Affidavit of Russell [redacted]

1. My name is Russell [redacted], and I am a resident of Dallas County, Texas.

2. I am part of the management team of [redacted] Group, LLC, (ASOG). ASOG provides a range of security services, but has a particular emphasis on cyber security, OSINT and PEN testing of networks. We employ a wide variety of cyber and cyber forensic analysts. We have patents pending in a variety of applications from novel network security applications to SCADA protection and safe browsing solutions for the dark and deep web.

3. In November 2018, ASOG analyzed audit logs for the central tabulation server of the ES&S Election Management System (EMS) for the Dallas, Texas, General Election of 2018. Our team was surprised at the enormous number of error messages that should not have been there. They numbered in the thousands, and the operator ignored and overrode all of them. This lead to various legal challenges in that election, and we provided evidence and analysis in some of them.

4. As a result, ASOG initiated an 18-month study into the major EMS providers in the United States, among which is Dominion/Premier that provides EMS services in Michigan. We did thorough background research of the literature and discovered there is quite a history from both Democrat and Republican stakeholders in the vulnerability of Dominion. The State of Texas rejected Dominion/Premier's certification for use there due to vulnerabilities. Next, we began doing PEN testing into the vulnerabilities described in the literature and confirmed for ourselves that in many cases, vulnerabilities already identified were still left open to exploit. We also noticed a striking similarity between the approach to software and EMS systems of ES&S and Dominion/Premier. This was logical since they share a common ancestry in the Diebold voting system.

5. Over the past three decades, almost all of the states have shifted from a relatively low-technology format to a high-technology format that relies heavily on a handful of private services companies. These private companies supply the hardware and software, often handle voter registrations, hold the voter records, partially manage the elections, program counting the votes and report the outcomes. Michigan is one of those states.

6. These systems contain a large number of vulnerabilities to hacking and tampering, both at the front end where Americans cast their votes, and at the back end where the votes are stored, tabulated, and reported. These vulnerabilities are well known, and experts in the field have written extensively about them.

7. Dominion/Premier ("Dominion") is a privately held United States company that provides election technologies and services to government jurisdictions. Numerous counties across the state of Michigan use the Dominion/Premier Election

Management System. The Dominion/Premier system has both options to be an electronic, paperless voting system with no permanent record of the voter's choices, paper ballot based system or hybrid of those two.

8. The Dominion/Premier Election Management System's central accumulator does not include a protected real-time audit log that maintains the date and time stamps of all significant election events. Key components of the system utilize unprotected logs. Essentially this allows an attacker the opportunity to arbitrarily add, modify, or remove log entries, causing the machine to log election events. When a log is unprotected, and can be altered, it can no longer serve the purpose of an audit log.

9. My colleagues and I at ASOG have studied the information that is publicly available concerning the November 3, 2020, election results. Based on the significant anomalies and red flags that we have observed, we believe there is a significant probability that election results have been manipulated within the Dominion/Premier system in Michigan. Dr. Andrew Appel, Princeton Professor of Computer Science and Election Security Expert has observed, with reference to Dominion Voting machines, "I figured out how to make a slightly different computer program that just before the polls were closed it switches some votes around from one candidate to another. I wrote that computer program into a memory chip and now to hack a voting machine you just need 7 minutes alone with it and a screwdriver." Some of those red flags are listed below. Until a thorough analysis is conducted, it will be impossible to know for certain.

10. One red flag has been seen in Antium County, Michigan. In Michigan we have seen reports of 6,000 votes in Antium County that were switched from Donald Trump to Joe Biden and were only discoverable through a hand counted manual recount. While the first reports have suggested that it was due to a glitch after an update, it was recanted and later attributed to "clerical error." This change is important because if it was not due to clerical error, but due to a "glitch" emanating from an update, the system would be required to be "re-certified" according to Dominion officials. This was not done. We are skeptical of these assurances as we know firsthand this has many other plausible explanations and a full investigation of this event needs to be conducted as there are a reported 47 other counties using essentially the same system in Michigan. It is our belief (based on the information we have at this point) that the problem most likely did occur due to a glitch where an update file didn't properly synchronize the ballot barcode generation and reading portions of the system. If that is indeed the case, there is no reason to assume this would be an isolated error. This glitch would cause entire ballot uploads to read as zero in the tabulation batch, which we also observed happening in the data (provisional ballots were accepted properly but in-person ballots were being rejected (zeroed out and/or changed (flipped)). Because of the highly vulnerable nature of these systems to error and exploits, it is quite possible that some, or all of these other counties may have the same problem.

