Is Your Vote Secure in Colorado?

A Conversation with Retired USAF Colonel Shawn Smith

Photo of Colonel Shawn Smith?

Shawn Smith, a retired USAF Colonel, served for 25 years. He was responsible for testing and testing oversight for some our nation's most complex computer-based national security systems. This is an overview of what he has learned and what his conclusions are about Colorado's election systems based on his expertise in securing data systems, knowing when breaches happened, and ascertaining how much damage was done. He is a key person to be evaluating whether or not the voting system we use in Colorado, the supposed "Gold Standard of Elections," is actually that. Is it impenetrable? Can any foreign actors invade it? Or are we totally good to go?

Shawn: I got into this because I saw some data that looked wrong. It was in an article I read about Colorado's 2020 election. I looked up that data. The Colorado Secretary of State's data looked even more wrong when I saw the return rates and the participation rates for supposed Colorado voters. Then I started reading the technical data for the voting systems. I started investigating the companies themselves — the companies that did the testing, the companies that did the security assessments for Colorado RLA (Risk Limiting Audit), the people that did the coding on Colorado RLA, the systems background for SCORE, the Statewide Colorado Registration system, and the independent verification validation companies for SCORE.

I've had this experience before doing adversarial assessment for the Department of Defense — where every time you turn a page or open another file it makes you sick to your stomach and stands the hair up on the back of your neck. That's how I feel about Colorado's election system.

I'll just be as blunt and direct as I can. Our voting systems are not secure. They cannot possibly have ever been secure. They cannot be secured. Most of Colorado counties use Dominion voting systems as a result of the Uniform Voting System Project undertaken initially by Secretary of State Scott Gessler, and then finished by Secretary of State Wayne Williams. Only two counties refused to adopt the Dominion Voting Systems, instead adopting the Clear Ballot Group's Clear Vote System.

But it doesn't really matter. We're talking about degrees of non-secure. I guarantee there isn't a single person in government — in the state of Colorado, a county, or municipality — who has the skill set to be able to assess the systems or secure them or monitor them for defensive purposes.

The systems are supposedly 'commercial off-the-shelf' (COTS) but they aren't. If you want 'commercial off-the-shelf', you walk into Best Buy and buy something off the shelf that was not built for you. They don't know you're going to buy it. If you special-order something with a configuration you've chosen, it's not 'commercial off-the-shelf'. That's the first thing. The COTS label for our voting systems hardware is a complete lie and fabrication.

The significance of this which people should understand is that these systems Colorado is using, what they are calling COTS, were for the most part built in Xiang Xiu [sp?], China by a company named called Listrim [sp?] which is Taiwanese-flagged and operates in China under license. Dell only goes there and inspects it every two years. There is no supply-chain security. And even what we know about it — which they admit is in their configuration files that we've seen — should immediately tell us that we cannot rely upon these systems for an honest and fair election.

Not only Clear Ballot, but Dominion Systems (almost all of them) are built with wireless modems in them from the factory. As far as I can

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tell the Clear Ballot Systems have what's called the Intel management engine turned off which would allow almost a main-line access into the vein of the computer system. But there's no security even if you have the management engine turned on.

All the 62 counties of Colorado which is about 93% of our population are using Dominion systems with Intel management system turned on at the factory. A government office would never tolerate that. If you ordered a system like that, they would never use it — not the Intel agencies or the Department of Defense.

Question: Shawn, just to be clear, why would they not allow the Intel management system turned on?

Shawn: The reason is because it is the most vulnerable imaginable configuration. It would be like having a bank with an open door if you know where to find it. On top of that, I could go down a list of features. There are attributes of the motherboards that are used in the Dell systems that have a fundamental security flaw in the motherboard. Once it's physically exploited you can never secure it. The only way to check it would be to open

it up, plug something into that port and test it. None of our officials in the state of Colorado can do this. In the county, they're not even allowed to open the systems up. Some of the state officials from the election division are allowed to open them up. But they're the ones telling us 'Everything is fine.' Everything is *not* fine.

Question: Can we just drive that point home? The elected clerk and recorders are not allowed to get into the voting machines. They are not allowed to do independent audits.

There is a contract between Dominion and the Secretary of State that says, in effect, "we trust you blindly. We will not allow our elected clerks and recorders to get inside these machines. And we will defend that. We have a written contract, a written agreement with you." So these elected officials that the people are trusting to protect our vote cannot get into the machines at all to access the data.

