

Voting System Examination Election Systems & Software (ES&S)

Prepared for the
Secretary of State of Texas

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Designee of the Attorney General

This report conveys the opinions of the Attorney General's designee from an examination of the equipment listed, pursuant to Title 9, Chapter 122 of the Texas Election Code, section 122.036(b).

Examination Date April 18-20, 2017

Report Date May 18, 2017

Examination of Unity Election System Software 3.4.1.4

Components Examined	Version
Audit Manager	7.5.2.0
AutoMARK Voter Assist Terminal	1.3.2907
AutoMARK Information Management System	1.3.257
DS200 Precinct Ballot Counter	1.7.0.0
DS850 Central Count Tabulator	2.9.0.0
Election Data Manager (EDM)	7.8.2.0
Election Reporting Manger (ERM)	7.9.0.1
ES&S Image Manager (ESSIM)	7.7.2.0
Hardware Program Manager (HPM)	5.9.0.1
LogMonitor Service	1.1.0.0
M100 Precinct Ballot Counter	5.4.4.5
M650 Central Count Tabulator	2.2.2.0
VAT Previewer	1.3.2907

Overview of Changes

The purpose of this release is to create a “bridge” from Unity 3.0.x.x, so complete election results can be tabulated by a jurisdiction that wants to use the newer DS200 or DS850 tabulators in the same election with the older iVotronic voting machines. The election setup is performed in Unity 3.0.x.x and then transferred across the “bridge” by creating (or exporting) a flat Windows file from Unity 3.0.x.x to a USB memory stick. Finally, it is read (or imported) into the Unity 3.4.1.4 Hardware Programming Manager from the USB stick and from there copied to the ballot tabulators. A similar process, in reverse, is used to transport the results back to Unity 3.0.x.x for tabulation.

Unity 3.4.1.4 was EAC certified as a modification to Unity 3.4.1.0. No firmware modifications were made to the hardware tabulators or the AutoMARK Voter Assist Terminal.

Examination Procedures

This was part of a three-day examination in which three separate ES&S systems were examined. On the first day of the exam, Stephen Berger, Christina Adkins and I observed as the vendor installed the firmware and software using files obtained directly from the NTS by the Secretary of State, thus providing chain of custody. Then we verified version numbers, asked technical questions, and discussed the technical aspects of the system.

On the second day, the entire group assembled. We received a presentation from ES&S, observed the “bridge” procedure, ran a test deck of ballots to verify correct tabulation, observed how the system worked, asked questions, and tried out the equipment.

Summary

Although the “bridge” procedure is cumbersome and could be error prone, it is intended for use by large counties that already use Unity, are familiar with it, have the resources to train their staff about the “bridge” procedure, and are willing to invest some training time to protect the integrity of their elections and their investment in Unity. This mitigates the risk involved in the “bridge” procedure and makes it acceptable in my opinion.

I recommend certification of Unity 3.4.1.4.