11. Another statistical red flag is evident in the number of votes cast compared to the number of voters in some precincts. A preliminary analysis using data obtained

from the Michigan Secretary of State pinpoints a statistical anomaly so far outside of every statistical norm as to be virtually impossible. There are a stunning 3,276 precincts where the Presidential Votes Cast compared to the Estimated Voters based on Reported Statistics ranges from 84% to 350%. **Normalizing the Turnout Percentage of this grouping to 80%, (still way above the national average for turnout percentage), reveals 431,954 excess ballots allegedly processed.** There were at least 19 precincts where the Presidential Votes Cast compared to the Estimated Voters based on Reported Statistics exceeded 100%.

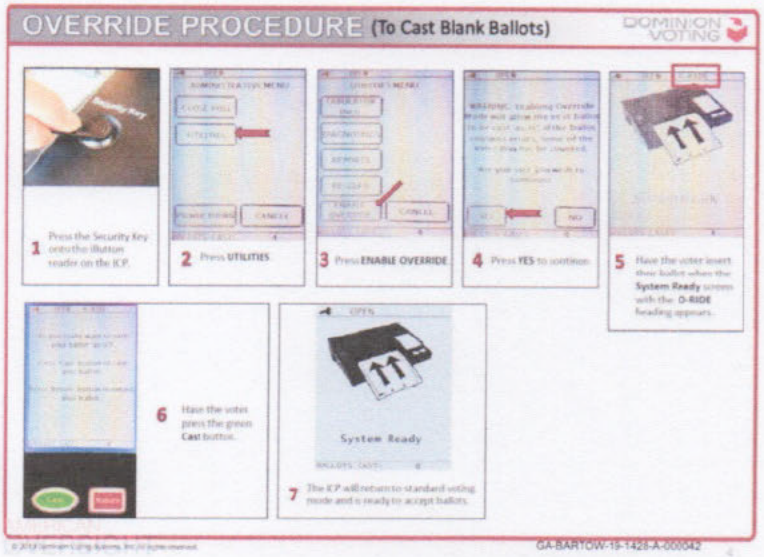
Precinct Township	Votes/SOS Est. Voters
BENVILLE TWP	350%
MONTICELLO P-1	144%
MONTICELLO P-2	138%
ALBERTVILLE P-2	138%
ALBERTVILLE P-1	136%
BRADFORD TWP.	104%
VELDT TWP.	104%
CHAMPION TWP	104%
KENT CITY	103%
WANGER TWP.	102%
KANDIYOHI TWP.	102%
LAKE LILLIAN TWP.	102%
HOKAH TWP.	102%
HOUSTON TWP.	101%
HILL RIVER TWP.	101%
SUNNYSIDE TWP.	101%
BROWNSVILLE TWP.	101%
OSLO	101%
EYOTA TWP.	101%

This pattern strongly suggests that the additive algorithm (a feature enhancement referred to as "ranked choice voting algorithm" or "RCV") was activated in the code as shown in the Democracy Suite EMS Results Tally and Reporting User Guide, Chapter 11, Settings 11.2.2. It reads in part, "**RCV METHOD: This will select the specific method of tabulating RCV votes to elect a winner.**" For instance, blank ballots can be entered into the system and treated as "write-ins." Then the operator can enter an allocation of the write-ins among candidates as he wishes. The final result then awards the winner based on "points" the algorithm in the compute, not actual votes. The fact that we observed raw vote data that includes decimal places suggests strongly that this was, in fact, done. Otherwise, votes would be solely represented as whole numbers. Below is an excerpt from Dominion's direct feed to news outlets showing actual calculated votes with decimals.

state	timestamp	eevp	trump	biden	TV	BV
michigan	2020-11-04T06:54:48Z	64	0.534	0.448	1925865.66	1615707.52
michigan	2020-11-04T06:56:47Z	64	0.534	0.448	1930247.664	1619383.808
michigan	2020-11-04T06:58:47Z	64	0.534	0.448	1931413.386	1620361.792
michigan	2020-11-04T07:00:37Z	64	0.533	0.45	1941758.975	1639383.75
michigan	2020-11-04T07:01:46Z	64	0.533	0.45	1945297.562	1642371.3
michigan	2020-11-04T07:03:17Z	65	0.533	0.45	1948885.185	1645400.25

