



What the Utah Lt. Governor's Office is *Not* Telling You

Electronic Ballots are *Not* Verifiable by Voters.

Just because visible text on a touch-screen *and* the visible text on voter-verifiable paper roll are correct, it does *not* follow that the invisible electronic ballot and the proprietary (secret) bar-code on the paper rolls have recorded votes correctly; or that votes are counted correctly.

Governor Bill Richardson of New Mexico, in a March 1, 2006 letter to all State Election Directors, wrote:

“As anyone who uses one can attest, computers break down, get viruses, lose information, and corrupt data. We know this to be the case, and so we back-up our files to ensure nothing important is lost. Paper ballots serve as the ultimate back-up for our elections, providing secure and permanent verification of the will of the people.”

Yet Utah has purchased no paper-roll advancers that are needed to count our voter-verifiable paper ballots!

Diebold will *secretly* cast and count our e-votes with proprietary software and systems. Yet Diebold:

1. sold Utah a mixture of new and used voting machines which were rejected in other states, as if they were all new, well-functioning voting machines;¹
2. told Utah that it had “about 20” office locations in Utah, advertising 16 phony office locations in Utah white pages that never existed;²
3. sold Utah voting machines which posed an 110 volt electrocution hazard to voters and poll workers;
4. sold Utah voting machines with a nonstandard printer design that lacks adequate paper guides and has a tendency to have paper jams during elections;
5. charged Emery County \$40,000 to re-examine two voting machines claiming that world-renowned security experts may have rigged them to fail³; and
6. was sued for fraud by BlackBoxVoting with the state of California and settled for \$2.6 million;
7. is being sued for fraud currently by its own stockholders; and
8. its sales persons were caught giving \$10,000 bribes to county election officials in Ohio; and
9. it has had its voting systems decertified or rejected in other states such as California and Maryland.

¹The evidence that Diebold delivered old used or rejected voting machines to Utah includes:

- Not enough memory to conduct elections on some voting machines due to:
 - election data from other states which require a code to remove,
 - Chinese or Japanese fonts installed which were not ordered by Utah,
 - old failing memory,
- yellow stick-on dots that were used by Diebold to mark machines which failed during other states' acceptance testing;
- Diebold's admission that fonts would explain the 22 MB difference in available memory and the fact that only Asian fonts are large enough to explain the difference and were not needed by Utah
- Diebold's admission during an Emery County Commission meeting that it delivered three different versions of the voting machines to Utah rather than the one certified version.

² Diebold appears to have similarly advertised fictitious office locations in the white pages in over 20 other states. When the fictitious white page listings were discovered, Diebold at first claimed that it still had “about 20 offices in Utah, but would not tell us where those offices were; then it claimed that the “phone company made a mistake”.

³Hari Hursti and Security Innovations, whose clients include Microsoft and the National Security Administration examined two machines. Two new voting machines would cost only \$6,000 to replace; and at Diebold's \$1200 daily rate, it would take them 33 days to examine Emery's machines; at this rate it would then take Diebold over many years to examine the 10,000 voting machines in San Diego County, CA. This charge is preposterous.



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Utah's Lt. Governor's office helped Diebold cover up the evidence of its sale of used, rejected voting machines to Utah by giving Diebold access to warehouses where voting machines are stored; and urged Emery Commissioners to fire 23 year veteran Emery County Clerk Bruce Funk because he discovered the truth about Utah's Diebold voting machines. Bruce Funk is the first Utah election official to ask independent computer security experts to evaluate Utah's voting machines. A scientific report about Utah's Diebold TSx voting machines will be released soon by world-renowned security experts Hari Hursti and Security Innovation. Until this report is received and publicly scrutinized, Diebold voting systems should not be used.

Design Flaws of Diebold - (“trust Diebold” is not a valid security method)

Diebold voting machine security flaws have been widely reported since early 2003. There are known ways for insiders (Diebold or county staff) to *undetectably* rig Utah elections:

1. manipulate vote counts on the central server
2. manipulate vote counts on touch-screens using code on the same memory cards that record votes
3. cast extra votes using multiple voter cards
4. plant “Easter Egg” programs in the touch-screens which only miscount during elections
5. plant backdoors in the touch-screen or central server which give access during elections

Diebold voting machines do not employ modern technology:

- Diebolds do *not* use write-once-only media to create unalterable logs and
- Diebolds do *not* generate random numbers to match electronic and paper ballots that would make its electronic ballot records individually auditable.

Highly improbable and impossible vote counts have been recorded by Diebold voting machines, including a recent election which caused New Hampshire’s Attorney General to impound Diebold voting machines.

Irrefutable high-resolution photographic evidence of Emery County, Utah Diebold voting machines flaws is available at <http://utahcountvotes.org/BBV-Diebold-images.php>. A report will be released soon regarding the security and design of Utah's Emery County voting machines by Hari Hursti and professional(s) at Security Innovation.

