

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF OHIO  
EASTERN DIVISION

EFFIE STEWART, et al.,

Plaintiffs,

v.

J. KENNETH BLACKWELL, et al.,

Defendants.

Case No. 5:02CV-2028

JUDGE DOWD

MAGISTRATE JUDGE GALLAS

**AMICUS CURIAE BRIEF OF ELECTRONIC FRONTIER FOUNDATION, THE  
VERIFIED VOTING FOUNDATION, AND VOTERSUNITE! AND CITIZENS'  
ALLIANCE FOR SECURE ELECTIONS**

**I. INTRODUCTION**

This case concerns voting technologies, specifically punch card technologies. Amici are citizen and grassroots organizations concerned about election integrity and security. While taking no formal position on whether punch cards may or may not be used in Ohio until the implementation of the state's HAVA plan, amici urge that in considering the issues and potential remedies in this case, this Court not suggest or require that any Ohio counties adopt electronic voting machine technologies unless they contain a voter verified paper ballot. Specifically, this includes electronic voting machines known as direct record electronic ("DRE") machines where votes are recorded only on electronic media. We do so based upon three points:

- First, a growing body of evidence demonstrates that the majority of electronic voting machines currently in use are not sufficiently secure and are causing significant problems for voters nationwide.
- Second, there are a variety of available, tested technologies that can be used to allow accessible voting without compromising security.
- Third, the emerging evidence suggests that currently available DREs are not yet the panacea for disabled voters that they have been advertised to

be.

**A. Interests of Amici**

Electronic Frontier Foundation (“EFF”) is a nonprofit public interest organization dedicated to protecting civil liberties and free expression in the digital world. Founded in 1990, EFF has over 12,000 paying members and represents the interests of Internet users in court cases and in the broader policy debates surrounding the application of law in the digital age. EFF publishes a comprehensive archive of digital civil liberties information at one of the most linked to websites in the world, <http://www.eff.org>. The amicus brief EFF drafted on behalf of several organizations was expressly relied upon by the federal court in the Central District of California case of *Benavidez v. Shelley*, in upholding California Secretary of State Kevin Shelley's decision to decertify DREs pending increased security measures. EFF also represents individuals and a small Internet Service Provider threatened with invalid copyright claims by DRE vendor Diebold for publishing embarrassing internal e-mails online in a case entitled *Online Policy Group v. Diebold*, currently pending in the Northern District of California.<sup>1</sup>

CASE Ohio, Citizens' Alliance for Secure Elections, is nonpartisan statewide grassroots association of volunteers that advocates for fair and accurate elections, and supports a voter-verified paper audit trail. CASE Ohio is located on the Internet at [www.caseohio.org](http://www.caseohio.org).

The Verified Voting Foundation is a nonprofit organization championing reliable and publicly verifiable elections. Founded by Stanford University Computer Science Professor David Dill, the organization supports a requirement for voter-verified paper trails on electronic voting machines allowing voters to inspect individual permanent records of their ballots and election officials to conduct meaningful recounts as needed. Over 8,000 computer science professionals and others have signed an informal resolution

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<sup>1</sup> See [http://www.eff.org/Legal/ISP\\_liability/OPG\\_v\\_Diebold/](http://www.eff.org/Legal/ISP_liability/OPG_v_Diebold/).

in support of more secure voting at the organization's website at [www.verifiedvoting.org](http://www.verifiedvoting.org).

VotersUnite! is a nonpartisan national grassroots network for fair and accurate elections. VotersUnite! is located on the Internet at [www.votersunite.org](http://www.votersunite.org).

## **II. A SIGNIFICANT RECORD OF PROBLEMS USING DRES EXISTS**

In the past few years, DRE malfunctions and problems have disrupted a significant number of elections nationwide. These problems caused voters to be disenfranchised and called the results of elections into question. At a minimum, they support the conclusion that Ohio counties moving from punch cards should not be forced to embrace these DRE technologies until they are more developed. Organized by vendor, the problems include:

### **A. Diebold**

#### **Maryland (November 5, 2002).<sup>2</sup>**

Voters using Diebold DREs watched as they voted for the Republican candidate for governor and the 'X' appeared beside the name of the Democratic candidate. The machines used were Diebold DREs with no paper ballot so the machines could not be audited. "I pushed a Republican ticket for governor and his name disappeared," said Kevin West of Upper Marlboro. "Then the Democrat's name got an 'X' put in it."

