



To:

### **MEMORANDUM**

Date: October 7, 2022

The Honorable Chair and Members

Pima County Board of Supervisors

From: Jan Leshar County Administrator

Re: Board of Supervisors October 4, 2022 Meeting - Agenda Item 16. 2022 Primary

Election After Action Report - Additional Information

During discussion about the 2022 Primary Election After Action Report, questions were raised about the certification of the voting systems. Attached please find a Memorandum from Elections Director Constance Hargrove, which includes a copy of the Secretary of State's Certified Vote Tabulation Equipment list, a list of equipment certified by county, and the equipment list submitted to the Secretary of State by Pima County for the primary and general elections.

The equipment used by Pima County for the primary and general elections was certified for use by the Arizona Secretary of State.

JKL/anc

#### Attachment

c: Carmine DeBonis, Jr., Deputy County Administrator
Francisco García, MD, MPH, Deputy County Administrator and Chief Medical Officer
Steve Holmes, Deputy County Administrator
Constance Hargrove, Director, Elections



#### **ELECTIONS DEPARTMENT**

PIMA COUNTY GOVERNMENT 6550 SOUTH COUNTRY CLUB RD., TUCSON, AZ 85756 (520) 724-6830 FAX (520) 724-6870

Date: October 6, 2022

TO: Jan Lesher

County Administrator

FROM: Constance Hargro

**Elections Director** 

RE: Update October 4 Board of Supervisors Meeting – Voting Equipment Certification

The Help America Vote Act (HAVA) of 2002 mandated the Election Assistance Commission (EAC) to provide certification, decertification, and recertification of voting systems and the accreditation of voting system testing laboratories<sup>1</sup>. The Commission creates Voluntary Voting System Guidelines (VVSG) to test voting equipment.

In addition, the A.R.S. §16-442(B) requires the certification of all voting equipment according to state and federal law before use in any election for federal, state, or county office. The Secretary of State (SOS) reviews system documentation and/or conducts a demonstration and functionality test.<sup>2</sup> Any upgrades or modifications to an existing voting system require recertification. If the upgrade or modification is de minimis, no recertification is required. Arizona uses voting systems that have been certified by the EAC.

Pima County utilizes two types of voting equipment manufactured by Election Systems and Software (ES&S), the ExpressVote ballot marking device and the DS850 digital scanner. Both systems are certified by the Secretary of State. The County must submit the voting equipment model and firmware type to the SOS before each election.

I am attaching a copy of the Secretary of State's Certified Vote Tabulation Equipment list, a list of equipment certified by county, and the equipment list submitted to the SOS by Pima County for the primary and general elections.

#### Attachments

<sup>&</sup>lt;sup>1</sup> The U.S. Elections Assistance Commission – Testing and Certification Program

<sup>&</sup>lt;sup>2</sup> Arizona Secretary of State – Voting Equipment Certification



