

EE/CprE/SE 491 WEEKLY REPORT

4/03/2020 – 4/16/2020

Group number: 12

Project title: Applying Blockchain to Energy Delivery Systems

Client &/Advisor: Grant Johnson (Client), Manimaran Govindarasu (Advisor)

Team Members/Role:

Anthony Cosimo: Test Engineer
Jacob Dawson: Project Manager
Keegan Bloedel: API Architect
Katherine Ringgenberg: UI Architect
Steven Rein: Blockchain Architect
Dakota Moore: Cybersecurity Manager

○ **Weekly Summary**

Completed Publisher for the back-end and User Interface for starting the mock publishing. Made more User Interface changes. Began and completed development of a pub-sub style tool for benchmarking performance of blockchain network on both creating metrics and querying data. Increased test coverage in publisher and user interface.

○ **Past week accomplishments**

- Anthony Cosimo:
 - Submitted Merge Request for publisher tests, started working on acceptance tests.
- Jacob Dawson:
 - Worked on PMU graphs on UI, minor clean up in pub sub.
- Keegan Bloedel:
 - Worked on writing tests for pub-sub to increase our testing coverage.
- Katherine Ringgenberg:
 - Finished developing/cleaning up the dashboard (graphs, status board) for the UI. Dashboard now utilizes API endpoints and displays all data appropriately.

- Steven Rein:
 - Worked on publisher and publisher UI for starting and stopping the publishing of data to the blockchain.
 - Created pub-sub style tool for benchmarking blockchain performance.
- Dakota Moore:
 - Took notes over the current state of the project to include with some screen shots for the final presentation and document. I had an exam and project these past 2 weeks so I didn't have a ton of time to commit.

○ **Pending issues** *(If applicable: Were there any unexpected complications? Please elaborate.)*

- Anthony Cosimo: Some of the tests for publisher don't seem to work, gonna fix those this coming week.
- Jacob Dawson: Did notice while working on decoding PCAP data that some packets' data might be overflowing into other packets. We have decided to use a different PCAP file.
- Keegan Bloedel: No issues.
- Katherine Ringgenberg: none
- Steven Rein: Nothing unique.
- Dakota Moore: None.

○ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short)</i>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Anthony Cosimo	Discussed above	10	57
Jacob Dawson	Discussed above	10	86
Keegan Bloedel	Discussed above	10	58
Katherine Ringgenberg	Discussed above	20	86
Steven Rein	Discussed above	35	211
Dakota Moore	Discussed above	6	42

○ **Plans for the upcoming week**

- Anthony Cosimo: Fix publisher tests, work on acceptance testing
- Jacob Dawson: Work on any testing that needs to be done and necessary class docs.
- Keegan Bloedel: Adding more testing in for pub-sub and helping our wherever else.
- Katherine Ringgenberg: Wrapping up error handling for UI (mainly dashboard) components, isolating graphs into their own components (prepping for tests), writing more tests if I have the time
- Steven Rein: Try different configurations for the blockchain network and run the benchmarking tests against the new configurations.
- Dakota Moore: I plan on updating the final document to include work done on testing and evaluation, as well as updating the final presentation and working to cleanup the website.

○ **Summary of weekly advisor meeting**

Friday 4/3: Demoed project and discussed the addition of a full blockchain system test through a pub-sub style testing tool.

Friday 4/10: Presented pub-sub style testing tool, got feedback, discussed tests to run moving forward.