#### **Muscogee County, Georgia (November 4, 2003).<sup>3</sup>**

Allegations of widespread complaints by citizens who voted "no" on a sales tax proposition but saw Diebold machines register "yes" caused county officials to take the machine out of service during the election.

#### **Robeson County, North Carolina (November 2002).<sup>4</sup>**

Ballot tabulating machines by Diebold failed to work properly in 31 of 41 precincts. Local election officials said the problem was the result of a software programming error, and ballots from the individual voting machines had to be retabulated.

#### **San Diego County, California (March 2, 2004).<sup>5</sup>**

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<sup>2</sup> "Glitches cited at some polls...", THE WASHINGTON TIMES, November 6, 2002.

<sup>3</sup> Mark Rice, *NAACP disputes sales tax results, DuBose files complaint in Muscogee Superior Court*, LEDGER-ENQUIRER, November 13, 2003.

<sup>4</sup> The Associated Press, *Voter turnout surprises officials*, SUN NEWS, September 12, 2002, at <http://www.myrtlebeachonline.com/mld/sunnews/news/local/4056664.htm>.

Delayed opening of 55% of the polling places, 573 out of 1038 polling places, due a problems with the batteries in Diebold voting machines. The problems caused an unexpected initial login screens to appear on the machines, preventing proper encoding of electronic ballot cards at those polls. Due to the county's decision not to provide paper ballots at the polling places as a back up, many voters were turned away and told to return later. There is no reliable estimate of the number of voters who returned as opposed to those who were unable to return and vote later.

**Montgomery County, Maryland (March 2, 2004).<sup>6</sup>**

At least one voter using Diebold election equipment was not presented with a complete ballot. After casting his vote, he realized that the Senate race had not been presented to him for his vote. When he complained, the poll workers first told him, "Once you've cast your vote, you can't vote again." A poll worker asked if the voter had pressed the magnification button. The worker said they knew that the error occurred when the magnification button had been pressed.

**San Diego County, California (March 2, 2004).<sup>7</sup>**

Ten votes were inexplicably lost at one polling place using the Diebold TSx DRE. An election inspector in San Carlos said when polls closed at 8 p.m. Tuesday, the number of people who signed the voter log differed from the number of ballots counted by computers. "We lost 10 votes, and the Diebold technician who was there had no explanation," he said.

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<sup>5</sup> Office of the Secretary of State, *Report on the March 2, 2004 Statewide Primary Election* (April 20, 2004). [http://www.ss.ca.gov/elections/ks\\_dre\\_papers/march\\_2\\_report\\_final.pdf](http://www.ss.ca.gov/elections/ks_dre_papers/march_2_report_final.pdf) (hereinafter "March 2 Election Report") at 17; Official Report of the Chief Administrative Officer of San Diego County, at <http://www.signonsandiego.com/news/politics/county/20040310-1315report.html>. Jeff McDonald and Luis Monteagudo Jr., *Poll Workers, Voters Cite Tied-Up Hotline, Poor Training, Confusion*, UNION TRIBUNE; March 7, 2004, <http://www.signonsandiego.com/news/politics/20040307-9999-1n7vote.html>. A more complete description of many of the problems with DRE machines included in this brief is included in the "Myth Breakers" report attached to the Declaration of Ellen Theisen under Federal Rule of Evidence 1006, filed herewith.

<sup>6</sup> Jeffrey F. Liss, *Think You Voted in Md.? Think Again*, WASHINGTON POST, March 7, 2004, at <http://www.washingtonpost.com/wp-dyn/articles/A38008-2004Mar6.html>; Viveca Novak, *The Vexation of Voting Machines*, TIME MAGAZINE at 42 (May 3, 2004).

<sup>7</sup> See also Jeff McDonald and Luis Monteagudo Jr., *Poll Workers, Voters Cite Tied-Up Hotline, Poor Training, Confusion*, *supra*.