Company	Voting System/System Component	Software	Hardware/Firmware	EAC System ID #	Date of Certification
Diebold	GEMS 1-18-24 Voting System	EMP Model D software (4.6.2)	AccuVote-TSX DRE Model D (4.6.4) ExpressPoll 5000 Electronic Poll Book (CardWriter (1.0) component	N-1-06-22-22-003 N-1-06-22-22-004 N-1-06-22-22-005	6/15/2007
	*See original certification 11/2005		only) Election Media Processor (EMP) Model D software (4.6.2)		
Dominion	EMS 5.5.32.4	EMS-Election Event Designer (5.5.32.4) EMS- Results Tally & Reporting (5.5.32.4) EMS-Audio Studio (5.5.32.4) EMS-Data Center Manager (5.5.32.4) EMS-Application Server (5.5.32.4) EMS-Network Attached Storage (5.5.32.4) EMS-Database Server (5.5.32.4) EMS-Election Data Translator (5.5.32.4) EMS-Adjudication (5.5.32.1) ImageCast Voter Activation (ICVA) (5.5.32.4) ImageCast Central (ICC) (5.5.32.5) ImageCast Precinct2 (ICP2) (5.5.1.8) ImageCast X (ICX) (5.5.13.2)	ICVA Smart Card Reader (ACR39U) ICC Scanner (Canon Dr-G1130) ICC Scanner (InoTec HiPro 821) ICP2 Hardware (PCOS-330A) Ballot Box-Stacking (ICP2) (PCOS-350A) ICX Classic Hardware (Avalue SID-21V-Z37) ICX BMD Printer (HP M402dne) ICX BMD UPS (APC SMT1500C) Accessible Tactile Interface USB (ATI for ICP2 & ICX) (Rev.A)	DVS-DemSuite5.5-B	11/05//2019
ES&S	EVS 6.0.4.0	ElectionWare (5.0.4.0)	ExpressVote hardware version 1.0 (firmware version 1.5.2.0) ExpressVote hardware version 2.1 (firmware version 2.4.5.0) DS200 hardware versions 1.2 & 1.3, (firmware version 2.17.4.0) DS450 hardware version 1.0 (firmware version 3.1.1.0) DS850 hardware version 1.0 (firmware version 3.1.1.0)	ESSEVS6040	11/05/2019

This is a summary of the vote tabulating equipment certified by the Secretary of State since January 1, 2006. Copies of the actual certifications can be obtained by contacting the Secretary of State's office.



Company	Voting System/System Component	Software	Hardware/Firmware	EAC System ID #	Date of Certification
ES&S	EVS 6.0.2.1.	ElectionWare (5.0.2.0)	ExpressVote hardware version 1.0 (firmware version 1.5.1.0) ExpressVote hardware version 2.1 (firmware version 2.4.3.0) DS200 hardware versions 1.2 & 1.3, (firmware version 2.17.0.0) DS450 hardware version 1.0 (firmware version 3.1.0.0) DS850 hardware version 1.0 (firmware version 3.1.0.0)	<u>ESSEVS6021</u>	05/01/2019
ES&S	EVS 5.2.2.0	ElectionWare (4.7.1.1) Election Reporting Manager (ERM) (8.12.1.1) Event Log Service (1.5.5.0) Removable Media Service (1.4.5.0) ExpressVote Previewer (1.4.1.2) VAT Previewer (1.8.6.1)	* ExpressVote hardware version 1.0 (firmware version 1.4.1.2) ExpressVote Kiosk hardware version 1.0 DS200 hardware versions 1.2.1, 1.2.3, & 1.3 (firmware version 2.12.2.0) AutoMARK A100 hardware version 1.0 (firmware version 1.8.6.1) AutoMARK A200 hardware version 1.1 (firmware version 1.8.6.1) AutoMARK A300 hardware version 1.3 (firmware version 1.8.6.1) DS850 hardware version 1.0 (firmware version 2.10.2.0) DS450 hardware version 1.0 (firmware version 3.0.0.0) Plastic Ballot Box hardware versions 1.2, 1.3 Metal Ballot Box with/without Diverter hardware versions 1.0, 1.1, 1.2	ESSEVS5220	* ExpressVote hardware version 1.0 (firmware version 1.4.1.2) is conditionally certified through January 2020.



