

# HOANG QUAN - BIO

- Education

- BSEE, University of Texas at Austin: Communication & Control & Computer Architecture (1986)
- MDIV Phoenix Seminary (2005)
- Continuing self studies in law, business, medicine, technologies, farming, ranching, and nutrition

- Work Experience

- 12 years in Design & Business Development for System On a Chip products for automotive, industrial, and computer applications. (1986-1999)
- 18 years in Food Production, Farming and Ranching,
- Volunteer Ministry: Habitat 4 Humanity, Prison Ministries, Junior Helping Hands of Austin, SW Keys of Phoenix, Advocacy for J6 Defendants



# POWER OF THE BOARD OF SUPERVISORS OVER ELECTIONS

*Does The Cochise Board of Supervisors have the power vested in the Constitution, Federal Election Laws, Arizona Statutes, and Election Procedures Manual to manually count votes?*





# EFFICIENCY OF MACHINES IN STEALING ELECTIONS

- Scalable
- Fast
- Cost Effective

We can make it much harder to cheat by eliminating machines!



Electronic Voting Systems, Smartmatic, Jimmy Carter, and How an Election was Robbed - El American.pdf



Dominion, the Foreign Software Company with a Controversial Background Deciding American Elections - El American.pdf



DominionAcquiresPremierReleaseFinal4\_051910.pdf



Venezuelan election turnout figures manipulated by one million votes\_ election company.pdf

THE MARKET FOR  
VOTING MACHINES  
IS BROKEN.  
THIS COMPANY  
HAS THRIVED  
IN IT.



The Market for Voting Machines Is Broken. This Company Has Thrived in It. — ProPublica.pdf

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The Market for Voting Machines Is Broken. This Company Has Thrived in It. — ProPublica



*A Philadelphia city elections official demonstrates how to use ES&S' ExpressVote XL machine in June 2019. (Matt Rourke/AP Photo)*

## **The Market for Voting Machines Is Broken. This Company Has Thrived in It.**

Half the country votes on machines made by ES&S. Many experts and election officials say the manufacturer remains dominant because there's little government regulation and almost no oversight.

by Jessica Huseman, Oct. 28, 2019, 2:20 p.m. EDT



/ WHAT'S HOT /



Parents On TikTok Draw Instant Backlash For Potentially Dangerous Disney Hack



Southern Baptists Oust Saddleback Church Over Woman Pastor



Bette Midler Reveals The Surprising Reason She Turned Down 'Sister Act'



Here's What's Coming To Netflix In March

THE BLOG [POLITICS](#) [HUGO CHAVEZ](#)

# EXCLUSIVE: On Heels of Diebold/Premier Purchase, Canadian eVoting Firm Dominion Also Acquires Sequoia, Lies About Chavez Ties in Announcement

EXCLUSIVE: On Heels of Diebold/Premier Purchase, Canadian eVoting Firm Dominion Also Acquires Sequoia, Lies About Chavez Ties in Announcement

By Brad Friedman, Contributor

Investigative journalist, blogger, broadcaster

Jun 22, 2010, 02:17 PM EDT | Updated Dec 6, 2017

*This post was published on the now-closed HuffPost Contributor platform. Contributors control their own work and posted freely to our site. If you need to flag this entry as abusive, [send us an email](#).*



**'Intellectual Property' of voting systems still owned by firm linked to Venezuelan President, despite press statement to the contrary**

*PLUS: The election official/e-voting company revolving 'oversight' door continues to turn...*

[A.R.S. § 16-442\(A\)-\(B\).](#)

Certification includes a review of system documentation and/or conducting a demonstration and functionality test. Upgrades or modifications to an existing voting system require recertification, but if the upgrade or modification is *de minimis*, a demonstration and functionality test is optional and not necessarily required. See [Chapter 4, Section I\(A\)\(2\)](#). A request for emergency conditional certification is subject to different standards. See [Chapter 4, Section I\(C\)](#).