**Alameda County, California (March 2, 2004 and October, 2003).<sup>8</sup>**

A report released on April 12, 2004, by Diebold Election Systems shows that nearly 25% of its ballot encoders, 186 of 763 encoders, failed on election day because of hardware or software problems or both. Local news reported that “no electronic votes could be cast that morning at Anna Yates Elementary School.” Voters were turned away from the polls, losing their opportunity to vote in the primary as well as on other issues. Failures of votercard encoders also occurred on Super Tuesday in Newark, San Leandro, Emeryville, Oakland, and across San Diego County. Diebold also admitted in its April 12, 2004, report that tabulation errors during the October 2003, recall election were due to software bugs.

**B. ES&S**

**Wake County (Raleigh), North Carolina (November 2002).<sup>9</sup>**

Electronic voting machines by industry leader ES&S failed to count 436 ballots cast at two Wake County early voting locations. The vendor confirmed that the machines had defective firmware that caused some votes not to be recorded. The county returned to using its optical scan machines and has decided not to purchase DREs.

**Broward Counties, Florida (January 6, 2004).<sup>10</sup>**

In a special election for the State House District 91 seat, with only one item on the ballot, ES&S electronic voting machines showed a total of 134 undervotes – that is, 134 ballots in which voters did not select a candidate even though it was a single-race election. The winner, Ellyn Bogdanoff, received 12 more votes than the runner-up. Florida law requires a manual recount of invalid votes when the winning margin is less than one-quarter of one percent. However, election officials determined that no recount was required because the 134 invalid votes were cast on electronic voting machines, and there is no record of the voter’s original votes.

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<sup>8</sup> March 2 Election Report at 18; Ian Hoffman, *Voters Short Changed At The Polls*, OAKLAND TRIBUNE; March 7, 2004, at <http://www.oaklandtribune.com/Stories/0,1413,82~1865~2002277,00.html>; Ian Hoffman, *Diebold Reports Multiple Problems: Registrar Wants Reason For E-Voting*, TRI-VALLEY HERALD, April 13, 2004, at <http://www.trivalleyherald.com/Stories/0,1413,86~10671~2080327,00.html>.

<sup>9</sup> See <http://www.verifiedvoting.org/resources/documents/ElectronicsInRecentElections.pdf>.

<sup>10</sup> Jeremy Milarsky and Lisa J. Huriash, *Electronic Vote Recount Stumps Broward Officials*, SUN-SENTINEL, January 10, 2004.

**Dallas County, Texas (October 22, 2002).**<sup>11</sup>

The Democrats said they received several dozen complaints from people who said that they selected a Democratic candidate but that their vote on an ES&S DRE appeared beside the name of a Republican on the screen. Some votes cast for Republicans were counted for Democrats. The article points out that the previous year, the outcomes of 18 suburban Dallas County elections remained unclear days after the election because of vote-counting problems on the same machines. About 5,000 of nearly 18,000 ballots cast during the early voting period were not properly assigned to candidates.

**Miami-Dade County, Florida (May 20, 2003).**<sup>12</sup>

An internal review of election results by a Miami-Dade county election official found that a DRE system sold by ES&S and used in the May 20, 2003 North Miami Beach runoff election (as well as in earlier elections) was “unusable” for auditing, recounting or certifying an election due to a “serious bug” in the software.

C. Other Vendors

**Hinds County, Mississippi (November 4, 2003).**<sup>13</sup>

AVS Voting machines at some polling places in District 29 failed to start up. Others overheated and broke down during the election, and not enough paper ballots were available to allow all voters to vote. The Mississippi Senate decided it was impossible to determine the will of the voters. It declared the election invalid, and a new election was held on February 10, 2004.

**Bernalillo County, New Mexico (November 5, 2002).**<sup>14</sup>

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<sup>11</sup> Ed Housewright and Victoria Loe, *Area Democrats say early votes miscounted, Court hearing delayed as meeting planned on touch-screen problems*, THE DALLAS MORNING NEWS, October 22, 2002.

<sup>12</sup> Matthew Haggman, *Count Crisis? Election Officials Warn of Glitches that May Scramble Vote Auditing*, MIAMI DAILY BUSINESS REVIEW, May 16, 2004, at [http://www.law.com/jsp/newswire\\_article.jsp?id=1084316008117](http://www.law.com/jsp/newswire_article.jsp?id=1084316008117); Charles Rabin, *Glitch Forces Change in Vote Audits*, THE MIAMI HERALD, May 15, 2004, at <http://www.miami.com/mld/miamiherald/news/local/8671922.htm>.

