

Bryant Watkins

Reflection Paper 2

Date: 06/05/2025

ODU Summer 2025

Professor Teresa Duvall

TA Ashley Robinson

Internship Reflection Paper: Second 50 Hours

Virginia Dept of State Police

The next 50 hours as a communications technician for the Virginia State Police provided a further insightful experience built upon the first. My team began to explore the software programming of a Sageon 48V Series Rectifiers. These devices serve the purpose of providing uninterruptible DC services alongside the 48V DC power batteries that support the entirety of Virginia State police telecommunication and networking infrastructure. My team has been tasked with overseeing the software operations of these devices.

The initial programming of these devices entails providing the devices with an internet protocol address and a strong password. The organization of my team is remarkable, as each device is pre-assigned addresses and password relevant to the devices' respective location. This information is all stored securely within a folder only accessible to State Police IT personnel, and this folder also further requires a secure password through the use of multi-factor authentication. Once I obtained the relevant addresses and passwords - I was then instructed on how to assign them through a software program titled SageView©.

SageView© is a software program that is downloaded from the same secure shared folder, alongside another important software program titled DeviceInstaller. Once opened and connected via ethernet, DeviceInstaller allows me to view the default address of the Sageon device. Once the default address is uncovered, I change my address to the same range which then

allows me to communicate directly with the device through SageView©. SageView© then allows me to alter the internet protocol address and password to the desired inputs.

The initial setup was a relatively straightforward process, but the more important latter and continuous process is the overseeing of the alarms for such a device. There are 16 different alarms, they range all the way from complete power loss to excessively low or high temperatures. The SageView© software allows us to use our laptops to remotely monitor as well as adjust alarm specifications. The remote alarm capabilities are incredibly convenient for a team like ours as we are responsible for locations throughout the entire commonwealth of Virginia.

Gaining experience in remote alarm monitoring and software programming is a phenomenal task for me to start undertaking at such an early point in my cybersecurity journey. Many of the biggest and most critical cybersecurity positions in the world often entail immense remote monitoring and programming responsibilities. The State Police implement many physical security measures that are important, but the cybersecurity measures are just as critical. Remote alarm monitoring and programming is a valuable tool that provides benefits such identifying points of failure immediately or even obtaining advanced knowledge of needed materials before dispatching emergency response teams to site. These tasks my team have undertaken these past 50 hours all provide incredibly valuable experience that will undoubtably help to prepare me for a successful career in cybersecurity.

Finally, I can never credit this amazing team around me enough. They are incredibly supportive, and encourage hands-on learning. I certainly enjoy dual learning approach - allowing me to first observe, and then actively engage in the task myself. With my lack of experience there have certainly been some blunders, but my team is always encouraging and patient enough to allow me to keep trying to success. Looking forward to learning much more!