Company	Voting System/System Component	Software	Hardware/Firmware	EAC System ID #	Date of Certification
ES&S	EVS 5.2.1.0	ElectionWare (4.7.1.0) Election Reporting Manager (ERM) (8.12.1.0) Event Log Service (1.5.5.0) Removable Media Service (1.4.5.0) VAT Previewer (1.8.6.0)	ExpressVote hardware version 1.0 (firmware version 1.4.1.0) ExpressVote Kiosk hardware version 1.0 DS200 hardware versions 1.2.1, 1.2.3, & 1.3 (firmware version 2.12.1.0) AutoMARK A100 hardware version 1.0 (firmware version 1.8.6.0) AutoMARK A200 hardware versions 1.1, 1.3 (firmware version 1.8.6.0) AutoMARK A300 hardware version 1.3 (firmware version 1.8.6.0) DS850 hardware version 1.0 (firmware version 2.10.1.0) Plastic Ballot Box hardware versions 1.2, 1.3 Metal Ballot Box with/without Diverter hardware versions 1.0, 1.1, 1.2	ESSEVS5210	2/18/2016
ES&S	EVS 5.2.0.0	ElectionWare (4.6.0.0) Election Reporting Manager (ERM) (8.11.0.0) Event Log Service (1.5.5.0) Removable Media Service (1.4.5.0) VAT Previewer (1.8.6.0)	ExpressVote hardware version 1.0 (firmware version 1.4.0.0) DS200 hardware versions 1.2.1, 1.2.3, & 1.3 (firmware version 2.12.0.0) AutoMARK A100 hardware version 1.0 (firmware version 1.8.6.0) AutoMARK A200 hardware versions 1.1, 1.3 (firmware version 1.8.6.0) DS850 hardware version 1.0 (firmware version 2.10.0.0) Plastic Ballot Box hardware versions 1.2, 1.3 Metal Ballot Box with/without Diverter hardware versions 1.0, 1.1, 1.2	ESSEVS5200	12/17/2014

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Company	Voting System/System Component	Software	Hardware/Firmware	EAC System ID #	Date of Certification
ES&S	EVS 5.0.0.0 Voting System	ElectionWare (4.1.0.0) Event Log Service (1.5.0.0) Election Reporting Manager (ERM) (8.6.0.0) Removable Media Service (1.4.0.0) VAT Previewer (1.8.1.0)	Paper Ballot (3.1.0.0) DS200 hardware version 1.2 (firmware version 2.7.0.0) DS850 hardware version 1.0 (firmware version 2.4.0.0) AutoMARK A100 hardware version 1.0 (firmware version 1.8.1.0) AutoMARK A200 hardware version 1.1 (firmware version 1.8.1.0) AutoMARK A200 hardware version 1.3 (firmware version 1.8.1.0) AutoMARK A300 hardware version 1.3 (firmware version 1.8.1.0) DS200 Plastic Ballot Box (hardware versions 1.2, 1.3) Metal Ballot Box with Diverter (hardware versions 1.0, 1.1, 1.2) Metal Ballot Box without Diverter (hardware versions 1.0, 1.1, 1.2)	ESSEVS5000	6/17/2013
ES&S	Model 650 with the Unity 3.0.1.1 Voting System  *See original certification June 15, 2007	Unity 3.0.1.1	*Now included as part of the voting system suite previously certified on June 15, 2007	N-2-02-22-22-006 <u>ESSUnity3210</u>	10/19/2011
ES&S	Unity 3.0.1.1 / AutoMark 1.1 Voting System	Audit Manager (7.3.0.0) Election Data Manager (7.4.4.0) ES&S Image Manager (7.4.2.0) Hardware Programming Manager (5.2.4.0) Data Acquisition Manager (6.0.0.0) Election Reporting Manager (7.1.2.1) AutoMARK AIMS (1.2.18)	Model 100 Optical Scan Tabulator (5.2.1.0) AutoMARK Voter Assist Terminal (1.1.2258)	N-2-02-22-22-006 N- 2-02-22-22-007 ESSUnity3210	6/15/2007

This is a summary of the vote tabulating equipment certified by the Secretary of State since January 1, 2006. Copies of the actual certifications can be obtained by contacting the Secretary of State's office.



