
Clark Durant (Republican):	0
Gary Glenn (Republican):	0
Randy Hekman (Republican):	0
Pete Hoekstra (Republican):	0
Write-in:	0
Total Votes:	0

REP D7 Rep in Congress (1)	
Dan Davis (Republican):	0
Tim Walberg (Republican):	0
Write-in:	0
Total Votes:	0

REP D57 Representative (1)	
Nancy Jenkins (Republican):	0
Write-in:	0
Total Votes:	0

REP Prosecuting Attorney (1)	
Burke Castleberry (Republican):	0
Write-in:	0
Total Votes:	0

REP County Sheriff (1)	
Jack Welsh (Republican):	0
Write-in:	0
Total Votes:	0

REP County Clerk (1)	
Roxann Holloway (Republican):	0
Write-in:	0
Total Votes:	0

REP County Treasurer (1)	
Marilyn J. Woods (Republican):	0
Write-in:	0
Total Votes:	0

REP Register of Deeds (1)	
Carolyn S. Bater (Republican):	0
Write-in:	0
Total Votes:	0

REP Road Commissioner (1)	
Write-in:	0
Total Votes:	0

REP Drain Commissioner (1)	
Stephen R. May (Republican):	0
Write-in:	0
Total Votes:	0

REP County Surveyor (1)	
Kevin L. Pickford (Republican):	0
Write-in:	0
Total Votes:	0

REP D5 Commissioner (1)	
William Hoffman (Republican):	0
Write-in:	0
Total Votes:	0

REP C Adrian 1 Delegate (3)	
Jeffrey R. Drake (Republican):	0
Miguel Irizarry (Republican):	0
Write-in:	0
Total Votes:	0

DEM US Senator (1)	
Debbie Stabenow (Democratic):	0
Write-in:	0
Total Votes:	0

DEM D7 Rep in Congress (1)	
Kurt Richard Haskell (Democratic):	0
Ruben Marquez (Democratic):	0
Write-in:	0
Total Votes:	0

DEM D57 Representative (1)	
Jim Berryman (Democratic):	0
Harvey E. Schmidt (Democratic):	0
Write-in:	0
Total Votes:	0



DEM Prosecuting Attorney (1)	
Write-in:	0
Total Votes:	0

DEM County Sheriff (1)	
Write-in:	0
Total Votes:	0

DEM County Clerk (1)	
Write-in:	0
Total Votes:	0

DEM County Treasurer (1)	
Write-in:	0
Total Votes:	0

DEM Register of Deeds (1)	
Sharon L. Wimple (Democratic):	0
Write-in:	0
Total Votes:	0

DEM Road Commissioner (1)	
Stan Wilson (Democratic):	0
Write-in:	0
Total Votes:	0

DEM Drain Commissioner (1)	
Write-in:	0
Total Votes:	0

DEM County Surveyor (1)	
Write-in:	0
Total Votes:	0

DEM D5 Commissioner (1)	
Karol J. Bolton (Democratic):	0
James Daly (Democratic):	0
Write-in:	0
Total Votes:	0

DEM C Adrian 1 Delegate (2)	
Write-in:	0
Total Votes:	0

County Medical Care (1)	
YES:	0
NO:	0
Total Votes:	0

County Senior Millage (1)	
YES:	0
NO:	0
Total Votes:	0

Certification

WE, THE UNDERSIGNED, WERE PRESENT DURING THE OPENING OF THE POLLS AND PRINTING OF THIS RECORD AND CAN VERIFY THAT ALL CANDIDATE VOTE TOTALS ARE ZERO AT THIS TIME.

Name

Signature

Name

Signature

Name

Signature

Name

Signature

Results are zero. Unit ready.
Wed Aug 26 18:07:15 2015



ImageCast Precinct Results Tape

Lenawee County

MI Lenawee 2012
 Primary 20150825
 Tuesday, August 07, 2012

Tabulator Name
 City of Adrian, P1 ICP

Tabulator ID
 601

Voting Location
 City of Adrian, Precinct 1

 Unit Model: PCOS320A (Rev 107)
 Unit Serial: WLDAFB0010
 Protective Counter: 5653
 Software Version: 4.14.17-US

Total Scanned: 10
 Total Voters: 10

REP US Senator (1)	
Clark Durant (Republican):	1
Gary Glenn (Republican):	1
Randy Hekman (Republican):	1
Pete Hoekstra (Republican):	1
Write-in:	1
Total Votes:	5

REP D7 Rep in Congress (1)	
Dan Davis (Republican):	1
Tim Walberg (Republican):	1
Write-in:	1
Total Votes:	3

REP D57 Representative (1)	
Nancy Jenkins (Republican):	1
Write-in:	1
Total Votes:	2

REP Prosecuting Attorney (1)	
Burke Castleberry (Republican):	1
Write-in:	1
Total Votes:	2

REP County Sheriff (1)	
Jack Welsh (Republican):	1
Write-in:	1
Total Votes:	2

REP County Clerk (1)	
Roxann Holloway (Republican):	1
Write-in:	1
Total Votes:	2

REP County Treasurer (1)	
Marilyn J. Woods (Republican):	1
Write-in:	1
Total Votes:	2

REP Register of Deeds (1)	
Carolyn S. Bater (Republican):	1
Write-in:	1
Total Votes:	2

REP Road Commissioner (1)	
Write-in:	1
Total Votes:	1

REP Drain Commissioner (1)	
Stephen R. May (Republican):	1
Write-in:	1
Total Votes:	2

REP County Surveyor (1)	
Kevin L. Pickford (Republican):	1
Write-in:	1
Total Votes:	2

REP D5 Commissioner (1)	
William Hoffman (Republican):	1
Write-in:	1
Total Votes:	2

REP C Adrian 1 Delegate (3)	
Jeffrey R. Drake (Republican):	1
Miguel Irizarry (Republican):	1
Write-in:	3
Total Votes:	5

DEM US Senator (1)	
Debbie Stabenow (Democratic):	1
Write-in:	1
Total Votes:	2

DEM D7 Rep in Congress (1)	
Kurt Richard Haskell (Democratic):	1
Ruben Marquez (Democratic):	1
Write-in:	1
Total Votes:	3

DEM D57 Representative (1)	
Jim Berryman (Democratic):	1
Harvey E. Schmidt (Democratic):	1
Write-in:	1
Total Votes:	3



DEM Prosecuting Attorney (1)	
Write-in:	1
Total Votes:	1

DEM County Sheriff (1)	
Write-in:	1
Total Votes:	1

DEM County Clerk (1)	
Write-in:	1
Total Votes:	1

DEM County Treasurer (1)	
Write-in:	1
Total Votes:	1

DEM Register of Deeds (1)	
Sharon L. Wimple (Democratic):	1
Write-in:	1
Total Votes:	2

DEM Road Commissioner (1)	
Stan Wilson (Democratic):	1
Write-in:	1
Total Votes:	2

DEM Drain Commissioner (1)	
Write-in:	1
Total Votes:	1

DEM County Surveyor (1)	
Write-in:	1
Total Votes:	1

DEM D5 Commissioner (1)	
Karol J. Bolton (Democratic):	1
James Daly (Democratic):	1
Write-in:	1
Total Votes:	3

DEM C Adrian 1 Delegate (2)	
Write-in:	2
Total Votes:	2

County Medical Care (1)	
YES:	1
NO:	1
Total Votes:	2

County Senior Millage (1)	
YES:	1
NO:	1
Total Votes:	2

Certification

WE, THE UNDERSIGNED ELECTION OFFICIALS, HEREBY CERTIFY THAT THE ABOVE ELECTION WAS HELD IN ACCORDANCE WITH THE LOCAL AUTHORITY ELECTION ACT AND REGULATIONS OF THIS JURISDICTION.

Name

Signature

Name

Signature

Name

Signature

Name

Signature

Poll closed.
Wed Aug 26 18:35:07 2015



ImageCast Precinct Simple and Complete Diagnostics Reports

*** DIAGNOSTICS PRINTER TEST,
PLEASE DISCARD! ***

Aug 26/2015 18:03:13
SIMPLE DIAGNOSTICS
MEMORY PASSED
COMPACT FLASH PASSED
EEPROM PASSED
THERMAL PRINTER PASSED
LCD PASSED
INTERNAL CLOCK PASSED
POWER PASSED
SCANNER PASSED
DIAGNOSTICS DONE
MACHINE IS READY FOR USE.



Unit Model: PCOS320A (Rev 107)
Unit Serial: WLDAFBH0010
Protective Counter: 5643
Software Version: 4.14.17-US

*** DIAGNOSTICS PRINTER TEST,
PLEASE DISCARD! ***

Aug 26/2015 18:05:42
COMPLETE DIAGNOSTICS
MEMORY PASSED
COMPACT FLASH PASSED
EEPROM PASSED
THERMAL PRINTER PASSED
LCD PASSED
INTERNAL CLOCK PASSED
POWER PASSED
SCANNER PASSED
DIAGNOSTICS DONE
MACHINE IS READY FOR USE.



Unit Model: PCOS320A (Rev 107)
Unit Serial: WLDAFBH0010
Protective Counter: 5643
Software Version: 4.14.17-US



ImageCast Precinct Tabulator Information Report

TABULATOR INFO

PROTECTIVE COUNTER: 5643

TOTAL DIVERTED: 568

TOTAL PAPER JAMS: 206

IMAGE MEMORY USAGE: 0.01%

SERIAL NUMBER: WLDAFBH0010

Top CIS Calibration: 0x0

Bottom CIS Calibration: 0x0

Printer Intensity: 0xc0

OS: 4.14.17-US

Cfload: 4.14.17-US

Application: 4.14.17-US

Digital Signature:

74 dc 1a 1f 69 3e 2c cc

db 64 ea 6a fa 8e 65 b1

bb a9 11 48 72 a2 e6 da

9c b6 cf 00 f3 e1 9b cd



00601



ImageCast Precinct Sample Preventative Maintenance Checklist



Image Cast Precinct Optical Scanner
Maintenance Checklist
Version 2.1

Serial # _____ Printer Serial # _____
Date: 8/13/2015 Tech: John Keefer

Step #	Description	Expected Results	Pass	Fail	Comments
Inspection Stage					
1	Inspect ICP-BMD	No scratches, dents or cracks			
2		ICP has all labels/ No Extra			
3		CF Card, AVS, Ports, and Printer Doors			
4		Headphones, ATI and cables Present			
5		Approved AC/DC Power Adapter Present			
Power Up, and Verification					
6	System Power Up	Insert 2 CF cards with FN Election			
7		Connect ATI, Headphones and Printer			
8		Verify Paper Roll and Print Cart. Loaded			
9		Connect Approved AC/DC Power Adapter			
10		LCD Software Version	NA	NA	Version:
11		Loader Software Version	NA	NA	Version:
12		O/S Software Version	NA	NA	Version:
13	Verify Correct Time and Date				
Diagnostics					
14	Complete Diagnostics	Clean Scan Heads with Cleaner Ballot			
15		Enter Diagnostics Mode			
16		Run Complete Diagnostics			
17		Memory Diagnostics			
18		Compact Flash Diagnostics			
19		EEPROM Diagnostics			
20		Thermal Printer Diagnostics			
21		LCD Diagnostics			
22		ATI Diagnostics			
23		Audio Diagnostics			
24		USB Printer Diagnostics			
25		Internal Clock Diagnostics			
26		Power Diagnostics			
27		Unplug AC Adapter	NA	NA	
28		Insert Blank Ballot/Scanner Diagnostics			
29		Observe Battery Status			
30		Print Diagnostic Report			
31		Exit Diagnostics and Restore AC Power			
Functionality					
32	Election Project Testing	Open Polls and Print Status Report			
33		Verify Ballots cast are Zero			
34		Insert 1 OV Ballot, Override Warning			
35		Insert 1 Blank Ballot, Override Warning			
36		Insert 1 Wrong Pct. Ballot, Try to Override			
37		Insert 1 Marked Ballot from ADA Session			
38		Process Remainder of Test Deck			
39		Close Polls, Verify Results, Re-Zero			
40		Power Down and Store Unit			

Please list any repairs or required follow-up:

Tech: John Keefer Signature of Clerk/Auditor _____



ImageCast Ballot Box

Dominion has designed an innovative, complementary ballot box, pictured below, for our precinct tabulators. It is built of sturdy plastic, and features four large lockable swivel wheels and handles on all sides for ease of movement, allowing the units to be securely transported to and from the polling place. Since it has no internal moving parts, the ballot box can also accommodate Election Day supplies when it is not storing ballots. For security purposes, the ballot box features five locks and multiple security seal points to limit access and prevent tampering.

When the poll worker arrives to set up, they will unlock the cover, plug the ballot box into the wall plug, and the system will turn on and be ready to print the zero tape. All other components are already attached, keeping polling location issues to a minimum.

Standard Features

- The ImageCast Ballot Box is made from solid extruded plastic and built to the requirements of the EAC.
- The ballot box capacity meets US polling place requirements, with three bins (main bin, write-in bin, and auxiliary/emergency bin).
- The ImageCast Precinct tabulator locks and seals onto the ballot box, which features a cover that provides additional security and ease of transportation.
- Features a sealed plastic base and is water resistant.
- Offers multiple deployment and warehousing options.



Plastic Ballot Box – with the lockable cover (left), and showing the three interior compartments (right)



ImageCast X – It's everything you want it to be

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.**
- The ImageCast X prints a **verifiable choice summary ballot** that is scanned on the ImageCast Precinct or ImageCast Central.
- 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.



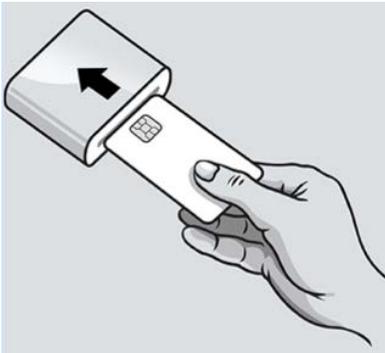
Fully integrated into the Democracy Suite platform, the ImageCast X takes advantage of commercially available technologies and is driven by a robust, secure and flexible application developed by Dominion. The use of compact, commercially available hardware makes the ImageCast X a cost-effective and versatile 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 has an intuitive touchscreen interface with various features for accessibility, and connects to a printer that prints the voter's ballot directly in the voting booth. Once the ballot is printed, the voter scans their ballot on the ImageCast Precinct, the same as all other voters.