Un-audited systems allow insiders unfettered access to rig elections. We independently audit banks, churches, and businesses to prevent insider embezzlement. Allowing insiders to undetectably alter vote counts leaves elections open to malfeasance. Utah election officials did not purchase the necessary equipment to hand-count the paper roll record of ballots!

Utah's election officials are wrong. No amount of guarding the voting machines or pre-election testing can prevent or detect malfeasance and vote rigging. The only way to ensure that e-ballots record and count votes correctly is to independently audit vote counts in every election. The “security by obscurity” system is known by all computer scientists to give insiders unfettered access to tamper. See <http://www.openvotingconsortium.org/ad/sos-opposition-letter418.pdf>



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Diebold hid information concerning its flaws behind “Trade Secret and Confidential”. It did *not* publicly answer the following questions in its RFP response!

- Explain how “The voting solution shall control logic and data processing methods to detect errors and provide correction method.”
- “How does the proposed system manage recounts and verify that the ballots counted accurately reflect the votes cast?”
- “If the voting solution includes a voter verifiable paper ballot, or if the offeror has a DRE that is adaptable, please describe in detail how this function works.”
- “If there is a voter verifiable option (including but not limited to printing), what is the poll worker’s duty in this operation?”
- “What measures have been taken to identify device tampering and monitoring?”

Utah Reports Election Results in a way that Hides Evidence of Vote Tampering by adding together detailed vote counts prior to publicly reporting them. In other words, Utah's election results reporting practices permit insiders to pad votes for one candidate in one vote-type while simultaneously subtracting votes for a different candidate in a different vote type.

The following Utah computer scientists recommended against purchasing electronic-ballot voting machines. This written statement was made to Utah Election Officials on October 20, 2004 and a copy was handed in January, 2005 to Utah Lt. Governor Herbert:

“The current generation of electronic (DRE) voting machines are not secure, do not provide voters with a way to know that their votes are being tabulated correctly, and do not provide a mechanism for effective recounts when errors arise. As such, they represent an unacceptable technical risk, regardless of how people feel about them.”⁴

Erik Brunvand, Associate Professor of Computer Science, University of Utah

John Carter, Associate Professor of Computer Science, University of Utah

Samuel H. Drake, Research Associate Professor, School of Computing and Dept. of Mechanical Engineering, University of Utah

Ganesh C Gopalakrishnan, Professor of Computer Science, University of Utah

Michael Jones, Assistant Professor of Computer Science, Brigham Young University

David Hanscom, Professor, Clinical, School of Computing, University of Utah

Arthur Lee, Associate Professor of Computer Science, University of Utah

John Regehr, Assistant Professor of Computer Science, University of Utah

Kent Seamons, Assistant Professor of Computer Science, Brigham Young University and Director, Internet Security Research Lab

Peter Shirley, Associate Professor of Computer Science, University of Utah

Phillip Windley, Associate Professor of Computer Science, Brigham Young University and Former Chief Information Officer (CIO) of the State of Utah

⁴ http://utahcountvotes.org/voting_system_advice.pdf



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Touch-screens are the most costly voting system. Republican Governor Robert L. Ehrlich, Jr. of Maryland February 15, 2006 wrote that Diebold touch-screens caused “an almost 78 % increase from the original cost estimate. However, this misjudgment pales in comparison to the 1000% increase for estimates of the annual maintenance costs for this system.”

A cost study of all Florida's counties⁵ shows that buying touch-screens causes an increase in annual expenditures of about 57.3%. Owning optical scanners can increase annual costs about 16.7%. (a 40% difference)

POSSIBLE SOLUTIONS for UTAH:

1. Utah can **defer the requirement to meet HAVA for two years** by making a request to the Justice Department like Connecticut did. A two-year deferment would be awarded if Lt. Governor Herbert would ask. Utah could save money by locking the machines up and temporarily re-certifying Utah's old voting systems. Diebold did not operate in good faith with the State during the bid and review process in Utah.
2. **Require Utah County Clerks to release detailed vote counts broken out by precinct and by precinct by vote type** (absentee, Election Day, early, early-provisional, Election-Day-provisional, overseas, mail-in, military) including total ballots cast, total counted, and total number of voters. Utah should monitor its own election results to detect probable vote count errors.
3. **Perform Routine Mandatory Independent Audits of Vote Counts** in all Utah elections. A vote count audit proposal can minimize the burden to election officials and taxpayers. See <http://electionarchive.org/ucvAnalysis/US/paper-audits/VoteCountAudit-UT.pdf>. Independent audits would require purchasing paper roll advancers in order to practically be able to hand-count Diebold's paper roll ballot records.
4. **Wait for the public release of the scientific study of Utah's Diebold TSx voting machines by world-renowned security firm Security Innovation⁶ and Hari Hursti** before making decisions.

I respectfully request that Utah citizens be permitted to give public input at the upcoming May 2006 Government Operations Committee hearing.

⁵ <http://electionarchive.org/ucvAnalysis/FL/SurveyofFloridaCountyVotingCosts.pdf>

⁶ See footnote 3.