Team Gangster Deliverable 0

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Dr. X’s 360

Since we are creating a electronic voting system that will be used for the State South Carolina, we researched the rules and regulations to follow the guidelines for a government official electronic voting system and to get U.S Election Assistance Commission certified. There are only a few EAC certified voting software solutions. According to the EAC, software functionality should have the following:

· “Correctly registering and recording all votes cast.”[1]

· “Permitting the voter to vote for any person, office or measure for which he or she has the right to vote.”[1]

· “Permitting a voter to review his or her votes before casting them, and providing the opportunity to change or correct the ballot before it is cast and counted.”[1]

· “Notifying a voter if he or she has cast too many votes for a particular candidate or issue (over voted) or neglected to vote for a particular candidate or issue (under voted).”[1]

· “Providing a method for voters to “write-in” a candidate of their choice.”[1]

· “Accumulating total ballots cast.”[1]

This should be our basis to our software solution satisfy all the EAC certificate functional requirements

Essvote has GEMS which is Global Election Management System, which has a great feature of being a “Fast, Accurate, User-Friendly Ballot Layouts”.[2 ]The idea of keeping it simple and user-friendly is important to accommodate to everyone needs. This will allow voting accessible for everyone regardless of a disability or special need. Which important for our software, because we don’t want to limit who can vote.

Dominion Voting has one of the most trusted voting software on the market. They had three goals as they stated “most cost-effective system which offers efficiency, scalability and flexibility; no matter the size or complexity of the jurisdiction”. [3] Which are three goals we should keep in mind to make sure our customer and user have a great experience using our software. The more pleasant the experience the more users we get, which ultimately our customer goals.

After looking at reviews on the software Swift Polling by ExciteM, one of the best features I seen on that software was the capabilities of seeing live results. Their customers loved the feature of being able to monitor the polls as a live feed. This should be one of the features we include into our software. Being able to see trends and such would be very useful to the users. This will add more flexibility to our software also. [4]

[1] “VOTING SYSTEM STANDARDS, TESTING AND CERTIFICATION,” National Conference of State Legislatures, 06-Aug-2018. [Online]. Available: http://www.ncsl.org/research/elections-and-campaigns/voting-system-standards-testing-and-certification.aspx. [Accessed: 28-Aug-2018].

[2] “GEMS,” ES&S. [Online]. Available: https://www.essvote.com/products/7/39/election-management-software/gems/. [Accessed: 28-Aug-2018].

[3] “Products,” Dominion Voting . [Online]. Available: https://www.dominionvoting.com/products. [Accessed: 28-Aug-2018].

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[4] “Swift Polling,” *Capterra*. [Online]. Available: https://www.capterra.com/p/173229/Swift-Polling/. [Accessed: 29-Aug-2018].

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# References

Voluntary Voting System Guidelines VOL 1.1. (2005). The Federal Election Commission.

This source contains the guidelines for voting systems set by the Federal Election Commission. It is extremely helpful because it specifies the necessary functional requirements, software requirements, and security requirements for a voting system. It will help us more easily figure out what we need to have in our project.

Voting, F. (2018). *Features | Simply Voting*. [online] Simplyvoting.com. Available at: https://www.simplyvoting.com/features/ [Accessed 30 Aug. 2018].

This source is a website for a professional voting software company which highlights the positive and outstanding features of their product. This source is helpful because it allows us to get an idea of useful features to implement from a well established voting software company. Understanding what makes their particular software effective will help us improve ours.

Smartmatic.com. (2018). *Electronic voting: Benefits of electronic voting systems - Smartmatic*. [online] Available at: https://www.smartmatic.com/us/voting/electronic-voting/ [Accessed 30 Aug. 2018].

This source is an article which states the benefits of electronic voting as opposed to non-electronic voting. It will be particularly helpful because it states the specific features which any e-voting software developer should focus on. While it covers more basic features than specific guidelines, it will still be helpful in helping us figure out what the basic components we need to focus on are.

[1a]

Eac.gov. (2018). Voluntary Voting System Guidelines - Voting Equipment | US Election Assistance Commission. [online] Available at: https://www.eac.gov/voting-equipment/voluntary-voting-system-guidelines/ [Accessed 30 Aug. 2018].

[2a]

NIST. (2018). *Technical Guidelines Development Committee (TGDC)*. [online] Available at: https://www.nist.gov/itl/voting/technical-guidelines-development-committee [Accessed 30 Aug. 2018].

[3a]

Cisecurity.org. (2018). *A Handbook for Elections Infrastructure Security*. [online] Available at: https://www.cisecurity.org/wp-content/uploads/2018/02/CIS-Elections-eBook-15-Feb.pdf [Accessed 30 Aug. 2018].

The VVSG (Voluntary voting system guidelines) is document that outlines the necessary requirements for any electronic voting and balloting software to be used by the US government. It features several specifications that ensure that the software used will be adequately accessible by voters, scalable for the needs of the US government and of course, properly functional. One specific requirement set forth by the VVSG is that each individual voting machine must be routinely scanned for malicious software every 24 hrs. The guidelines were first enacted in 2005 [1a] , with an updated version ratified in 2015 and a planned update slated to enact sometime in 2018.

The National institute of Standards and Technology is a division of the US department of commerce[2a]. Their priority is measuring and managing technological advancements and research across the US. Their internal research division works to develop guidelines for future voting software implementations. Among their requirements are the general security of the machines involved in the voting process including the networks, and the means of storage for the cast votes. Also specified are detailed methods of preventing fraud, miscast votes, and other anomalies that would mar an otherwise solid voting/balloting system. The institute also set in place guidelines for the design of the machines to allow for voters with disabilities.

The Center for Internet Security is a American non-profit organization that crowdsources intelligence to help protect against malicious online threats. The CIS claims that their benchmarks “are the global standard and recognized best practices for securing IT systems and data against the most pervasive attacks.” [3a] In this document, the CIS outlines the need that a electronic voting system must absolutely satisfy in ordered to be considered safe and usable.