

**SUBCOMMITTEE ON INFORMATION TECHNOLOGY AND THE SUBCOMMITTEE
ON INTERGOVERNMENTAL AFFAIRS OF THE COMMITTEE ON OVERSIGHT
AND GOVERNMENT REFORM**

**TESTIMONY OF
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I. Introduction

Good morning. I appreciate the invitation to speak with you today. My name is Edgardo Cortés, and I am the Commissioner of Elections in Virginia. In this role, I serve as the Chief Election Official for the Commonwealth and lead the Department of Elections. Virginia has 133 local election jurisdictions and over 5 million active registered voters. During my tenure, the Department has focused on using technology to create a better voting experience for eligible Virginians and reduce the administrative workload for local election officials while increasing security and accountability in our processes.

We have done much work in this arena, and one aspect of these wide-ranging efforts has been to strengthen the security and reliability of Virginia's voting equipment, including the voting machines and electronic pollbooks that I have been asked to discuss today. Our most recent action to protect and secure elections in Virginia was the decertification of all direct-recording electronic voting machines ("DREs") on September 8, 2017, approximately 59 days prior to our General Election. This step was not taken lightly, and it placed financial and administrative stress on the electoral system. It was, however, essential to maintain the public's trust in the integrity of Virginia elections. This administration and the Virginia election community have faced many challenging situations in the past four years. We addressed this situation as we did each of the others: with a solid determination to ensure that eligible Virginians were able to vote with confidence.

We have much more to do. While we are extremely appreciative of the work and assistance provided by the U.S. Election Assistance Commission (EAC) and the U.S. Department of Homeland Security (DHS), the restrictions placed on these entities, including financial and legal restrictions, limit the assistance that they can provide to Virginia and other state election officials as we face attacks from other nation states, hackers of all stripes and an ever-changing security environment with minimal resources. To the extent that elections are an integral function of government, the federal government can and should do more to assist states in safeguarding this most fundamental American right.

II. Virginia Election Administration Ecosystem Overview

The Virginia election administration ecosystem is structured comparably to several other states in that local officials administer and mostly pay for elections, and the state supervises and coordinates this work and ensures uniformity. Regarding voting equipment specifically, the state is responsible for certifying voting equipment, such as DREs and electronic pollbooks; local officials are responsible for choosing their equipment from the state menu of certified options. Our state certification requirements voluntarily rely on the existing federal criteria and once a system is certified, no additional testing is currently required by the state to retain certified status.

From a security standpoint, this top-down structure has proved exceptionally important – specifically for the creation and maintenance of strong and sustainable security systems for our statewide voter registration database (Virginia Election & Registration Information System, or VERIS). In this area, the local officials are responsible for processing individual voter registration applications and making determinations related to eligibility; the state is responsible for the aggregation, security and proper handling of all information entered by the locals about individual voters. The state also is responsible for collecting and managing the information from a myriad of other non-election agencies and entities, such as death records from the U.S. Social Security Administration, conviction information from federal courts and voter registrant information from other states. Local officials are responsible for reviewing the individual records that the state has identified as possible matches to voters in their localities.

In this manner, the state efficiently uses its resources so that each of the 133 localities doesn't have to procure individual voter file software packages, individual information technology staff members and security experts to conduct routine list maintenance.

III. WINVote Decertification

When I became Commissioner in 2014, approximately 113 of Virginia's 133 localities used paperless DREs that were over a decade old and already past their expected end of life. The first map you have provides an overview of DRE usage in Virginia at that point. State legislative efforts to curtail the use of the machines had been ineffective, and complaints related to this equipment were increasing. To address these problems, Governor McAuliffe proposed \$28 million in the state budget for new voting equipment during the 2015 legislative session. Unfortunately, the General Assembly refused and left financial responsibility for new voting equipment with local officials.

In response to DRE issues in the 2014 election, such as those experienced by supporters of your former colleague, Congressman Rigell in Virginia Beach, the Department conducted a review of the reported 2014 voting equipment complaints. During that review, the Department discovered that one of the certified DRE machines, the WINVote, was operating while its wireless network was turned on. With no prior state decertification history to rely on, I asked the

state IT department (Virginia Information Technologies Agency, or VITA) to assess the equipment's security. Even with no voting equipment experience, a staff member was able to manipulate a WINVote machine that was located in one office while she was sitting in a different office down the hall. This discovery necessitated immediate action. The June Primary Election was a few short months away and the approximately 30 localities using WINVote machines, which accounted for about 20 percent of precincts in the state, had no money in their local budgets for the immediate procurement of new voting equipment.

The Department contacted the affected localities and informed them of the potential impending decertification. We also contacted the organizations representing local officials and the voting equipment vendors, which promptly confirmed sufficient inventory and capacity to immediately equip the localities with new machines. The vendors, in competing for each affected locality's business, offered creative financial incentives.

In response to VITA's findings, the WINVote was decertified 55 days prior to the 2015 June Primary in spite of many comments predicting "certain failure," which I assume are similar to comments you've received about concerns with transitioning voting equipment. With lots of teamwork, the June Primary Election was administered without issue related to the new voting equipment. The most important factors in this successful transition were the partnerships with the individuals and entities mentioned above and the ongoing and constant communications with all interested parties.

