Verified Voting

March 25, 2021

Connecticut Government Administration and Elections Committee
Legislative Office Building, Room 2200
Hartford, CT 06106

RE: Verified Voting Opposition to Section 27 of Senate Bill 5

Dear Committee Members,

On behalf of Verified Voting, I write in opposition to Section 27 of Senate Bill 5 regarding ballot return via the internet. Verified Voting is a nonpartisan nonprofit organization with a mission to strengthen democracy for all voters by promoting the responsible use of technology in elections. Since our founding in 2004 by computer scientists, we have acted on the belief that the integrity and strength of our democracy rely on citizens' trust that each vote is counted as cast. It is with this in mind that we oppose allowing voted ballots to be returned electronically through insecure means.

Multiple cybersecurity experts have concluded that internet voting is unsafe. The National Academies of Science, Engineering and Medicine released a report in 2018 stating that the technology to return marked ballots securely and anonymously over the internet does not exist[1]. Additionally, in 2020 the American Association for the Advancement of Science Center for Scientific Evidence in Public Issues sent a letter to Governors and Secretaries of State outlining the reasons it is *still* insecure to return a voted ballot electronically. Those reasons include[2]:

- All internet voting systems and technologies are currently inherently insecure.
- No technical evidence exists that any internet voting technology is safe or can be made so in the foreseeable future; rather, all research performed to date demonstrates the opposite.
- No blockchain technology can mitigate the profound dangers inherent in internet voting (more on this below).
- No mobile voting app is sufficiently secure to permit its use.

[1] National Academies of Science, Engineering, and Medicine, 2018. "Securing the Vote: Protecting American Democracy." Washington, DC: The National Academies Press. https://doi.org/10.17226/25120.
[2] American Association for the Advancement of Science. "Internet or Online Voting Remains Insecure" https://www.aaas.org/programs/epi-center/internet-online-voting.

We must also point out that the actual device (e.g. smartphone) that voters cast their votes on has security vulnerabilities. The voter's device may already be corrupted with malware or viruses that could interfere with ballot transmission or even spread that malware to the computer at the elections office on the receiving end of the online ballot. Unlike other internet transactions, voting must simultaneously maintain ballot secrecy while still providing a verifiable record of the voter's intent. Internet voting does not allow the voter to verify that the record received by the elections office in fact reflects the voter's choices and thus those votes are not auditable.

Blockchain does not solve the security issues inherent to internet voting.

The National Academies of Sciences report states that "blockchain technology does little to solve the fundamental security issues of elections, and indeed, blockchains introduce additional security vulnerabilities[1]." Blockchain technology is designed to keep information secure once it is received. It cannot defend against the multitude of threats to that information before it is entered in the blockchain, and voters cannot verify their votes are entered into the blockchain correctly without compromising ballot secrecy. Recording ballots on a blockchain also risks ballot secrecy if encryption keys are not properly protected or software errors allow decryption of individual ballots.

We understand the profound challenges you face to assure every voter's ability to vote. However, the internet and electronic return of voted ballots simply is not yet safe and secure enough to allow for an expansion of that option. For these reasons we request Section 27 of SB5 be rejected.

Respectfully submitted,

Mark Lindeman
Acting Co-Director