

The State of Texas



Elections Division
P.O. Box 12060
Austin, Texas 78711-2060
www.sos.state.tx.us

Phone: 512-463-5650
Fax: 512-475-2811
Dial 7-1-1 For Relay Services
(800) 252-VOTE (8683)

Rolando B. Pablos
Secretary of State

REPORT OF REVIEW OF ES&S UNITY 3.4.1.4

PRELIMINARY STATEMENT

On April 18th and 19th, 2017, Election Systems & Software (the "Vendor") presented Unity 3.4.1.4 for examination and certification. The examination was conducted in Austin, Texas. Pursuant to Sections 122.035(a) and (b) of the Texas Election Code, the Secretary of State appointed the following examiners:

1. Mr. Stephen Berger, an expert in electronic data communication systems;
2. Mr. Tom Watson, an expert in electronic data communication systems;
3. Mr. Brandon Hurley, an expert in election law and procedure; and
4. Ms. Christina Worrell Adkins, an expert in election law and procedure.

Pursuant to Section 122.035(a), the Texas Attorney General appointed the following examiners:

1. Dr. Jim Sneeringer, an expert in electronic data communication systems
2. Mr. John Ellis, an employee of the Texas Attorney General.

On April 18, 2017, Mr. Berger, Dr. Sneeringer, and Ms. Adkins witnessed the installation of the Unity 3.4.1.4 software and firmware that the Office of the Texas Secretary of State (the "Office") received directly from the Independent Testing Authority.

On April 19th, 2017 the Vendor demonstrated the system and answered questions presented by the examiners. Each examiner attended. Examiner reports on the system are attached hereto and incorporated herein by this reference. Other members of the Office's Elections Division were also present.

On June 14th, 2017, a public hearing was conducted in which interested persons were given an opportunity to express views for or against certification of the system.

BRIEF DESCRIPTION OF UNITY 3.4.1.4

Unity 3.4.1.4 Voting System was designed to allow entities to continue using their older iVotronic DREs for in-person voting along with their newer DS850s, in order to run the Unity 3.0.1.1 system and the Unity 3.4.1.0 system in parallel and merge the results.¹ The iVotronic is currently certified for use with Unity 3.0.1.1 and the DS850 and DS200 are certified with Unity

¹ It could also allow an entity to use its older iVotronic DREs with the newer DS 200s.

3.4.1.0. The Office notes that in the Report of Review of ES&S Unity 3.4.1.0 and DS200 Precinct Tabulator and DS850 Central Count Tabulator dated September 2, 2014, Paragraph 2 of the “Conditions” section provided “Unity 3.4.1.0 is certified for use as a stand-alone system. Unity 3.0.1.1, certified in 2008, is also currently certified as a stand-alone system. Any use that involves the interactions of the two systems would constitute a modification of their certified design and would need to receive approval from the Secretary of State prior to use in the State of Texas.”

Entities using Unity 3.4.1.4 would be able to produce election reports that contain results from the iVotronic DREs and the DS850s (as well as the DS200s). Only two components of Unity 3.4.1.0 were modified under Unity 3.4.1.4: the Election Reporting Manager (ERM) and the Hardware Programming Manager (HPM). Those two components support the merging of results in Unity 3.4.1.4. The remaining software and hardware components of Unity 3.4.1.0 were unmodified. As a result, they are not being evaluated under this certification and will not be specifically addressed herein, as they have previously been taken into consideration for in the 2014 certification of Unity 3.4.1.4.

The Unity 3.4.1.4 Voting System has been evaluated at an accredited independent voting system testing laboratory for conformance to the 2002 Voting System Standards (2005 VSS). It received Elections Assistance Commission (EAC) number ESSUnity3414 on August 26, 2016. The components of Unity 3.4.1.4 include (with changed components from Unity 3.4.1.0 bolded):