Company	Voting System/System Component	Software	Hardware/Firmware	EAC System ID #	Date of Certification
Sequoia	AVC Edge 5.0/WinEDS 3.1.038	WinEDS (3.1.038) SPR Host (1.09)	AVC Edge II (5.0.24) VeriVote Printer (4.3) HAAT Model 50 Card Activator (1.0.79L) Optech Insight (APX K2.10, HPX K1.42) Optech Insight with Modem (APX K2.10, HPX K1.42, CPX K1.14) 400-C/WinETP (3.00P/1.12.4) Memory Pack Reader (MPR) (2.15)	N-1-07-22-22-003	8/1/2006
Sequoia	WinEDS 3.1.074 / AVC Edge 5.0 Voting System	WinEDS (3.1.074) SPR Host (1.0.10)	AVC Edge II (5.0.31) with VeriVote VVPAT (4.3) & Edge Audio Unit (5.0 Rev. C) HAAT Model 50 Card Activator (2.1.18) Optech Insight (APX K2.12, HPX K1.44) Optech Insight with Modem (APX K2.12, HPX K1.44, CPX K1.14) 400-C/WinETP (3.00P/1.14.3) Memory Pack Reader (MPR) (2.15)	N-1-07-22-22-004	6/15/2007
Sequoia	WinEDS 3.1.074 /AVC Edge 5.0 Voting System	WinEDS (3.1.074)	*WinEDS Election Reporting (1.1.7.0) *WinEDS Election Results (1.1.1.0) *EDGE2plus Model 300 DRE (1.2.33)	N-1-07-22-22-004	11/19/2007
			*Additional components of the previously certified voting system		



Company	Voting System/System Component	Software	Hardware/Firmware	EAC System ID #	Date of Certification
Unisyn	OpenElect Voting System 2.1	Ballot Layout Manager (2.1) Election Manager (2.1) Tabulator Client (2.1) Tabulator (2.1) Tabulator Reports (2.1) Validator (2.1) Scripter (2.1) Common (2.1) OCS Installer (2.1) Regkey Builder (2.1) OVCS Application (2.1) Unisyn Secure Library (2.1) Logger (2.1) Auditor (2.1)	OVO hardware (version 2.1) OVI-VC (version 2.1) OVCS (version 2.1) OVCSmini (version 2.1) FVT (version 2.1)	UNS10121966-2.1	05/27/2020
Unisyn	OpenElect Voting System 2.0.A	Ballot Layout Manager (2.0.A) Election Manager (2.0.A) Tabulator Client (2.0.A) Tabulator (2.0.A) Tabulator Reports (2.0.A) Validator (2.0.A) Scripter (2.0.A)	OVO hardware revisions A and E (software version 2.0.A) OVI-VC hardware revisions A and B (software version 2.0.A) OVCS hardware revision ImageFORMULA DR-X10C & M160 (software version 1.3) OVCSmini (software version 2.0.A) FVT hardware revision A (software version 2.0.A)	UNS10121966-2.0.A	9/14/2018



Company	Voting System/System Component	Software	Hardware/Firmware	EAC System ID #	Date of Certification
Unisyn	OpenElect 1.3 Voting System	Ballot Layout Manager (1.3) Election Manager (EM) (1.3) Software Server (SS) (1.3) Election Server (ES) (1.3) Tabulator Client (TC) (1.3) Tabulator (Tab) (1.3) Tabulator Reports (TR) (1.3) Scripter (1.3) Validator (1.3)	OVO hardware revisions A and E (software version 1.3) OVI-7 hardware revision F (software verison 1.3) OVI-VC hardware revisions A and B (software version 1.3) OVCS hardware revision v. 1.3 (software version 1.3) Ballot Box - Plastic (hardware version 1.1) Ballot Box - Portable (hardware version 1.2) Ballot Box - Plastic (hardware version 1.3)	04211950-1.3	7/2/2015
Unisyn	OpenElect 1.2 Voting System	Ballot Layout Manager (1.2) Election Manager (EM) (1.2) Software Server (SS) (1.2) Election Server (ES) (1.2) Tabulator Client (TC) (1.2) Tabulator (Tab) (1.2) Tabulator Reports (TR) (1.2) Scripter (1.2) Validator (1.2)	OVO hardware revision E (software version 1.2) OVI-7 hardware revision F (software verison 1.2) OVI-VC hardware revisions A and B (software version 1.2) Ballot Box - Plastic (hardware version 1.1) Ballot Box - Portable (hardware version 1.2)	UNS10121966-OE- 1.2	5/23/2014

