

The State of Texas



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Rolando B. Pablos
Secretary of State

MEMORANDUM

TO: Keith Ingram, Director of Elections, Secretary of State's Office

FROM: Christina Worrell Adkins, Staff Attorney, Elections Division Legal Section

DATE: May 18, 2017

RE: Election System and Software Voting Systems Examination

On April 18-20 2017, Election Systems & Software ("ES&S") presented for examination ES&S EVS 5.4.0.0 voting system. This system includes both components that were previously certified in Texas and new components that had never been through the Texas certification process.

Component Submitted for Certification	Version	Previous Texas Certification
ES&S Voting System (EVS)	5.4.4.0	NA
ElectionWare (and related components)	4.8.0.0	12/15/2016
Election Reporting Manager (ERM)	8.13.1.0	12/15/2016
ExpressVote HW Rev 2.1	2.1.0	N/A
AutoMARK	1.8.7.0	12/15/2016
DS200	2.14.2.0	12/15/2016
DS850	2.11.0	12/15/2016

Pursuant to Texas Administrative Code §81.60, ES&S submitted their application for state certification, Forms 100 and 101, the Technical Data Package, authorization letters, and a copy of all firmware/software and source codes sent directly from NTS, a nationally accredited voting system test laboratory. Examiners were given a copy of the application and testing materials for review prior to the in-person examination that occurred on April 18-20, 2017.

Examination

On Day 1 of the examination, technical examiners, Stephen Berger, James Sneeringer, and I were present to observe and verify the installation of the vendor's software. I was present for observation purposes, but did not participate in the installation portion of the exam. In addition

to observing the installation of the software, the technical examiners also verified version numbers of the software and component parts.

After the installation was completed, I received assistance from Secretary of State Staff Attorney Andre Montgomery with testing the AutoMARK Voter Assist Terminal (“AutoMARK”) and the ExpressVote tabulator terminal for compliance with state and federal accessibility guidelines. The AutoMark was previously certified for use in Texas Elections. The ExpressVote tabulator has never been certified in Texas. However, in 2016, the Secretary of State tested and certified the ExpressVote (without the tabulation features). After reviewing and testing both the AutoMARK and the ExpressVote’s tactile, audio, and visual input devices and approaches to marking and casting a ballot, we determined that both devices met the accessibility guidelines dictated by both federal and state law.

On Day 2 of the examination, all examiners were present. The vendor presented an overview of EVS 5.4.0.0 and provided an explanation and demonstration of the new and existing equipment. The vendor spent a considerable amount of time reviewing the ExpressVote tabulator as this was the only piece of equipment that was new to the Texas certification process. The ExpressVote tabulator has the capability of functioning as both a ballot marking device and a tabulator. This functionality is determined when the programming of the equipment occurs, prior to any ballots being marked or deposited into the tabulator.

Examiners were then given the opportunity to test each piece of equipment with a pre-marked “test deck” of ballots to ensure that the equipment performed the tasks required under state law and accurately tabulated the ballots cast. The pre-marked test deck was marked and hand tallied by staff from the Secretary of State’s office on ballots provided by the vendor. The vendor was not previously made aware of how the ballots would be marked. Some ballots were marked using the AutoMark and ExpressVote before being deposited in the scanners. Voted ballots were tabulated through the DS200 (precinct ballot counter), and DS850 (central tabulator). The tabulation reports from the DS200 and DS850 all matched the hand counted tally from the pre-marked test deck.

On April 20, 2017, ES&S provided an additional demonstration of their online sample ballot program called “ExpressPass.” This program gives the voter the opportunity to call up a sample ballot, make their selections online and print out the pre-marked sample ballot. The sample ballot is printed with both the voter’s selections and a QR code that can be read on the ExpressVote. The sample ballot was not tied to a particular voter, nor were the voter’s on-line selections saved anywhere in the software.

Notable Findings:

1. ExpressVote Tabulator:

Like the previously certified ExpressVote, the ExpressVote tabulator does not require pre-printed ballot stock. A ballot card that is either blank or contains a pre-printed bar code that signifies a particular ballot style is presented to the voter. The voter then starts a voting session by inserting the ballot card into the ExpressVote tabulator. Like the previous certification of the

ExpressVote, the ballot card serves as the ballot of record pursuant to Section 124.062 of the Texas Election Code.

When in tabulator mode, the ExpressVote tabulator not only functions as a ballot marking device; it also contains a scanner that can read the ballot card and record the voter's choice in the same fashion as a traditional precinct scanner. The ballot card would then be deposited into the attached card bin that is locked into a kiosk. The ExpressVote tabulator is not a Direct Record Electronic (DRE) voting machine. When operating in tabulation mode, it is subject to the provisions in the Texas Election Code that pertain to a scanner based voting system. For the ExpressVote tabulator to serve as a precinct scanner, the attached card bin must have sufficient locks and seals in accordance with Section 85.032 of the Texas Election Code. ES&S demonstrated that the card bin could contain two different locks along with seals to prevent unauthorized entry into the card bin. As long as the card bin is secured in a method analogous to a traditional precinct scanner, I believe it could be a viable option for smaller entities and could reduce their election costs as it would combine two pieces of equipment (ballot marking device/precinct scanner) into one. A concern worth noting is that the card bin only has the capacity to hold approximately 300 ballot cards. In order to utilize the ExpressVote tabulator, it would have to be used in a smaller election or the Secretary of State would need to create procedures under Section 85.032(e) of the Texas Election Code to address the transfer of voted ballots from a full card bin.

2. ExpressPass software:

ES&S demonstrated their ExpressPass program which allows voters to generate a voter specific sample ballot online, print out a copy of the voter's potential ballot choices, and use the QR code generated with the online sample ballot to expedite their voting session on an ExpressVote. The ExpressPass does not contain any identifying information related to a voter other printing a map of to the appropriate polling place location for that ballot. The servers do not save any information when generating the ExpressPass nor does using the ExpressPass in the polling place require any connection to the internet. Because this program allows the voters the privacy to make their selections without assistance from an election official and could help to reduce the amount of time voters use each voting station, I believe this feature would be beneficial for use in Texas Elections.

Using the ExpressPass as an online sample ballot generator does not appear to fall under the scope of certification as this is not considered part of the voting system and was not part of the EAC certification. With respect to Texas certification, the only concern with the ExpressPass would be the QR code scanner that the ExpressVote uses to scan the sample ballot and call up the voter's selections. The Secretary of State could place limitations on this part of the product, but any concerns would need to be weighed against the potential benefits to the disability community.

CONCLUSIONS

Over the course of the in-person examination and the review of the materials that were contained in the vendor's application, there was no evidence that EVS 5.4.0.0 along with the DS200, DS800, AutoMARK, and ExpressVote tabulator failed to comply with the Voting System

Standards outlined in Sections 122.001, 122.032, 122.033, and 122.0331 of the Texas Election Code or the rules outlined in Chapter 81, Subchapter C of the Texas Administrative Code.

Overall, EVS 5.4.0.0 met the requirements prescribed by the Texas Election Code, and the Texas Administrative Code that pertain to voting system certification. Therefore, I recommend certification of the aforementioned system.