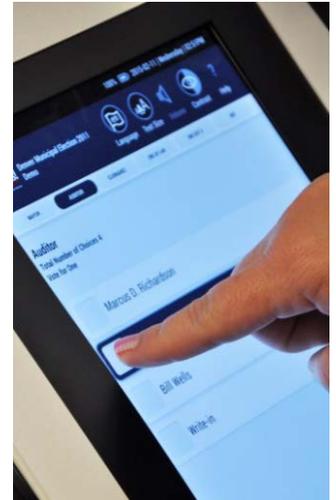
Training for election poll workers is minimal and straightforward. When a voter checks in to vote, the poll worker will verify the voter's credentials and program a Smart Card using the Smart Card writer/reader. The Smart Card is used to activate a voting session on the ImageCast X and to present the voter with their correct ballot style. No information that can identify the voter is programmed on the Smart Card. Once the voter has printed their ballot, the Smart Card is inactivated and can be returned to be re-programmed for the next voter.



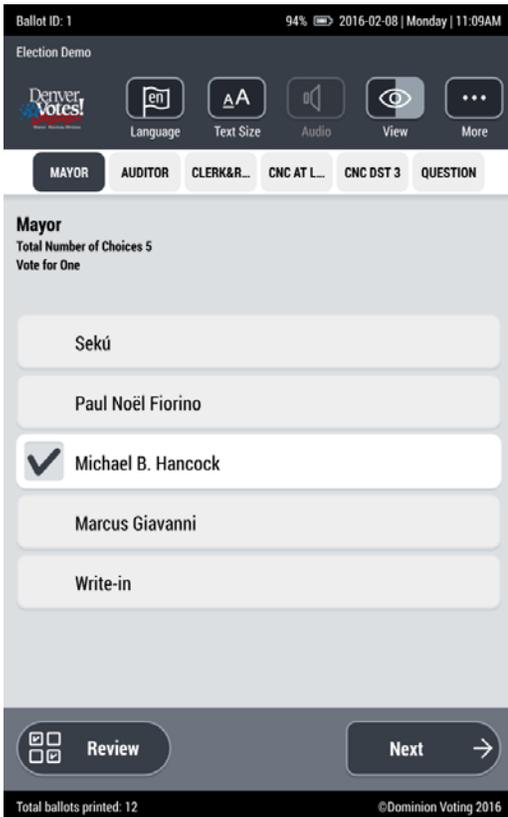
The ImageCast X is a universal voting device that is software-driven and leverages the flexibility of COTs technology



The voter will insert their Smart Card to activate the voting session on the ImageCast X. If available, the voter will be prompted to choose their preferred language for their 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 candidates. The voter can change or cancel their selection by deselecting their previous choice.



The ImageCast X features an intuitive touchscreen

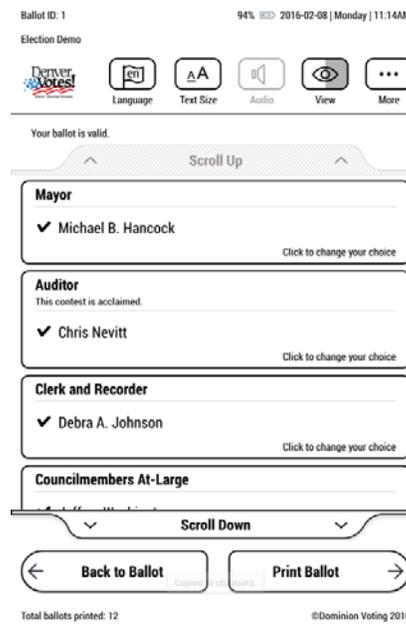
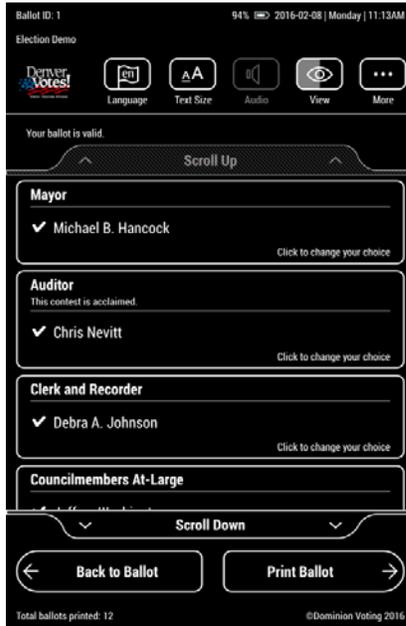


The voter can also change the text size or contrast of the display. The View button allows the voter to change the display to high contrast white on black, or black on white. The text size button allows the voter to change the text size.

At any time, the voter can select the Review button to view their selections on their ballot. 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 has confirmed they are ready to print, the ImageCast X can print a verifiable choice summary ballot which contains a written summary of the voter's choices, as well as a 2D barcode which is read by the ImageCast Precinct. No voter selections are stored on the ImageCast X.

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



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



Accessibility

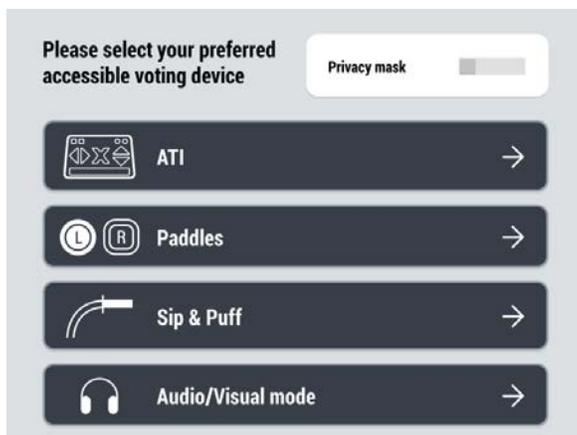
Designed as a voting solution for all, the ImageCast X also offers several options for voters with accessibility needs to vote in a private and independent manner.

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 pictured here with joystick and paddle button accessible voting devices.



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 tools that voters can use to navigate through the ballot and make their selections. The system is compatible with commercially available accessibility devices, such as a four-way joystick, as well as a hand-held controller called the Audio Tactile Interface (ATI), sip and puff device, or 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



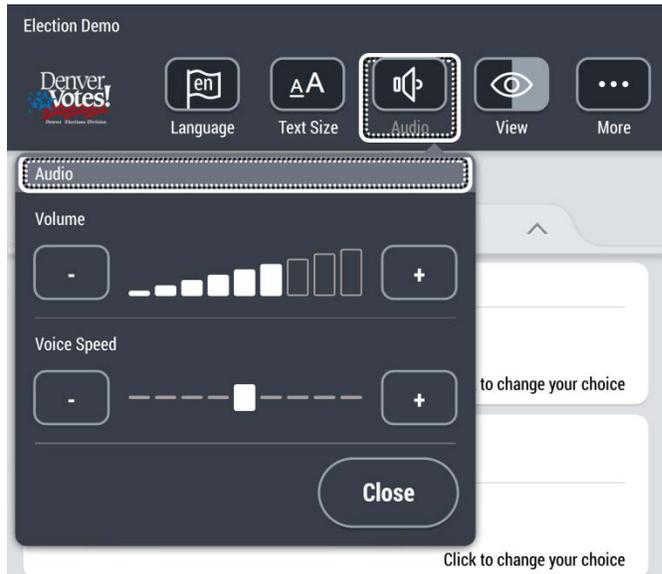
different shapes and colors, large or Braille numbers and letters)

- 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.

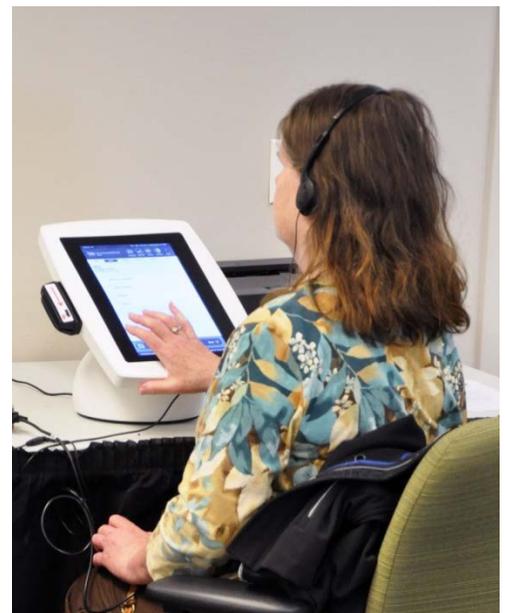
The ImageCast X can present the ballot in audio only, visual only, or both audio and visual modes, depending on personal preference. Voters can adjust the rate and volume of their audio ballot, as well as the text size and contrast of the display, or disable the display entirely for added privacy. Every 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 missed, or undervoted a contest, and have the opportunity to go back and correct their selections. Once the ballot is printed, the voter scans their ballot on the ImageCast Precinct, the same as all other voters.

The ImageCast X was recently deployed in the State of Colorado as part of their Uniform Voting System initiative, where it received the highest usability ranking by in-person voters with disabilities. 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.



Voters can adjust the rate and volume of their audio ballot.



The ImageCast X features many options for voters with disabilities.



ImageCast Central – Scalable & Efficient High Speed Scanning

- 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.
- 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. Dominion has included two scanner options in this proposal, the Canon DR-G1130 and the smaller scale Canon DR-M160II.

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.



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.

Central scanning is typically used to process absentee or mail-in ballots. The election definition is taken from EMS, using the same database that is utilized to program any precinct scanners for a given election. 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. As with results data from



any precinct scanners in use for an election, Results Tally and Reporting is the portion of EMS that processes the images to provide tabulation and operational reports to the jurisdiction.

Batches can be appended, deleted, and processed in a number of ways to suit typical election workflows, intake of ballots before, during, and after Election Day, jurisdictional requirements surrounding absentee ballot tabulation, and canvassing needs. The ImageCast Central also features all of the technological advances present in the precinct-level tabulators – the AuditMark and the Dual Threshold technology.

ImageCast Central Reports

Sample ImageCast Central reports can be found in Appendix 2d – Sample ImageCast Central Reports.



ImageCast Central Sample Preventative Maintenance Checklist



ImageCast Central Count
Maintenance Checklist
Version 2.1

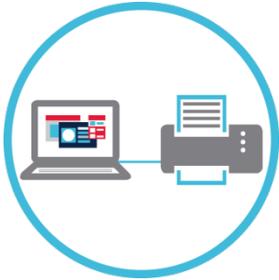
Serial: _____
Date: 8/13/2015

Tech: _____

Step #	Description	Expected Results	Pass	Fail	Comments
Inspection Stage					
1	Inspect ICC	No scratches, dents or cracks			
2		ICC has all labels/ no extra			
3		USB Cable Type A to Type B present			
4		Approved AC/DC Power adapter present			
5		Laptop with current ImageCast Central			
6		ibutton Reader/Writer			
Power Up					
7	System Power Up	Connect USB cable to scanner/laptop			
8		Connect ibutton reader to laptop			
9		Connect AC adapter to scanner			
10		Connect AC adapter to laptop			
11		Power Up Scanner before laptop			
12		Power on laptop			
13		Insert FN ibutton			
14		Connect AC adapter to scanner			
15		Connect AC adapter to laptop			
16		Power Up scanner before laptop			
17		Power on laptop			
18		Insert FN ibutton			
19	Open Image Cast Central Software				
Cleaning					
20	ICC Cleaning	Clean scanner exterior			
21		Clean Document Feed Inlet			
22		Clean Transport Path			
23		Clean Sensors Top and Bottom			
24		Open Upper Unit, clean scanning glass			
25		Remove pickup, feed, and retard rollers			
26		Clean pad on retard roller cover			
27		Clean rollers and re-install			
28		Close scanner			
Election Project Testing					
29	Scanning	Load Famous Names Election			
30		Load FN ICC Test Deck			
31		Navigate to CONFIGURATION			
32		Hit Scan options			
33		Deselect all Stop Scan on options			
34		Select Continuous Scan			
35		Select Only one scan per batch , hit OK			
36		Return to SCANNING hit SCAN			
37		After scanning hit ACCEPT BATCH			
38		Navigate to FN Election Folder			
39		Verify images are clear and accurate			
40		Navigate to CONFIGURATION			
41		Hit CLOSE TABULATOR , click OK			
42		Navigate to STATUS			
43		Click SHOW RESULTS			
44		Verify totals			
45		Shutdown software, scanner, then Laptop			

Please list any required follow-up:

