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Test Report Addendum of  
EAC 2005 VVSG Certification Testing  
Performed on Unisyn Voting Solutions OVS 1.3

EAC CERTIFICATION NUMBER: 04211950-1.3

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U.S. Election Assistance Commission

**VSTL**

EAC Lab Code 0704



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**REVISIONS**

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## 1.0 INTRODUCTION

This Test Report is an addendum to the previously approved Unisyn OVS 1.3 Test Report, Rev. B.

### 1.1 Scope

The scope of this addendum included an update to the COTS Operating System Software Descriptions table for clarification of the exact versions utilized during testing and configuration of the certified system.

### 1.2 Objective

The objective of this addendum was to verify the correct versions of the CentOS Linux and MySQL Database utilized during testing and updated within the Test Report configuration tables for the certified system. The MySQL portion is only verified and not included within the software description tables.

### 1.3 Customer

Unisyn Voting Solutions, Inc.  
2310 Cousteau Court  
Vista, CA 92018

### 1.4 References

- Election Assistance Commission 2005 Voluntary Voting System Guidelines, Volume I, Version 1.0, "Voting System Performance Guidelines," and Volume II, Version 1.0, "National Certification Testing Guidelines," dated December 2005
- Election Assistance Commission Testing and Certification Program Manual, Version 1.0, expires July 2017
- Election Assistance Commission Voting System Test Laboratory Program Manual, Version 1.0, expires July 2017
- National Voluntary Laboratory Accreditation Program NIST Handbook 150, 2006 Edition, "NVLAP Procedures and General Requirements (NIST Handbook 150)," dated February 2006
- National Voluntary Laboratory Accreditation Program NIST Handbook 150-22, 2008 Edition, "Voting System Testing (NIST Handbook 150-22)," dated May 2008
- United States 107th Congress Help America Vote Act (HAVA) of 2002 (Public Law 107-252), dated October 2002
- Quality Assurance Program Manual, Revision 5
- ANSI/NCSL Z540-1, "Calibration Laboratories and Measuring and Test Equipment, General Requirements"
- ISO 10012-1, "Quality Assurance Requirements for Measuring Equipment"
- EAC Requests for Interpretation and Notices of Clarification (listed on [www.eac.gov](http://www.eac.gov))
- EAC Quality Monitoring Program residing on:  
[http://www.eac.gov/testing\\_and\\_certification/quality\\_monitoring\\_program.aspx](http://www.eac.gov/testing_and_certification/quality_monitoring_program.aspx)

## 1.5 Summary

The OVS 1.3 voting system was successfully verified to include the correct versions of CentOS Linux and MySQL Database during the testing campaign.

## 2.0 TEST EQUIPMENT DESCRIPTION

There was no test equipment provided or utilized for the verification process based on this was a visual verification, which required no additional testing.

## 3.0 TEST BACKGROUND

NTS Huntsville is an independent testing laboratory for systems and components under harsh environments, including dynamic and climatic extremes as well as the testing of electronic voting systems. NTS Huntsville holds the following accreditations:

- ISO-9001:2000
- NVLAP Accredited ISO 17025:2005
- EAC Accredited VSTL, NIST 150,150-22
- A2LA Accredited (Certification No.'s 845.01, 845.02, and 845.03)
- FCC Approved Contractor Test Site (Part 15, 18)

### 3.1 General Information

All verification performed as part of the test report addendum was performed at the NTS Huntsville facility. Verification was limited to the CentOS Linux and MySQL Database for the Unisyn OVS 1.3 voting system.

### 3.2 NTS Quality Assurance

All work performed on this test campaign was in accordance with the NTS Huntsville Quality Assurance Programs and the NTS Huntsville Quality Program Manual, which conforms to the applicable portions of International Standard Organization (ISO) Guide 17025.

The NTS Huntsville Facility Quality Management System is registered in compliance with the ISO-9001 International Quality Standard. Registration has been completed by Quality Management Institute (QMI), a Division of Canadian Standards Association (CSA).

### 3.3 Test Equipment and Instrumentation

There was no test equipment or instrumentation utilized for the verification process based on this was a visual verification, which required no additional testing.