Shawn: That's right. In fact, elected officials by law aren't allowed to touch the machines for any of those kinds of purposes. But their election division chiefs or their election staff can, according to law, but not according to their contract. They don't ever open the systems up. Every single person who claims "Gold Standard" or said this was a secure election, that there was no fraud — they literally have no idea, or the capacity to know. They don't have the capability to know. They don't have the resources to know and they are prohibited by contractual obligation from knowing. So why would they tell you that the elections are secure?

That is a long and sordid story. When you start looking at what has been done to Colorado elections, you must go all the way back to 2008 when they first started building the state-wide Colorado registration system. That system is not secure and has never been secure. It's never been tested by an independent auditor or cyber security examiner and then had that report released. The elections division has apparently had some people come in but we don't see what those results are.

I looked at open source records and found hundreds and hundreds of vulnerabilities in the components that I know are used in that system. Some of them are not patched because they are not patchable. You cannot fix them. Yet the Colorado registration system has been exposed to the public internet for a decade.

If the Secretary of State had someone come in and do an assessment, which they haven't told us the results of, and they found a vulnerability, that means that vulnerability has been present for a decade.

There's not only no reason for us to trust that registration rolls are accurate on that basis. We should assume they are not. Just like any other crime, where there a motive and opportunity, you will find a crime.

Now we know so much about what is wrong with the voting system. We know the vulnerabilities of the state-wide Colorado registration system. I haven't even gotten into the Colorado RLA (Risk Limiting Audit) system. It's like a Rube Goldberg machine. It's coded by people with names like "Tifa the Cat" and "Tank 157" who are not supervised. This idea that it's open source code is a canard, because no one at the Secretary of State's office, no one at the State level has audited that code or is monitoring the changes the coders make.

For example, when I went through the developer notes for that code on GetHub, I saw things like developers talking about how to hide cast vote records from the client in the software. I saw

in our state. I won't support anyone with a vote, funding, or with my endorsement. Election integrity is *the* issue and until we solve it, there is no other issue we can solve.

I'm not even sure we're still a democratic republic and I'm not someone prone to hyperbole. My last decade or so in service in the military was focused very much on our foreign enemies. I can't tell you how disillusioned I am to become aware of what may well be domestic enemies.

So, if you are moved by this to talk to your elected officials, tell them what you want them to do. They work for you. So do your clerks and recorders. So does the Secretary of State — although it's not clear that she understands that.

We have a lot of people looking at technical

back, I would say, almost laundered as a potential voter to register. Then those names are sent to the counties or they're just entered directly into SCORE. Nobody would know. There's not enough security monitoring on SCORE for anybody to know.

My point about ERIC is its not serving the public. We can't see how it works. We're not in control of how it works. The kind of elected officials that want to hand control over to people who are not subject to recall and censure by citizens are people who shouldn't be in office. They are unfit for office, just like anybody who would hide information from the citizens of the state — particularly about something as sacrosanct as voting in elections.

We have analytics teams that are looking at very, very peculiar data phenomena that tell us something is wrong. I'm talking about an example of having four times as many new active voters registered in the state of Colorado from 2018 to 2020 than there was population growth. Normally, if you get 70 percent of your new population registered as voters... that's remarkable. Nobody gets 400 percent of their population growth. That doesn't happen.

thousands of lines of code in Python programming language with callouts to other code repositories and settings files to pick random numbers. You can pick random numbers with a raffle ball cage or any of hundreds of software programs on the internet that you could cross check and verify. No one would know which one you were using. You need maybe a hundred lines of code to pick random numbers but not thousands and certainly not thousands that we can't see.

That's just another system that doesn't get independent security audits. The only security audit ever done, as far as I can tell, on the Colorado RLA (Risk Limiting Audit) software was done by a Canadian company called Security Compass with a bunch of engineers trained at Sharif University of Technology in Tehran. I could go on and on about the vulnerabilities, the findings, or the problems with the people and their backgrounds.

But the real question is why our elected officials at the Secretary of State's office and some county clerks are working so hard — so very, very diligently — to keep citizens to whom the elections belong from being able to verify for themselves that the 2020 election was free and fair? My personal opinion is the only way to do that is a full independent forensic audit of the ballots, the ballot envelopes, and the machines — including the voting systems, the state-wide Colorado registration system, and the Risk Limiting Audit system.