Tech: 0 Signature of Clerk/Auditor _____



Mobile Ballot Printing Module

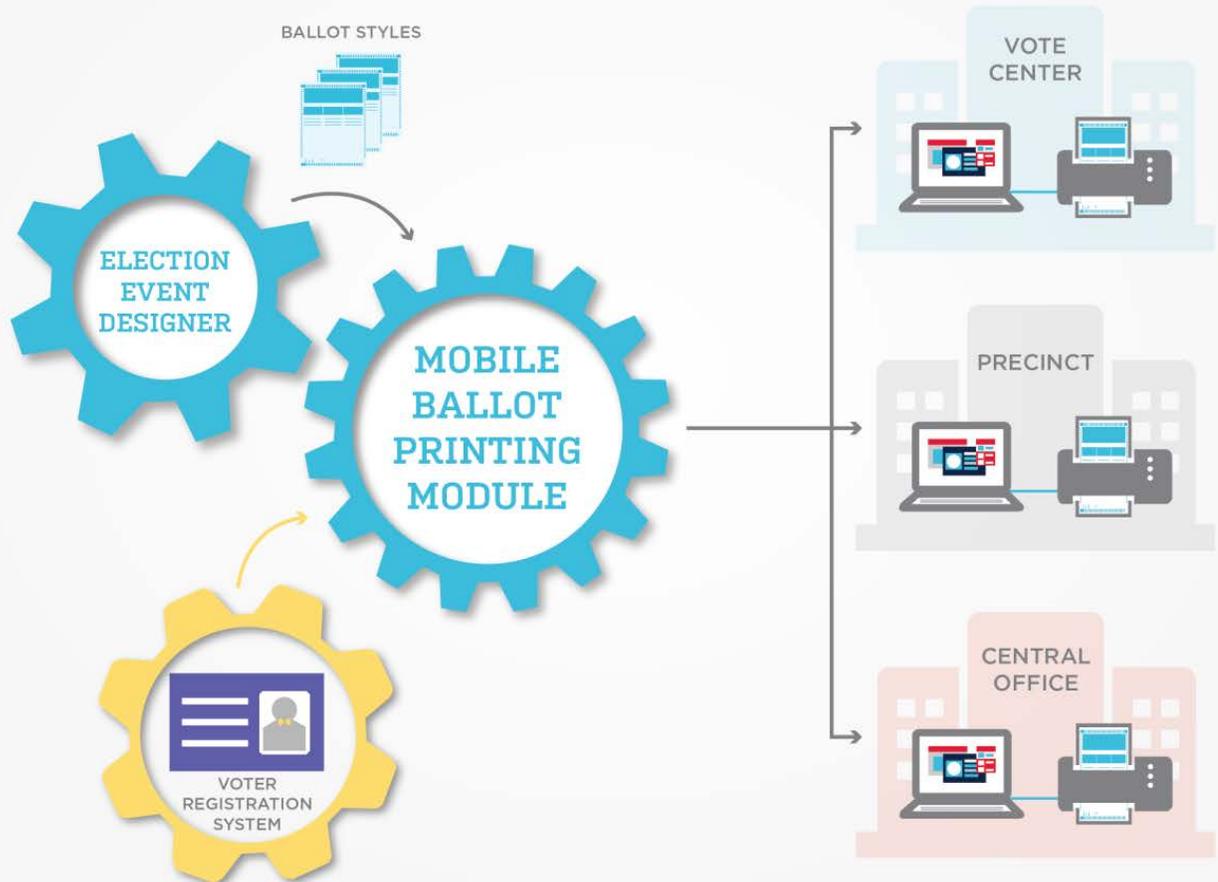
Highlights

- **Simple:** No unnecessary complexity – simple interface and voter registration integration makes it easy for election staff to quickly print the correct ballot style for each voter.
- **Secure:** Strong auditability features ensure security and transparency.
- **Flexible:** The Mobile Ballot Printing module is hardware “agnostic,” giving you the flexibility to use your existing print hardware or leverage other commercially available off-the-shelf (COTS) printers.
- **Efficient:** Save on additional printing and storage costs associated with having to provide multiple ballot styles to every “Vote Anywhere” location.
- The Mobile Ballot Printing Module allows you to easily print ballots for any election whenever and wherever needed – at the central office, at the precinct, or other remote locations. The system is fully integrated with Democracy Suite.
- The system is portable and simple to set up in any location. Since the system is hardware “agnostic,” the jurisdiction has the flexibility to use their existing print hardware, or leverage other commercially available off-the-shelf printers that print high-quality paper ballots. Not all systems can offer this flexibility in printer choice.
- The user-friendly interface, along with integration with a variety of voter registration systems, makes it easy for election staff to quickly print the correct ballot style for each voter. The Mobile Ballot Printing module simplifies ballot management and logistics – you no longer need to worry about stacks of different ballot styles in the precinct and about estimating the correct number of ballots to print.



MOBILE BALLOT PRINTING

BALLOTS WHEN & WHERE YOU WANT THEM!





Results Accumulation

There are several methods to upload or transmit encrypted vote totals from the precinct tabulators and/or AVCBs to the Elections Office.

Method 1 – Returning memory cards from each tabulator to the Elections Office

Using this method, after the poll worker closes the polls, the memory cards with the encrypted vote totals are removed from their slots in the ImageCast Precinct units, and are returned to the Elections Office for manual upload to the Results Tally and Reporting module.



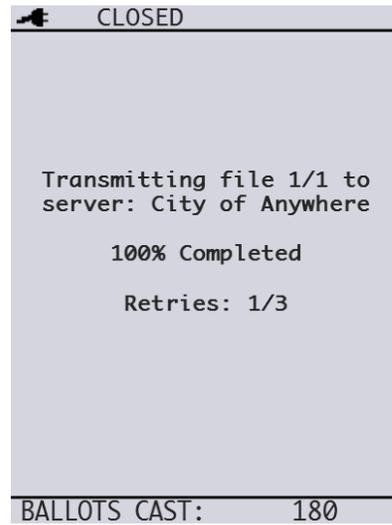
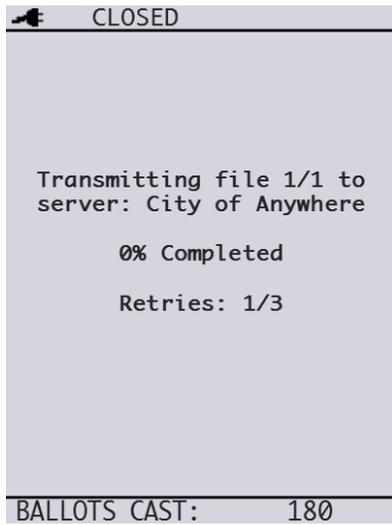
Method 2 – Dial-up and Cellular Modem transmission

The ImageCast Precinct tabulators can be deployed with remote transmission options to transfer encrypted results files from the precinct (if used as Election Day tabulators) or hub (if used as AVCBs) to the Elections Office. This can be done by landline modem, or by wireless cellular modem.

ImageCast Precinct: The ImageCast Precinct tabulators are equipped with internal dial-up modems, and can also transmit results via an external cellular modem.

Transmission of results via modem is a very intuitive process, involving minimal input from a poll worker. After the polls have been closed, the poll worker has the option to select “Results Transfer” from the Main menu. The results transfer settings, which contain precinct-specific network data pre-configured from the EMS System, will appear. To upload the results to the ImageCast Listener server, the poll worker presses “Start” within the Results Transfer option.

The modem must be plugged into the unit in order to begin results transmission. The intuitive user interface on the tabulator informs the poll worker of the status of the upload and when it is completed, as seen on the screenshots below.

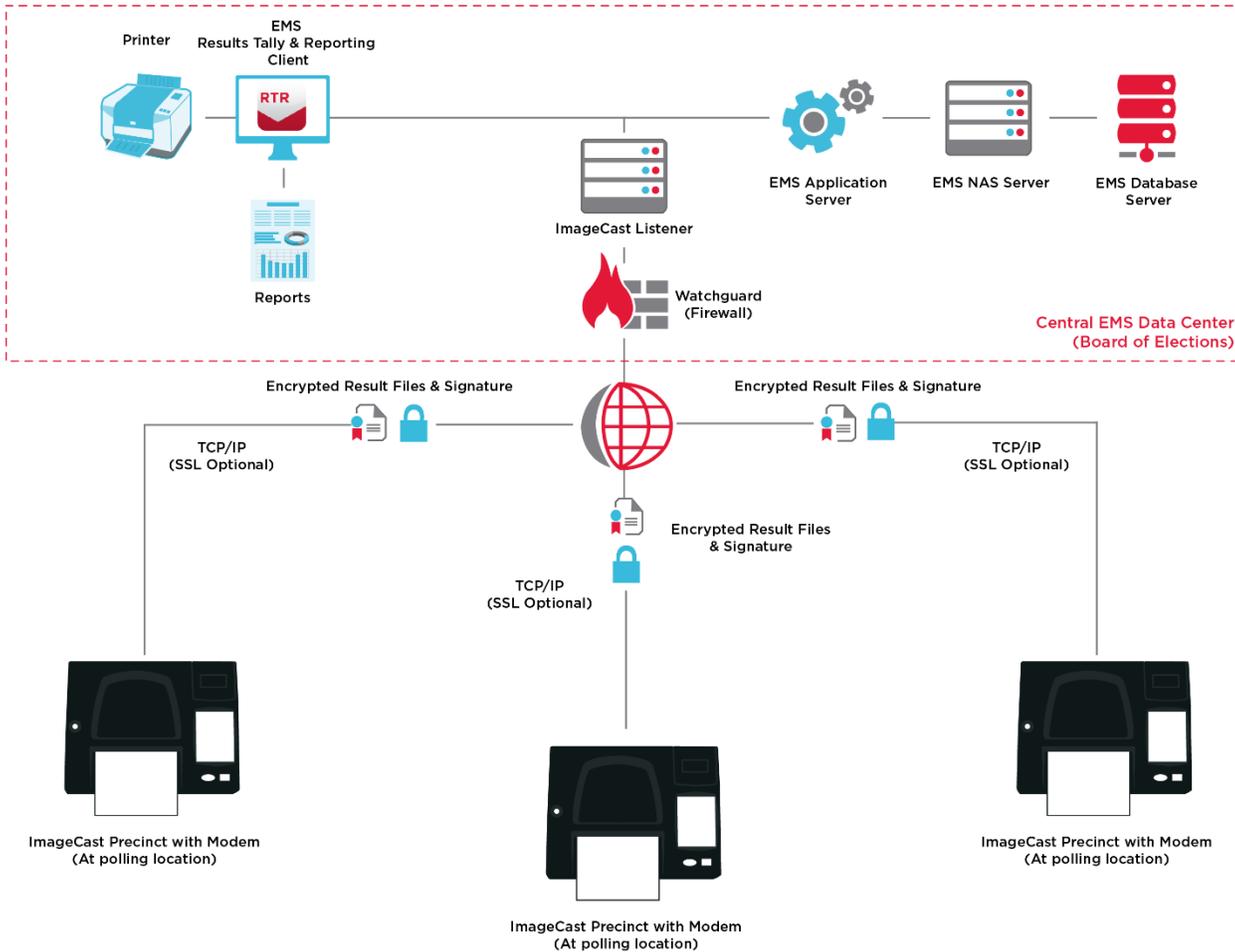


ImageCast Precinct – Modem transfer interface examples



ImageCast Listener

**System Communication Diagram
Cellular Modem Transmission**



The ImageCast Listener module is responsible for receiving and tracking encrypted results file transmissions from any ImageCast Election Day tabulator.

Unlike traditional results transmission using FTP/SFTP, the ImageCast Listener uses a secure and proprietary protocol for establishing an authenticated connection with the ImageCast tabulators. The ImageCast Listener verifies the signature of the results file upon receipt and immediately informs election officials whether the file is valid or if any suspicious activity is detected. Results files are encrypted using AES-128 or AES-256. They are signed with SHA-256.



If the ImageCast Listener recognizes the transmitted files as valid, they are automatically made available for loading into the Results Tally & Reporting module in the main Election Management System server.

As mentioned above, ImageCast tabulators at the voting location will receive confirmation from the server that the results transmission was successful, or in rare cases, prompt the poll worker to retry the transmission. At the Elections office, election officials can view the upload status of all ImageCast tabulators deployed in the field from a single intuitive dashboard.

The ImageCast Listener service resides on an independent server from the main EMS server, and is protected by a dedicated firewall appliance. The firewall's client software includes a suite of monitoring tools for traceability of all external network traffic, including source and destination IP addresses. The ImageCast Listener's audit log also records all transmission activity, allowing for full auditability for a given election.



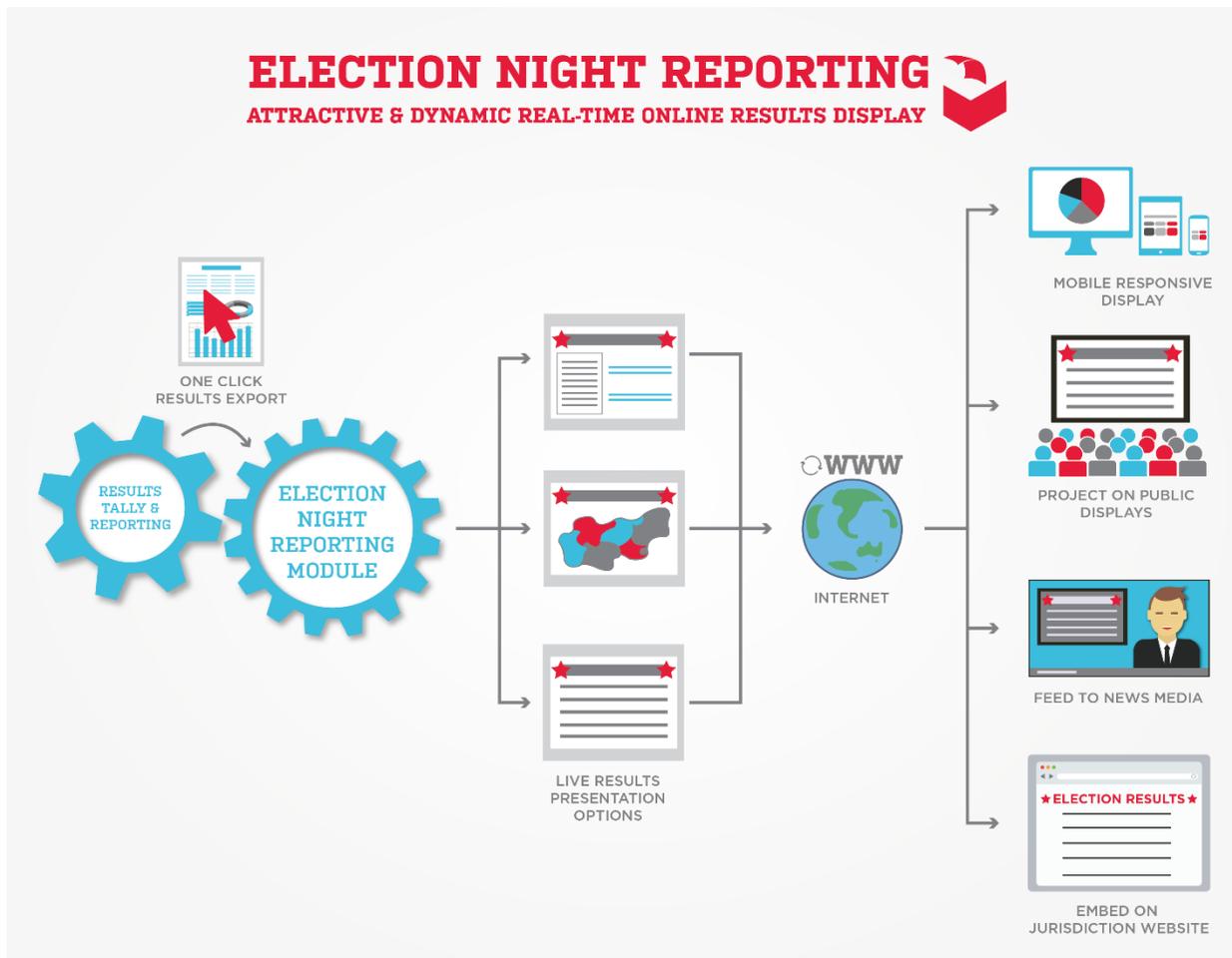
Method 3 – Results Transfer Manager

Similarly to Method 1, memory cards with the encrypted vote totals are removed from their slots in the units and brought to a local hub. At the hub, the memory cards are inserted into a card reader connected to an Results Transfer Manager client laptop with a secure Internet connection. The Results Transfer Manager will automatically upload the encrypted results files, and transmit them to the ImageCast Listener server, in a manner similar to results sent via modem. Once the files are received, they are available for loading into the Results Tally & Reporting module of the EMS system.



