

KELLY HART

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July 9, 2014

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

VIA EMAIL

Re: Inspection of Unity 3.4.1.0 Application on June 11, 2014

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 Unity 3.4.1.0 voting system on June 11, 2014, at the offices of Elections Division of the Texas Secretary of State in Austin, Texas.

I, along with the other examiners, examined the above referenced software and equipment (collectively referred to herein as "the Unity 3.4.1.0 System") for compliance with the relevant provisions of the TEXAS ELECTION CODE and Texas Administrative Code related to the requirements for election machines and software. I also reviewed the written materials submitted by Unity for compliance with the TEXAS ELECTION CODE and Texas Administrative Code requirements for voting equipment.

ACCESSIBILITY TESTING

The examiners and staff tested the AutoMARK physical equipment for the Unity 3.4.1.0 System, including two different voting terminals and accompanying software for accessibility compliance with the applicable state laws and regulations. Previous testing on the same machine on file with the Secretary of State had the measurements and pressure tests on at least one of the terminals to ensure the voting terminals fell within the acceptable ranges under Texas regulations. The only issue raised by the Accessibility testing was some poor audio quality; however, none of the quality fell below the standard set out in the Texas law and the applicable regulations.

TESTING OF HARDWARE AND SOFTWARE

Unity officials gave an overview of each piece of equipment and detailed the software being reviewed. A physical inspection and testing of each piece of equipment was also

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completed by the examiners and the Secretary of State staff. In so doing, the examiners cast a script of 10 paper ballots on each voting machine into the optical scanners, which included the M100 and DS200 (which are precinct tabulators and optical scan devices) and the M650 and M850 (which are central tabulators). The mock votes were tabulated and sorted with the Unity software.

OBSERVATIONS

1. Compliance with Texas Election Code. Each of the separate pieces of hardware examined that were used for actually casting a ballot the listed requirements of § 122.001 of the TEXAS ELECTION CODE in that each:

- (a) preserved the secrecy of each ballot cast by the examiners;
- (b) was suitable for use as ballot casting device;
- (c) operated safely;
- (d) permitted voting on all offices and ballot measures;
- (e) excluded improper multiple votes in a single race by a single voter;
- (f) did not count a vote for the same office or measure more than once;
- (g) permitted write-in voting;
- (h) allowed straight party voting; and
- (i) provides records from which the operation of the voting system may be audited.¹

2. Requirements for Direct Recording Equipment (“DRE’s) under Texas law. None of the equipment tested qualified as a DRE device; therefore, all of the requirements related to DRE’s were not implicated in this test.

4. Requirements for Optical Scan devices under the Texas Election Code. The optical scan ballots counters met the requirements of TEXAS ELECTION CODE § 122.033 in that each contained adequate physical security devices to guard against tampering; protected registering counters; a public counter; and a protective counter.

5. Requirements of Real-Time Audit Logs with a continuous feed printer. The required audit logs for the central tabulators and related software in the Unity 3.4.1.0 System were present for the Central Tabulators (M6550 and M850), but there were no real time audit

¹ It should be noted that there was some concern that certain voting officials would have authorization under the Unity 3.4.1.0 System to erase audit logs held in the memory of the Unity software.

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logs that produced a physical record for the precinct tabulators (M100 and M250). The concern is the M100 and M250 *could* be used as a central tabulator or an early voting device that is required to have a real-time physical audit log that is physically printed to a continuous feed printer. Unity did not state if the precinct tabulators (M100 and M250) were marketed as central tabulators to counties; however, they did admit that neither device could support a stand-alone printer to meet the real-time audit log requirement without modifications. ***For this reason, I believe that any certification of the Unity 3.4.1.0 System, should be made with the condition that the M100 and M250 is certified only as a precinct counter and should not be certified as a central tabulator of any kind, including use as a tabulating device during early voting under TEXAS ADMINISTRATIVE CODE § 81.52(h).***

6. Requirements for non-traditional ballots. The examiners cast blank ballots and incomplete ballots during the examination on each piece of equipment and the tabulation and accumulator software. All of the cast ballots were properly tabulated and/or appropriately segregated as a ballot that must be inspected by a voting official.

7. “Merger” of Old and New Unity System. Unity also briefly presented the idea that, under certain circumstances, the old Unity Systems could be “merged” with the Unity 3.4.1.0 System through certain software interfaces. Although the idea was presented, Unity did not demonstrate the actual merger of the two systems, nor was the concept of the merger detailed in any of the documentation submitted to the Secretary of State’s office. Accordingly, I do not believe the issue was before the examiners nor should it be part of any certification from the Secretary of State’s potential certification.

CONCLUSION

Based on the examination and review of the materials, it is my opinion that the Unity 3.4.1.0 System meets the requirements of Texas law and the applicable administrative rules as stated herein. It would be that, in the event the Secretary of State chooses to certify the Unity 3.4.1.0 System, the following conditions should be placed on the certification:

- The certification of the M100 and M250 precinct ballot counters should be certified only as precinct counter on election day and not for use in early voting or as a central accumulator;
- Any certification should clearly spell out that the “merger” of the Unity 3.4.1.0 System with previous systems is ***not*** part of the certification; and
- The portion of the overall system that allows election officials to delete or purge internal audit log data on the Unity 3.4.1.0 System should be disabled or deleted as a condition of certification.

This report should not be construed as a comment on any of the technical aspects of the Unity 3.4.1.0 System as except expressly stated herein. In the event any of the equipment,

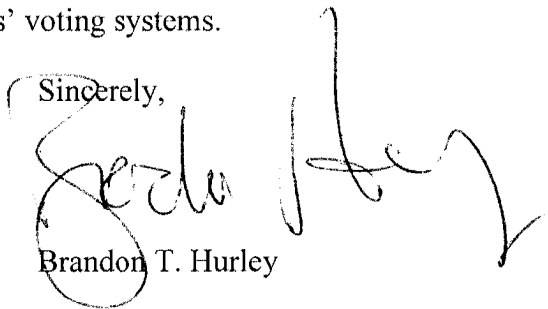
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software or security devices examined are altered, changed or decertified by any accrediting agency (other than a “minor modification qualified for administrative certification process” as that term is defined in § 81.65 of the Texas Administrative Code), this report should be considered withdrawn and not relied upon from that point forward.

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,

A handwritten signature in black ink, appearing to read "Brandon T. Hurley". The signature is written in a cursive style with a large initial "B" and "H".

Brandon T. Hurley

Cc:

Examiners (*via email*)