Internet Voting: Facts and Frequently Asked Questions

It’s important to provide all eligible voters with access to vote. Can’t we vote securely over the Internet or by mobile phone?

No. No form of Internet or mobile phone voting is secure. According to the Department of Homeland Security Internet voting is highly insecure and should be abandoned because the security tools currently available cannot adequately or effectively protect voted ballots returned over the Internet. National security and computer security experts are in vigorous agreement: ballots that are recorded electronically and transmitted over the Internet are at high risk of undetectable interference, tampering, deletion or privacy violations according to countless research studies from both the federal government and private security researchers.

But I can shop and bank online. Why can’t I vote online?

Banking and e-commerce transaction are not secure and billions are lost every year due to cyber fraud. Banks and merchants absorb the losses (compensating with more consumer fees and charges) and do not hold the individual clients responsible, fostering the mistaken understanding that the transactions are secure. Further, unlike banking in which the customer can reconcile transactions with a monthly statement and catch any errors, voters cast secret ballots and there is no procedure in which the voter or election office could detect a hack should votes be deleted or manipulated in transit, making Internet voting particularly susceptible to undetected hacking. For more information see Verified Voting’s “If I can shop and bank online, why can’t I vote online?”

Is voting by email the same as Internet voting?

Yes. A ballot sent in an email or as an email attachment travels over the Internet and will be vulnerable to manipulation, spying or deletion.

What about sending ballots by fax?
While traditional fax machines used public switched telephone networks, today’s commonplace digital facsimiles travel over the Internet. Programs which allow the transmission of documents, like pdfs, by “fax” from a computer function much like email and are vulnerable to Internet attacks. (This paper includes a demonstration of how votes on a pdf ballot can be altered by running a script in the pdf.)

But don’t some states already allow some Internet voting? Doesn’t that mean it’s safe?

Just because some states allow Internet, fax or email voting for military, overseas or disabled voters, does not mean that it’s safe. Many states passed laws to allow electronic ballot return in the 1990s and 2000s, when cyber crime was less commonplace and less mature, and before the risks to online voting were fully understood. Moreover, during this time, there was an expectation that the Department of Defense (DoD) would develop a secure online voting system for military and overseas voters, driving states to pass laws that would allow them to opt in to use the expected online voting system. The DoD developed a system but it was scrapped in 2004 by the Pentagon because a security examination found that it was not possible to ensure the legitimacy of ballots cast over the internet.

Subsequently, the National Institute of Standards and Technology (NIST) was tasked by Congress to develop security standards for the DoD’s online voting project. After years of research, NIST determined that it could not develop security standards because secure online ballot return was not yet feasible. NIST’s conclusion led Congress to repeal the standing authorization for DoD to develop an online voting system in the National Defense Authorization Act of 2015. Though Congress wisely ended the development of an online voting system, state laws remain in place which allow voting over the internet.

Some states have adopted or expanded Internet voting based on the false claims and baseless promises of security from the vendors that sell online voting systems. We should end this insecure practice, not expand it.

What if a paper ballot is printed at the election office and then scanned?

A voter-verified paper ballot is universally recognized as a necessary element for secure, auditable elections but a ballot sent over the Internet and printed at the election office is not verified by the voter and provides no security benefit to prevent or detect manipulation of a ballot that is transmitted online. Vendors of
online voting systems have falsely claimed that their systems provide a voter-verified paper ballot but this is untrue.

But this system says it’s not Internet voting. It just stores ballots “securely” in the cloud. Is that ok?

No. Because of growing skepticism for Internet voting, some vendors have tried to rebrand their systems and claim they are not Internet voting, but merely a “document storage application.” This is false. Ballots that are marked and transmitted electronically to a cloud for retrieval by an election official travel the Internet and are vulnerable to cyber attacks.

Don’t online voting systems have to be federally tested for security and accuracy?

No, there is no federal testing or certification of these systems. Several years ago, the National Institute of Standards and Technology (NIST) studied Internet voting for the purpose of developing security standards, however, NIST concluded that secure online voting wasn’t yet feasible and therefore it could not write security standards. Some vendors have made statements that their systems, or elements of their systems have been certified or approved by FedRamp or other entities, but these statements are misleading at best. No online voting system has been approved or certified for use by the federal government.

But a paper ballot sent by mail could also be intercepted; don’t we have to accept some level of risk?

While a mailed paper ballot may also be vulnerable to interception, one would have to physically come in contact with each paper ballot between its sender and the election office. A ballot traveling over the Internet can be intercepted and deleted (or manipulated) from a remote computer anywhere in the world. Additionally, such attacks can be automated, dramatically increasing the scale of the attack.

Ok, you’ve convinced me, we shouldn’t vote over the Internet. But what options are there for military, overseas and voters with disabilities to vote if they can’t get to a polling place?

Some policies will vary from state to state so voters should check with their local election office but there are options and accommodations to ease the absentee voting process for these voters.
The Military and Overseas Voter Empowerment (MOVE) Act ensures all military and overseas voters will have their absentee ballot sent to them at least 45 days before Election Day, and that voters have the option to receive blank ballots by mail or by electronic transmission. Members of the military can return ballots with free expedited mail using the SB 11 mail label. Check with your state or local election office or FVAP.gov for more information regarding voting options for military and overseas voters.

For voters with disabilities, many states are now offering remote accessible ballot marking options, which allow a voter to access a blank ballot on their computer. This enables the voter to use their own assistive technology to make their choices on the ballot, print it out, and return a paper ballot by mail or drop box. Some states will send election workers to pick up the ballot. Other states are now offering Mobile Voting Vehicles, in which election workers bring accessible ballot marking devices to the voter’s home or place of work to mark a paper ballot with assistive technology. All of these methods allow the voter to vote a secure paper ballot, privately and independently. For more information, contact your local election office.

*We emphasize that there is absolutely no credible evidence of fraud in the 2020 presidential election, but though the 2020 election results are correct, we still must strengthen our election security and discontinue Internet voting.

###