

# State of Wisconsin\Government Accountability Board

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## MEMORANDUM

**DATE:** For the February 25, 2014 Special Teleconference Board Meeting

**TO:** Members, Wisconsin Government Accountability Board

**FROM:** Kevin J. Kennedy  
Director and General Counsel  
Government Accountability Board

Prepared and Presented by:  
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Government Accountability Board

**SUBJECT:** Prime III Voting System (Supplemental Testing Report)

### **I. Introduction and Recommendation**

This memorandum is intended to update the Board on the conclusion of the functional testing for the Prime III voting system. In the memorandum to the Board, which can be found on pages 13 through 27 of the Board materials, staff indicated that after concluding functionality testing on the tabulation component of Prime III, staff would provide an updated recommendation at the February 25<sup>th</sup> Board meeting. Board staff has concluded functional testing of the Prime III voting system, including the accompanying tabulation equipment, and is therefore recommending that the Board approve the pilot plan as detailed in staff's memorandum to the Board and this supplemental report.

Wis. Stat. 5.91 provides the following:

The governing body or board of election commissioners of any municipality may by ordinance or resolution adopt, experiment with, or discontinue any electronic voting system authorized by this subchapter and approved under s. 5.91 for use in this state, and may purchase or lease materials or equipment for such system to be used in all or some of the wards within its jurisdiction, either exclusively in combination with mechanical voting machines, or in combination with paper ballots where such ballots are authorized to be used.

Both the Town of Kossuth and Town of Newton in Manitowoc County have approved experimentation with the Prime III voting system in the April 1, 2014 election, pending Board approval.

**Recommendation:**

Based on Board staff's own functional testing of this equipment, Board staff is recommending approval of Prime III voting system for use in a pilot in Wisconsin during the April 1, 2014 election. A more detailed recommendation and proposed motion is provided on page 8 of this memorandum following the analysis of the functional testing.

**II. Background**

Board staff conducted testing of the Prime III voting system February 10-24, 2014. The Clemson team provided a link to the Prime III server that had been configured to reflect the available elections in both the Towns of Kossuth and Newton.<sup>1</sup> In addition to providing Board staff with access to the Prime III software, the Clemson team provided the following equipment:

<b>Equipment</b>	<b>Hardware Version(s)</b>	<b>Type</b>
Dell Ultrabook	XPS 12	Precinct Tabulator
Canon Scanner	DR-2510C	Ballot Scanning Device
HP All in One Computer	Touch Smart 9100	Ballot Marking Touchscreen Device

Board staff worked in conjunction with the Clemson team to configure each of these components to successfully tabulate results for use in the April 1, 2014 election.

**A. HP All In One Computers**

HP All in One Computers are commercially available off the shelf touch screen computers. The computers are so named because all components of the operating system are housed in a single unit. Board staff along with County Clerk Aulik and Municipal Clerks Pankratz and Schuh requested that Clemson provide large touch screen monitors for the election. The Clemson team will furnish seven (7) touch screens per polling location for the April 1, 2014 election.

To conduct testing, Board staff accessed the Prime III ballots using the HP All in One Computers. Staff then produced nearly 700 ballots using the touch screen monitors. G.A.B. staff was able to verify that the voice to text function will perform as specified by the Clemson team on these units. The Municipal Clerks from the Towns of Kossuth and Newton along with their staffs also tested the monitors for functionality and ease of use and approved of the design, interface, and usability.

Each HP All in One computer is comprised of a color touch screen monitor and is connected to a printer. To use the device, the voter inserts a pre-printed blank ballot into the printer. The mechanism draws in the ballot. The monitor then displays a series of menu-driven voting choices on its screen. The voter uses the touch screen, key pad,

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<sup>1</sup> The Mishicot School District race was scheduled to be decided in the February primary election and therefore the contests with proper candidates could not be entered in time for testing.

or vote by voice function headphones provided to make voting selections. Overvotes cannot occur on this equipment and a voter is warned about undervotes at the ballot summary screen prior to the completion of the ballot.

When the voter has completed the selection process, the Prime III provides a summary report for the voter to review his or her choices, and the selections are then sent to a printer. The vote by voice function will also provide an audio summary for voters with visual impairments. Once the ballot has been marked and is provided to the voter, the Prime III clears its internal memory and the paper ballot is the only lasting record of the voting selections made. The voter may then again visually confirm his or her selections, if able to do so. The voter proceeds to enter the ballot into a secured ballot box to be tabulated by election inspectors after the polls have closed.

#### B. Dell Ultrabook and Canon Scanner

The Canon High Speed Document Scanner is a commercial off the shelf digital scanner that has been paired with a Dell Ultrabook. In tandem, both components operate as a precinct counting system to tabulate Prime III generated ballots at the polling place. Each system was evaluated for its ability to process ballots for the wards or reporting units (a maximum of 4) for which it will be expected to provide results. After the voter has completed their selections using the Prime III software that will be loaded onto the touchscreen marking devices, the ballot is inserted into a secure storage bin. After the polls have closed, the designated election inspector will then retrieve the ballots and feed them into the digital scanner. The digital scanner creates a picture image of the ballot which was scanned as well as a text file that is used to generate a results report. The results and images can be stored either on the equipment, transferred to an external USB flash drive, or printed. If the municipal clerk chooses to do so, he/she could also email the results file to the County on election night.