I would also log into the RTA data of the postal service or BallotTrax and how those might be used for fraud as well as into the printing vendor Runbeck and the fact that they had an office that was just north of Denver that wasn't disclosed and disappeared after the election.

There is a lot to look into. But if you're a citizen and didn't know about any of this, you can help in a number of ways. You can get involved with USEIP.org (United States Election Integrity Plan). We need volunteers and we're happy to have you.

You can talk to your elected officials and tell them what I'm telling mine which is that I won't support for office, for reelection, for any purpose, a candidate that does not understand and actively engage in restoring election integrity

issues. We have analytics teams that are looking at very, very peculiar data phenomena that tell us something is wrong. I'm talking about an example of having four times as many new active voters registered in the state of Colorado from 2018 to 2020 than there was population growth. Normally, if you get 70 percent of your new population registered as voters — particularly because 20 percent of your population is probably below the age of eighteen and not eligible to vote — that's remarkable. Nobody gets 400 percent of their population growth. That doesn't happen. We already had effectively motor-voter registration. We already had practically automatic voter registration. We already had changes to Colorado revised statutes that prevented us from culling what in effect were inactive and unverified voters. And then, all of a sudden, we have this explosive growth?

There is one other relationship I want to talk about. In 2012 Colorado was enrolled as one of the founding members of ERIC states (Electronic Registration Information Center.) It's theoretically a non-profit that shares registration data between states for the purpose of improving the accuracy of voter rolls. But, it's very clear when you read all their literature, their site, and their statements that ERIC is actually focused on increasing the size of voter rolls, not making them more accurate.

A program called Kansas Crosscheck that Colorado was enrolled in focused on removing dead and duplicate voters. Secretary of State Griswold withdrew us from that Kansas Crosscheck compact which cost the state nothing. It was literally free. She withdrew us from that in January 2019 almost as quickly as she could.

Then Kansas Crosscheck was sued by the ACLU supposedly for privacy issues, and it was shut down in 2020. It was sued on multiple fronts to drive states into ERIC, the Electronic Registration Information Center. ERIC is completely opaque to Colorado voters. Data from all kinds of state agencies in Colorado flow into ERIC. Every time a person — whether it's a fake name or not, whether its a legal citizen or a legal voter or not — touches any office in Colorado that information gets forwarded to ERIC and comes

Question: I have a great example of what you said about the ERIC list. I just had a friend, who left Colorado, tell me that he changed his address when they moved 10 years ago. His mother just received a ballot for him in the 2020 election at her address.

Shawn has publicly testified in front of our Colorado legislators three different times and continues to give public testimony — continues to speak out on our behalf. To be a Constitutional Republic our vote must be secure. We know that with these voting machines our vote has become less and less secure. Is there any doubt in your mind on that, Shawn?

Shawn: No, none whatsoever. The ECHO system of computer-based and electronic systems has centralized state control. It removed control from the local officials so clerks aren't even in charge of their voter rolls anymore because it's all in a central database. They can't audit the systems.

They are being ordered by the Secretary of State not to tell citizens when modifications are happening. They are being ordered not to allow citizens to have access to their own artifacts of elections in the form of the ballots and ballot envelopes. This is why they are required to retain the records — not for the public officials — for us. They belong to us. And yet the Secretary of State is directing those clerks who for the most part are going along with it. Unfortunately they are either led astray or deliberately steered by organizations like the Colorado County Clerks Association. Something is very wrong with the systems that have been put in place including the laws that enable and mandate these systems.

Postscript: On June 17, 2021 Colorado Secretary of State Griswald issued an emergency rule banning third-party audits in the state of Colorado.

Secretary Griswald has three lawsuits pending against her. Judicial Watch is suing Colorado and Griswald in federal court for failing to clean the state's voter rolls as required by the National Voter Registration Act of 1993. In its lawsuit against Colorado Judicial Watch argues a 2019 study showed that 40 of Colorado's 64 counties had voter registration rates exceeding 100% of the eligible citizen voting-age population. The share of Colorado counties with registration rates exceeding 100% was the highest in the nation.

The Indianapolis-based Public Interest Legal Foundation filed a federal lawsuit in Colorado's U.S. District Court, alleging that Griswald denied the organization's request for voter list maintenance records despite transparency regulations under the National Voter Registration Act.

Griswald has also been sued by Colorado Congressman Ron Hanks and other individuals including two Colorado County Clerks over destruction of election records, failure to properly test voting equipment, and obstruction of independent election audits.