<sup>13</sup> Clay Harden, *Long lines, machine malfunctions mark today's voting*, THE CLARION-LEDGER, November 4, 2003, at <http://www.clarionledger.com/news/0311/04/mvproblems.html>; Julie Goodman, *District vote set; contender may quit, Democrat says he's "been through enough" in disputed Senate race*, THE CLARION-LEDGER, January 21, 2004, at <http://www.clarionledger.com/news/0401/21/ma04.html>.

<sup>14</sup> Frank Zoretich, *Election Results Certified After Software Blamed*, ALBUQUERQUE TRIBUNE, November 19, 2002, at [http://www.abqtrib.com/archives/news02/111902\\_news\\_vote.shtml](http://www.abqtrib.com/archives/news02/111902_news_vote.shtml).

Insufficient memory capacity for the Sequoia software used to tabulate the votes caused about 25% of the votes not to be counted in the initial tally. Although about 48,000 people voted on 212 DREs, the initial figures given to the commissioners indicated that no race, not even for governor, showed a total of more than about 36,000 votes. Apparently the Microsoft SQL 6.5 software program used to report all of the votes had a capacity of only 64 kilobytes of data at a time. Any more than that fed to the reporting program in one chunk was simply not tallied.

**Boone County, Indiana (November 2003 Municipal Election).**<sup>15</sup>

Electronic vote-tabulation equipment by vendor Microvote reported that 140,000 votes had been cast in a county of 50,000 residents. Only 19,000 of those residents were registered to vote and only 5,352 voted. The tabulation machine had not been initialized and it was set to give excessive numbers to call attention to the error. The county clerk said it was obvious the numbers were wrong since the county is small, but she wondered if the error would have been noticed in a large county.

**Fairfax County, Virginia (November 4, 2003).**<sup>16</sup>

Some voters using Advanced Voting Solutions DREs watched as the ‘X’ they put beside the name of Republican School Board Member, Rita Thompson, dimmed out and moved to her Democratic opponent. Ms. Thompson complained and one machine was tested. Surprised officials watched as the machine subtracted approximately 1 out of 100 votes for Ms. Thompson.

**Harris County, Texas (November 4, 2003).**<sup>17</sup>

Hundreds of Houston area voters were disenfranchised because of problems with the Hart Intercivic electronic voting machines. Specifically, voters at two polling places were told to come back later when machines malfunctioned, and at one polling place election judges had voters write their choices down on paper.

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<sup>15</sup> Grant Gross, *Voting machine glitch shows thousands of extra votes*, IDG NEWS SERVICE, November 13, 2003, at <http://www.itworld.com/Tech/2987/031113votingglitch/>.

<sup>16</sup> Cho, *Fairfax Judge Orders Logs Of Voting Machines Inspected*, WASHINGTON POST, November 6, 2003, at B01, at <http://www.washingtonpost.com/ac2/wp-dyn?pagename=article&node=&contentId=A6291-2003Nov5&notFound=true>.

<sup>17</sup> 11 News Staff Reports, *Polling machine problems anger many voters*, November 4, 2003, 07:27 PM CST, at [http://www.khou.com/news/local/houstonmetro/stories/khou031104\\_mh\\_pollingprobs.1a536189.html](http://www.khou.com/news/local/houstonmetro/stories/khou031104_mh_pollingprobs.1a536189.html)

**Orange County, California (March 2004).**<sup>18</sup>

Approximately 7,000 voters were presented with the wrong ballots due to problems with pollworker understanding of complex Hart Intercivic DREs. In 21 precincts where the problem was most acute, there were more ballots cast than registered voters. Tallies at an additional 55 polling places with turnouts more than double the county average of 37% suggest at least 5,500 voters had their ballots tabulated for the wrong precincts. “Orange County election officials have traced the problem to poll workers who were responsible for giving each voter a four-digit code to enter into the voting machines.”