The Secretary of State shall consult with and obtain recommendations regarding voting systems from nonprofit organizations that represent persons who are blind or visually impaired, persons with expertise in accessible software, hardware, and other technology, county and local election officials, and other persons deemed appropriate by the Secretary of State. The Secretary of State shall submit these recommendations to the state Election Equipment Certification Committee to

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**CHAPTER 4:**

**Voting Equipment — *I. Voting Equipment Certification***

# VOTING SYSTEM EXAMINATION OF ELECTION SYSTEMS & SOFTWARE EVS 6.0.4.0 BRIAN MECHLER, TECHNICAL EXAMINER EXAM DATES: JUNE 26-27, 2019 REPORT DATE: JULY 28, 2019

## Voting System Examination of Election Systems & Software EVS 6.0.4.0

Brian Mechler, Technical Examiner  
Exam Dates: June 26-27, 2019  
Report Date: July 28, 2019

### 1 Background

An examination of the Election Systems & Software (ES&S) EVS 6.0.4.0 voting system was conducted at the Texas Secretary of State Elections Division offices on June 26-27, 2019. EVS 6.0.4.0 is a comprehensive voting system which can consist of a subset of the following components [1][2][3]:

- Electionware - an suite of end-to-end election management software applications
- ExpressVote Previewer – a ballot preview utility
- PaperBallot – a ballot layout editor

### 3.5 Observations

Examiners observed the installation of firmware, EQCs, and election definitions on all of the voting devices as well as the export of data and logs. There were no issues with this process.

The UI for the ExpressTouch and the ExpressVote HW 1.0 and 2.1 was the same. During the mock election, the voting instructions and touchscreen ballots were easy to understand and navigate.

The large format of the ExpressVote XL touchscreen allows for many contests to be displayed to the voter at once. The Electionware ballot designer provides a lot of flexibility in designing the ballot layout for this device. This layout potentially reduces the time the voter spends in the booth and creates a ballot that is easy to see all-at-once. The downside is that there is greater surface area for creating a confusing ballot. Jurisdictions should take great care to consider the user experience when designing their ballots for the XL. In general, there were no issues observed when using this device during the mock election.

## 8 Conclusions

While some concerns arose during the exam, none were disqualifying. In future updates, **ES&S should do away with default, unchangeable passwords on devices.** Adding data storage redundancy to the central scanners would be another welcome improvement.

The remaining issues observed during the exam can be mitigated with proper training of central election staff and poll workers. Jurisdictions should budget for appropriate levels of training and support when considering use of EVS 6.0.4.0. Similarly, jurisdictions should budget for the added consumables (e.g. ink, paper, USB thumb drives) that are required to operate EVS 6.0.4.0 in an EAC certified configuration.

Overall, EVS 6.0.4.0 is a comprehensive voting system that is secure, well-designed, and user-friendly. ES&S's responses to Voting System Certification Form 101 are truthful and adequate. The system tallied and reported results accurately during the mock election portion of the exam. ES&S personnel provided clear and knowledgeable answers to the examiners' questions.

I recommend certification of EVS 6.0.4.0.

## 7.1 ES&S Personnel Performing Hash Verification

It was disclosed during the concurrent EVS 6.0.3.0 exam that **ES&S personnel have performed the hash verification process instead of their customers.** Jurisdictions should always perform this process themselves. To have the vendor perform a required component of acceptance testing creates, at best, a conflict of interest. The Secretary of State Elections Division has taken an action to work with ES&S and their Texas customers to better define their roles and responsibilities with respect to acceptance testing and hash verification.

## 7.2 Bug in Hash Verification Script

The hash verification process involves the creation of two USB thumb drives; one containing the system export data of the system to be verified and the other containing the verification scripts and trusted hash file. A host separate from the EMS is booted using a live Ubuntu DVD. The live Ubuntu DVD allows the user to run the Linux OS from the DVD without altering the non-volatile memory of the host computer. The export and scripting media are then mounted and a set of scripts are run to configure the user's environment, compute hashes of the system export data, and compare those hashes with the trusted hash file.

While working through this process, I initially overlooked the instruction to add the trusted hash file to the scripting media. **Despite the missing trusted hash file, the verification script erroneously reported that the exported hashes matched the trusted hashes.**

```
$ ./DS200-VerifyHash.sh DS200-TxSos6110ExamAug2020
diff: HashTrusted-DS200.txt: No such file or directory

DS200 firmware matches Trusted Hash File.
Hash File, DS200-TxSos6110ExamAug2020_Hash.txt, copied to output
```

BERG COUNTY/NEW JERSEY  
NEW JERSEY GENERAL DEMO (PROV)  
11/07/2021  
MABLE TOWNSHIP WARD 2, DISTRICT 2, ADULT

0010010000	0001001000	0000000000
0000010000	0000010000	0000010000
0000010000	0000010000	0000010000

..... C DEE LISHKO  
STATE SENATE..... REP PED ADON  
GENERAL ASSEMBLY..... SEN CARSTE DITE  
..... C DYRA RADIS  
STATE COMMITTEE..... REP LARA NADE  
COMMITTEE..... W/1 RAYA CHOICE  
SCHOOL BOARD..... DEJ EVE NING  
..... DEJ HAZEL NUT  
PUBLIC QUESTION TO BE VOTED UPON.....  
..... YES



# EFFICIENCY OF MACHINES IN STEALING ELECTIONS

- Scalable
- Fast
- Cost Effective

We can make it much harder to cheat by eliminating machines!