Component	Version	Description
Election Data Manager (EDM)	7.8.2.0	Database system that stores all of a jurisdiction’s election information data
ESS Image Manager (ESSIM)	7.7.2.0	Software to design and print ballots with the election information stored in Election Data Manager
Hardware Programming Manager (HPM)	5.9.0.1	Software to import, format, and convert the election definition files for ballot scanning equipment
Election Reporting Manager (ERM)	7.9.0.1	Software to tabulate and generate reporting of election results
Audit Manager	7.5.2.0	Software to track user activity
LogMonitor Service	1.1.0.0	
VAT Previewer	1.3.2907	
M100 Precinct Counter	5.4.4.5	Precinct optical scanner
M650 Central Counter	2.2.2.0	Central Count Tabulator
DS200 Precinct Counter	1.7.0.0	Precinct optical scanner
DS850 Count Counter	2.9.0.0	Central Tabulator
AutoMARK (AIMS)	1.3.257	Information management software that compiles and organizes the data needed to print ballots and prepare the AutoMARK Voter Assist Terminal (VAT)

AutoMARK (VAT) v. 1.0 & 1.1	1.3.2907	Accessible electronic ballot marker
--------------------------------	----------	-------------------------------------

FINDINGS

The following are the findings, based on written evidence submitted by the Vendor in support of its application for certification, oral evidence presented at the examination, and Texas voting system examiner reports.

The Unity 3.4.1.4 Voting System:

1. Preserves the secrecy of the ballot;
2. Is suitable for the purpose for which it is intended;
3. Operates safely, efficiently, and accurately and complies with the error rate standards of the adopted federal voting system standards;
4. Is safe from fraudulent or unauthorized manipulation;
5. Permits voting on all offices and measures to be voted on at the election;
6. Prevents counting votes on offices and measures on which the voter is not entitled to vote;
7. Prevents counting votes by the same voter for more than one candidate for the same office or, in elections in which a voter is entitled to vote for more than one candidate for the same office, prevents counting votes for more than the number of candidates for whom the voter is entitled to vote;
8. Prevents counting a vote on the same office or measure more than once;
9. Permits write-in voting;
10. Is capable of permitting straight-party voting, and permits or prevents, as applicable, counting votes in accordance with Sections 65.007(c) and (d) of the Texas Election Code; and
11. Is capable of providing records from which the operation of the system may be audited.

CONDITIONS

Based on the examination reports, it appears that those who intend to use the ES&S Unity 3.4.1.4 do not intend to use it on a wide-scale basis over an extended period, and certain examiners cautioned against such use as it could lead to human errors and the possible use for purposes for which it was not intended. The Vendor represented to the examiners that counties are expected to use the ES&S Unity 3.4.1.4 bridge procedure on a limited basis, they are already familiar with the process based on their use of a previous version of a bridge procedure, and the procedure is intended to allow the counties to use their iVotronic DREs until they upgrade, but in the meantime take advantage of the DS850 scanner for absentee ballots.

Accordingly, the Office imposes the following conditions:

1. ES&S Unity 3.4.1.4 is certified solely for use with previously approved ES&S systems that are compatible with ES&S Unity 3.4.1.4. This will limit its use to counties already familiar

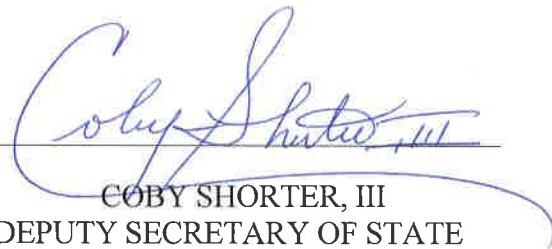
with the Unity system, and, within those counties, individuals who participate in the tabulation process, to eliminate the need for large scale training.

2. Conditions incorporated into previous certifications of Unity 3.0.1.1 and Unity 3.4.1.0 are hereby incorporated by reference, to the extent applicable.²

CONCLUSION

Accordingly, based upon the foregoing, I hereby certify Unity 3.4.1.4 for use in elections in Texas, subject to the above conditions.

Signed under my hand and seal of office, this 26th day of July 2017.



COBY SHORTER, III
DEPUTY SECRETARY OF STATE

² For example, because condition 1 in the certification of Unity 3.4.1.0 relies upon the current version of 1 TAC § 81.52(h), any change in § 81.52(h) which eliminates the requirement for a continuous feed audit log printer would render such condition moot.