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July 29, 2019

Mr. Keith Ingram
Director of Elections
Texas Secretary of State
Elections Division
208 East 10th Street
Austin, Texas 78711

Re: Inspection of the EVS 6.0.4.0 System conducted on June 26 and 27, 2019

Dear Mr. Ingram:

Pursuant to my appointment by the Texas Secretary of State as a voting systems examiner under TEXAS ELECTION CODE § 122.035, please allow this letter to serve as my report concerning the above referenced examination. I, along with the other statutory examiners and staff from the Secretary of State's office, examined the Electronic Systems & Software EVS 6.0.4.0 voting system ("**ES&S 6.0.4.0 System**") on June 26 and 27, 2019, at the offices of Elections Division of the Texas Secretary of State in Austin, Texas.

The other examiners and I inspected the above referenced software and equipment and accompanying written materials for compliance with the relevant provisions of the TEXAS ELECTION CODE and Texas Administrative Code related to the requirements for election machines and software.

The ES&S 6.0.4.0 System provides limited new or updated hardware, firmware and software as an upgrade to the 6.0.0.0 and the 6.0.2.0 systems¹. The ES&S 6.0.4.0 System's primary changes/ additions include: (1) the introduction of a function called "BitLocker; (2) a restore function within Toolbox; (3) security updates for commercial off the shelf components ("COTS") in the system; (4) various hardware updates; and (5) end-of-life updates for programs and equipment. The remainder of the ES&S 6.0.4.0 System continue to have the components of the 6.0.0.0 (and 6.0.2.0) System.

¹ Both of these systems have been previously reviewed and certified by the Secretary of State.

ACCESSIBILITY TESTING

On the first day of the inspection, others tested the physical equipment of the ES&S 6.0.4.0 System for accessibility compliance with the applicable state laws and regulations. These tests confirmed that the ES&S 6.0.4.0 System complied with the accessibility requirements of Texas law.

TESTING OF HARDWARE AND SOFTWARE

On the first day of the examination, ES&S completed the loading and installation of the ES&S 6.0.4.0 System. ES&S officials ran the Logic and Accuracy tests and calibrated the scanners to be used in the inspection before any testing or inspection of the equipment and software.

On the second day of the examination, ES&S provided the examiners an overview of the changes to the 6.0.4.0 System. ES&S staff walked through several demonstrations of the functionality of some of the new features in the software, hardware and firmware that has been added/updated in the 6.0.4.0 System. The examiners asked the ES&S staff multiple questions about the new features and the literature provided by ES&S.

Later on the second day, the examiners tested each piece of equipment and software for security, functionality and accuracy. The examiners and staff cast a script of ballots on each voting machine and paper ballots were fed into the optical scanners. The mock votes were tabulated and sorted with the new election software.

At the conclusion of the voting tests, the examiners and staff reviewed the audit logs and reports generated from the votes cast.

OBSERVATIONS

- 1.e Each of the separate pieces of hardware and software examined met the listed requirements of the TEXAS ELECTION CODE and TEXAS ADMINISTRATIVE CODE.e
- 2.e The improved security options provided by the new BitLocker function are an important improvement to the ES&S system.e
- 3.e Many of the locks and seals on the hardware examined can be utilized in different ways by the individual election authority. ES&S stated that it “cannot control”e what an election authority does with their use of seals and locks. Moving forward, this potential for human error or misuse should be eliminated as best as possible by forcing end users to make proper use of seals and locks since these devices are vitally important to security.e

- 4.r Similarly, there is a port on the DS200 that does not serve a function. ES&S has explained that the port is non-functional and can be locked out. No actual testing of the port was done during the exam.r
- 5.r It should be noted that the 6.0.4.0 System does have a DRE component. The DRE machine (in its DRE configuration) appears to only be logical for voters requiring physical assistance to vote under the Americans with Disabilities Act.r The DRE component met all the specific requirements for DRE's in Texas.r
- 6.r As has been the case with previously reviewed systems, the requirement for sequentially numbered ballots that are randomized in the manner in which they are provided to voters may present a problem under the ES&S 6.0.4.0 System.r The 6.0.4.0 System can print serial numbers using a letter to identify a polling place. That may mean that two ballots at separate polling locations may have the same serial number and just a different letter identifier.r
- 7.r As noted in my past reports, the training of the purchasers of the ES&S 6.0.4.0 System is a fluid concept. While Texas law and applicable regulations do not set standards for training, leaving the decision of how much or what training a customer receives to the customer (that is likely seeking to save money) could lead to problems. This is especially true as it relates to specific programming of election definitions and formatting.r

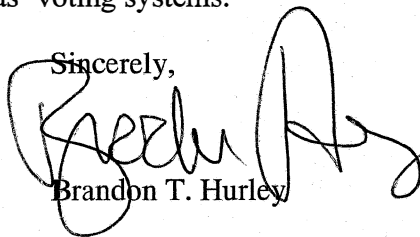
RECOMMENDATION

Based on the foregoing observations and my examination of the ES&S 6.0.4.0 System, its accompanying literature and the representations made by ES&S officials both in its literature and at the examination, I recommend that the ES&S 6.0.4.0 System be certified as compliant with the requirements of the TEXAS ELECTION CODE and the TEXAS ADMINISTRATIVE CODE.

This report should not be construed as a tacit or implied comment on any of the technical aspects of the ES&S 6.0.4.0 System except as expressly stated herein. In the event any of the equipment, software or security devices examined are altered, changed or decertified by any accrediting agency (other than a "minor modification qualified for administrative certification process" as that term is defined in § 81.65 of the Texas Administrative Code), this report should be considered withdrawn.

Thank you for the opportunity to serve as an examiner and participate in this important process that protects the integrity of Texas' voting systems.

Sincerely,



Brandon T. Hurley