**San Bernardino County, California (March 2004).**<sup>19</sup>

In San Bernardino County, officials waited three hours for their new Sequoia vote counting computer to process the results before resorting to shutting down the computer and starting over.

Additionally, the disturbing record of a leading vendor, Diebold, supports caution in embracing DREs in Ohio. California discovered that Diebold sold election machines which had not been federally qualified to several California counties and installed uncertified software on its election machines in 17 counties.<sup>20</sup> This led the Secretary of State to launch a formal investigation into Diebold. The State determined that the uncertified software, especially that installed just prior to the election, was the likely source of several of the most troubling incidents leading to voter disenfranchisement in the March 2, 2004 elections. The results of that investigation, including what the Secretary bluntly called “fraud on state officials,” caused the Secretary to refer the matter

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<sup>18</sup> March 2 Election Report at 20-21; Ray F. Herndon and Stuart Pfeifer, *7,000 Orange County Voters Were Given Bad Ballots*, LOS ANGELES TIMES, March 9, 2004, at [http://story.news.yahoo.com/news?tmpl=story&cid=2026&ncid=2026&e=3&u=/latimes/s/20040309/ts\\_latimes/7000orangecountyvotersweregivenbadballots](http://story.news.yahoo.com/news?tmpl=story&cid=2026&ncid=2026&e=3&u=/latimes/s/20040309/ts_latimes/7000orangecountyvotersweregivenbadballots).

<sup>19</sup> Elise Ackerman, *Election Officials Report Some E-Voting Glitches*, SAN JOSE MERCURY NEWS, March 4, 2004 at [http://www.mercurynews.com/mld/mercurynews/news/special\\_packages/election2004/8103056.htm](http://www.mercurynews.com/mld/mercurynews/news/special_packages/election2004/8103056.htm).

<sup>20</sup> Staff Report on the Investigation of Diebold Election Systems, Inc. presented to Secretary of State Shelley and the Voting Systems and Procedures Panel (April 20, 2004), at page 4, at <http://www.ss.ca.gov/elections/touchscreen.html>.

to the California Attorney General for consideration of criminal and civil penalties.<sup>21</sup> A similar problem was uncovered in Indiana recently.<sup>22</sup>

In summary, significant problems with DREs have been reported and continue to be reported with each election across the country. This record is plainly sufficient to support this Court in ordering that, to the extent that Ohio counties change voting systems prior to the 2005 HAVA implementation period, they do not chose DREs in the absence of a voter verified paper ballot.

A. **This Court Need Not be Forced Into a False Choice Between Accessibility and Security in Voting Machines**

Amici note that in considering remedies in this case the court need not choose between increased voting security for all Ohio voters and accessible voting for Ohio voters with visual and manual disabilities. Accessible, auditable, federally qualified technologies exist currently for both those counties that have already purchased DREs and counties seeking to purchase new technologies.

1. **Optical Scan Systems that Are Accessible**

The first choice for Ohio counties is to use their currently existing optical scan systems for the November election and, if necessary, to lease additional machines as they have done in the past. These systems, which most Ohio counties already use to count absentee ballots, can be adapted for use by disabled voters by using inexpensive paper ballots that can be either “tactile” or Braille. Tactile ballots are already used in Rhode

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<sup>21</sup> Secretary of State Kevin Shelley Bans Diebold Tsx for Use in November 2004 General Election, press release, (April 30, 2004) [http://www.ss.ca.gov/executive/press\\_releases/2004/04\\_030.pdf](http://www.ss.ca.gov/executive/press_releases/2004/04_030.pdf) (“He took the additional step of requesting the Attorney General to investigate criminal and civil actions against Diebold in this matter based on what he called ‘fraudulent actions by Diebold’”); Associated Press, *California Official Seeks Criminal Probe of E-Voting*, (April 30, 2004) <http://www.msnbc.msn.com/id/4874190> (“Secretary of State Kevin Shelley asked the attorney general’s office to investigate allegations of fraud, saying Diebold had lied to state officials.”).

<sup>22</sup> Press Release, Marion County Indiana Election Board, "Marion County Clerk Doris Anne Sadler Charges Election Systems & Software With Breach Of Contract," (April 20, 2004), at <http://www6.indygov.org/clerk/election/press/04-04-20.htm>.