Election Night Reporting

As an optional additional feature, Dominion offers enhanced Election Night Reporting tools to create an Internet-based graphical display of results, which provides an attractive and dynamic focus on election night. Our cross-platform (mobile-friendly) results display based in HTML5 is our standard and most popular configuration. The report display runs in real-time on the Internet, updating as results are released from the results tally module by officials. It can be projected on public display screens, such as County Offices, fed to local television stations, and displayed on the county or state’s website. Dominion has different report layouts available, and can configure the display with the jurisdiction’s logos and colors.



The Internet-based graphical display is completely automated and runs behind the scenes. Once election officials have released a set of results, XML files are created and transferred to a local FTP directory (or via an external memory device), and the graphical display is automatically updated. This XML file is in an internationally defined election format called EML (Election Markup Language). As such, the election results are transferred in a format that can be easily read by news media, if they wish to import the XML files into their own display program (or they can simply use your Dominion graphical report for broadcast).

CONTRACT #071B7700117





County of Anywhere
Election
2014

1408 State Primary County General

Unofficial Results

County of Anywhere
Eligible voters: 202044
Ballots cast: 53685
Reported voting locations: 130/130

Loop

Governor - REP
Governor - DEM
U.S. Senate - REP
U.S. Senate - DEM
U.S. House of Representatives, District 3 - REP
U.S. House of Representatives, District 3 - DEM
State District 11 - REP
State District 11 - DEM
House of Representatives District 26 - REP
House of Representatives District 26 - DEM
House of Representatives District 27 - REP
House of Representatives District 27 - DEM
House of Representatives District 28 - REP
House of Representatives District 28 - DEM

Governor - REP	
Vote for 1	Votes
Everett Dirksen	35236
Andrew Carnegie	1285
Thomas Alva Edison	1025
Jane Austen	595
Write-in	188

Example of the Election Night Reporting module web display



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 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.**



System Security Overview

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 is unprecedented insofar as it 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, iButton security keys, Compact flash cards, 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.

Maintaining Data Integrity

Data generated by the Democracy Suite platform is protected by the deployment of FIPS-approved symmetric AES and asymmetric RSA encryption. The Democracy Suite Election Management System uses these techniques to encrypt election files prior to their use on ImageCast tabulators. Once the polls have been closed, the ImageCast tabulators encrypt all of the results files prior to transmitting them back to EMS.

SHA-256 hashes are used for all data integrity and verification. Should an intrusive process or altering of any file occur, hash values will be, in turn, altered as well. With that said, any presence of an intrusive process will be detected, as the hashes of any altered data will not match the value initially determined.

EMS Security

To protect any modification of software by malicious users, the Democracy Suite Election Management System integrates the Microsoft .NET Framework code signing process, within which, Dominion Voting digitally signs every executable and library (DLL) during the software build procedure. After the installation of Election Management software, only successfully verified EMS software components will be available for use. Digital signature verification is performed by the .NET Framework runtime binaries. If a malicious user tries to replace or modify any EMS executables or library files, the digital signature verification will fail and the user will not be able to start the EMS application.

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.



Hardware Access Controls

Democracy Suite utilizes hardware-based security tokens (iButton security keys) in the process of access control for ImageCast Precinct tabulators. These password paired hardware tokens contain data encryption information used in the voting process (encryption and signing keys). Without a valid security token, and paired access password, the administrative functions of election tabulators are effectively locked.



The poll worker applies his/her iButton security key to the tabulator

Communications

For communication channels (as well as data storage) a combination of security techniques for data integrity, authenticity and confidentiality is implemented. Democracy Suite integrates AES or RSA encryption algorithms for data confidentiality, along with SHA-256 and HMAC digital signatures for data signing (data authenticity and integrity). The system does not require external Internet connections.

Effective Password Management

Proper password management requires multiple activities and controls, namely:

- Input data validation
- 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 and 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 group 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.

		Mode 1- Symmetric Crypto	
File Type	Storage Place	Confidentiality	Integrity
Election files (ICP) and election database (ICE), DCF (ICP) and MBS (ICE), result files (ICP/ICE)	NAS and Compact Flash	AES-128/256	HMAC (SHA-256)
Reports and Logs	NAS and Compact Flash	AES-128/256	HMAC (SHA-256)
Ballot Images	NAS and Compact Flash	-	HMAC (SHA-256)
Ballot Layout Definition (XML)	NAS and Compact Flash	-	HMAC (SHA-256)
Official Ballots	NAS	X.509 Digital Certificate	
User Credentials	iButton	HMAC (SHA-256)	HMAC (SHA-256)

File Type to Security Algorithmic Mappings

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 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.



Tabulator Security

Electronic Safeguards and Security

To access any of the administration functions of the ImageCast tabulators, an electronic iButton security key has to make contact with the iButton security key receptacle on the cover of the unit.

Access to the unit can be granted to two different levels of people:

- The poll worker iButton security key is used by the poll worker to access all poll worker functions.
- The Technician iButton security key is used by a Technician with authorized access to update and verify firmware.

In the power on sequence, the unit will not function until the poll official accesses the administrator access screen. The ImageCast tabulators are unlocked by an iButton security key, which is used to:

- Authenticate the software version (ensuring it is a certified version that has not been tampered with)
- Decrypt election files while processing ballots during the election
- Encrypt results files during the election
- Provide access control to the unit

It is anticipated that the iButton security keys may get lost; therefore, any substitute key created for the same tabulator will allow the unit to work fully.

A valid poll worker iButton security key will grant access to the admin screen from which the following operational functions can be accessed:

- Diagnostics Test
- Provisional Voting/Ballot Test
- Opening Poll
- Accessible Voting
- Closing Poll
- Reports
- Election Statistics
- Re-Open Poll
- Re-Zero Poll
- Power Down
- Ballot Review

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 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.

Results Storage Media

The ImageCast tabulators have sockets for two removable, non-volatile Compact Flash cards (Primary and Administration), both of which are accessible from the unit and stored behind sealable doors. The content of each card is encrypted and signed.

The system saves election and voting data simultaneously to both locations, keeping the content of both memory cards in sync. The administrative memory card holds a copy of the election results and audit log from the primary card. The memory cards will retain data for over twenty-two months, as per EAC VVSG 2005 Volume I requirements.

		Memory Card Size		
Ballot Size (Single-sided)	Approx. Ballot Image Size (KB)	4GB	8GB	16GB
8.5" x 11"	250	14000	30000	62000
8.5" x 14"	277	12600	27000	55800
8.5" x 17"	312	11200	24000	49600
8.5" x 20"	334	10500	22400	46400
8.5" x 22"	357	9800	21000	43400
Ballot Size (Double-sided)				
8.5" x 11"	357	9800	21000	43400
8.5" x 14"	454	7700	16500	34100
8.5" x 17"	499	7000	15000	31100
8.5" x 20"	555	6300	13500	27900
8.5" x 22"	624	5600	12000	24800

ImageCast tabulators memory media capacity

Media Storage Security

The entire set of data files supporting the election are contained on the Primary Compact Flash device. The files stored on these cards allow for recovery from external conditions that cause equipment to become inoperable. The election results, device logs and scanned ballot images are recoverable from the secondary memory card. Further, the AuditMark functionality can be used to independently verify the total votes for any particular candidate or ballot issue.



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 audit activity, the automated audit log of each optical scanner is input into the EMS Results Tally and Reporting system for a consolidated record.

This 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 tabulators 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. This 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 nor modified. Users with proper authorization levels can generate and view the audit report. Audit reports cannot be deleted.

CONTRACT #071B7700117



Exhibit 5 to Schedule A
Sample Ballots and Reports
See separate document (26 pgs.)

CONTRACT #071B7700117



**Exhibit 6 to Schedule A
Michigan QVF Export File Format**

See separate document (83 pgs.)



Exhibit 7 to Schedule A Results Transmission Overview

Refer to **Exhibit 2 to Schedule A, 1.1-1.4, Technical Requirements: 1.2A.25, 1.2D.1 and 1.3.B.1**. The following provides a detailed description of the recommended infrastructure necessary for a county to design and implement a LAN, modem based, or cellular transmission network for uploading unofficial results on election night.

Precinct and RTM Transmission with ImageCast Listener

The ImageCast Listener is an add-on component to the base EMS system—it is designed as a turnkey solution for jurisdictions to implement results transmission from their precinct tabulators and/or RTM client laptops. The system supports wireless cellular/internet-based transmission, analog dial-up modem transmission, or both, providing flexible options to meet a jurisdiction's particular requirements and preferences. The jurisdiction is responsible for providing external access to the back-end receiving infrastructure.

The base ImageCast Listener system consists of two pieces of hardware: the ImageCast Listener (ICL) server and a firewall appliance (WatchGuard Technologies Firebox M200 or XTM 25). When dial-up transmission is used, an additional Remote Access Server (RAS) is required. The RAS server uses analog USB modems, connected to the server via a powered USB 3.0 hub.

In addition to the base EMS system, the required components for the **ImageCast Listener** system, using wireless/internet transmission are:

- ImageCast Listener Server (Dell PowerEdge R330 recommended)
- WatchGuard Technologies *Firebox M200* or *XTM 25* firewall appliance
- 2 x CAT5e or CAT6 Ethernet cables
- 1 x external wireless modem (eDevices CellGo) per precinct (multiple tabulators in a precinct can share the same modem if transmission is performed serially, rather than simultaneously).

When dial-up transmission is used, the **RAS server** component is required in addition to the components listed above:

- Remote Access Server (Dell PowerEdge R330 recommended)
- Powered 10-port USB 3.0 hub
- USB analog dial-up modems (up to 10)
- 1 x CAT5e or CAT6 Ethernet cable

Note: analog modems on the transmitting end are built into the ImageCast Precinct tabulator.



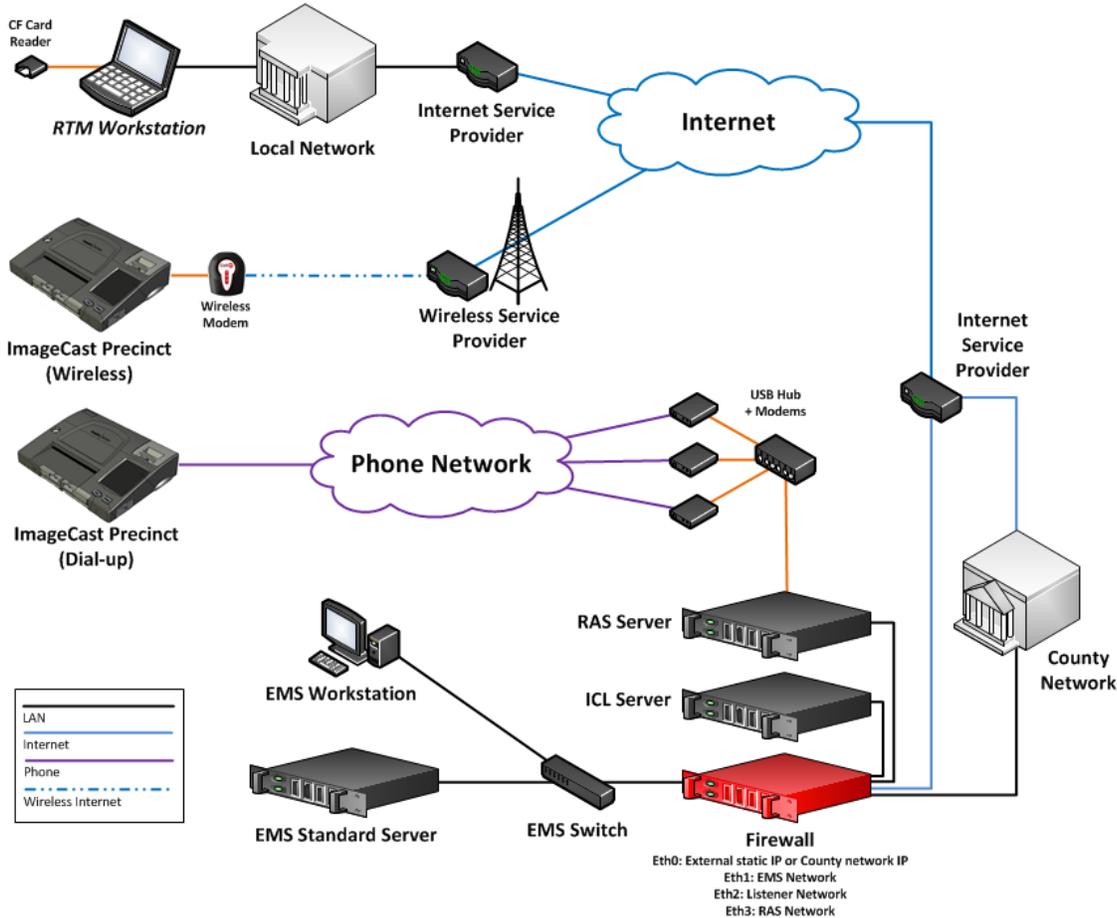
The **EMS Results Transfer Manager (RTM)** application requires the following components:

- Laptop (with internet access)
- Compact Flash (CF) card reader/writer

Complete instructions for installing and configuring the ImageCast Listener and RAS servers can be found in the system installation documents (*2.08 ImageCast Listener System Operation Procedures, RAS Installation and Configuration Procedure and EMS RTM User's Guide*).

Note: these documents currently describe the configuration steps using screenshots from Microsoft Windows Server 2008 R2 Standard, however the 5.0-S system uses Microsoft Windows Server 2012 R2 Standard. The configuration steps are the same on both platforms.

ImageCast Listener (Standard)





For wireless/internet-based results transmission, a static external IP address at the jurisdiction's central office is required. Dominion recommends that jurisdictions use a dedicated external internet connection for this purpose, however jurisdictions may choose to route the TCP/IP traffic from their existing firewall, through their internal network to the ImageCast Listener firewall. Note that the diagram above illustrates both modes of external internet access, although only one is required.

Note also that the diagram depicts the EMS Standard configuration. The EMS Express configuration substitutes the EMS Standard Server and EMS Workstation with a single EMS Express Server machine (running both server and client applications), and the WatchGuard Firebox M200 with the WatchGuard XTM 25. All other aspects of the system are identical to the EMS Standard configuration.

On the transmitting/sending end, precinct tabulators require an external wireless modem and an active GSM SIM card with cellular data services enabled (CDMA-based cellular networks are not supported at this time). RTM clients run on a laptop that requires an internet connection.

For dial-up results transmission, the jurisdiction is required to provide a bank of analog telephone lines that connect to the Remote Access Server's (RAS) analog modems. The analog dial-up transmission system does not support digital telephone lines. These lines should be configured in a "hunt group" allowing a single telephone number to be dialed from the precinct, with the call rolling over to the next available modem if the primary line is busy. This configuration minimizes the chance of the tabulator receiving a busy signal and needing to re-dial.