#### 2022 Election Cycle / Voting Equipment\*

County	System Type	Manufacturer	Maintenance	Model	Firmware Type	Software Type
Apache	Accessible Ballot Marking Device	ES&S	ES&S	ExpressVote (BMD)	1.5.2.1	ElectionWare 6.0.4.0
	Central Count - Digital Scan			DS450	3.1.1.0	ElectionWare 6.0.4.0
	Central Count - Digital Scan			DS850	3.1.1.0	ElectionWare 6.0.4.0
Cochise	Accessible Ballot Marking Device	ES&S	ES&S	ExpressVote (BMD)	1.5.2.1	ElectionWare 6.0.4.0
	Digital Scan			DS200	2.17.4.0	ElectionWare 6.0.4.0
	Central Count - Digital Scan			DS450	3.1.1.0	ElectionWare 6.0.4.0
	Central Count - Digital Scan			DS850	3.1.1.0	ElectionWare 6.0.4.0
Coconino	Accessible Ballot Marking Device	ES&S	ES&S	ExpressVote (BMD)	2.4.5.1	ElectionWare 6.0.4.0
	Central Count - Digital Scan			DS450	3.1.1.0	ElectionWare 6.0.4.0
Sila		ES&S	ES&S	ExpressVote (BMD)	1.5.2.0	ElectionWare 5.0.4.0
	Central Count - Digital Scan			DS850	3.1.1.0	ElectionWare 5.0.4.0
Graham		ES&S	ES&S	ExpressVote (BMD)	1.5.2.1	ElectionWare 5.0.4.0
	Central Count - Digital Scan			DS850	3.1.1.0	ElectionWare 5.0.4.0
Greenlee	Accessible Ballot Marking Device	ES&S	ES&S	ExpressVote (BMD)	1.5.2.0	ElectionWare 5.0.4.0
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Digital Scan			DS200	2.17.4.0	ElectionWare 5.0.4.0
	Central Count - Digital Scan			DS450	3.1.1.0	ElectionWare 5.0.4.0
a Paz		ES&S	ES&S	ExpressVote (BMD)	1.5.2.1	ElectionWare 6.0.4.0
u i uz	Digital Scan			DS200	2.17.4.0	ElectionWare 6.0.4.0
	Central Count - Digital Scan			DS450	3.1.1.0	ElectionWare 6.0.4.0
1aricopa	Accessible Ballot Marking Device	Dominion	Dominion	ImageCast X (BMD)	5.5.13.2	Democracy Suite 5.5b
шпоора	Accessible Ballot Marking Device			ICX ATI Unit (BMD)	181-000036 Rev. A	Democracy Suite 5.5b
	Ballot Marking Device Printer		i i	HP LaserJet Pro M402dne	Unmodified COTS	Democracy Suite 5.5b
	Digital Scan			Imagecast Precinct 2	5.5.18	Democracy Suite 5.5b
	Central Count - Digital Scan			ICC Cannon DR-G1130	Unmodified COTS	Democracy Suite 5.5b
	Central Count - Digital Scan			ICC Interscan HiPro 821	Unmodified COTS	Democracy Suite 5.5b
1ohave	Accessible Ballot Marking Device	ES&S	ES&S	ExpressVote (BMD)	2.4.5.1	ElectionWare 6.0.4.0
ionave	Central Count - Digital Scan			DS850	3.1.1.0	ElectionWare 6.0.4.0
lavajo	Accessible Ballot Marking Device	ES&S	ES&S	ExpressVote (BMD)	2.4.5.1 / 1.5.2.1	ElectionWare 6.0.4.0
iavajo	Digital Scan			DS200	2.17.4.0	ElectionWare 6.0.4.0
	Central Count - Digital Scan			DS450	3.1.1.0	ElectionWare 6.0.4.0
	Central Count - Digital Scan			DS850	3.1.1.0	ElectionWare 6.0.4.0
ima	Accessible Ballot Marking Device	ES&S	ES&S	ExpressVote (BMD)	2.4.5.1	ElectionWare 6.0.4.0
IIIIa	Central Count - Digital Scan			DS850	2.4.0.0	ElectionWare 6.0.4.0
inal		ES&S	ES&S	ExpressVote (BMD)	2.1.10.0	ElectionWare 5.0.4.0
mai	Central Count - Digital Scan	L SαS	ESOS	DS850	1.0.0.0	ElectionWare 5.0.4.0
anda Caus	Accessible Ballot Marking Device	ES&S	ES&S	ExpressVote (BMD)	1.5.2.1	ElectionWare 6.0.4.0
anta Cruz	•	ESas	LJUJ	DS450	3,1,1,0	ElectionWare 6.0.4.0
	Central Count - Digital Scan Accessible Ballot Marking Device	Ulniova	i Injevn	FVT	OpenElect 2.2	OCS OpenElect 2.2
avapai	•	Unisyn	Unisyn	OVCS	1.55	OCS OpenElect 2.2
· · · · · ·	Central Count - Digital Scan	1000	ES&S	ExpressVote (BMD)	1.5.2.1	ElectionWare 6.0.4.0
'uma	Accessible Ballot Marking Device	ES&S	ESQS	DS200	2.17.4.0	ElectionWare 6.0.4.0
	Digital Scan		 		!	!
	Central Count - Digital Scan	1	l .	DS450	3.1.1.0	ElectionWare 6.0.4.0

