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September 21, 2012

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

VIA EMAIL

Re: Inspection of Dominion Asure Version 1.3 Voting Systems conducted on August

22, 2012

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 Dominion Voting Assure Version 1.3 voting system on August 22, 2012, at the offices of Elections Division of the Texas Secretary of State in Austin, Texas.

I examined the above referenced software and equipment (collectively referred to herein as "the Assure 1.3 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 Dominion for compliance with the Texas Election Code and Texas Administrative Code requirements for voting equipment.

ACCESSIBILITY TESTING

The examiners tested the physical equipment for the Assure 1.3 System, including two different voting terminals and accompanying software along with an optical scan device 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. We also physically tested the machine to ensure the voting pads were accessible to physically challenged individuals. Also, each voting terminal allowed the machine to be set to use 18 point font, fit within the reach parameters set out by the Texas Administrative Code ("TAC"), did not require more pressure to operate the buttons or touch-screen than is set forth in the TAC, had audio assisted options for each machine set forth in the TAC, and had available table set-ups that would allow each machine to be approached by a person in a wheelchair. Each tablet for each terminal was also removed from its stand as would be done

with curbside voting or placement in the lap of a voter. The tablet was maneuverable and able to be lifted with minimal force.

It should be noted that many of the external devices needed for compliance with the TAC and applicable statutes for handicap accessibility were **not** part of the primary system and must be purchased separately. Also, the audio portions of the device were garbled and of a low quality.

TESTING OF HARDWARE AND SOFTWARE

Dominion 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 completed by the examiners and the Secretary of State staff. In so doing, the examiners cast a script of 10 ballots on each Direct Recording Electronic ("DRE") voting machine and paper ballots were fed into the optical scanners. Both mock votes were tabulated and sorted with the Assure 1.3 software. There were discrepancies in the totals for each vote and they were reconducted. It appears the optical scan equipment was not reading all of the votes cast.

OBSERVATIONS

- 1. Each of the separate pieces of hardware examined that were used for actually casting a ballot met some of the listed requirements (with the exceptions listed separately below) 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; and
 - (h) allowed straight party voting.
- 2. The voting of mock ballots by the examiners showed that DRE systems for the Assure 1.3 System: (1) allowed a voter to review and change their selections before casting a ballot; (2) notified voters if more selection are made in a race than are allowed; (3) provided access and voting capabilities for persons with physical disabilities; and (4) allowed for use of

languages other than English in casting ballots. It should be noted that there was a concern raised about the audio quality of the DRE machines used with the Assure 1.3 system.

- 4. The DRE's and 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. The required audit logs for the central tabulators and related software in the Assure 1.3 System were problematic. There was also a concern that some equipment *could* be used as a central tabulator, but did not have all of the components required of a central tabulator under Texas law. Dominion stated that purchasers were told not to use these devices as a central tabulator, but there were no safeguards to ensure the equipment was not used for this purpose. Moreover, the audit logs did not meet all of the requirements of Texas law and the TAC.
- 6. The examiners cast provisional ballots, blank ballots and incomplete ballots during the examination on each piece of equipment and the tabulation and accumulator software. The initial attempt at accumulating all of the votes cast showed an error in that the central accumulator software and firmware did not include all of the votes cast using the optical scanner. Dominion's explanation for these mistake were the marking used on the actual votes; however, the some of the examiners felt the marks were adequate.

CONCLUSION

At the close of the examination, there appeared to be open questions for Dominion that were not answered. Additionally, it appeared that the required information provided by Dominion was filled out in a conclusory fashion as opposed to providing the substantive reasons for its answers to the written questions. These items made the examination incomplete and unfinished; therefore, I feel that the certification process has not been successfully accomplished.

This report should not be construed as a tacit or implied comment on any of the technical aspects of the Assure 1.3 System as except 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 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,

Brandon T. Hurley