12. Yet another statistical red flag in Michigan concerns the dramatic shift in votes between the two major party candidates as the tabulation of the turnout increased. A significant irregularity surfaces. Until the tabulated voter turnout reached approximately 83%, Trump was generally winning between 55% and 60% of every turnout point. Then, after the counting was closed at 2:00 am, the situation dramatically reversed itself, starting with a series of impossible spikes shortly after counting was supposed to have stopped. The several spikes cast solely for Biden could easily be produced in the Dominion system by pre-loading batches of blank ballots in files such as Write-Ins, then casting them all for Biden using the Override Procedure (to cast Write-In ballots) that is available to the operator of the system. A few batches of blank ballots could easily produce a reversal this extreme, a reversal that is almost as statistically difficult to explain as is the impossibility of the votes cast to number of voters described in Paragraph 11 above.

Dominion also has a "Blank Ballot Override" function. Essentially a save for later bucket that can be manually populated later.



13. The final red flag is perhaps the greatest. Something occurred in Michigan that is physically impossible, indicating the results were manipulated on election night within the EMS. The event as reflected in the data are the 4 spikes totaling 384,733

ballots allegedly processed in a combined interval of only 2 hour and 38 minutes. This is physically impossible given the equipment available at the 4 reference locations (precincts/townships) we looked at for processing ballots, and cross referencing that with both the time it took at each location and the performance specifications we obtained using the serial numbers of the scanning devices used. (Model DRM16011 - 60/min. without accounting for paper jams, replacement cover sheets or loading time, so we assume 2,000 ballots/hr. in field conditions which is probably generous). This calculation yields a sum of 94,867 ballots as the maximum number of ballots that could be processed. And while it should be noted that in the event of a jam and the counter is not reset, the ballots can be run through again and effectively duplicated, this would not alleviate the impossibility of this event because duplicated ballots still require processing time. The existence of the spike is strongly indicative of a manual adjustment either by the operator of the system (see paragraph 12 above) or an attack by outside actors. **In any event, there were 289,866 more ballots processed in the time available for processing in four precincts/townships, than there was capacity.** A look at the graph below makes clear the This is not surprising because the system is highly vulnerable to a manual change in the ballot totals as observed here.

14. At ASOG, we believe that these statistical anomalies and impossibilities together create a wholly unacceptable level of doubt as to the validity of the vote count in Michigan, and in Wayne County, in particular.

15. If ASOG, or any other team of experts with the equivalent qualifications and experience, could be permitted to analyze the raw data produced during the course of the election, as well as the audit logs that the Dominion system generates, we would likely be able to determine whether or not any fraudulent manipulation of the election results occurred within the Dominion Election Management System. These audit logs are in the possession of Dominion.

16. However, there are several deficiencies with the Dominion audit logs: (1) because the logs are "voluntary" logs, they do not enforce the logging of all actions; (2) the logs can be altered by the people who are operating the system; and (3) the logs are not synchronized. Because of these deficiencies, it is of critical importance that all of the daily full records of raw data produced during every step of the election process also be made available for analysis (in addition to the audit logs), so that gaps in the audit logs may be bridged to the best extent possible. This raw data, which is in Dominion's possession, should be individual and cumulative.

17. Wayne County uses Dominion Equipment, where 46 out of 47 precincts/townships display a highly unlikely 96%+ as the number of votes cast, using the Secretary of State's number of voters in the precinct/township; and 25 of those 47 precincts/townships show 100% turnout.