When our votes are removed or diluted, we are no longer free but slaves to those who control the machines.

## 14<sup>th</sup> AMENDMENT Section 1

All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

ARIZONA  
CONSTITUTION  
ARTICLE 2—  
DECLARATION  
OF RIGHTS

WHEN BLACK  
BOXES WITH  
UNKNOWN  
SOFTWARE RUN  
OUR  
ELECTIONS, WE  
ARE NO LONGER  
FREE!

Political power; purpose of government

Section 2. All political power is inherent in the people, and governments derive their just powers from the consent of the governed, and are established to protect and maintain individual rights.

Free and equal elections

Section 21. All elections shall be free and equal, and no power, civil or military, shall at any time interfere to prevent the free exercise of the right of suffrage.

ARIZONA  
CONSTITUTION  
ARTICLE 7—  
SUFFRAGE AND  
ELECTIONS

Method of voting; secrecy

Section 1. All elections by the people shall be by ballot, or by such other method as may be prescribed by law; Provided, that secrecy in voting shall be preserved.

## ARS §11-251 Powers of board

1. Supervise the official conduct of all county officers and officers of all districts and other subdivisions of the county charged with assessing, collecting, safekeeping, managing or disbursing the public revenues, see that the officers faithfully perform their duties and direct prosecutions for delinquencies, and, when necessary, require the officers to renew their official bonds, make reports and present their books and accounts for inspection.

2. Divide the counties into districts or precincts as required by law, change the districts or precincts and create others as convenience requires.

3. Establish, abolish and change election precincts, appoint inspectors and judges of elections, canvass election returns, declare the result and issue certificates thereof.

- Supervise the official conduct of ***all county officers*** and officers of all districts and other subdivisions of the county
- **Districing**
- **Establish, abolish and change (1) election precincts, (2) appoint inspectors and judges of elections, (3) canvass election returns, (4) declare the result and issue certificates thereof**

# 16-446. SPECIFICATIONS OF ELECTRONIC VOTING SYSTEM

B. An electronic voting system shall:

7. Provide a durable paper document that visually indicates the voter's selections, that the voter may use to verify the voter's choices, that may be spoiled by the voter if it fails to reflect the voter's choices and that permits the voter to cast a new ballot. This paper document shall be used in manual audits and recounts.

Cochise County in-person ballots do not conform to ARS 16-446 (B) (7) because the voter cannot verify his or her vote!

16-574. REPAIR  
OR  
SUBSTITUTION  
OF MACHINES;  
USE OF PAPER  
BALLOTS

B. If repair or substitution of a machine cannot be made, paper ballots printed or written and of any suitable form may be used for taking votes, and for that purpose the sample ballots may be employed.

Paper is the fail-safe option provided by law. Why not conduct election with the most reliable and transparent method provided by law?

16-602. REMOVAL OF BALLOTS FROM BALLOT BOXES; DISPOSITION OF  
BALLOTS FOLDED TOGETHER OR EXCESSIVE BALLOTS; DESIGNATED  
MARGIN; HAND COUNTS; VOTE COUNT VERIFICATION COMMITTEE

(B) (1) At least two percent of the precincts in that county, or two precincts, whichever is greater, shall be selected at random from a pool consisting of every precinct in that county. The county political party chairman for each political party that is entitled to continued representation on the state ballot or the chairman's designee shall conduct the selection of the precincts to be hand counted. The precincts shall be selected by lot without the use of a computer, and the order of selection by the county political party chairmen shall also be by lot. The selection of the precincts shall not begin until all ballots voted in the precinct polling places have been delivered to the central counting center. The unofficial vote totals from all precincts shall be made public before selecting the precincts to be hand counted. Only the ballots cast in the polling places and ballots from direct recording electronic machines shall be included in the hand counts conducted pursuant to this section. Provisional ballots, conditional provisional ballots and write-in votes shall not be included in the hand counts and the early ballots shall be grouped separately by the officer in charge of elections for purposes of a separate manual audit pursuant to subsection F of this section.