On the transmitting/sending end, precinct tabulators require an analog telephone line at the voting location, which is connected to the tabulator's internal dial-up modem.

Dominion recommends that jurisdictions perform a wireless test at each potential voting location to ensure that adequate wireless signal is available. Analog phone lines at both the transmitting and receiving end should also be tested prior to each election to ensure they are functioning correctly.

EMS Results Transfer Manager (RTM)

The EMS Results Transfer Manager application resides on a standalone, internet- or LAN-connected laptop. The following steps are performed to transmit results securely to the central location:

1. Jurisdictions remove the primary or backup Compact Flash memory card from the ImageCast Precinct tabulators and transport them to a regional office.
2. The RTM application allows jurisdictions to rapidly load the ICP results files from the Compact Flash cards to the laptop using a CF card reader.
3. All loaded results files are securely transmitted to the ImageCast Listener or to a local or shared network folder (see the following section for more details).

Note that the application also supports non-secure FTP transmission. Because the transmission channel is not encrypted, this functionality is not suitable for use in jurisdictions in the United States. Only secure TCP/IP transmission to the ImageCast Listener service, or shared folder transmission over secure VPN is permitted.

When RTM is used to transmit results to the ImageCast Listener, the ImageCast Listener Dashboard tracks the progress of received results files, in the same way as when results are transmitted directly from the ImageCast Precinct at the polling place.

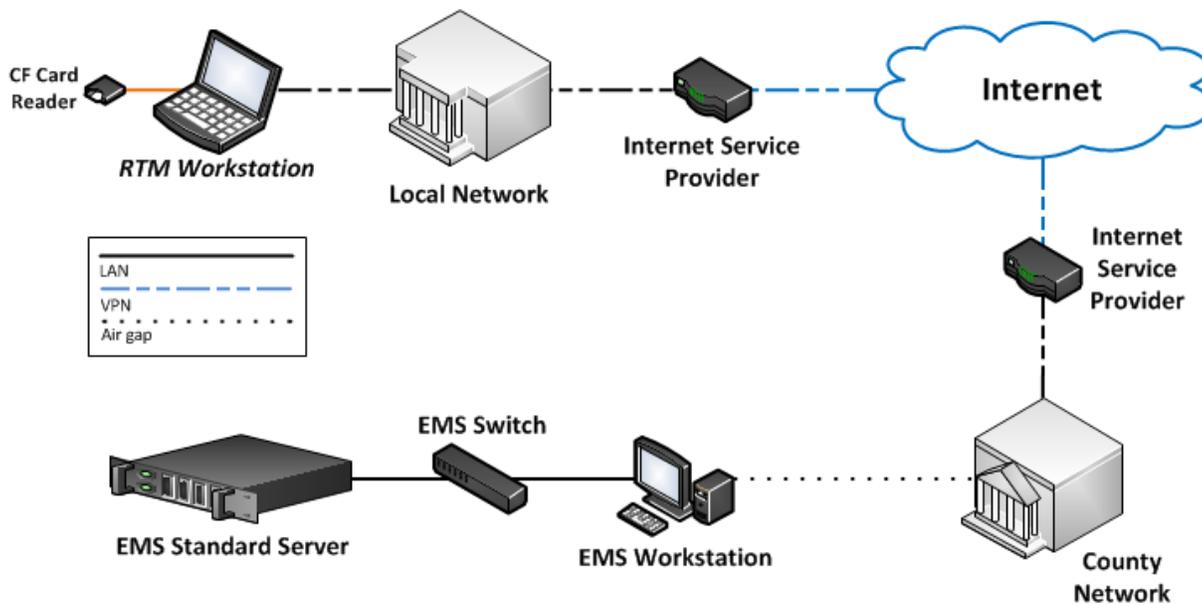
Please see the *EMS Results Transfer Manager User's Guide* for detailed installation and use procedures.



EMS Results Transfer Manager With VPN Network

A purely LAN-based solution can be implemented using the RTM application, which allows jurisdictions to load results from ImageCast Precinct memory cards at a regional office and send those results to a local folder or a shared network folder within a secure Virtual Private Network (VPN). This solution does not require the ImageCast Listener on the receiving end. Received results files are manually copied from the shared folder on the jurisdiction's secure network to the EMS Workstation machine using a removable medium, and loaded into the EMS Results Tally and Reporting application.

EMS Results Transfer Manager (VPN Network)



It is entirely the jurisdiction's responsibility to set up the required infrastructure for linking remote locations in a wide-area network (for example, creating secure VPN tunnels between offices). Dominion can work with IT departments to plan these solutions, but due to the variability of the networking and firewall equipment used by different jurisdictions, cannot take responsibility for directly configuring or maintaining the jurisdiction's VPN infrastructure.

When RTM is used to transmit results to a shared network folder, without the ImageCast Listener, the Dashboard is not available. Progress of results files can be tracked in EMS Results Tally and Reporting as they are loaded into the system.



**Exhibit 8 to Schedule A
Dominion Voting System ImageCast Printing Brief
Version: 4.19::27
April 23, 2015**

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Chapter 1

Introduction

1.1 Purpose and Scope

This document provides an overview of ballot printing and finishing for ImageCast ballots used with the ImageCast family - the ImageCast[®] Precinct (ICP), the ImageCast[®] Evolution (ICE), and ImageCast[®] Central (ICC) ballot tabulators. The intended audience is election administrators and their technical support staff, and the content highlights the basic ballot production process and the key factors for quality control and inspection without going into the level of detailed needed for ballot production.

This document is not the full technical specification for the Dominion ballot printer qualification program, nor does it serve to outline every print operation or cover all quality control aspects. The appropriate document for that purpose is the *Dominion Voting Systems ImageCast Printing Specification*. Printers undergoing the qualification will be provided with that document during the qualification process itself.

1.2 Patent Status

Certain system concepts, as well as many implementation and construction details, are protected by a series of U.S. and foreign patents.



Chapter 2

ImageCast Ballot Printing and Finishing Specification

2.1 The Need for Printer Training and Certification

Printing ballots is different than most commercial printing. The deadlines are fixed (Election Day) and the production timeline is short. Optically scanned ballots must be printed and manufactured with high precision and the tolerance for mistakes or other errors is very small. “Bad printing” has been the source of several disrupted or contested elections and seemingly small mistakes can have profound consequences. Printing errors can:

- Embarrass the jurisdiction.
- Erode voter confidence in the election process.
- Require a new election to be held.
- Cost millions of dollars in lawsuits and legal action.

Dominion trains, tests, and qualifies printers to print and manufacture ImageCast ballots. These training procedures educate printers in order to prevent a jurisdiction from becoming part of the “learning curve”. There is “zero-tolerance” for ballot printing or manufacturing errors.

The ballot printer IS RESPONSIBLE for the correct printing, finishing, and timely delivery of every ballot produced.

2.2 Dominion’s Printer Certification Program

When searching for a print vendor to supply ImageCast ballots, the printer should be a Dominion-qualified ballot printer in good standing. Qualified ballot printers are high quality commercial printers who have demonstrated the experience, equipment, and facilities required to successfully produce ImageCast ballots. A Dominion account representative can provide a list of accessible qualified printers for your type of ballot printing.

The qualification process includes:

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- Creation of a test plan based on the print technology, experience, and ballot features of specific customers
- On-site instruction in ballot printing and finishing.
- Ballot inspection.
- Ballot QC programs.
- Ballot handling.

The printer is required to print and finish a production run of ImageCast ballots. These are graded and reviewed as part of the process.

If the printer successfully completes testing and inspection, Dominion will qualify the press and facility.

2.3 ImageCast Ballot Artwork Source Files

Dominion's Democracy Suite Election Management System (EMS) creates tabulator-ready PDF ballot artwork files. Ballot artwork files are created as complete ballot images, without trim lines or crop marks, and are designed to directly print on digital 4-colour sheet-fed xerographic or other electrophotographic printers (most B-sized laser printers). Ballot artwork is generated in industry-standard PDF format, PDF\X-1a:2001 (PDF Version 1.3) and CMYK colour space.

Ballot artwork files are full-sized press-ready ballots containing all required ballot elements and the unique ballot ID barcode that distinguishes each ballot style. Each file contains one or two ballot images: a front image (if the ballot is single-sided) or paired front and back ballot images. All fonts used in the ballot artwork are embedded in the PDF file. 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.

Pre-press imposition of ImageCast ballot artwork to add crop or alignment marks, jurisdictionally-mandated background screens, stub artwork, or other printing, may be required. No modifications, post-processing, or image conversion of the original ballot artwork files is allowed.

2.4 Approved Ballot Paper Stocks

The optimal paper stock for all scanning using except the DRS PhotoScribe Scanner is listed as the first line: Rolland Opaque 100# Text.

Alternative text and cover paper stocks that have been tested. The full list of those approved for manufacturing ImageCast ballots are listed in Table 2.1.

No other papers have completed the qualification testing, and may not be used. In cases where alternatives are requested, Dominion may perform an additional qualification test.

All approved ballot stock is white, bright white, or natural colored paper and has a smooth finish. Color-coding ballots is normally achieved in the ballot artwork by printing screened area(s) of color as a background — *not* by ordering colored ballot stock.



Recycled pulp				
Manufacturer	Type	Weight	Color/Finish	Comments
Cascades Fine Paper	Rolland Opaque 50	100# Text	Bright White, Smooth Finish	50% Post consumer fiber, EcoLogo, FCS Mixed Sources
Cascades Fine Paper	Rolland Opaque 50	80# Text	Bright White, Smooth Finish	50% Post consumer fiber, EcoLogo, FCS Mixed Sources
Cascades Fine Paper	Rolland Opaque 50	65#	Cover Bright White, Smooth Finish	50% Post consumer fiber, EcoLogo, FCS Mixed Sources
International Paper	Accent Opaque	80# and 100# Text	Smooth	FCS Forest Management
International Paper	Accent Opaque	65# Cover	Smooth	FCS Forest Management

Table 2.1: Text and Paper Stocks Approved for ImageCast Ballots.

2.5 ImageCast Ballot Printing Methods

ImageCast ballots can be printed using a range of modern printing technologies.

- Small quantities of tabulator-ready ballots can be printed with a conventional B-size laser printer (600 dpi min., pre-calibrated), directly onto pre-cut blank ballot stock. ImageCast ballot artwork files are pre-configured for this use.
- Conventional web or sheet-fed offset lithographic presses.
- High-speed digital xerographic or other electrophotographic presses (both web and sheet-fed).
- Ink jet printers, from desktop units to high-speed web print engines.

Print technologies do not produce ballots of equivalent quality. Each print technique has aspects of high quality and vulnerability. For this reason, the print qualification granted to a printer is limited to the product unit and operators. The qualification test is adapted to each technology, as well as the scope of ballot variances that are to be printed.

Common to all successful ballot printing methods is the strict adherence to Dominion's ImageCast ballot specifications.

2.6 ImageCast Ballot Printing Specifications

2.6.1 Common Specifications for all ImageCast ballot Production

Common to all ImageCast ballot production methods is the requirement for the precise reproduction of the ballot image onto the finished ballot.



- Ballot images must be accurately reproduced, properly scaled, correctly registered to the finished card, and printed with the correct inks or toner.
- Ballots must be manufactured on properly-conditioned and approved paper stocks that are accurately trimmed to size.
- Any additional ballot finishing to meet customer and jurisdictional requirements should be of the highest quality.
- Ballots must always be handled correctly and packaged properly to ensure that they are clean and undamaged when the customer receives them.
- In-house ballot inspection, testing and a well-executed quality assurance program, are an essential part of any ballot manufacturing facility.

Finished ballot dimensions broken per ImageCast tabulator type are presented in Figure 2.1.

ImageCast Finished Ballot Dimensions

Tabulator	Width (nominal)	Width Tolerance	Length	Length Tolerance
CF-200 All Tabulators	8.500"	+0.020" -0.042"	11" and 14"	+/- 0.032"
ICP ImageCast Tabulators	8.500"	+0.020" -0.042"	11" - 22"	+/- 0.032"
ICP BMD Tabulators	8.500"	+0.020" -0.042"	14", 17", 19", and 22"	+/- 0.032"
ICE All Tabulators	8.500"	+0.020" -0.042"	11" - 22"	+/- 0.032"
ICC Canon Scanners	8.500"	+/- 0.032"	11" - 22"	+/- 0.032"
ICC DRS PhotoScribe Scanner	8.500"	+/- 0.032"	11" - 18"	+/- 0.032"

Figure 2.1: ImageCast Ballot - Finished Dimensions.

THE BALLOT PRINTER IS RESPONSIBLE for all aspects of ballot printing and manufacturing and MUST ENSURE that the ballots that they produce meet all Dominion and customer specifications at the time of tabulation.



2.6.2 Image Reproduction

- **Print quality:** Clean and well-printed images, with sharply defined edges, accurately reproducing the ballot artwork. Ink density must be uniform across the ballot and should be free from smudges, mist, spray, spots, hickeys, voids or other stray marks. No visible setoff, ghosting or bleed-through.
- **Black ink:** Black ink (or toner) must be dense, opaque, light-fast and permanent, with a measured minimum 1.2 reflection density (log) above the paper base.
- **“Drop out” color:** Must be tested to confirm that the reproduced color is not imaged by the tabulator if used for a voting position target.
- **Image to card registration:** +/- 0.016” maximum, worst case in any direction. Registration is most important across ballot width.
- **Maximum image skew:** +/- 0.032” maximum
- **Maximum image scaling error:** 1% maximum
- **Front to back image registration:** 0.032” maximum, worst case in any direction
- **Minimum print imaging resolution:** 600 dpi commercial (200 dpi in-house production of test ballots)
- **Restricted areas:** No printing in the designated restricted areas.

2.6.3 Ballot Card

- **Square and accurately trimmed to size:** Ballot edges must be cleanly cut and free from burrs, rolled edges, irregular or bias-cuts, and with the corners undamaged.
- **Ballot width and tolerance:** 8.500” (nominal), 8.458” min. to 8.520” max., measured at both the top and bottom of the card. (The trim tolerances for the ICC scanners are slightly looser, see the table below).
- **Ballot length and tolerance:** 11” to 22”, +/- 0.032” of required length.
- **Ballot Squareness:** 0.0075” maximum deviation
- **Squareness of scores, folds, or ballot perforations:** 90 degrees +/- 30 seconds maximum.
- **Ballot curl:** 0.150” max. height from ballot edge to the flat measuring surface (trimmed ballot). This is usually an indication of a damaged ballot or poor stock conditioning.