Precinct Township	Votes/SOS Est. Voters
SPRUCE GROVE TWP	100%
ATLANTA TWP	100%
RUNEBERG TWP	100%
WOLF LAKE TWP	100%
HEIGHT OF LAND TWP	100%
EAGLE VIEW TWP	100%
WOLF LAKE	100%
SHELL LAKE TWP	100%
SAVANNAH TWP	100%
CUBA TWP	100%
FOREST TWP	100%
RICEVILLE TWP	100%
WALWORTH TWP	100%
OGEMA	100%
BURLINGTON TWP	100%
RICHWOOD TWP	100%
AUDUBON	100%
LAKE EUNICE TWP	100%
OSAGE TWP	100%
DETROIT LAKES W2 P1	100%
CORMORANT TWP	100%
LAKE VIEW TWP	100%

AUDUBON TWP	100%
DETROIT LAKES W3 P1	100%
FRAZEE	100%

This pattern strongly suggests both the additive algorithm (a feature enhancement referred to as "ranked choice voting algorithm" or "RCV") was activated in the code as discussed in paragraph 11 above, as well as batch processing of blank votes, as outlined in Paragraphs 12 and 13 above, where 74,119 more ballots were cast than the capacity to cast them during the spike.

18. In order to analyze the data and determine the cause of these anomalies, ASOG would need Administrator logs for the EMS Election Event Designer (EED) and EMS Results Tally & Reporting (RTR) Client Applications. The following would be required from Premier:

XML and XSLT logs for the:

- Tabulators
- Result Pair Resolution
- Result Files
- Provisional Votes
- RTM Logs
- Ranked Profiles and entire change history Audit Trail logs
- Rejected Ballots Report by Reason Code

Identity of everyone accessing the domain name Admin.enr.dominionvoting.com and

- Windows software log,
- Windows event log and
- Windows security log of the server itself that is hosted at Admin.enr.dominionvoting.com.
- Access logs to their full extent and DNS logs.
- Internal admin.enr.dominionvoting.com logs
- Ranked Contests and entire change history Audit Trail logs

FTP Transfer Points Log

19. In order to evaluate the raw data of the election, the following records would be required from Dominion.

- Daily and Cumulative Voter Records for those who voted with sufficient definition to determine:
  - Voters name and Registered Voting address
  - Address to for correspondence
  - D.O.B.
  - Voter ID number
  - How Voted (mail, in-person early, in person Election Day)
  - Where Voted (if applicable)

AUDUBON TWP	100%
DETROIT LAKES W3 P1	100%
FRAZEE	100%

This pattern strongly suggests both the additive algorithm (a feature enhancement referred to as "ranked choice voting algorithm" or "RCV") was activated in the code as discussed in paragraph 11 above, as well as batch processing of blank votes, as outlined in Paragraphs 12 and 13 above, where 74,119 more ballots were cast than the capacity to cast them during the spike.

18. In order to analyze the data and determine the cause of these anomalies, ASOG would need Administrator logs for the EMS Election Event Designer (EED) and EMS Results Tally & Reporting (RTR) Client Applications. The following would be required from Premier:

XML and XSLT logs for the:

- Tabulators
- Result Pair Resolution
- Result Files
- Provisional Votes
- RTM Logs
- Ranked Profiles and entire change history Audit Trail logs
- Rejected Ballots Report by Reason Code

Identity of everyone accessing the domain name Admin.enr.dominionvoting.com and

- Windows software log,
- Windows event log and
- Windows security log of the server itself that is hosted at Admin.enr.dominionvoting.com.
- Access logs to their full extent and DNS logs.
- Internal admin.enr.dominionvoting.com logs
- Ranked Contests and entire change history Audit Trail logs

FTP Transfer Points Log

19. In order to evaluate the raw data of the election, the following records would be required from Dominion.

- Daily and Cumulative Voter Records for those who voted with sufficient definition to determine:
  - Voters name and Registered Voting address
  - Address to for correspondence
  - D.O.B.
  - Voter ID number
  - How Voted (mail, in-person early, in person Election Day)
  - Where Voted (if applicable)

Date voted (if applicable)
Party affiliation (if recorded)
Ballot by mail Request Date
Ballot by mail sent date
Ballot by mail voted date (if applicable)
Ballet cancelled date (if applicable)

- .RAW, HTML, XHTML and SVG files (Ballot Images)

20. Any removable media (such as thumbdrives, USB, memory cards, PCMIA cards, etc.) used to transfer ballots to central counting from voting locations.

21. Access or control of ALL routers, tabulators or combinations thereof (some routers are inside the tabulator case) in order to garner the system logs. At the same time, the public IP of the router should be obtained.

22. Any key, authorization key & yubikey

Further affiant sayeth naught.

Russell [redacted] 11/17/2020
Date

Sworn before me on [redacted]

Notary public: