May 19, 2017

Mr. Keith Ingram
Director of Elections, Texas Secretary of State
Elections Division
P.O. Box 12060
Austin, Texas 78711-2060

Re: Election Systems & Software Unity Version 5.4.0.0 – April 18th through 20th, 2017, Examination

Dear Mr. Ingram:

Pursuant to Texas Election Code §122.036 and 1 Texas Administrative Code §81.60, by this letter I am transmitting my examiner's report for the Secretary of State's ("SOS") June 18th through 20th, 2017, voting system examination. The subject of that examination was Election Systems & Software ("ES&S") voting system EVS 5.4.0.0.

The factual background for this report includes ES&S's presentation to the examiners made during the examination at the Secretary of State's office, statements made by ES&S's representatives during that examination, and e-mail answers to follow-up examiner questions sent by ES&S to SOS and then forwarded to the examiners.

Both during and after the examination, the examiners raised specific concerns about legal compliance of EVS 5.4.0.0. The Office of the Attorney General notes that the United States Election Assistance Commission certified the system on February 24, 2017 and that the system is similar in many respects to EVS 5.2.1.0, which has been previously certified for use in Texas elections.

The Office of the Attorney General noted two concerns during the course of the examination. First, EVS 5.4.0.0 supports the use of the ExpressVote device in two different modes. One mode is "marker" mode, whereby the ExpressVote is used to print out a paper record of a voter's selections made onscreen. In this mode, the printed card is then scanned by a separate device, which optically recognizes a voter's selections and tabulates those selections. ExpressVote devices are already approved for use in this fashion in Texas. In addition, the ExpressVote may be used in "tabulator" mode. In this mode, the ExpressVote is still used to mark a printed record of the voter's onscreen selection; however, the ExpressVote then scans and tabulates the cards as well. In the configuration tested, the scanned paper records are stored in a receptacle attached to the kiosk containing the ExpressVote device.

If the ExpressVote were used for early voting in tabulator mode, we note there may be challenges in determining whether the receptacle constitutes a "ballot box" subject to the requirements of Texas Election Code § 85.032. If the receptacle does constitute a ballot box for purposes of § 85.032, engineering challenges may exist with regard to satisfying the multiple-lock requirement of that section. We believe that these challenges can be addressed through

proper procedures and use of the device and do not disqualify the system from certification under Texas law.

In addition, we noted a separate potential concern that arises from the system's interaction with a technology that does not constitute part of the system itself. One feature of the ExpressVote device that was examined was an optical scanner capable of reading a matrix barcode, such as a Quick Response code ("QR code). This scanner may be used in conjunction with a product separate from EVS 5.4.0.0 known as ExpressPass. ExpressPass allows voters to obtain a sample ballot online for their specific precinct, mark their choices onscreen, and print out a QR code representing those selections. The QR code can then be scanned using the optical scanner and the voter's selections made at home will automatically appear onscreen as if the voter had manually input those selections manually. The voter can then either change any of those selections or simply print and cast the ballot with those selections.

Although we are satisfied that ES&S keeps no record of the voter's selections and that the ExpressPass itself is not part of this examination, we note the involvement of internet service providers, wireless network providers, web browsers, and various other software and hardware components in marking a sample ballot that will communicate directly with an actual voting device. After researching the issue and discussing the matter with experts at the SOS, we do not think the existence of such involvement renders the system ineligible for use in Texas; however, we think careful consideration should be given to whether any particular risks affecting the secrecy of the ballot could arise from the use of this technology.

After a thorough review of the system as well as the relevant laws and applicable rules, the Office of the Attorney General concludes there are no legal compliance issues with EVS 5.4.0.0. Thus, we recommend certification of EVS 5.4.0.0.

Sincerely,

John R. Ellis, IV
Principal Deputy General Counsel
Office of the Attorney General

cc: Examiners
         Christina Adkins, Texas Secretary of State