A minimum is required but a maximum is implied. 100% recount gives 100% certainty and the law does not prohibit a 100% recount. The law does set a minimum at 2% of the vote or two precincts, whichever is greater

## 16-607. STATEMENTS OF TALLY

- A. In each election precinct **where voting machines are used**, statements of tally shall be printed to conform with the type of voting machine used. The designating number and letter on the counter for each candidate shall be printed next to the candidate's name on the statements of tally and shall provide for the entry of the number of votes for each candidate and the "yes" and "no" over each question.

**16-607 (A) applies to where voting machines are used and implies that voting machines may not be in use elsewhere**

# 16-621. PROCEEDINGS AT THE COUNTING CENTER

- A. All proceedings at the counting center shall be under the direction of the board of supervisors or other officer in charge of elections ... [Does the BOS only perform a ceremonial function in election or does it have full authority and responsibility over elections?]
- B. If the counting center automatic tabulating equipment includes an electronic vote adjudication feature that has been certified for use as prescribed by section 16-442 and the board of supervisors or officer in charge of elections authorizes the use of this feature at the counting center, all of the following apply: [More power of the BOS over elections]
- C. If for any reason it becomes impracticable to count all or a part of the ballots with tabulating equipment, the officer in charge of elections may direct that they be counted manually, following as far as practicable the provisions governing the counting of paper ballots. [Hand Counting permitted and decided by officer in charge of elections. BOS implied though power may be delegated to officer] ←

## 16-643. METHOD OF CANVASS

The canvass of the election returns shall be made in public by opening the returns, other than the ballots, and determining the vote of the county, by polling places, for each person voted for and the vote for and against each proposed constitutional amendment and initiated or referred measure appearing upon the ballot at such election.

There is no requirement that machines have to be used

## 16-661, 663, 664. AUTOMATIC RECOUNT; REQUIREMENTS &

16-661(A) A recount of the vote is required when the canvass of returns in a primary or general election shows that the margin between the two candidates receiving the greatest number of votes for a particular office, or between the number of votes cast for and against initiated or referred measures or proposals to amend the Constitution of Arizona, is less than or equal to one-half of one percent of the number of votes cast for both such candidates or on such measures or proposals.

16-663(A) The superior court to which the facts requiring a recount are certified shall forthwith make and enter an order requiring a recount of the votes cast for such office, measure or proposal. The recount shall be conducted in accordance with the laws pertaining to contests of elections.

16-663(B) When the court orders a recount of votes which were cast and tabulated on electronic voting equipment, such recount shall be pursuant to section 16-664.

16-664(C) The programs to be used in the recount of votes pursuant to this section shall differ from the programs prescribed by section 16-445 and used in the initial tabulation of the votes. [Law required different software to be used in a recount]

# 2019 ARIZONA ELECTION PROCEDURES MANUAL

A limited precinct hand count and early ballot hand count audit must be conducted after each countywide primary, special, general, and PPE election and compared against the results from the electronic tabulation system, unless applicable exceptions apply. The purpose of the hand count audit is to compare the results of the machine count to the hand count to assure that the machines are working properly and accurately counting votes. Those conducting the hand count shall not be provided the machine count results of the batches of ballots they are hand counting prior to completion of the hand count of that batch. If the results from the hand count audit are within the “designated margin” of the electronic results for selected ballots, the hand count is deemed to have confirmed the accuracy of the electronic tabulation equipment, the hand count may cease, and the countywide electronic results are deemed the official results of the election. If the results from the hand count audit are outside of the designated margin, a second hand count of the same ballots is required, potentially followed by an expanded hand count and one or more jurisdiction-wide hand counts depending on the results <http://www.azleg.gov/ars/16/00602.htm>

# Introduction to Federal Voting Rights Laws

The right to vote is a significant civil liberty for all Americans because it impacts all other rights we have. The opportunity for citizens to choose who represents them in government represents everything that a democracy aspires to be. These ideals are not reflected in the Constitution by an absolute right to vote. Instead, state governments can enact their own voting laws and they can vary drastically. However, the federal government has certain, limited voting rights laws to help preserve and protect this essential right.

