## **Andrea Gyger**

From: John C Dean

**Sent:** Friday, May 15, 2015 8:19 AM

**To:** SoS Rulemaking

**Subject:** Internet Voting - An Extraordinarily Bad Idea

## Dear Secretary:

Like the computer experts at Stanford, Princeton and MIT, I oppose the use of internet voting in any form because "... computer security experts at a <a href="Princeton symposium">Princeton symposium</a> last week made clear that online voting cannot be verifiably secure, and invites disaster in a close, contentious race." See <a href="http://www.technologyreview.com/news/506741/why-you-cant-vote-online/">http://www.technologyreview.com/news/506741/why-you-cant-vote-online/</a>

See also http://epub.uni-regensburg.de/21302/1/Schryen\_-

\_How\_Security\_Problems\_Can\_Compromise\_Remote\_Internet\_Voting\_Systems\_-\_LNI.pdf
Abstract: Remote Internet voting systems still suffer from many security problems which rely on the clients, the servers, and the network connections. Denial-ofservice attacks and viruses still belong to the most challenging security issues. Projects and studies like the "Voting Technology Project" of CALTECH and MIT or SERVE of the US Department of Defense set up to gain experience evidence many of the notional weaknesses of current Internet voting systems.

As to the ability of military men and women to be able to vote when deployed under difficult circumstances, I would point out that they have been casting votes during overseas deployments for decades without the help of the internet and will continue to do so.

Lastly, your computer expert which appeared on 560AM in the last couple of days stated that the cost of a sophisticated attack is too expensive and the value of the target (emailed military ballots) is to small to be of interest. And in the same breath he said, that he can demonstrate how you can intercept and change an email ballot and then deliver a fraudulent ballot to the intended county clerk. Well if he can demonstrate how it is done, by definition, it can not be that expensive to do. This is a kind of "man in the middle" attack that he is referencing. But that is only one of hundreds or ways of compromising the system. A better way would be to attach a virus to an email ballot headed to the county clerk. The ballot is opened, the county clerk's computers are infected and the hacker takes control of the entire voting system.

If you think any of this it too far fetched, consider the type of resources at Target and Home Depot that they use to keep their systems secure. And still they had major data breaches.

Internet voting is an extraordinarily bad idea. Don't let it be implemented.

Rgds, John C. Dean, Boulder CO