### III. Board Staff's Preliminary Feedback

#### A. General Feedback

- The Prime III arguably does not provide absolute privacy and independence for voters with disabilities, especially voters with dexterity or motor disabilities, as voters may need assistance inserting the ballot, removing the ballot and placing the ballot in the ballot box. However, it does provide substantial compliance with these objectives and is an improvement over similar existing technology.
- There were several problems with the system connecting with the printer to print the ballots at the end of the voter's session. On several occasions, this required that the Prime III interface be restarted and the voter had to re-enter their selections. Since votes are not cast until the ballot is placed in the ballot box, no votes were "lost." Staff will continue to work with the Clemson team to find a solution.

#### B. Functional Testing

As required by GAB 7.02(1), G.A.B. staff performed functional testing to ensure the system conforms to all Wisconsin requirements as set forth in 5.91. Staff

designed two test decks totaling approximately 1,000 ballots. Since staff is not seeking full approval for the Prime III at this time, staff did not examine Prime III's ability to program either a Partisan Primary or Presidential Preference election, neither of which pertained to the pilot election. Additionally, rather than limiting testing to the use of the Prime III in mock elections, staff had the ability to enhance its standard testing protocol and analysis by testing the actual ballot configurations that will be used in the April 1, 2014 election in the Towns of Newton and Kossuth. Staff has previously detailed the ballot marking functionality of the Prime III system in the memorandum included with the Board materials for this meeting and that analysis is not repeated in this supplement.

Board staff had not been able to conclude testing on the tabulation equipment prior to submitting the materials to the Board. Staff has subsequently completed all testing and has been able to determine that the tabulation feature could successfully perform the following functions:

- ✓ Tabulation software and equipment was able to scan and properly tally results from colored paper.
- ✓ Tabulation software and equipment was able to scan and properly tally results, including write-in votes in all contests.
- ✓ Tabulation software and equipment was able to scan and properly tally results from multiple ballot styles in a single polling location.

C. Statutory Compliance (Updated)

Based on the testing that has been completed to date, the system has been found to be in compliance with the following requirements as provided in Wis. Stat. §5.91. Wis. Stat. §5.91 provides the following requirements that voting systems must meet to be approved for use in Wisconsin. G.A.B. staff analyzed these requirements only as they pertain to the use of the system in the Spring Election as it will not be utilized in a Partisan Primary or November General elections. Please see the below text of each requirement and staff's compliance analysis.

<b>§ 5.91 (1)</b>
The voting system enables an elector to vote in secret.
<b>Staff Analysis</b>
The Prime III voting system meets this requirement by allowing a voter to vote in the privacy of a voting booth without assistance.

<b>§ 5.91 (3)</b>
The voting system enables the elector, for all elections, except primary elections, to vote for a ticket selected in part from the nominees of one party, and in part from nominees from other parties and write-in candidates
<b>Staff Analysis</b>
The Prime III voting system allows voter to split their ballot among as many parties as they wish.

<b>§ 5.91 (4)</b>
The voting system enables an elector to vote for a ticket of his or her own selection for any person for any office for whom he or she may desire to vote whenever write-in votes are permitted.
<b>Staff Analysis</b>
The Prime III voting system allows write-ins where permitted.

<b>§ 5.91 (5)</b>
The voting systems accommodate all referenda to be submitted to electors in the form provided by law.
<b>Staff Analysis</b>
N/A. There were no available referenda to test and no referendum question will be included in the pilot.

<b>§ 5.91 (6)</b>
The voting system permits an elector in a primary election to vote for the candidates of the recognized political party of his or her choice, and the system rejects any ballot on which votes are cast in the primary of more than one recognized political party, except where a party designation is made or where an elector casts write-in votes for candidates of more than one party on a ballot that is distributed to the elector.
<b>Staff Analysis</b>
N/A.

<b>§ 5.91 (7)</b>
The voting system enables the elector to vote at an election for all persons and offices for whom and for which the elector is lawfully entitled to vote; to vote for as many persons for an office as the elector is entitled to vote for; to vote for or against any question upon which the elector is entitled to vote; and it rejects all choices recorded on a ballot for an office or a measure if the number of choices exceeds the number which an elector is entitled to vote for on such office or on such measure, except where an elector casts excess write-in votes upon a ballot that is distributed to the elector.
<b>Staff Analysis</b>
The Prime III voting system meets these requirements.

