

Date: July 15, 2016

To: Chuck H. Huckelberry
County Administrator

From: Dan Hunt
Information Security Officer

Via: Jesse Rodriguez
Chief Information Officer

Re: Vulnerability of Pima County's Voter Registration Database

In response to your memo dated July 7, 2016, Matt Osmond and I visited the Pima County Elections facility on July 12, 2016, to review their systems and ensure that County Elections databases were/are isolated from the Secretary of State's systems, and are not subject to hacking. Before going on site, I reviewed several sections from Arizona Revised Statute having to do with Elections tabulation system security (ARS § 16-442, ARS § 16-444, ARS § 16-445, ARS § 16-624, and ARS § 16-1004) that were provided to me by Mr. Nelson.

What we found through visual inspection and a question and answer session with Thomas Quigley, Elections Technician, Senior, is that Pima County Elections staff are doing everything they can to ensure they are following Arizona Revised Statute regarding the Elections tabulation system security, and it appears they have gone above and beyond in most areas. We found a system that is "air-gapped" (no physical connectivity) from the Pima County network and has no connectivity to the Internet. Because of that, there is no way the Pima County system can be connected to the Secretary of State systems, and the risk of anyone hacking into it without having physical access to the facility is next to impossible. There are cameras throughout the facility recording the movement of people into, out of and throughout the facility. We were required to sign in at the front desk and then again in the room where the elections tabulation system resides.

The Elections Office operates:

- Six (6) DS 850 High-Speed Scanner & Tabulators from Election Systems and Software (ES&S) which are fully United States Election Assistance Commission (EAC) certified. During an election these devices are unplugged from the "closed network" at the end of each day and the data is wiped off of them. These machines locally store the data as they are tabulating election results and transfer that data to the server(s).
- There are two (2) Dell PowerEdge R620 servers on the system, the second being in place for redundancy in case the first one fails. These servers run on a Microsoft Windows server operating system. ES&S, who is an Arizona State certified elections vendor is responsible for "building" the servers and making sure they have everything on them that is necessary for the elections tabulation system to function. The server/system is then certified and absolutely no changes can be made to it. No Windows updates, antivirus updates or applications updates are applied to the system once it has been certified. The server(s) are also unplugged from the network except during the

Chuck H. Huckelberry, County Administrator

Via: Jesse Rodriguez, Chief Information Officer

Re: Vulnerability of Pima County's Voter Registration Database

July 15, 2016

Page 2 of 2

processing of Election results as one more layer of protection against hacking or theft of data.

- The scanner/tabulators and servers are connected to/through a Cisco Catalyst 2960 switch that resides within a locked cabinet where the locking mechanisms are covered with a seal so it is evident if the locking mechanisms are ever opened. The seals are numbered and their placement throughout the system are logged as to when they were put on, by whom, who witnessed the placement, and the reason the seal was broken in the first place. All devices are connected to the switch via Ethernet cables that are color coded by device. The cabling runs overhead in wire basket cable trays which make it very easy to trace the cables from point of origin through point of termination, and makes it easy to see there were no "additional" cables available that would allow the system to be plugged into a network that would give it accessibility to the County network or Internet.
- Election data is then backed up from the server onto a memory stick and stored in a locked fireproof safe.
- Election results are gathered from the server(s) via CD and provided to the State/designee via secure email or utilizing secure file transfer protocol (SFTP) to place the data on a server.
- There is a single analog phone line within the room that has no ability to provide connectivity into the air-gapped system.

We have not been able to meet with the Recorder as she has been on vacation and just returned this week. She has asked that we give her a few days to catch up and we will then meet and determine what the state of security is for her systems.

DH/mk

Copy: The Honorable F. Ann Rodriguez, Pima County Recorder
Tom Burke, Deputy County Administrator for Administration
Brad Nelson, Director, Elections Department



MEMORANDUM

Date: July 7, 2016

To: Jesse Rodriguez, Director
Information Technology Department

From: C.H. Huckelberry
County Administrator 

Re: **Vulnerability of Pima County's Voter Registration Database**

I understand the State of Arizona Voter Registration Database has been breached. Please see the attached June 30, 2016 *Republic* article. This database is housed on the Secretary of State's computer systems and platforms. The County's databases are housed locally.

I would appreciate your review to ensure our Election Department and Voter Registration databases remain isolated from those of the Secretary of State's systems and are not subject to hacking. Based on the information I received, I believe the Federal Bureau of Investigation has informed the Arizona Department of Administration of the hacking and/or intrusion into the Secretary of State's Voter Registration Database.