<https://www.findlaw.com/voting/how-do-i-protect-my-right-to-vote/introduction-to-federal-voting-rights-laws.html>

- Title I of the Civil Rights Act of 1964
- The Voting Rights Act of 1965
- Section 203 of the Voting Rights Act
- The Voting Accessibility for the Elderly and Handicapped Act
- The Uniformed and Overseas Citizens Absentee Voting Act
- National Voter Registration Act of 1993
- The Help America Vote Act (HAVA)

# THE HELP AMERICA VOTE ACT (HAVA)

The Help America Vote Act (HAVA), enacted in 2002 in response to the 2000 presidential election, establishes identification procedures and outlines minimum standards for states to follow regarding voting systems, provisional ballots, and other aspects of administering federal elections.

# TITLE III—UNIFORM AND NONDISCRIMINATORY ELECTION TECHNOLOGY AND ADMINISTRATION REQUIREMENTS

## Subtitle A—Requirements

### SEC. 301. VOTING SYSTEMS STANDARDS.

(a) REQUIREMENTS.—Each voting system used in an election for Federal office shall meet the following requirements:

(1) IN GENERAL.—

(A) Except as provided in subparagraph (B), the voting system (including any lever voting system, optical scanning voting system, or direct recording electronic system) shall—

(i) permit the voter to verify (in a private and independent manner) the votes selected by the voter on the ballot before the ballot is cast and counted;

(ii) provide the voter with the opportunity (in a private and independent manner) to change the ballot or correct any error before the ballot is cast and counted (including the opportunity to correct the error through the issuance of a replacement ballot if the voter was otherwise unable to change the ballot or correct any error); and

(iii) if the voter selects votes for more than one candidate for a single office—

(I) notify the voter that the voter has selected more than one candidate for a single office on the ballot;

(II) notify the voter before the ballot is cast and counted of the effect of casting multiple votes for the office; and

(III) provide the voter with the opportunity to correct the ballot before the ballot is cast and counted.

(B) A State or jurisdiction that uses a paper ballot voting system, a punch card voting system, or a central count voting system (including mail-in absentee ballots and mail-in ballots), may meet the requirements of subparagraph (A)(iii) by—

(i) establishing a voter education program specific to that voting system that notifies each voter of the effect of casting multiple votes for an office; and

(ii) providing the voter with instructions on how to correct the ballot before it is cast and counted (including instructions on how to correct the error through the issuance of a replacement ballot if the voter was otherwise unable to change the ballot or correct any error).

(C) The voting system shall ensure that any notification required under this paragraph preserves the privacy of the voter and the confidentiality of the ballot.

(2) AUDIT CAPACITY.—

(A) IN GENERAL.—The voting system shall produce a record with an audit capacity for such system.

(B) MANUAL AUDIT CAPACITY.—

(i) The voting system shall produce a permanent paper record with a manual audit capacity for such system.

(ii) The voting system shall provide the voter with an opportunity to change the ballot or correct any error before the permanent paper record is produced.

(iii) The paper record produced under subparagraph (A) shall be available as an official record for any recount conducted with respect to any election in which the system is used.

(3) ACCESSIBILITY FOR INDIVIDUALS WITH DISABILITIES.—The voting system shall—

(A) be accessible for individuals with disabilities, including nonvisual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as for other voters;

(B) satisfy the requirement of subparagraph (A) through the use of at least one direct recording electronic voting system or other voting system equipped for individuals with disabilities at each polling place; and

(C) if purchased with funds made available under title II on or after January 1, 2007, meet the voting system standards for disability access (as outlined in this paragraph).

(4) ALTERNATIVE LANGUAGE ACCESSIBILITY.—The voting system shall provide alternative language accessibility pursuant to the requirements of section 203 of the Voting Rights Act

—OCT. 29, 20

E ACT OF

# IS PAPER & HAND COUNT PERMITTED?

- Yes, by Federal Statute Title III Subtitle A Section 301-UNIFORM AND NONDISCRIMINATORY ELECTION TECHNOLOGY AND ADMINISTRATION REQUIREMENTS
- Yes, by ARS 16-446; 16-574; 16-602; 16-607; 16-621—The BOS has the authority over County elections and County officials to conduct elections by durable paper ballots that are hand counted to the standard of both federal and state laws, providing for a fair and accurate vote count.

# CONCLUSION

- The Board of Supervisors have complete power to conduct and supervise elections.
- Hand counting votes on durable paper is the ultimate backup for all technology failures and should be the chosen method for counting votes
  - Hand count is the lawful method to audit machines
  - Hand count can expand to 100% when machine counts are in question
  - Hand count is a backup when it is deemed necessary (ARS 16-621)
- Cochise County Board of Supervisors should immediately vote to authorize durable paper human readable ballot and hand count for the next election & ensure a robust chain of custody for every vote!