When we talk about the ‘voting system’ utilized in Virginia and Loudoun County we are actually talking about three distinct and separate systems; the voter registration system, the electronic pollbook system, and the voting equipment system. Each of these systems plays a pivotal role in the conduct and security of our elections.

**Voter Registration System**

**What does this system do?**

The voter registration system is the central statewide repository of all voter data in the Commonwealth of Virginia. This is where everything related to a voter record is stored including data such as registration date, voting location, documents/forms/applications, address changes, and moves within Virginia, etc. This system also contains information on whether a voter has already voted early or has requested or returned a mail ballot in a particular election. This data ensures that everyone can only vote once.

**How does this system interact with other voting systems?**

Data from the voter registration system is used to populate the data in the electronic pollbooks used in precincts for early and election day voting as well as the Central Absentee Precinct where mail votes are handled. As the systems are not in any way connected, this data must be manually downloaded from the state system and then imported into the electronic pollbook system to generate the pollbooks.

**How is this system secured?**

Access to the voter registration system is strictly controlled. Some of the security measures in place include two-factor authentication, limiting access to approved IP addresses, access to only what is required to perform job functions, etc. Additionally, all localities in Virginia are required to conform to the ‘Locality Election Security Standards’ regulations as per the Virginia Department of Elections. In Loudoun, we go a step further by limiting access to only permanent or temporary staff who have undergone criminal and credit background checks as well as successfully completed county-required training on security and confidentiality.

**Electronic Pollbook System**

**What does this system do?**

The electronic pollbook system is utilized in early voting precincts, election day precincts, and the mail central absentee precinct to verify voter eligibility before they are allowed to vote. The system contains identifying data as well as voting data related to the election being administered. For instance, the electronic pollbook system knows when a voter has requested or returned a mail ballot or has voted early at an early voting site. It also knows if the office has reason to believe a voter may not reside at the address on record. If a voter who appears is listed as anything other than ‘Ready to vote’ the system notifies the officer to send the voter to a help desk where they can receive special assistance to determine eligibility.

**How does this system interact with other voting systems?**

Data from the voter registration system is manually downloaded and then imported into the electronic pollbook system to generate the pollbook for an election. For early and mail voting this is done daily during the early/mail voting period to ensure that records are always up to date. For election day voting this is done after the completion of early voting to ensure that precincts have the most up-to-date

information possible on election day. As the systems are not in any way connected, this data transfer is done manually.

**How is this system secured?**

All election officers assigned to use an electronic pollbook are assigned a unique user ID and password. Every interaction with the pollbook system is logged so that any issues can be researched. Pollbooks used in mail voting and election day voting is only networked to one another within their respective precinct, there are no outside connections. Pollbooks used in the four early voting sites is connected to one another through a secure network to ensure that a voter cannot vote more than once at an early voting site. Only authorized devices that are licensed to operate on the Loudoun County system can access the networks used by our precincts.

**Voting Equipment System**

**What does this system do?**

The voting equipment system is what counts the votes. This system consists of two pieces of equipment; the OVO scanner which is used to scan and tabulate ballots, and the OVI ballot marking device which can be used by disabled voters who require assistance in marking their ballots. The OVI does not count ballots, it simply generates a paper ballot that the voter then inserts into the OVO scanner. At the completion of voting the OVO scanner is ‘closed,’ results tabulated, and a results tape is automatically generated.

**How does this system interact with other voting systems?**

Simply put it does not. All it does is accept ballots and tabulate the results. The pieces of equipment that make up this system do not have networking ability; they operate completely independently of all other systems. Their one and only job are to scan ballots and produce results.

**How is this system secured?**

The voting equipment system is secured in several ways. It starts with Logic and Accuracy testing where a team of bi-partisan election officers programs and tests each machine and verifies that is it calculating results accurately. The testing officer then signs off to certify the equipment functions as expected. This is then verified by members of the Loudoun County Electoral Board who review each testing result and sign off on the accuracy of the equipment. The equipment is then sealed, with seal numbers recorded, and placed in the secure election cart to await delivery to the precinct. Upon delivery to the precinct, the precinct team verifies that the seal number matches prior to setting up the equipment.