IV. September 2017 Decertification

As part of the McAuliffe administration's focus on cybersecurity, the Department of Elections has been focused on strengthening the security of our voting processes during the past four years, including encouraging remaining localities using paperless DREs to transition to new equipment as quickly as possible. In the wake of the WINVote decertification, almost every locality with sufficient financial resources had procured new voting equipment; however, there were several localities that continued to use one of the approximately five different DRE models still certified in Virginia. The Department learned that DEF-CON, the annual hacker conference held in Las Vegas, planned a "Voting Village" exhibit at their July conference. The public reporting from DEF-CON created substantial security concerns. When my CIO alerted me that a DEF-CON attendee posted the password for one of the voting systems in use in Virginia, I knew immediate action was necessary in advance of the upcoming election. The second map you have represents DRE usage at that point.

As you can see, there were only about 30 localities that had not updated their voting equipment and were still using one of five old DRE voting systems, such as the Sequoia Edge and the TSX Accuvote. What this map also shows are the real consequences of the decision to not provide federal or state funding for equipment: generally, only the poorer and more rural

localities were forced to continue to use antiquated and problematic voting machines because they couldn't afford new ones.

While we knew that a transition was possible because of prior experience, this decertification faced some slightly different challenges. For example, we now needed testing done on five *different* voting systems, yet the state had no way to compel the vendors or localities to provide equipment for VITA testing. Through relationships with the locals, we obtained equipment for all but one type of system: the Hart eSlate. The vendor also refused to provide the equipment. This was a big problem.

On the other hand, we also had additional helpful partners for this decertification. While the equipment was being tested, but before the official decertification, the Voter Registrars Association of Virginia (“VRAV”) wrote to its membership. VRAV expressly acknowledged that any voting equipment almost two decades old was unlikely to withstand any review under today’s IT security standards, and officially recommended that all localities move forward immediately with obtaining new equipment. Verified Voting also served as a resource and provided the Department and VITA, under exceptionally tight timelines, with helpful information about the equipment’s vulnerabilities.

Approximately 10 weeks prior to the 2017 November General Election, VITA provided preliminary information related to the machines, which was very concerning. When reviewing the Department’s options, the Department asked whether VITA would be willing to confirm the accuracy of results cast on any of the machines in the event that future election results were called into question. In response, VITA asserted that they would not, at that time, be willing to provide unqualified statements of support. The next week, 59 days prior to the election, all DREs were decertified. All affected localities promptly obtained new voting equipment and in-person absentee voting began, as scheduled, approximately two weeks after the decertification and was conducted without incident related to the new voting equipment. The November 2017 General Election was effectively administered without any reported voting equipment issues. The transition to paper-based voting systems on a truncated timeline was incredibly successful and significantly increased the security of the election.

None of this would have been possible without the great work of our local election officials, who struggle with a consistent lack of financial resources; my Deputy Commissioner, Liz Howard; my CIO, Matt Davis; VITA, especially Mike Watson; and so many others, including Tracy Howard, Former President, VRAV; Katie Boyle, Virginia Association of Counties Director of Government Affairs; Verified Voting; and last but certainly not least, the EAC. In essence, the decertifications have gone smoothly because of the teamwork between state and local officials, national organizations, state organizations, voting equipment vendors and the veritable army of officers of election who assist with administering our elections with little or no pay every year.

Although it's clearly possible to transition quickly, doing so is less than ideal. As the voting equipment issue is far from resolved, I request that you consider the following recommendations which, I believe, will make these issues much easier to manage in the future:

- 1) Funding elections is a shared responsibility at the local, state, and federal level. Congress needs to ensure sufficient federal funding is available for states to procure and maintain secure voting equipment and increase security of all election systems. This is a critical need.
- 2) The EAC has been critical to ensuring that a baseline set of standards for voting systems, adequate testing protocols, and certified test labs are available to states and Congress should retain and fully fund this exceptionally important resource to states.
- 3) In order to ensure the use of secure voting equipment in the future, Congress should require federal certification of all voting systems used in federal elections. This federal certification protocol would ensure a security baseline – and allow for states to require additional and state-specific testing. In addition, it would address the need for ongoing and periodic testing without subjecting the vendors to 50 different periodic testing schedules, and mandate that the vendors provide equipment for testing upon request. Federal certification also should be required for electronic pollbooks, which currently are not subject to any federal guidelines. If mandatory federal certification is not a realistic solution, then, at minimum, Congress should empower and fund the EAC to expand its current voluntary voting equipment guidelines to include guidelines applicable to electronic pollbooks and incorporate periodic security testing as a prerequisite to maintain certification.
- 4) Congress should establish an accreditation system for election administrator training to ensure that the individuals responsible for this most fundamental American right are equipped with the appropriate skill and knowledge set.

Thank you again for inviting me to join you today and your interest in hearing from election administrators about the work being done to secure the nation's voting systems. We look forward to continuing to work with Congress to ensure sufficient federal resources are available to state and local election officials to continue this important work.