EE/CprE/SE 491 WEEKLY REPORT 03

12 October 2019 - 3 November 2019

Group number: 12

Project title: Applying Blockchain to Energy Delivery Systems

Client: Grant Johnson

Advisor: Manimaran Govindarasu

Team Members:

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**
    - The overall objective of the week was to complete a proof of concept involving all three major components of the project to be integrated. We set this as a goal and accomplished it. We also created more diagrams to help depict the design of the project.

- **Individual contributions**

Name	Individual Contributions (Quick list of contributions. This should be short.)	Hours this Week	Hours Cumulative

Anthony Cosimo	Worked on section 6.1, 6.3, and 2.2 for the design document. Worked on containerizing the API.	8	22
Jacob Dawson	Paired with Katie on UI, paired with Steven, Keegan, and Dakota on Blockchain, initialized the API, and paired with Dakota on integrating the API with the Blockchain. Created a Data Flow Diagram, paired with Katie on a detailed architecture diagram, and worked on the Gantt chart.	17	38
Keegan Bloedel	Paire with Jacob to work on block chain. Worked on looking at the wallet to be restrictive on API for who is allowed access. Help to establish dates and check points for Gantt chart.	8	22
Katherine Ringgenberg	Paired with Jacob (connecting API to UI), worked on the gantt chart, initiated React UI, made a React homepage that makes api calls with proper displays	10	24
Steven Rein	Did some but very little pairing with Dakota and Jacob on the blockchain	5	21

	network implementation. Worked on version 2 of the Design Document, sections 3.2 and 3.6. Worked on lightning talk.		
Dakota Moore	Paired with Steven and Jacob to work on and deploy an example blockchain network that would integrate with the API. Also worked on sections 3.3., 4.3, and 5.3 of version 2 of the design document. Also worked on and helped complete the second version of the gantt chart.	7	21

- **Plans for the Upcoming Week**
  - Anthony Cosimo will continue to update, and refine section of the design document. Also plan to complete containerizing the API.
  - Jacob Dawson will work on Design Document V2, improving Blockchain and API integration, establishing API test suite mocks for Hyperledger Fabric's SDK, and helping out wherever needed.
  - Keegan Bloedel will work on helping to finish the design document V2. Work more on the API and getting the wallet set up. Set up more tests and mock data in the API. Work on lightening talk.

- ○ Katherine Ringgenberg will work on improving the design document version two and the technical challenges lightning talk. Katherine will also work on breaking down React components and Jest testing the React components.

- ○ Steven Rein will work on prototyping for the Smart Contract portion of the project. Additionally, Steven will look more into configuring the blockchain system.

- ○ Dakota Moore has an EXTREMELY busy week ahead of him but will be working on developing our own blockchain network and smart contracts based on the example network we were able to deploy last week.

- **Summary of Weekly Advisor Meeting**

  - ○ Met with the client and advisor to show our Gantt chart along with our other design diagrams. We also showed them our locally running UI, API and blockchain network. We showed them mock data that we had created and that it worked when running our program locally.