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DEPARTMENT *of* ELECTIONS

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**Memorandum**

To: Chairman Alcorn, Vice Chair Wheeler, and Secretary McAllister

From: Edgardo Cortes, Commissioner

Date: September 8, 2017

Re: DRE Decertification Recommendation

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**DRE DECERTIFICATION RECOMMENDATION SUMMARY**

The Department of Elections officially recommends that the State Board of Elections decertify *all* Direct Recording Electronic (DRE or touchscreen) voting equipment. This recommendation is being made for multiple reasons, including the current security environment surrounding election administration, recently released public reports with confidential information related to unauthorized access to DREs at DefCon’s “Voting Machine Hacking Village,” the fact that no DREs in use in Virginia have a voter-verifiable paper audit trail (VVPAT), and the initial security assessment review of various DRE equipment conducted by the Virginia Information Technology Agency (VITA).

In sum, the Department of Elections believes that the risks presented by using this equipment in the November General Election are sufficiently significant to warrant immediate decertification to ensure the continued integrity of Virginia elections.

**Background**

As security threats against election systems have increased, the Department has grown more vigilant regarding potential threats against voting equipment. In this environment, DefCon, an annual conference of hackers, promoted the “Voting Machine Hacking Village” at which multiple voting machines, mostly DREs, were made available. Multiple types of DREs, some of which are currently in use in Virginia, were hacked according to public reports from DefCon.

Additional troubling reports from DefCon were publicized, including one that expressly stated the password for a DRE that was in use in the Commonwealth, and one that indicated that some DREs in use have a single password shared by all machines from an individual vendor. Shortly after DefCon, ELECT asked VITA to perform a security assessment of the following DREs currently in use in the Commonwealth<sup>1</sup>: Accuvote TSX; Edge; Patriot; AVC Advantage.

VITA began their review in August, and, due to the looming deadlines associated with the upcoming November General Election, provided an initial report on the ongoing security assessment. In noting that additional time is necessary to conduct a plenary review, VITA indicated “each device analyzed exhibited material risks to the integrity or availability of the election process.” Further, VITA’s initial review was able to conclude, “In each of the systems the potential

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<sup>1</sup> The iVotronic was in use until approximately August 15, 2017; the eSlates are tentatively slated for replacement next week.



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for loss of vote is significant as none of the machines appear to produce paper audit trails during the voting process.” As VITA’s report contains confidential information related to voting system security, and some of this equipment is currently used in other states, the Department further recommends that VITA’s report remain confidential. While Virginia is at a point where we feel it’s necessary to have new equipment in place to reduce potential risks in our elections, each state has to make those decisions based on their individual circumstances.

Concerns with DREs are not new. The Department has noted that this equipment is long past its expected end of life and has encouraged localities to upgrade for several years. In fact, in response to these concerns, Governor McAuliffe proposed adding \$28 million to the state budget to pay for all localities to obtain new equipment in 2015. Unfortunately, the General Assembly did not approve this proposal.

While recommending decertification in this window prior to an election is less than ideal, Virginia localities have previously proven capable of making the transition in an even smaller time frame. In 2015, the Department recommended that the WinVote (a DRE) be decertified. Fifty-five (55) days prior to the 2015 June Primary Election, the State Board of Elections voted to decertify the WinVote. This decertification affected dozens of localities; however, due to the diligence and care exhibited by the affected general registrars, no voters were negatively impacted - even on this tight timeline. If the Board follows the Department’s recommendation today, then localities currently using DREs will have approximately sixty 60 days prior to the November General Election to transition to new equipment. In addition, all potentially affected localities were notified by the Department of the pending security assessment by VITA and the potential decertification in early August. As the election is quickly approaching, the Department continues to work closely with the potentially affected localities and voting equipment vendors, which have affirmed sufficient inventory and staff to handle all transition needs in a timely manner to ensure a successful election.

### **Potentially Affected Localities**

As of today, approximately twenty-two (22) localities currently use DREs in the Commonwealth. The list of these localities appears below:

Bath	Lee
Buchanan	Madison
Chesapeake	Martinsville
Colonial Heights	Norfolk
Culpeper	Poquoson
Cumberland	Portsmouth
Emporia	Rappahannock
Falls Church	Russell
Gloucester	Surry
Hopewell	Sussex
Washington	Tazewell

Six (6) of the above twenty-two (22) localities have informed ELECT that they have contracted to obtain new equipment for use in the November General Election, and three (3) have



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indicated pending procurements. The combined remaining thirteen localities include 140 of the 2,439 statewide precincts and 190,452 of the 5,055,780 statewide active voters. Please note that the total number of active voters and total number of precincts are timed snapshots of Virginia data – and these numbers change on an ongoing basis for various reasons, such as the addition of new voters and the consolidation of precincts. Additional detailed information is available on the Department’s website here: <http://www.elections.virginia.gov/registration/voting-systems/index.html>.