

The State of Texas



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Carlos H. Cascos
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: July 30, 2016

RE: Hart InterCivic Verity 2.0 Voting Systems Examination

On June 29-30, 2016, Hart InterCivic ("Hart") presented for examination Verity Voting 2.0. This system includes both components that were certified under Verity Voting 1.0 and new components that had never been through the Texas certification process.

Component Submitted for Certification	Version	Previous Texas Certification
Verity Build	2.0.2	2/26/2016
Verity Central	2.0.2	2/26/2016
Verity Count	2.0.2	2/26/2016
Verity User Management	2.0.2	2/26/2016
Verity Election Management	2.0.2	2/26/2016
Verity Scan	2.0.3	2/26/2016
Verity Touch Writer with Access	2.0.3	2/26/2016
Verity Data	2.0.2	N/A
Verity Controller	2.0.3	N/A
Verity Touch	2.0.3	N/A
Verity Touch with Access	2.0.3	N/A

Pursuant to Texas Administrative Code §81.60, Hart submitted their application for state certification, Forms 100 and 101, authorization letters, and a copy of all firmware/software and source codes sent directly from SLI Global Solutions, a nationally accredited voting system test laboratory. Examiners were given a copy of the application and testing materials for review prior to the two-day in-person examination that occurred on June 29 and 30, 2016.

Examination

On Day 1 of the examination, the technical examiners, Stephen Berger, Tom Watson and James Sneeringer, 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. On request from the technical examiners, Hart also presented information related to how data flows through the system and what security and reliability protections exist within the system.

After the installation was completed, I received assistance from Secretary of State Staff Attorney Tim Juro with testing the Verity Touch Writer with Access and Verity Touch with Access for compliance with state and federal accessibility guidelines. After reviewing and testing the 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 on the Verity system and the component parts that were part of the certification examination. The vendor also provided an explanation of the differences between Verity 1.0 and Verity 2.0. 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 vendor was not previously made aware of how the ballots would be marked. Ballots were cast by the examiners using Verity Touch with Access, Verity Touch, and Verity Scan. Additional pre-marked ballots were scanned using Verity Central. Write-ins were adjudicated using both Verity Count and Verity Central, and the final tabulation for all ballots was completed using Verity Count. 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 tabulation report from Verity Count matched the hand tally of the pre-marked test deck that was completed by the Secretary of State's office.

Notable Findings:

1. **Correction to Invalid vDrive issue in Verity 1.0.3:** In the examination of Verity 1.0 that occurred in September 2015, the examiners discovered that when certain ballots were scanned on Verity Central and the write-in votes were also adjudicated on Verity Central, a problem would occur when the corresponding vDrive was read into Verity Count. A message would indicate that the vDrive was invalid. Hart subsequently resolved the error prior to the issuance of the Verity 1.0 certification order. To ensure that this issue did not carry over to Verity 2.0, a test deck was prepared that was identical in voter selections to the test deck that discovered the error in Verity 1.0. This test deck was scanned on Verity Central and the write-in votes were adjudicated in Verity Central as well. There were no issues reading the corresponding vDrive into Verity Count. The vendor demonstrated that this issue had been adequately resolved; therefore, I do not see that this issue poses any risks to the certification of Verity 2.0.

2. **Improvements to Audit Logs:** During the Verity 1.0 exam, the examiners noted that while the internal audit logs had improved in readability and format, we would still like to see some improvements in this area with respect to how accessible the audit logs were for post-election review. In Verity 2.0, the vendor made improvements to this area as all audit logs can now be exported into PDF or CSV formats.
3. **Cumulative Voting:** Verity 2.0 now supports a true cumulative voting scenario. While cumulative voting is not widely used in Texas Elections, there are some entities that still require this type of vote selection. Previous voting systems had been able to allow for this type of voting through modified ballot programming and vote selections. However, in Verity 2.0.3 the process has been simplified and is more streamlined.

CONCLUSIONS

Over the course of the two-day in-person examination, and in the review of the materials that were contained in the vendor's application, there was no evidence that Verity 2.0 and its components 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, Verity 2.0 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.