2.6.4 Other Defects

No anti-setoff powder, wax or spray should be used. No self-adhesive labels or stickers should be used on ballots. Ballots should be free from dust, dirt and other particulate matter.

Additional defects are included in the complete specification provided during qualification testing.

By adding additional printing to the active ballot area, the ballot printer is COMPLETELY RESPONSIBLE for any tabulation problems that may result! Dominion recommends that the jurisdiction is asked to include the required elements in the ballot artwork with Democracy Suite EMS, or to block out a reserved area in the ballot artwork for this printing to be added. If in doubt about the placement of any additional printing not found in the ballot artwork, PLEASE ASK before printing the ballots.



2.7 Scoring and Folding Ballots

Absentee and mail ballots are typically folded and inserted into envelopes for distribution to voters. Ballots should always be folded across the ballot width (perpendicular to the transport direction) and parallel to the grain of the ballot stock (short-grain). Ballots should be folded into panels of approximately equal length, with a minimum panel length of at least 3.5 inches. Fold lines are centred between ballot markers and cannot “touch” a voting position on either side of the ballot. Try and maintain a “guard band” of at least 0.050” from the position of the fold line to the edge of the nearest voting position target. The fold line should be a clean, sharp line of minimum width. All recommended ballot stocks can be folded either by hand or machine, but pre-scoring the ballot on the fold lines is recommended for heavier ballot stocks.

Table 2.2 indicates the guidelines for folding of the ballots.

Ballot Length	Maximum Allowable Folds	Max Number of Panels
11”	2	3
14”	3	4
17”	3	4
18”	3	4
19”	4	5
20”	4	5
22”	5	6

Table 2.2: Ballot Folding Guidelines

For ballots with more than two panels, folding a “Z” shape will allow for easier unfolding and ballot scanning. Panel lengths of a multi-panel ballot can be varied to “unstack” the folds (so that each fold is not exactly above another fold), which aids in envelope stuffing and removal. Ballot envelopes should be generously oversized to allow room for ballot segregation and to ease ballot stuffing and opening. Typically add a 0.5” allowance to the folded panel width to get the minimum envelope size required. Consider adding a small punched hole into the design of the return envelope - this hole will allow verification of a ballot inside - without compromising voter secrecy.

2.8 Ballot Stubs - Perforations, Numbering and Padding

Binding ballots into stacks of 50 or 100 — a process known as “padding” — improves the way in which ballots are handled and counted. Padded ballots are serialized on the ballot stub (or stubs), which allows for a quick reckoning of the total issued ballots. The stub used to bind the ballots together onto a pad, is referred to as the “binding stub”.

Stubs can be placed at the top or bottom of the ballot artwork. If stub placement is not mandated by jurisdictional or election code requirements, it is recommended that the stub is placed at the bottom of the ballot artwork. This placement makes allowances for imperfections on ballot perforation.

THE BALLOT PRINTER IS RESPONSIBLE for all aspects of ballot printing and manufacturing and MUST ENSURE that the ballots produced meet all Dominion and customer specifications at the time of tabulation.

2.9 Ballot Handling and Print Shop Cleanliness

- All ballot printing facilities should be regularly cleaned, including the floors and all surfaces.



-
- Special attention should be paid to processes that generate dust, particulate matter, or aerosols.
 - Effort should be made to isolate or vent “dirty” air in order to prevent the contamination of paper and working surfaces from occurring.
 - Waste should be regularly removed and all inks, solvents, or lubricants should be properly cleaned-up and stored.
 - Implementing a regular cleaning program throughout the print shop will help to ensure that the ballots stay clean.
 - Just as important is the cleanliness of the press operators, bindery workers, and other staff who will be handling ballot stock or ballots. Hands should be washed regularly.
 - Work surfaces should be regularly cleaned and food should not be allowed in the shop area.
 - Remember that all paper and printing defects - dirt, dust, smudges, and spots - will be scanned by the tabulators!
 - Always work to protect the edges and corners of finished ballots from damage or wear.
 - Finishing or secondary operations that require the jogging of ballots can damage their edges and cause problems in tabulation.
 - Ballots with bent or damaged corners, or worn, flattened or rolled edges should be destroyed.



SCHEDULE B LICENSE AGREEMENT Dominion Voting Systems, Inc.

EMS AND SYSTEM SOFTWARE LICENSE AGREEMENT

1. Definitions.

- 1.1. "Hardware" means the ImageCast® system defined in the State Contract.
- 1.2. "Licensee" shall mean the State and Authorized Users.
- 1.3. "Licensor" shall mean Dominion Voting Systems, Inc.
- 1.4. "Party" or "Parties" Licensor and Licensee may hereinafter be referred to individually as a Party and collectively as the Parties.
- 1.5. "Software" means the Democracy Suite® and/or ImageCast® software licensed by Licensor hereunder, in object code form, including all documentation therefore.
- 1.6. "Specifications" means descriptions and data regarding the features, functions and performance of the Software and Hardware, as set forth in user manuals or other applicable documentation provided by Licensor.
- 1.7. "State Contract" means the contract entered into by the State of Michigan and Dominion Voting Systems, Inc. All capitalized term defined in the State Contract shall have the same meaning and effect in this EMS and Software License Agreement.

2. License.

- 2.1. License to Software. Subject to the terms herein, Licensor grants Licensee a non-exclusive, non-transferrable license to use the Software solely for the Licensee's own business purposes for the Term of 10 years from the date of purchase, and any extension thereof by the State or Authorized User.
- 2.2. Print Copyright License. Subject to the Licensor's Print Copyright License terms and conditions attached hereto as Exhibit B-1. Licensor grants to Licensee a non-exclusive, non-transferable print copyright license.
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3. Upgrades and Certification. During the Term, Licensor may provide upgrades to Licensee under the following terms and conditions.

- 3.1. Upgrades. In the event that Licensor, at its sole discretion, certifies a Software upgrade under the applicable laws and regulations of the State of Michigan, Licensor shall make the certified Software upgrade available to the Licensee at no additional cost.

3.2. Certification Requirement. Notwithstanding any other terms herein, Licensor shall not provide, and shall not be obligated to provide under any upgrade or other software update that has not been certified under the applicable provisions of the election laws and regulations of the State of Michigan.

4. Prohibited Acts. The Licensee shall not, without the prior written permission of Licensor:

- 4.1. Transfer or copy onto any other storage device or hardware or otherwise copy the Software in whole or in part except for purposes of system backup;
- 4.2. Reverse engineer, disassemble, decompile, decipher or analyze the Software in whole or in part;
- 4.3. Alter or modify the Software in any way or prepare any derivative works of the Software or any part of parts of the Software;
- 4.4. Alter, remove or obstruct any copyright or proprietary notices from the Software, or fail to reproduce the same on any lawful copies of the Software.

5. Return of Software. Upon termination or expiration of this license, Licensee shall (i) forthwith return to Licensor all Software in its possession or control, or destroy all such Software from any electronic media, and certify in writing to Licensor that it has been destroyed.

6. Warranties. All Software warranty terms specified in Section 31 of the State Contract and Section 1.6 of the State Contract SOW shall apply to this EMS and System Software License Agreement.



EXHIBIT B-1

PRINT COPYRIGHT LICENSE TERMS AND CONDITIONS

1. Definitions.

- 1.1. "Derivative Works" shall mean any work that is based upon or derived from the Licensor's voting systems' ballots, including without limitation, sample ballots and voting booklets.
- 1.2. "Voting Systems' Ballots" shall mean any ballot created for use with any voting system owned or licensed by the Licensor.

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 - (ii) any third party vendor using ballot on demand system.
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STATE OF MICHIGAN

Contract No. 071B7700117
Voting System Hardware, Firmware, Software and Service

SCHEDULE C PRICING

1. The pricing schedule for the Contract Activities is in the cost tables on the following pages.
2. Pricing encompasses 5 separate tables (attached):
 - Cost Table 1. Precinct Tabulators and Accessible Voting Systems
 - Cost Table 2. Election Management System (EMS) Software –License Fee and Extended Service / Maintenance (NOTE: this cost table has 2 parts: Tables 2a and 2b)
 - Cost Table 3. OPTIONAL ITEM – High Speed AVCB Tabulator
 - Cost Table 4. Component Replacement / Additional Parts
 - Cost Table 5: Additional Options/Costs – EMS Network Configuration options - The Contractor has standard third party network configurations and related pricing for use by counties and select local jurisdictions in implementing Election Management Systems (EMS) for the following environments: Accumulation Only; Full EMS; Accumulation Only with modeming; and Full EMS with modeming. Orders for these configuration components will be handled and negotiated separately between the Contractor and their individual customers.
3. **Prices include all costs**, including but not limited to any one-time or set-up charges, fees, and potential costs that Contractor may charge the State/Authorized User (e.g., shipping and handling, per-piece pricing, and palletizing). **Any element of the Contractor's system with an associated cost (including optional system features) must be listed and included in one of the Cost Tables available.**
4. Prices listed are fixed for the contract term, and represent the maximum prices per item. Notwithstanding the foregoing, the Contractor is authorized to negotiate pricing with individual counties that are lower than the prices listed here. Any and all lower negotiated prices must be communicated to the Program Manager immediately as they are finalized. Additionally, price changes may be proposed at the end of the initial service and maintenance period, (acquisition year + 4 years) **for component replacement/additional parts only (Cost Table 4).**

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**Cost Table 1. Precinct Tabulators and Accessible Voting Systems**

	PURCHASE AND INITIAL SERVICE / MAINTENANCE PERIOD (ACQUISITION YEAR + 4 YEARS)			EXTENDED SERVICE / MAINTENANCE PERIOD (ANNUAL PAYMENT – UP TO 5 ADDITIONAL YEARS)
	Per-Unit Purchase Price	Incentive Program (existing equipment per-unit trade-in discount) See Schedule A Section 1.9	Per-Unit Purchase Price with Discount	Per-Unit Annual Extended Service/Maintenance Price
Precinct Tabulators – <ul style="list-style-type: none"> • 1 at State level (no charge) • 1 per county • 1 per precinct • AVCB Tabulators 	\$5,390.00	(\$95.00)	\$5,295.00	\$375.00
Accessible Voting System (1 per polling place)**	\$3,555.00	(\$40.00)	\$3,515.00	\$240.00

**Polling places with more than 2 precincts may receive an additional accessible voting system.

**Cost Table 2. Election Management System (EMS) Software –SOFTWARE LICENSE FEE; INITIAL AND EXTENDED SERVICE / MAINTENANCE**

Two cost tables are included in this section (2a and 2b). Several clarifying notes are provided with respect to EMS Pricing.

EMS costs will be applicable to counties, as well as select local jurisdictions. Each county will select either:

- 1) **Full EMS (“Program Your Own”)**, for counties that fully program their elections internally (without reliance on the voting system Contractor/subcontractor); or
 - 2) **Accumulation-Only EMS**, for counties that rely on the voting system Contractor/subcontractor for programming; the accumulation-only functionality for these counties shall include the capability to burn media, read media, transmit results and produce accumulation reports.
- The Accumulation-Only version of EMS will also be available to local jurisdictions statewide. While each county will acquire either Full EMS or Accumulation-Only EMS, local cities and townships (local jurisdictions) will have the option to acquire a copy of Accumulation Only EMS. A statewide EMS purchase for local jurisdictions is **not** planned.
 - The EMS License fee is included in the initial payment in year 1, and covers the entire contract term. The initial payment also covers the initial service and maintenance period (acquisition year, plus 4 additional years). The extended service/maintenance period covers an additional 5 years, after the expiration of the initial service and maintenance period. During the extended service/maintenance period (years 6-10), counties have the option of selecting either an annual fee or an hourly technical support rate. See **Table 2b** for additional information on extended service/maintenance costs and options.
 - NOTE: Additional EMS component costs are listed in **Cost Table 4**. Also, **Cost Table 5** includes costs for required/recommended EMS Network components, for several possible network configurations. These additional EMS component and network costs are the sole responsibility of the county/local jurisdiction.

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Cost Table 2a – Base EMS Price (Software License Fee + Initial Service/Maintenance)

	EMS SOFTWARE LICENSE FEE (INCLUDES INITIALSERVICE / MAINTENANCE FOR ACQUISITION YEAR + 4 ADDITIONAL YEARS)	
Category	EMS Software License Fee (price per copy)	
County Option 1: Full EMS*	Based on total registered voters (county):	
	0 to 15,000	\$50,310.00
	15,001 to 30,000	\$64,800.00
	30,001 to 60,000	\$115,000.00
	60,001 to 125,000	\$157,250.00
	125,001 to 250,000	\$220,363.00
	more than 250,000	\$295,000.00
County Option 2: Accumulation Only*	Based on total registered voters (county):	
	0 to 15,000	\$12,623.00
	15,001 to 30,000	\$18,563.00
	30,001 to 60,000	\$27,000.00
	60,001 to 125,000	\$41,650.00
	125,001 to 250,000	\$58,905.00
	more than 250,000	\$84,150.00
Local Jurisdiction EMS: Accumulation-Only		\$2,500.00

*Please see the list below for the specific EMS software components that are included in both the full and Accumulation Only versions of Democracy Suite® EMS:



Both full and Accumulation only versions of Democracy Suite® EMS include:

Dominion Software Modules:

- Democracy Suite® EED
- Democracy Suite® RTR
- Democracy Suite® AS
- Data Center Manager – DCM
- Application Server – APPS
- Democracy Suite® EMS Service
- ImageCast® Voter Activation – ICVA
- Results Transfer Manager – RTM
- Election Data Translator – EDT
- File System Service – FSS
- Smart Card Service

Third Party Software Components:

- Adobe Reader
- Microsoft SQL
- Microsoft Visual Studio C++ 2013 Redistributable Libraries
- Microsoft Visual J# Redistributable Libraries
- Java Runtime Environment
- Microsoft Access Database Engine
- Open XML SDK 2.0 for MS Office
- Dallas Semiconductor 1-Wire Driver(s) for iButton
- System Fonts (Arial)
- Cepstral
- Google Text-to-Speech

The Accumulation only version allows for restoring project databases, programming machine memory cards, editing audio for accessible voting, uploading results, and generating results reports.

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**Cost Table 2b – EMS Extended Service / Maintenance Fees**

NOTE: For EMS extended service / maintenance, counties have the option to choose either a flat annual rate or an hourly technical support rate. These rates shall be the same for all counties for each option (one set price for Full EMS, one set price for Accumulation-Only EMS).