Island and around the world. These low-tech paper systems have the support of major disability groups including the leading spokesperson for Plaintiffs American Association of People with Disabilities, James Dickson. While called “ballots,” these voting aides are really an overlay or template that, as described approvingly by Mr. Dickson, “fit over the standard ballot and allow blind voters to vote independently.”<sup>23</sup>

## 2. DREs with Voter-Verified Paper Audit Trails

Ohio counties have many options to meet the twin goals of accessibility and security. At least two DREs equipped with voter verified paper ballots (“VVPB”) are already certified in Ohio and are available for purchase by Ohio counties in time for the November election:

- a. *AccuPoll*<sup>24</sup> produces a federally qualified, accessible, VVPB-equipped DRE system.<sup>25</sup> The company is certified in Ohio, Utah and South Dakota and is actively pursuing state contracts and expects to have equipment in the field for the November, 2004, election. American Council of the Blind lists AccuPoll as an accessible voting system manufacturer.<sup>26</sup>
- b. *Avante*'s<sup>27</sup> *Vote-Trakker*,<sup>28</sup> is an accessible, VVPB-equipped DRE that is certified in Ohio and federally. This system has been used successfully in five separate elections, including in Sacramento county.<sup>29</sup> The American Council of the Blind lists the *Vote-Trakker* as an accessible voting system.<sup>30</sup> In addition, Jim Dickson of AAPD has called *Avante*'s VVPB

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<sup>23</sup> James Dickson, *Not-so-Secret Ballot*, 2001, at [http://www.electionaccess.org/publications/ET2001/02\\_01\\_Dickson.htm](http://www.electionaccess.org/publications/ET2001/02_01_Dickson.htm). Photographs of tactile ballots are available at [http://www.electionaccess.org/Bp/Ballot\\_templates.htm](http://www.electionaccess.org/Bp/Ballot_templates.htm).

<sup>24</sup> *AccuPoll, Inc.*, at <http://www.accupoll.com/>.

<sup>25</sup> *AccuPoll Receives Federal Qualification for Electronic Voting System*, March 26, 2004, at <http://www.accupoll.com/News/PressReleases/2004-03-26.html>.

<sup>26</sup> *American Council of the blind Accessible Voting Fact Sheet*, at <http://web.archive.org/web/20020816072511/http://acb.org/washington/accessible-fact02.html>.

<sup>27</sup> *Avante International Technology, Inc.*, at <http://www.aitechnology.com/avantetech/home.html>.

<sup>28</sup> *Avante VOTE-TRAKKER Overview*, at <http://www.aitechnology.com/votetrakker2/overview.html>.

<sup>29</sup> *Sacramento County Tests Voting Machines*, KCRA-TV, October 16, 2002, at <http://www.thekcrachannel.com/news/1723286/detail.html>.

<sup>30</sup> *See supra*, Note 12.

an “elegant way” to provide a paper audit trail if one is mandated.<sup>31</sup>

Additionally, several other systems can likely be ready for use in Ohio in time for November, or at least prior to 2005:

- c. *Sequoia Voting Systems*,<sup>32</sup> which provides the system used by Riverside County and which is the country’s third-largest election equipment manufacturer, will have a VVPB-equipped AVC Edge<sup>33</sup> on the market by the summer of 2004. The unit will be deployed in every Nevada election jurisdiction in time for the 2004 presidential election.<sup>34</sup>
- d. *TruVote* is in the process of qualifying a VVPB-equipped DRE. The system also allows voters to verify that their vote was part of the final vote tally via a post-election web interface. The TruVote system should be qualified and available for purchase in the summer of 2004.

Additionally, Ohio counties can choose to use their optical scan systems and add electronic ballot markers to allow those with disabilities to fill out their ballots.<sup>35</sup> These systems look like traditional DREs, but they record votes on paper ballots instead of internal memory. This kind of machine can match all of a DRE’s accessibility features (audio interface, sip/puff input, multiple languages, etc.), and every vote can be verified before submission. Avante has a federally qualified ballot mark system.<sup>36</sup> ES&S, the world’s largest election equipment manufacturer, is also in the process of certifying a

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<sup>31</sup> See letter from Wiley Labs on file with the author. Dr. Kevin Chung, Testimony Before CA Voting Systems and Procedures Panel, April 22-24, 2004, at <http://tinyurl.com/yrmj8>.

