

The State of Texas

Elections Division
P.O. Box 12060
Austin, Texas 78711-2060
www.sos.state.tx.us



Phone: 512-463-5650
Fax: 512-475-2811
Dial 7-1-1 For Relay Services
(800) 252-VOTE (8683)

David Whitley
Secretary of State

MEMORANDUM

TO: Keith Ingram, Director of Elections, Texas Secretary of State

FROM: Chuck Pinney, Staff Attorney, Elections Division, Texas Secretary of State

DATE: February 21, 2019

RE: Election Systems & Software – EVS 6.0.2.0 Voting System Examination

In accordance with my appointment by the Texas Secretary of State as a voting system examiner under Tex. Elec. Code §122.067, I present my report on the voting system examination which took place on January 22, 2019, in the offices of the Texas Secretary of State at the James E. Rudder Building, 1019 Brazos, Austin, Texas 78701.

On January 22, 2019, the examiners appointed by the Texas Secretary of State and the Texas Attorney General examined EVS 6.0.2.0, a voting system that was presented by Election Systems & Software (“ES&S”) for certification in Texas. The following hardware and software components were examined at the Office of the Secretary of State:

Component	Version	Previous Texas Certification Date
Electionware	5.0.1.0	11/15/2018
ExpressVote XL	1.0.0.0	N/A

Additionally, the following components are updated as part of the latest version of EVS 6.0.2.0 and were included in the vendor’s Form 100, but were not submitted for in-person examination. Because the latest version of EVS involved minor software updates without significant firmware changes to the following previously certified hardware, I recommend that the following components may be used with EVS 6.0.2.0 if that system is certified:

Component	Version	Previous Texas Certification Date
ExpressTouch	1.0.0.0	11/15/2018
DS200	2.17.0.0	11/15/2018
DS450	3.1.0.0	11/15/2018

DS850	3.1.0.0	11/15/2018
ExpressVote (HW 1.0 & 2.1)	1.5.0.0/2.4.0.0	11/15/2018
ExpressLink	1.5.0.0	11/15/2018
Event Log Service	1.6.0.0	11/15/2018
ExpressVote Activation Card Printer	N/A	11/15/2018
ExpressVote Previewer	1.5.0.0/2.4.0.0	11/15/2018
PaperBallot	5.0.0.0	11/15/2018
Removable Media Service	1.5.0.0	11/15/2018
Toolbox	3.3.0.0	11/15/2018

For the reasons outlined below, I recommend that this system be certified by the Texas Secretary of State under Tex. Elec. Code §§122.031 and 122.039.

Background

ES&S previously received certification in Texas for the Unity voting system and previous versions of EVS. The most recent version of their software, EVS 6.0.0.0, was presented by ES&S in September 2018, and was certified in November 2018.

The present voting system, EVS 6.0.2.0, was certified by the U.S. Election Assistance Commission (“EAC”) on October 4, 2018.

Summary of the Examination

The examination of EVS 6.0.2.0 took place on January 21, 2019.

The vendor provided a presentation of the software and the updates involved in the current version of EVS. The vendor also provided a presentation on the ExpressVote XL, a ballot marking device that has not been previously certified for use in Texas but is effectively a larger version of the currently-certified ExpressVote.

After the vendor presentation, the vendor installed the software and firmware in the presence of the examiners. The examiners then tested the equipment by voting a series of test ballots and comparing the results of those test ballots.

After the test voting concluded, I conducted the accessibility testing and tested the visually impaired functions, the sip-and-puff controller, and the paddle controller. The examiners also

conducted additional testing on various components of the system to determine if they could generate any issues or errors.

Analysis

The standards for a voting system in Texas are outlined in Texas Election Code Chapter 122. Specifically, the system may only be certified for use in Texas if it satisfies each of an enumerated list of requirements contained in Texas Election Code §122.001. Because the system satisfies each of those requirements, I would recommend that this system be certified.

There are a few issues that occurred during the exam that are relevant to the function of the system but do not warrant a denial of certification in my opinion. Those issues include:

- At the time of the examination, the system was somewhat limited in its ability to comply with the non-sequential ballot serialization requirement in particularly large counties. The system generates serial numbers using a unique combination of two alphabetical characters to correspond to each polling place, followed by a computer-generated number that is pulled from a range of numbers. While this system on its own satisfies the requirement, the use of only two alphabetical characters places a limit on the number of polling places that can be used with this system. There are 676 possible unique combinations when two alphabetical characters are used, so a county would not be able to generate unique polling place identifiers for each polling place if that county has more than 676 polling places. This may present some issues for very large counties that wish to adopt this system.

During the examination, ES&S represented that an additional alphabetical character could be used for the unique identifier to bring the total number of unique polling place identifiers to 17,576. It may be possible to implement this minor software change without requiring a new certification of the system.

Alternatively, a very large county could still adopt this system and comply with the ballot serialization requirement by pre-printing the serialized range on the ballot paper and allowing voters to select their ballot paper from a set of choices before inserting the ballot paper into the ballot marking device.

Despite this issue, I would recommend certification because this issue will not affect the vast majority of counties and because there are ways that this system could still be used by very large counties while still complying with the non-sequential ballot serialization requirement. If this software change can be implemented, then that would resolve the issue entirely.

- The ExpressVote XL includes a ballot box on the back, where the ballots are deposited after being printed by the ballot marking device. That ballot box does not currently have a second lock built into the hardware. The vendor recommended that a county that uses this equipment use an additional lock that can be looped around the ballot box to secure it and prevent it from being removed or accessed without removing that additional lock.

The vendor also indicated that they have a planned modification for the ExpressVote XL hardware that will include a second lock built in to the structure of the machine itself.

I would recommend certification of this system on the condition that any political subdivision adopting the system follow the vendor's recommendation and use an additional second lock to secure the ballot box.

These issues are minor issues that can be easily addressed by the political subdivisions adopting the system. Therefore, they do not affect the system's compliance with the requirements of Texas Election Code §122.001 or the political subdivision's ability to comply with other legal requirements under the Election Code.

The system is generally very user-friendly and efficient. The ExpressVote XL is capable of displaying a full ballot on a single screen, which may appeal to some political subdivisions. While I would recommend that the vendor address the two issues highlighted in this report, along with the other issues highlighted in the other examiners' reports, those issues do not affect the system's compliance with the requirements of the Election Code. I would recommend certification for the current version of EVS.

Conclusion and Recommendation

EVS 6.0.2.0 meets the necessary standards for certification under Texas Election Code §122.001 and complies with all other legal requirements under the Texas Election Code. Therefore, I would recommend certification for the current version of EVS.