<sup>\*</sup>This list may be updated prior to the next election. Revised August 2022

### ADDITIONAL REPORTING FORMS

### Equipment, Software, Firmware, and Hash Code Certification Statement

I,Constance Hargrove	certify by aff	ixing my signa	ture to this document th	at all election equin	ment and firmware as
well as all election management system software to be	e used in the P	rimary	Election to be held on	August 2 2022	IN Pima
County has been certified for use by the Arizona Secret Technology (NIST) or the Arizona Secretary of State's certify that the numbers are identical. The following aforementioned election:  VOTING UNITS	etary of State and that its Office to the hash co	I have compar de of the elect	ed the hash code on file ion management system	with the National Ir	nstitute of Science and
Manufacturer		Model		Firmware	Vergion
Election Systems & Software		pressVote		2.4.3	
				1.5.2	
CENTRAL COUNT UNITS  Manufacturer  Election Systems & Software		Model Version 1.0		Firmware 2.4.0	
ELECTION MANAGEMENT SOFTWARE  Manufacturer  Election Systems & Software	Prod Election Systems &	uct Name Software Voti	ng System	Vers 6.0.4	
Officer in Charge of Elections Signature			5 27 22 Date		

Revised

#### ADDITIONAL REPORTING FORMS

### Equipment, Software, Firmware, and Hash Code Certification Statement

I,Constance Hargrove	certify by affixing my signature to this documer	nt that all election equipment and firmware, as
Technology (NIST) or the Arizona Secretary of State	be used in the <u>General</u> Election to be held cretary of State and that I have compared the hash code or e's Office to the hash code of the election management sying is a list of the equipment, firmware, and election man	stem software to be used in this election and
VOTING UNITS  Manufacturer  Election Systems & Software	Model ExpressVote	Firmware Version 2.4.5.1 1.5.2.1
CENTRAL COUNT UNITS  Manufacturer  Election Systems & Software	Model DS850 Version 1.0	Firmware Version 2.4.0.0
ELECTION MANAGEMENT SOFTWARE  Manufacturer  Election Systems & Software	Product Name Election Systems & Software Voting System	Version 6.0.4.0
Officer in Charge of Elections Signature	09/22/2022 Date	