<sup>32</sup> Sequoia Voting Systems, Inc., at <http://www.sequoiavote.com/index.php>.

<sup>33</sup> Marketing materials for Sequoia’s AVC Edge, at <http://www.sequoiavote.com/productguide.php>.

<sup>34</sup> *Sequoia Voting Systems Selected to Provide Uniform Statewide Electronic Voting System for Nevada*, at <http://www.sequoiavote.com/article.php?id=55>.

<sup>35</sup> More counties and individuals use optical scan systems than any other. See, e.g., Election Data Services, *New Study Shows 50 Million Voters Will Use Electronic Voting Systems, 32 Million Still with Punch Cards in 2004* (February 12, 2004), at [http://www.electiondataservices.com/EDSInc\\_VEstudy2004.pdf](http://www.electiondataservices.com/EDSInc_VEstudy2004.pdf).

<sup>36</sup> Avante International Technology, Inc., *First True Pixel-Based Optical Mark-Sense voting System Achieved 0% Error Rate In 1.5 Million Votes* (May 17, 2004), at <http://www.aitechnology.com/votetrakker2/Optical%20Vote-Trakker%20Press%20Release.pdf>.

ballot mark system. It should be available in the fourth quarter of this year.<sup>37</sup>

These voting technologies, plus no doubt others that amici are as yet unaware of, provide a current, feasible and acceptable mix of accessible and secure voting. In short, neither this court – nor the people of Ohio – need be forced to choose between secure voting and accessible voting.

**B. Current DREs Have a Mixed Accessibility Record in Practice**

Finally, the March, 2004, election confirmed earlier concerns that the promise of fully accessible voting has not yet been achieved by the current generation of DREs. To the contrary, it seems that a significant percentage of disabled voters still require assistance in voting even when using current DREs and so cannot vote in private. This should weigh into this court’s consideration of whether the possibility of some reduced access to DREs for certain disabled voters in the upcoming election should outweigh the concerns about malfunctions and security.

For instance, the president of the Silicon Valley Coalition for the Blind<sup>38</sup> introduced a survey of the experience of its members using Sequoia DREs<sup>39</sup> during the March election with this summary: “very few of our members were able to vote privately/independently despite Santa Clara County’s supposed ‘accessible’ touch screen machines. I feel this is an unacceptable state of affairs.” Exhibit B. Other blind voters were more blunt, calling the DREs “farcical” ‘accessible voting machines.’” *Id.*, ¶6. In total, of the fifty individuals surveyed, only two reported no problems using the machine

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<sup>37</sup> *New Ballot Marking Device from ES&S, AutoMARK Makes Optical Scan Voting Accessible to Voters with Disabilities*, April 1, 04, at [http://www.essvote.com/index.php?section=press\\_item&press\\_id=84](http://www.essvote.com/index.php?section=press_item&press_id=84).

<sup>38</sup> Portions of the Survey by Silicon Valley Council for the Blind after March, 2004, election, attached as Exhibit B; *see also* Elise Ackerman, *Blind Voters Rip E-Machines: They Say Defects Thwart Goal of Enfranchising Sight-Impaired*, SAN JOSE MERCURY NEWS, May 15, 2004, at [http://www.mercurynews.com/mld/mercurynews/news/breaking\\_news/8673336.htm](http://www.mercurynews.com/mld/mercurynews/news/breaking_news/8673336.htm), A copy of the *Mercury News* article is attached to Exhibit B for the convenience of the court.

<sup>39</sup> Sequoia DREs are also used by Plaintiff Riverside County.

and many reported that they were *not* able to vote in private using the DREs. *Id.*, ¶¶1,2,3,6,10,11,13.

Another survey by the Center for the Independence of the Disabled in New York confirms these problems, including reports of difficulty navigating the machine and poor audio quality.<sup>40</sup> *Id.* at 10, 21 and 23. Additionally, the report noted the wide range of disabled individuals who were not served by DREs. For instance, the report stated that quadriplegics, people with neurological disabilities and others with limited dexterity or arm motion were unable to use the touch screen technology. *Id.* at 21, 35.