<b>§ 5.91 (8)</b>
The voting system permits an elector at a General Election by one action to vote for the candidates of a party for President and Vice President or for Governor and Lieutenant Governor.
<b>Staff Analysis</b>
N/A

<b>§ 5.91 (9)</b>
The voting system prevents an elector from voting for the same person more than once, except for excess write-in votes upon a ballot that is distributed to the elector.
<b>Staff Analysis</b>
The Prime III voting system meets this requirement.

<b>§ 5.91 (10)</b>
The voting system is suitably designed for the purpose used, of durable construction, and is usable safely, securely, efficiently and accurately in the conduct of elections and counting of ballots.
<b>Staff Analysis</b>
The Prime III voting system meets this requirement.

<b>§ 5.91 (11)</b>
The voting system records and counts accurately every vote and maintains a cumulative tally of the total votes cast that is retrievable in the event of a power outage, evacuation or malfunction so that the records of votes cast prior to the time that the problem occurs is preserved.
<b>Staff Analysis</b>
N/A, The user interface of the Prime III voting system does not record votes nor count them. It is a marking device that creates a physical ballot. Votes are not cast until the paper ballot is inserted into the ballot box.

<b>§ 5.91 (12)</b>
The voting system minimizes the possibility of disenfranchisement of electors as the result of failure to understand the method of operation or utilization or malfunction of the ballot, voting system, or other related equipment or materials.
<b>Staff Analysis</b>
The Prime III voting system meets this requirement.

<b>§ 5.91 (13)</b>
The automatic tabulating equipment authorized for use in connection with the system includes a mechanism which makes the operator aware of whether the equipment is malfunctioning in such a way that an inaccurate tabulation of the votes could be obtained.
<b>Staff Analysis</b>
The Prime III voting system meets this requirement.

<b>§ 5.91 (14)</b>
The voting system does not use any mechanism by which a ballot is punched or punctured to record the votes cast by an elector.
<b>Staff Analysis</b>
The Prime III voting system does not use any such mechanism to record votes.

<b>§ 5.91 (15)</b>
The voting system permits an elector to privately verify the votes selected by the elector before casting his or her ballot.
<b>Staff Analysis</b>
The Prime III voting system meets this requirement.

<b>§ 5.91 (16)</b>
The voting system provides an elector the opportunity to change his or her votes and to correct any error or to obtain a replacement for a spoiled ballot prior to casting his or her ballot.
<b>Staff Analysis</b>
The Prime III voting system meets this requirement.

<b>§ 5.91 (17)</b>
Unless the ballot is counted at a central counting location, the voting system includes a mechanism for notifying an elector who attempts to cast an excess number of votes for a single office the ballot will not be counted, and provides the elector with an opportunity to correct his or her ballot or to receive a replacement ballot.
<b>Staff Analysis</b>
The Prime III voting system meets this requirement.

<b>§ 5.91 (18)</b>
If the voting system consists of an electronic voting machine, the voting system generates a complete, permanent paper record showing all votes cast by the elector, that is verifiable by the elector, by either visual or nonvisual means as appropriate, before the elector leaves the voting area, and that enables a manual count or recount of each vote cast by the elector.
<b>Staff Analysis</b>
The Prime III voting system meets this requirement.

The Help America Vote Act of 2002 (HAVA) also provides the following applicable requirements that voting systems must meet:

<b>HAVA § 301(a)(1)(A)</b>
The voting system shall: (i) permit the voter to verify (in a private and independent manner) the votes selected by the voter on the ballot before the ballot is cast and counted;  (ii) provide the voter with the opportunity (in a private and independent manner) to change the ballot or correct any error before the ballot is cast and counted (including the opportunity to correct the error through the issuance of a replacement ballot if the voter was otherwise unable to change the ballot or correct any error); and  (iii) if the voter selects votes for more than one candidate for a single office –

<p>(I) notify the voter that the voter has selected more than one candidate for a single office on the ballot;</p> <p>(II) notify the voter before the ballot is cast and counted of the effect of casting multiple votes for the office; and,</p> <p>(III) provide the voter with the opportunity to correct the ballot before the ballot is cast and counted</p>
<p><b>HAVA § 301(a)(1)(C)</b></p>
<p>The voting system shall ensure that any notification required under this paragraph preserves the privacy of the voter and the confidentiality of the ballot.</p>
<p><b>HAVA § 301(a)(3)(A)</b></p>
<p>The voting system shall—</p> <p>(A) be accessible for individuals with disabilities, including nonvisual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as other voters</p>
<p><b>Staff Analysis</b></p>
<p>The Prime III voting system meets these requirements. Accessibility was determined by the former Elections Board to apply to the act of voting, not the insertion or removal of the ballot into the marking device and placing the ballot into the ballot box or optical scan voting system.</p>

**Recommended Motion:**

Based on the results of Board staff's own functional testing, the Board grants approval of the plan to pilot the Prime III voting system as outlined in this memorandum for use at the April 1, 2014 election in the Town of Kossuth and the Town of Newton in Manitowoc County.