	EMS EXTENDED SERVICE / MAINTENANCE PERIOD (UP TO 5 ADDITIONAL YEARS)		
	OPTION 1: ANNUAL COUNTY EMS SUPPORT PAYMENT		OPTION 2: HOURLY TECHNICAL SUPPORT RATE
	EMS Extended Service / Maintenance Annual Payment Option (annual price per county)		EMS Extended Service / Maintenance Hourly Technical Support Rate Option for Counties
County Option 1: Full EMS*	Based on total registered voters (county): 0 to 15,000 15,001 to 30,000 30,001 to 60,000 60,001 to 125,000 125,001 to 250,000 more than 250,000	\$8,000.00 \$10,000.00 \$20,000.00 \$25,000.00 \$34,000.00 \$50,000.00	\$300.00
County Option 2: Accumulation-Only*	Based on total registered voters (county): 0 to 15,000 15,001 to 30,000 30,001 to 60,000 60,001 to 125,000 125,001 to 250,000 more than 250,000	\$1,700.00 \$2,500.00 \$3,000.00 \$5,400.00 \$8,400.00 \$12,000.00	\$300.00
Local Jurisdiction EMS: Accumulation Only		\$750.00	\$300.00



Cost Table 3. OPTIONAL ITEM – High Speed AVCB Tabulator

	Hardware COTS? (Y/N)	Additional Hardware / Software Required? (Y/N)**	Processing Speed (Ballots per Minute)	Per-Unit Purchase Price (includes Service / Maintenance for acquisition year + 4 years)	Annual Per-Unit Extended Service / Maintenance Price (5 additional years)
High Speed AVCB Tabulator*					
ICC G1130 System					
Canon DR-G1130	Yes	Yes – ICC Software	11" - 80/min, 4,800/hr	\$14,050.00	\$2,500.00
Workstation	Yes	Yes – ICC Software	14" - 64/min, 3,840/hr	\$2,200.00	\$115.00
ICC Software	NA	Yes – Workstation and Scanner	17" - 53/min, 3,180/hr	\$19,100.00	\$2,900.00
			20" - 45/min, 2,700/hr	<u>\$35,350.00</u>	<u>\$5,515.00</u>
ICC M160II System					
Canon DR-M160II	Yes	Yes – ICC Software	11" - 60/min, 3,600/hr	\$3,480.00	\$725.00
Workstation	Yes	Yes – ICC Software	14" - 47/min, 2,820/hr	\$2,200.00	\$115.00
ICC Software	NA	Yes – Workstation and Scanner	17" - 38/min, 2,280/hr	\$7,300.00	\$900.00
			20" - 33/min, 1,980/hr	<u>\$12,980.00</u>	<u>\$1,740.00</u>

***NOTE:**

- The AVCB tabulators are utilized at the local jurisdiction (city/township) level, not at the county level.

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**Cost Table 4. Component Replacement / Additional Parts**

All applicable and available component parts for the Contractor's system are listed below. For each component part, the Contractor has identified the source for obtaining the part and whether the part is available commercially off the shelf (COTS).

NOTE: If alternative purchase sources are available, the State, counties and local jurisdictions reserve the right to purchase from those sources.

Contractor must also list all other system features available in their proposed system, if the cost for such features have not been included elsewhere in this Cost Proposal.

Product	Estimated Life (Years)	Purchase Source (Indicate if COTS)	Per-Unit Price
Ballot and Report Printer - C931	5 years	COTS	\$6,200.00
Compact Flash Memory Card 8GB	5 years	COTS	\$75.00
Compact Flash Reader/Writer	5 years	COTS	\$60.00
EMS Express Managed Switch	5 years	COTS	\$200.00
EMS Express Server - Desktop	5 years	COTS	\$1,750.00
EMS Standard Server - Rackmount	5 years	COTS	\$7,800.00
EMS Standard Server KVM Switch - Rackmount	5 years	COTS	\$80.00
EMS Standard Server Network Switch - Rackmount	5 years	COTS	\$400.00
EMS Standard Server Power Strip - Rackmount	5 years	COTS	\$200.00
EMS Standard Server Rack	5 years	COTS	\$900.00
EMS Standard Smart UPS	5 years	COTS	\$800.00
EMS Workstation PC	5 years	COTS	\$1,200.00
ImageCast Listener Express Firewall	5 years	COTS	\$480.00
ImageCast Listener Express RAS Server	5 years	COTS	\$2,000.00
ImageCast Listener Express Server - Desktop	5 years	COTS	\$2,200.00
ImageCast Listener Standard Firewall - Rackmount	5 years	COTS	\$2,300.00
ImageCast Listener Standard RAS Server - Rackmount	5 years	COTS	\$2,000.00
ImageCast Listener Standard Server - Rackmount	5 years	COTS	\$2,000.00
ImageCast Listener USB Hub	5 years	COTS	\$165.00
ImageCast Listener USB Modems	5 years	COTS	\$225.00
Headphones	5 years	COTS	\$15.00
I-Button Programmer with USB Adapter	8 years	COTS	\$50.00
ICC I-Button Security Key	8 years	COTS	\$25.00
ICP Backup Battery	5 Years when recharged every 6 months	Dominion	\$165.00
ICP Ballot Box - Plastic	7 years	Dominion	\$1,000.00
ICP Ballot Box - Collapsible Plastic	5 years	Dominion	\$1,000.00
ICP Cleaning Sheet	1 year	Dominion	\$20.00
ICP External Wireless Modem	10 years	COTS	\$295.00
ICP I-Button Security Key	8 years	COTS	\$25.00
ICP Paper Roll (60')	1 year	Dominion	\$2.50
ICP Power Supply and Cord	7 years	Dominion	\$30.00
ICP Tech Key - Blue	8 years	Dominion/COTS	\$25.00
ICP-300A Coin Battery	7 years	COTS	\$5.00
ICX Accessible Voting Kit	7 years	COTS	\$400.00
ICX Transport Case	7 years	Dominion	\$175.00
ICX Printer Transport Case	7 years	Dominion	\$100.00
ICX Laser Printer	5 years	COTS	\$220.00
ICX UPS 1500	5 Years when recharged every 6 months	COTS	\$600.00
ICX Smart Card	5 years	COTS	\$10.00
ICX Smart Card Programmer	5 years	COTS	\$200.00
ICX Voting Booth	8 years	ElectionSource	\$375.00
Mobile Ballot Printing System Hardware - LV	5 years	Dominion/COTS	\$9,500.00



**Cost Table 5 – EMS Network Configuration Options
Dominion Voting Systems**

Democracy Suite Sample Configuration for Michigan

The following Democracy Suite® Configurations are samples based on estimated needs of the counties and local jurisdictions. These configurations can be further adjusted according to the specific components required for each county. They have been simplified to illustrate the major components required in each location.

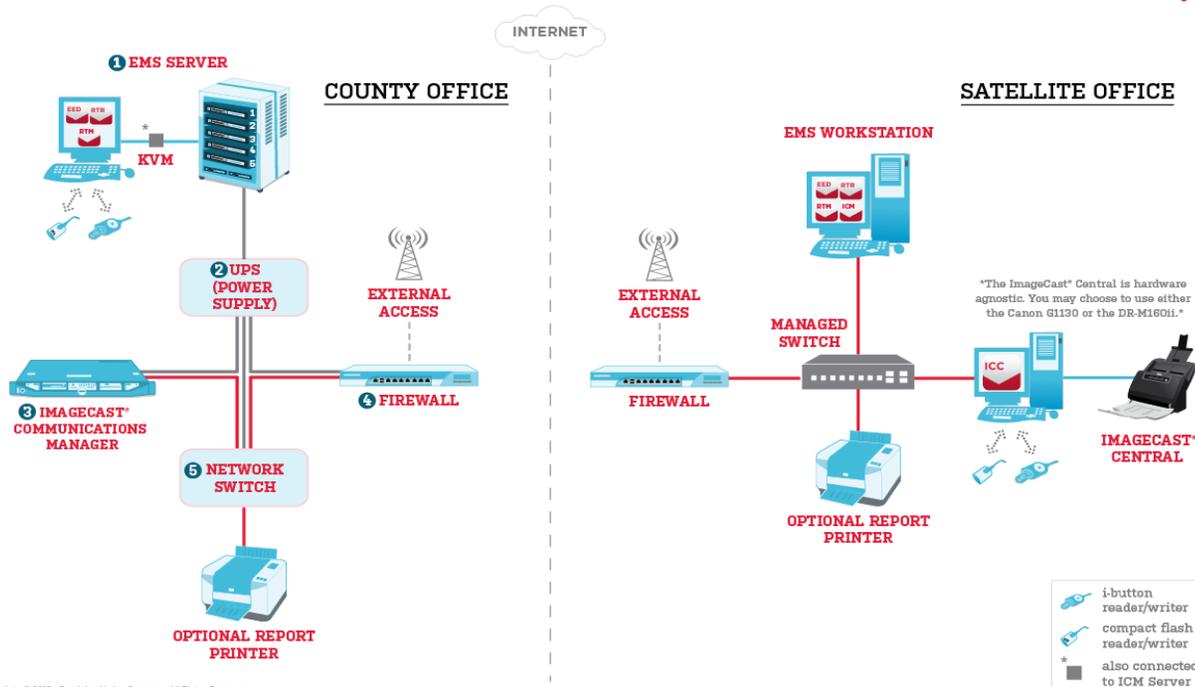
Configuration 1

Democracy Suite® Components located at the County/central office and/or local satellite office (city or township) for larger jurisdictions:

- EMS Standard (with client station)
- EMS Express (no client station)
- Listener (wireless modems only)
- ICC (M160-II) for AVCB

Please see below for the Configuration diagram.

State of Michigan - Democracy Suite® System Configuration 1



Dominion Vc



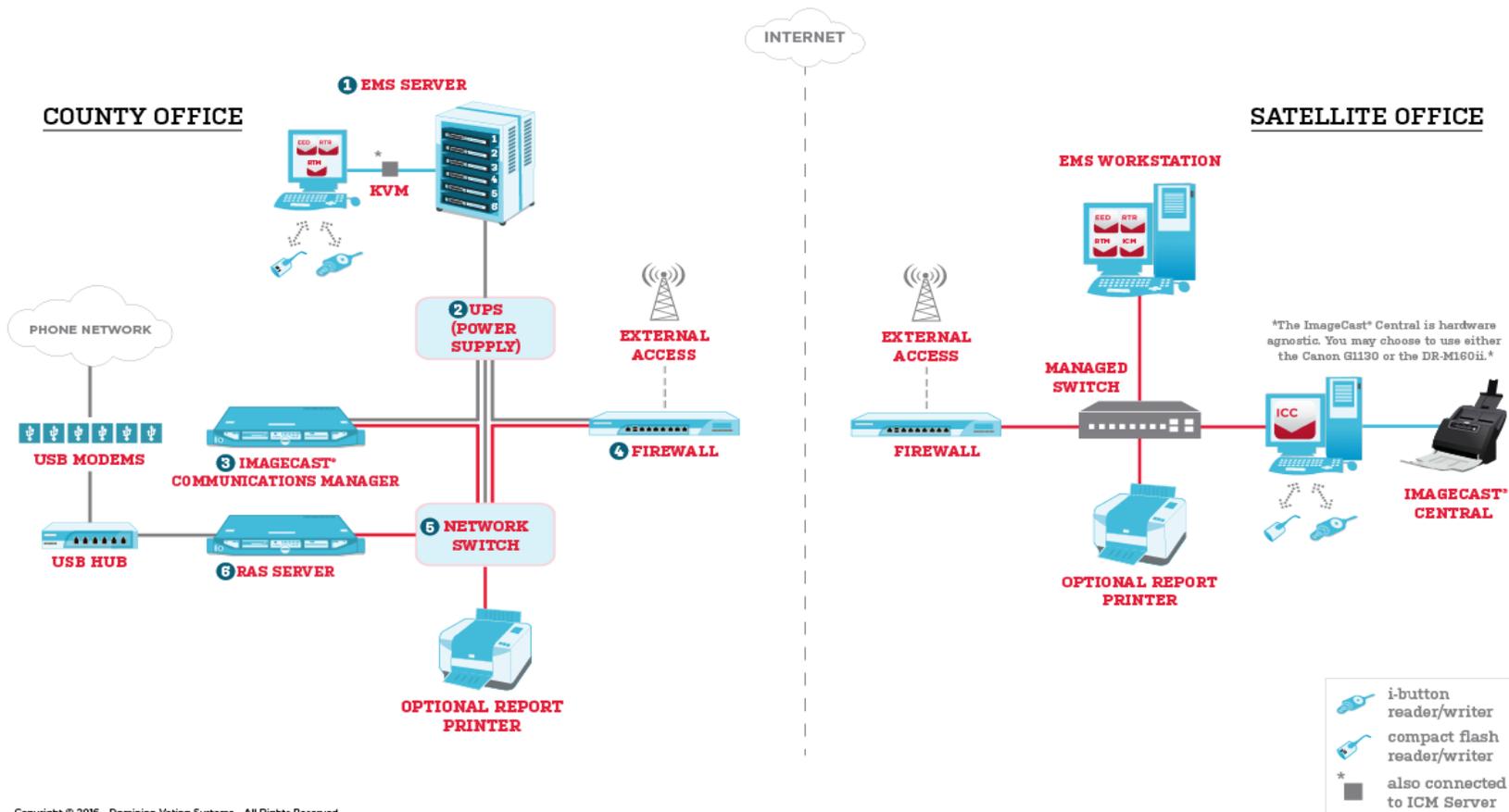
Configuration 2

Democracy Suite® Components located at the County/central office and/or local satellite office (city or township) for larger jurisdictions:

- EMS Standard (with client station)
- EMS Express (no client station)
- Listener (wireless and analog modems)
- ICC (M160-II) for AVCB

See below for the Configuration Diagram.