In sum, while in theory DREs hold much promise for improving accessibility for some categories of disabled voters, currently existing DREs are far from that goal. Congress appears to have recognized the need for accessible voting technologies to mature by setting the deadline for implementation at 2006 in the Help America Vote Act and Ohio has similarly acknowledged this in embracing a 2005 deadline. Pushing that deadline forward to November, 2004, may result in Ohio using technologies that are not only insecure, but that also are not sufficiently mature in meeting the goal of private voting for those with visual and manual disabilities.

### III. CONCLUSION

Again, amici take no position on whether the Defendants should be required to replace their punch card systems. Our concerns reach only the potential remedies in this case. The need for security and reliability in election systems in Ohio is paramount. With each passing election, as well as each independent study, it becomes more clear that the currently available DREs that lack voter verified paper ballots may not be up to the task. For the reasons set forth above, Amici Curiae respectfully urge that any decision rendered by the Court in this action not suggest or require county boards to choose electronic

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<sup>40</sup> Virginia C. Fields and The Center for the Independence of the Disabled in New York, Inc., *Voting Technology For People with Disabilities*, March 2003, at <http://www.cvfieldsmbp.org/Voting%20Technology%20for%20People%20With%20Disabilities.pdf>.

voting machine technologies unless they contain a voter verified paper ballot. This can help ensure that voters have confidence that their votes are being counted as cast, that voters do not become disenfranchised due to malfunctions election day and, most importantly, that the individuals who get the most votes are actually elected. It is difficult to imagine a more important task this election year.

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By \_\_\_\_\_  
Donald J. McTigue (Ohio Reg. No. 002849)  
3886 North High Street  
Columbus, Ohio 43214  
Telephone: (614) 263-7000  
Facsimile: (614) 263-7078  
E-mail: mctiguelaw@rrohio.com

Cindy A. Cohn  
Electronic Frontier Foundation  
454 Shotwell Street  
San Francisco, CA 94114  
Telephone: (415) 436-9333 x 108  
Facsimile: (415) 436-9993

Attorneys for Electronic Frontier  
Foundation, VerifiedVoting Foundation,  
VotersUnite! and Citizens' Alliance for  
Secure Elections

### **CERTIFICATE OF SERVICE**

The undersigned certifies that a true and correct copy of the foregoing was sent via facsimile or hand delivery this 27<sup>th</sup> day of July, 2004 to: Meredith E.B. Bell, American Civil Liberties Union, (404) 653-0331; Richard Coglianese, Office of the Ohio Attorney General, (614) 728-7592; Anita Davis, Office of the Summit County Prosecuting Attorney, (330) 643-2137; Jillian Davis, Friedman & Gilbert, (216) 621-0427; Scott Greenwood, American Civil Liberties Union, (513) 943-4800; Holly Hunt, Office of the Ohio Attorney General, (614) 728-7592; Joseph Hutson, Office of the Hamilton County Prosecuting Attorney, (513) 946-3018; Mark Landes, Issac, Brandt, Ledman & Teetor, (614) 365-9516; Arthur Marziale, Office of the Ohio Attorney General, (614) 466-5087; Laughlin McDonald, American Civil Liberties Union, (404) 653-0331; Kathleen

McGarvey Hidy, Attorney for Hamilton County Board of Commissioners, Telephone (513) 946-3053; Paul Moke, Wilmington College, (937) 382-7077; Darrell M. Pierre, Jr., Office of the Ohio Attorney General, Telephone (614) 466-2872; Richard Saphire, Professor of Law, (937) 229-2469; Elizabeth Luper Schuster, Office of the Governor, (614) 995-1767; Jeffrey Stankunas, Issac, Brandt, Ledman & Teetor, (614) 365-9516; David Stevenson, Office of the Hamilton County Prosecuting Attorney, (513) 946-3018; Gordon Strauss, Office of the Hamilton County Prosecuting Attorney, (513) 946-3018; Daniel Tokaji, Moritz College of Law, (614) 688-8422; Raymond Vasvai, Jr., Berkman Gordon Murray & Devan,, (216) 781-8207; Victor Whisman, Office of the Montgomery County Prosecuting Attorney, (937) 225-4822.

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Donald J. McTigue