

Senior Design - Weekly Report

March 4th - March 24th

Team Number: sdmay23-37

Project Title: Microgrid Data Platform Enhancements

Advisor/Client: Mathew Wymore

Team Members/Roles:

Alexander Haack - Software

Carson Love - Cybersecurity

David Harmon - Software

Harvey Forchu - Computer

Kenyon Fergen - Software & Cybersecurity

Summary

This period included a couple of key events. Spring break meant most of the group was out of town. The midterm video assignment also took a bit of time away from the project. Despite these events, solid work was made on the project. On the frontend we tied together a number of different people's work. On the backend we got the website running on the ETG VM. The cybersecurity investigation finished up, and a report on those findings was generated.

Accomplishments

- Alexander
 - Fixed some issues in the backend and started on a few features
- Carson
 - Finished investigating VM, github, and online Solar Crate devices.
 - Created Findings and Recommendations report
 - 3 major findings - detailed description and risk assessment
 - 4 recommended remediations
- David
 - Added in endpoints to add a user to a given microgrid site for private viewing access.
 - Combined the contributions of David, Xander, and Kenyon to view all the features working together.
- Harvey
 - More work done on the gateway api. Created config file including the access information needed to grab data from the sensor.
- Kenyon
 - Completed some of the handlers for getting data from the backend for the front end navigation menu. Cloned repository to VM and started all services.

Individual Contributions

Name	Individual Contributions	Hours this period	Hours Cumulative
Alexander Haack	Edited backend endpoints and started working on frontend of new features	3	15
Carson Love	Midterm summary video. Finished cyber investigations. Wrote up report of Findings & Recommendations	10	22
David Harmon	Cleaned up some edges between David's code, Xander's code, and Kenyon's code (due to asynchronous development on the features). Added endpoints for adding a user to a site.	8	21
Harvey Forchu	Added config file for the gateway api	3	15

Kenyon Fergen	Worked on creating api handlers for front end navigation menu and Plotly graphs. Created docker file for React web app on vm. Set up our repository on VM and ensured all services were running.	9	21
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Plans for Upcoming Weeks

Alexander Haack - Continue work on frontend and move into backend support.

Carson Love - Present cybersecurity Findings & Recommendations to client, implement approved security recommendations.

David Harmon - Work on adding permissions roles to users to manage sites. Work on flagging a microgrid site as private or public. Work on displaying all public sites to all users, excluding all private sites.

Harvey Forchu - Finish up with gateway api and begin testing

Kenyon Fergen - Finish creating and testing handlers for the front end navigation menu and Plotly graphs.

Meeting with Advisor

No meeting was held during this period due to Spring Break.