State of Michigan - Democracy Suite® System Configuration 2





Configuration 3

Democracy Suite® Components located at the County/central office and local satellite office (city or township) for small to medium

- EMS Express (no client station)
- Listener (wireless modems only)
- ICC (M160-II) for AVCB

Dominion Voting Systems

Configuration 3

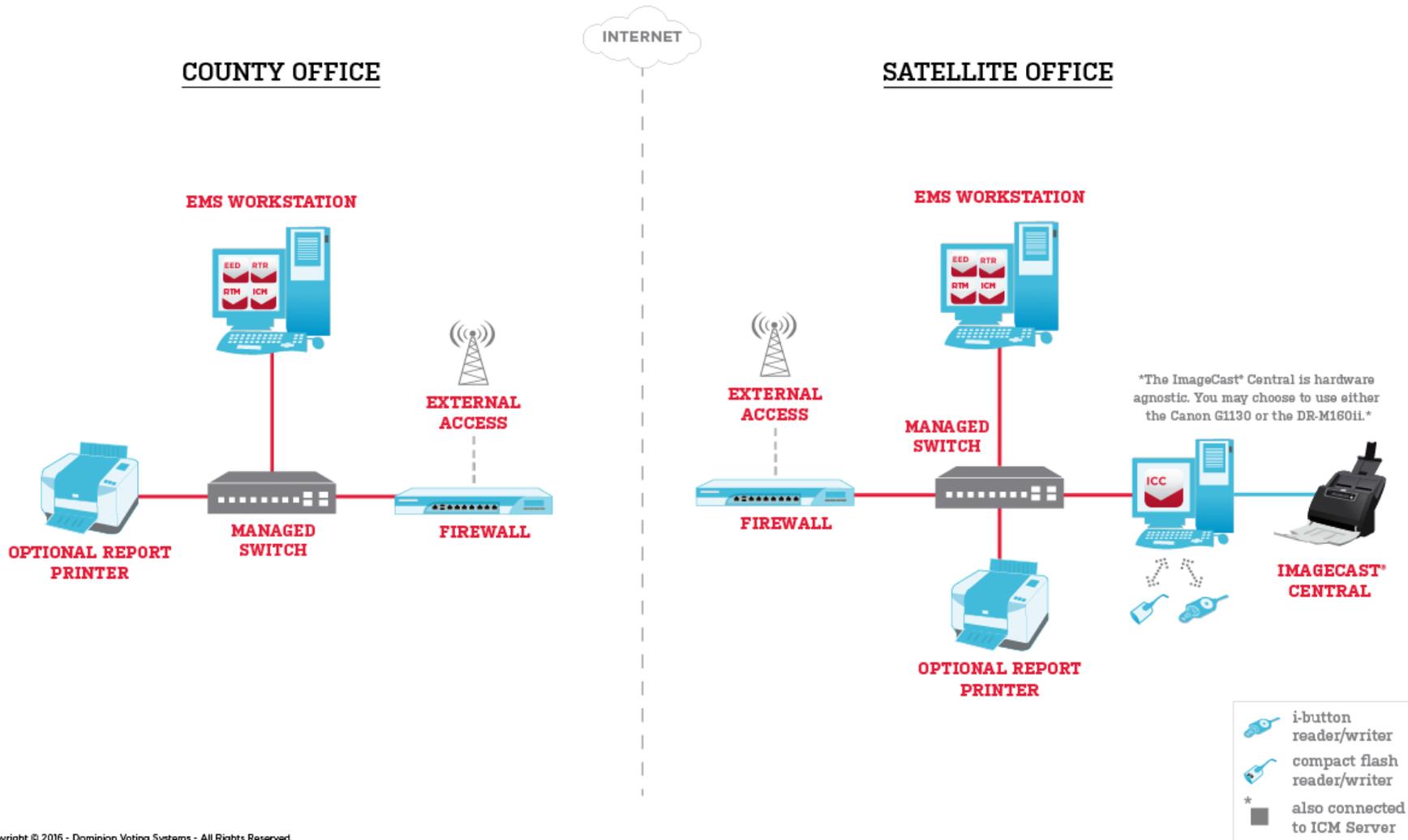
Democracy Suite® Components located at the County/central office and local satellite office (city or township) for small to medium sized counties:

- EMS Express (no client station)
- Listener (wireless modems only)
- ICC (M160-II) for AVCB

Please see the next page for the Configuration diagram.



State of Michigan - Democracy Suite® System Configuration 3

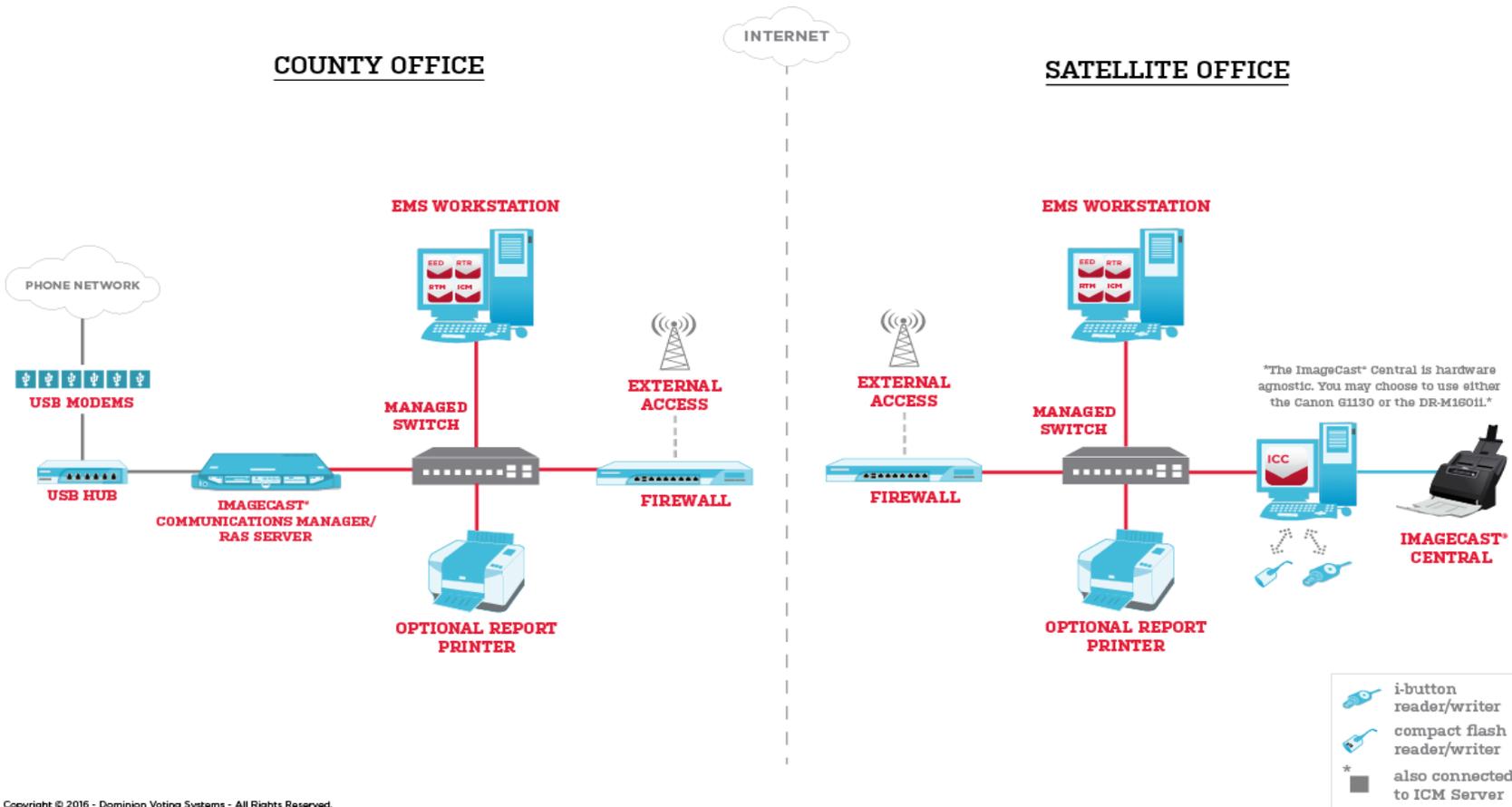




- EMS Express (no client station)
- Listener (wireless and analog modems)
- ICC (M160-II) for AVCB

Please see below for the Configuration diagram.

State of Michigan - Democracy Suite® System Configuration 4



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**Configuration 1 - Hardware Pricing**

Product	Purchase Source	Quantity	Per-Unit Price	Total Price
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County or Central Location:				
EMS Standard Server - Rackmount	COTS	1	\$7,800.00	\$7,800.00
EMS Standard Server KVM Switch - Rackmount	COTS	1	\$80.00	\$80.00
EMS Standard Server Network Switch - Rackmount	COTS	1	\$400.00	\$400.00
EMS Standard Server Power Strip - Rackmount	COTS	1	\$200.00	\$200.00
EMS Standard Server Rack	COTS	1	\$900.00	\$900.00
EMS Standard Smart UPS	COTS	1	\$800.00	\$800.00
EMS Workstation PC	COTS	1	\$1,200.00	\$1,200.00
ImageCast Listener Standard Firewall - Rackmount	COTS	1	\$2,300.00	\$2,300.00
ImageCast Listener Standard Server - Rackmount	COTS	1	\$2,000.00	\$2,000.00
EMS Report Printer	COTS	1	\$250.00	\$250.00
Total per County:				\$15,930.00

City or Town Location:				
EMS Express Managed Switch	COTS	1	\$200.00	\$200.00
EMS Express Server and Adjudication Workstation - Desktop	COTS	1	\$2,200.00	\$2,200.00
ICC Workstation - Desktop	COTS	1	\$2,200.00	\$2,200.00
ImageCast Express Firewall	COTS	1	\$480.00	\$480.00
EMS Report Printer	COTS	1	\$250.00	\$250.00
Total per City or Town:				\$5,330.00



Configuration 2 - Hardware Pricing

Product	Purchase Source	Quantity	Per-Unit Price	Total Price
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County or Central Location:				
EMS Standard Server - Rackmount	COTS	1	\$7,800.00	\$7,800.00
EMS Standard Server KVM Switch - Rackmount	COTS	1	\$80.00	\$80.00
EMS Standard Server Network Switch - Rackmount	COTS	1	\$400.00	\$400.00
EMS Standard Server Power Strip - Rackmount	COTS	1	\$200.00	\$200.00
EMS Standard Server Rack	COTS	1	\$900.00	\$900.00
EMS Standard Smart UPS	COTS	1	\$800.00	\$800.00
EMS Workstation PC	COTS	1	\$1,200.00	\$1,200.00
ImageCast Listener Standard Firewall - Rackmount	COTS	1	\$2,300.00	\$2,300.00
ImageCast Listener Standard Server - Rackmount	COTS	1	\$2,000.00	\$2,000.00
ImageCast Listener Standard RAS Server - Rackmount	COTS	1	\$2,000.00	\$2,000.00
ImageCast Listener USB Hub	COTS	1	\$165.00	\$165.00
ImageCast Listener USB Modems - quantity based on 6 tabulators using analog modems	COTS	12	\$225.00	\$2,700.00
EMS Report Printer	COTS	1	\$250.00	\$250.00
Total per County:				\$20,795.00

City or Town Location:				
EMS Express Managed Switch	COTS	1	\$200.00	\$200.00
EMS Express Server and Adjudication Workstation - Desktop	COTS	1	\$2,200.00	\$2,200.00
ICC Workstation - Desktop	COTS	1	\$2,200.00	\$2,200.00
ImageCast Express Firewall	COTS	1	\$480.00	\$480.00

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EMS Report Printer	COTS	1	\$250.00	\$250.00
Total per City or Town:				\$5,330.00



Configuration 3 - Hardware Pricing

Product	Purchase Source	Quantity	Per-Unit Price	Per-Unit Price
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County or Central Location:				
EMS Express Managed Switch	COTS	1	\$200.00	\$200.00
EMS Express and Listener Server - Desktop	COTS	1	\$2,200.00	\$2,200.00
ImageCast Listener Express Firewall	COTS	1	\$480.00	\$480.00
EMS Report Printer	COTS	1	\$250.00	\$250.00
Total per County:				\$3,130.00

City or Town Location:				
EMS Express Managed Switch	COTS	1	\$200.00	\$200.00
EMS Express Server and Adjudication Workstation - Desktop	COTS	1	\$2,200.00	\$2,200.00
ICC Workstation - Desktop	COTS	1	\$2,200.00	\$2,200.00
ImageCast Express Firewall	COTS	1	\$480.00	\$480.00
EMS Report Printer	COTS	1	\$250.00	\$250.00
Total per City or Town:				\$5,330.00



Configuration 4 - Hardware Pricing

Product	Purchase Source	Quantity	Per-Unit Price	Per-Unit Price
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County or Central Location:				
EMS Express Managed Switch	COTS	1	\$200.00	\$200.00
EMS Express Server - Desktop	COTS	1	\$2,200.00	\$2,200.00
ImageCast Listener Express Firewall	COTS	1	\$480.00	\$480.00
ImageCast Listener Express Server (Wireless and Analog)	COTS	1	\$2,000.00	\$2,000.00
ImageCast Listener USB Hub	COTS	1	\$165.00	\$165.00
ImageCast Listener USB Modems - quantity based on 6 tabulators using analog modems	COTS	12	\$225.00	\$2,700.00
EMS Report Printer	COTS	1	\$250.00	\$250.00
Total per County:				\$7,995.00

City or Town Location:				
EMS Express Managed Switch	COTS	1	\$200.00	\$200.00
EMS Express Server and Adjudication Workstation - Desktop	COTS	1	\$2,200.00	\$2,200.00
ICC Workstation - Desktop	COTS	1	\$2,200.00	\$2,200.00
ImageCast Express Firewall	COTS	1	\$480.00	\$480.00
EMS Report Printer	COTS	1	\$250.00	\$250.00
Total per City or Town:				\$5,330.00



Modular Software Pricing

Adjudication Software Pricing

Based on total registered voters (county):	Purchase Source	5 year Initial Contract Period	Extended Service / Maintenance Annual Payment
0 to 15,000	Dominion	\$7,043	\$900
15,001 to 30,000	Dominion	\$14,085	\$1,800
30,001 to 60,000	Dominion	\$21,128	\$2,700
60,001 to 125,000	Dominion	\$31,500	\$4,050
125,001 to 250,000	Dominion	\$49,298	\$6,300
more than 250,000	Dominion	\$70,425	\$9,000

Listener Software Pricing

Based on total registered voters (county):	Purchase Source	5 year Initial Contract Period	Extended Service / Maintenance Annual Payment
0 to 15,000	Dominion	\$9,000	\$1,000
15,001 to 30,000	Dominion	\$10,800	\$1,200
30,001 to 60,000	Dominion	\$12,600	\$1,400
60,001 to 125,000	Dominion	\$21,600	\$4,320
125,001 to 250,000	Dominion	\$36,000	\$7,200
more than 250,000	Dominion	\$54,000	\$10,800

**Mobile Ballot Printing Software Pricing**

Based on total registered voters (county):	Purchase Source	5 year Initial Contract Period	Extended Service / Maintenance Annual Payment
0 to 15,000	Dominion	\$3,240	\$360
15,001 to 30,000	Dominion	\$4,050	\$450
30,001 to 60,000	Dominion	\$4,860	\$540
60,001 to 125,000	Dominion	\$6,750	\$810
125,001 to 250,000	Dominion	\$10,530	\$1,170
more than 250,000	Dominion	\$16,200	\$1,800