CHH/anc

Attachment

c: The Honorable F. Ann Rodriguez, Pima County Recorder
Tom Burke, Deputy County Administrator for Administration
Brad Nelson, Director, Elections Department

FBI concerns shut down parts of secretary of state's elections site

 **Mary Jo Pitzl**, The Republic | azcentral.com 3:09 p.m. MST June 30, 2016

Security concerns prompt the Arizona Secretary of State's Office to shut down parts of its website that affect candidates running with public financing and voter registration.



(Photo: Danny Miller/The Republic)

UPDATE:

The FBI found a potential threat to the state's voter-registration system, which is why the Arizona Secretary of State's Office still has parts of its system shut down.

The problem apparently stems from a "compromised" credential that someone using a Gila County computer used to log in to the state's Voter Registration System, the state Department of Administration said in a statement. A secretary of state investigation found the affected computer had malicious software on it, DOA said.

DOA's cyber response team said it is working with the FBI and the Secretary of State's Office to fix the system and get it back online.

Parts of the Arizona secretary of state's website are down for unspecified security-related maintenance, angering some candidate campaigns that received belated notice.

The portion of the site dealing with online contributions to the public campaign-finance system was shut down Tuesday evening, said Matt Roberts, a spokesman for Secretary of State Michele Reagan.

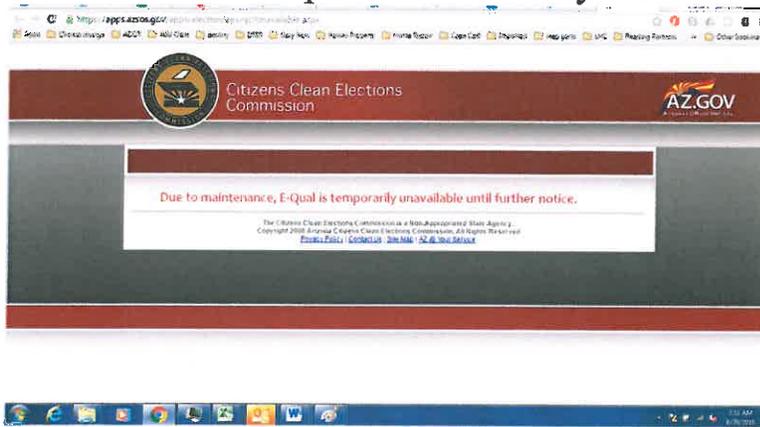
But it was only Wednesday morning that the office sent a notice to the Clean Elections candidates using the site's online service for gathering the \$5 contributions necessary to qualify for public financing.

"Why wouldn't you notify the candidates first?" asked Chad Campbell, a consultant for the campaign of Corporation Commission candidates Tom Chabin and Bill Mundell.

The two Democrats launched a digital campaign late Tuesday afternoon, seeking the \$5 donations. But apparently, any would-be donors could not contribute due to the site's shutdown, something Campbell said the campaign only learned when a donor contacted them.

A formal notice from the Secretary of State's Office to the 53 affected candidates went out just before 10 a.m. Wednesday, soon after Campbell started complaining about it on Twitter.

Constantin Querard, who runs campaigns for a number of Republican candidates who use the public campaign-finance system, said he had not heard any complaints from his clients.



Chad Campbell
@repcampbell

Follow

So, @SecretaryReagan, any idea when the E-equal site will be back up and running again?

7:55 AM - 29 Jun 2016

3 4

Portions of the website were shut down late Tuesday when the state Department of Administration, which oversees the state's computer and technology systems, shared security-related information with her office, Reagan wrote in a blog on her website (<http://www.azsos.gov/about-office/media-center/azsosblog/948>). The site hopefully will be restored by the weekend, she wrote.

Her office would not provide any further detail on the nature of the security concern.

Although the voter-registration system is down, Roberts said anyone who registers to vote in the coming days will have their information electronically queued, and it will be recorded when the system is restored. Likewise, any registrations filed via paper will be added to the system when is back up and running.

Reach the reporter at maryjo.pitzl@arizonarepublic.com (<mailto:maryjo.pitzl@arizonarepublic.com>) and follow her on Twitter @maryjpitzl (<https://twitter.com/maryjpitzl>).

Read or Share this story: <http://azc.cc/29dkYKf>