### 3.4 Terms and Abbreviations

**Table 3-1 Terms and Abbreviations**

Term	Abbreviation	Definition
Adjudicator	ADJ	Allows a jurisdiction to evaluate ballots with questionable markings and change them if need, in accordance with the perceived intent of the voter.
Americans with Disabilities Act of 1990	ADA	ADA is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability.
Ballot Layout Manager	BLM	Unisyn OVS application used to layout ballot information.
Configuration Management	CM	---
Commercial Off the Shelf	COTS	Commercial, readily available hardware or software.
Direct Record Electronic	DRE	An electronic voting system that utilizes electronic components for the functions of ballot presentation, vote capture, vote recording, and tabulation which are logically and physically integrated into a single unit. A DRE produces a tabulation of the voting data stored in a removable memory component and in printed hardcopy.
United States Election Assistance Commission	EAC	Commission created per the Help America Vote Act of 2002, assigned the responsibility for setting voting system standards and providing for the voluntary testing and certification of voting systems.
Election Manager	EM	Utilizes the election definition file from the Ballot Layout Manager, adds jurisdiction voting device specific options and produces the CD used to load the election onto the voting devices and OVCS.
Election Management System	EMS	Within the OpenElect system, the EMS equivalent is OCS.
Election Server	ES	A component of the OCS, the ES updates the system clock and downloads new Election data to the voting devices prior to each election, typically at the warehouse.
Equipment Under Test	EUT	---
Functional Configuration Audit	FCA	Exhaustive verification of every system function and combination of functions cited in the manufacturer's documentation.
Help America Vote Act	HAVA	Act created by United States Congress in 2002.
International Lottery & Totalizer Systems, Inc	ILTS	The parent company of Unisyn Voting Solutions, Inc.
National Institute of Standards and Technology	NIST	Government organization created to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhances economic security and improves our quality of life.
OpenElect Central Suite	OCS	Set of applications supplied by Unisyn to run at the Election Headquarters to support elections on the OVO, OVI, and OVCS systems. Includes: Ballot Layout Manager, Election Manager, Election Server, Tabulator Client, Tabulator Server and Tabulator Reports. In addition, the OCS includes the Software Server (SS) system for updating and validating OVO and OVI (voting device) software. The Adjudicator application allows a Jurisdiction to review and change ballots based on perceived voter intent.
OpenElect Voting Central Scan	OVCS	A bulk scanner solution at the Central Site, used for casting provisional and mail-in ballots; can also be used to perform recounts.

**3.4 Terms and Abbreviations (Continued)**

**Table 3-1 Terms and Abbreviations (Continued)**

<b>Term</b>	<b>Abbreviation</b>	<b>Definition</b>
OpenElect Voting Interface	OVI-7 OVI-VC	Used as a ballot marking device, ADA solution, and early voting device.
OpenElect Voting Optical Scan	OVO	Scanning and tabulating voting device located at the precinct and used during early voting.
OpenElect Voting System	OVS	The Unisyn voting system submitted for certification testing.
Physical Configuration Audit	PCA	Review by accredited test laboratory to compare voting system components submitted for certification testing to the manufacturer's technical documentation, and confirmation the documentation meets national certification requirements.
Quality Assurance	QA	---
Software Server	SS	Updates and validates voting device client software.
Tabulator	TAB	The Tabulator receives and consolidates election results from the counted OVO and OVCS ballots that have been uploaded by the Tabulator Client (in the case of OVO results) and directly by the OVCS. The Tabulator stores the vote data in the database, provides a status for uploaded vote data and handles Rank Choice Voting functionality.
Tabulator Client	TC	Retrieves vote files from Transport Media devices and provides that data to the tabulator.
Technical Data Package	TDP	Manufacturer documentation related to the voting system required to be submitted as a precondition of certification testing.
Tabulator Reports	TR	Accesses data from the Tabulator database to generate the necessary unofficial and official reports.
Uninterruptible Power Supply	UPS	---
Voluntary Voting System Guidelines	EAC 2005 VVSG	Published by the EAC, the third iteration of national level voting system standards.
Operating Procedure	OP	NTS Test Method or Test Procedure

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#### 4.0 TEST PROCEDURES AND RESULTS

There were no test procedures utilized in the verification process of the Unisyn OVS 1.3 voting system. Only a visual verification was performed to verify the versions utilized during the testing campaign.

#### 4.1 Summary Findings

The OVS 1.3 voting system was visually verified to contain the proper versions of the CentOS Linux and MySQL Database utilized during the testing campaign. The versions listed within this addendum are correct and should be utilized as verification for the proper configuration of the certified OVS 1.3 system. Listed below is the updated table from the OVS 1.3 Rev. B. certified Test Report replacing **Table 2-9 Unisyn OVS 1.3 COTS Operating System Software Descriptions** of the certified report:

Software Required For Testing	Software Version	Filename	Hash Value (MD5)
Linux CentOS Distribution for OVS 1.3  (used for the OVO/OVI with old motherboard)	5.0	CentOS-5.0-i386-bin-1of6.iso CentOS-5.0-i386-bin-2of6.iso CentOS-5.0-i386-bin-3of6.iso CentOS-5.0-i386-bin-4of6.iso CentOS-5.0-i386-bin-5of6.iso CentOS-5.0-i386-bin-6of6.iso	f749d7e17fa01604b9956304efba2333; 963258ceafda5c5e6f79be86028b6b3d; a08ec9ccfdc89c24f3d6567219f90c42; b31c239009b780d1c89c311c192e43be; 0c3990be2271bf44c1495aa0003b5552; 9e6f91a5292f46b02777133765fc03fe
Linux CentOS Distribution  (used for the OCS and OVCS)	5.7	CentOS-5.7-i386-bin-DVD-1of2.iso	f64544635a0e1198899eb756072622f5
Linux CentOS Distribution  (used for the OVO/OVI with new motherboard)	6.3	CentOS-6.3-i386-bin-DVD1.iso	0285160d8ba3cfc720ea55e98e464eac
Linux CentOS Distribution  (used for OCS and OVCS)	6.5	CentOS-6.5-i386-bin-DVD1.iso	c98e8040b9ac107153fc1757b4874198