

The State of Texas



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Ruth R. Hughs
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: September 21, 2020

RE: Election Systems & Software – EVS 6.1.1.0 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 August 21, 2020, in the offices of the Texas Secretary of State at the James E. Rudder Building, 1019 Brazos, Austin, Texas 78701.

On August 21, 2020, the examiners appointed by the Texas Secretary of State and the Texas Attorney General examined EVS 6.1.1.0, 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
ExpressTouch	1.0.3.0	4/24/2020
DS200	2.30.0.0	4/24/2020
DS450	3.4.0.0	4/24/2020
DS850	3.4.0.0	4/24/2020
ExpressVote (HW 1.0)	4.0.0.0	4/24/2020
ExpressVote (HW 2.1)	4.0.0.0	4/24/2020
ExpressVote XL	1.0.3.0	4/24/2020
ElectionWare	6.0.1.0	4/24/2020
ExpressLink	2.0.0.0	4/24/2020
Event Log Service	2.0.0.0	4/24/2020
ExpressVote Activation Card Printer	N/A	4/24/2020

ExpressVote Previewer	4.0.0.0	4/24/2020
PaperBallot	6.0.0.0	4/24/2020
Removable Media Service	2.0.0.0	4/24/2020
Toolbox	4.0.0.0	4/24/2020

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 6.1.0.0, was presented by ES&S in January 2020, and was certified in April 2020.

The voting system that was the subject of this examination, EVS 6.1.1.0, was certified by the U.S. Election Assistance Commission (“EAC”) on July 27, 2020.

Summary of the Examination

The examination of EVS 6.1.1.0 took place on August 21, 2020. That examination was conducted alongside the examination of EVS 6.0.3.0, which will be covered in a separate report.

Due to health concerns relating to COVID-19, a number of accommodations were required in order to comply with social distancing and protective gear recommendations from federal and state authorities. The examination was conducted at the Office of the Secretary of State, and both myself and Lesley French of the Texas Attorney General’s Office attended the examination as in-person examiners. The other examiners were able to participate remotely in the exam process via a live video conference that allowed them to watch the other examiners’ interactions with the equipment and ask questions to the in-person examiners and the vendor.

The exam began with the installation of the software and firmware for EVS 6.1.1.0 off of the trusted build provided to our office by the testing lab, followed by the vendor’s presentation of the software and the updates involved in the current version of EVS.

After the vendor presentation, the in-person examiners tested the equipment by voting a series of test ballots and comparing the results of those test ballots. The examiners also asked questions of the vendor regarding various components of the system and the nature of the updates included in this version of the system.

This version of the system did not involve any firmware changes to any of the hardware involved in this system, and only included changes to the election management system and the Electionware software. Because the firmware on those voting devices did not change, there was no accessibility testing conducted for EVS 6.1.1.0. My opinions on the accessibility features of

the firmware versions that are used on those voting devices for this system can be found in my report for the EVS 6.1.0.0 exam.

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.

In general, EVS 6.1.1.0 is an excellent voting system that operates efficiently and effectively. The technical examiners identified concerns regarding the complexity of the hash validation process for this system and regarding the password reset requirements authorized by the system. Those concerns do not affect the reliability, accuracy, or security of the system if proper procedures are followed. I would recommend that the vendor make adjustments to these procedures based on the feedback of the examiners.

Hash Validation Procedures

In this exam and in the EVS 6.1.0.0 exam, the technical examiners noted that the process for conducting the hash validation of this system was overly complicated and difficult to understand. This procedure should be straightforward and simple enough that a jurisdiction with limited technical expertise would be able to conduct that process using the procedures provided by the vendor without requiring vendor technicians to facilitate that process for them.

The technical examiners provided detailed guidance in their reports providing specific instructions for how the vendor can improve their hash validation process for future systems. I would strongly recommend that the vendor review that guidance and implement those suggestions before their next system is presented for certification in Texas.

Password Reset Requirements

This version of the system allows the jurisdiction to customize the timeframe in which a password reset is required for users in the system. In EVS 6.1.1.0, the jurisdiction has the option of setting this requirement in a way that the passwords never expire. I would strongly recommend that jurisdictions not take advantage of this option. The Secretary of State's Office has published an Election Security Best Practices Guide that recommends forced updates of passwords every 90 days. Jurisdictions should follow those best practices recommendations rather than using this functionality offered by the system.

Conclusion and Recommendation

Because EVS 6.1.1.0 is an effective, highly usable voting system that complies with the necessary requirements for a voting system under Texas law, I would recommend certification of this system.