EE/CprE/SE 491 WEEKLY REPORT

1/13/2020 – 1/26/2020

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**

 Much of our week was spent learning more about our production environment. The work we completed was towards setting up of CI/CD and configuring our production VMs properly to work for our system. Some small changes were made to the project for configuring deployments of the API and UI.

○ **Past week accomplishments**
- Anthony Cosimo:
    - Catching up with work done, and to be done
    - Looked at VM problems
- Jacob Dawson:
    - Worked with Steven on discovering and fixing networking issues related to static IP configuration on the VMs.
    - Worked with Steven on setting up Kubernetes on the VMs.
    - Worked on initialization of Gitlab runners
    - Created Dockerfile for UI
- Keegan Bloedel:
    - Catch up on changes made over break by others
    - Reviewed some merge requests that were in our gitlab
- Katherine Ringgenberg:

- ○ Imported/setup/reformatted biweekly report
- ○ Conducted research on deploying/dockerizing UI with gitlab runner, kubernetes - applicable to the project since deploying UI to the VM is a necessary next step; found out how it works, found tutorials, formatting/syntax instructions for gitlab runner, overall information to be aware of what's going on
- ○ Updated CRUD components
- ○ Started creating a react component that registers new users
- ● Steven Rein:
  - ○ Worked with Jacob on discovering and fixing networking issues related to static IP configuration on the VMs.
  - ○ Worked on the setup of Kubernetes.
  - ○ Implemented Gitlab CI for testing and deployments of both the API and UI.
  - ○ Created production-level Docker implementations for the API and UI.
- ● Dakota Moore:
  - ○ Spent time reviewing the team's progress accomplished over the break.
  - ○ Reviewed current issues that are being worked on.

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

- ● Anthony Cosimo: No unique issues.
- ● Jacob Dawson: Delayed progress due to internet connection issues with VMs, eventually solved.
- ● Keegan Bloedel: No issues.
- ● Katherine Ringgenberg: like others, having internet issues with our VMs when looking into deploying UI; others are working on this
- ● Steven Rein: Complications when attempting to implement static IP addresses for the VMs. Delayed progress but solved by the end of the week.
- ● Dakota Moore: No project issues.

○ **Individual contributions**

NAME	Individual Contributions (Quick list of contributions. This should be short)	Hours this week	HOURS cumulative
Anthony Cosimo	Catching up, VMs	7	7
Jacob Dawson	Discussed above	12	12

Keegan Bloedel	Discussed above	6	6
Katherine Ringgenberg	Conducting research on deploying UI, attempting to do so, updating/creating react components (open WIP MRs), imported report template	10	10
Steven Rein	Discussed Above	16	16
Dakota Moore	Discussed Above	2	2

- **Comments and extended discussion**
  - Dakota Moore: I experienced a death in the family over the break that greatly impeded the work that I planned to do over break.

- **Plans for the upcoming week**
  - Anthony Cosimo: attempt to deploy Hyperledger Fabric to k8s.
  - Jacob Dawson: Deploying Hyperledger Fabric to k8s, documentation regarding the current infrastructure on the VMs.
  - Keegan Bloedel: help with getting things deployed to our VMs, help with getting deployment to k8s working efficiently.
  - Katherine Ringgenberg: will work on: deploying UI to VMs and getting that up and running; completing my two open MRs about CRUD components and adding an additional component, mainly writing tests
  - Steven Rein: Open and possibly complete merge request for the first deployment of the blockchain network. With knowledge about the semantics of Gitlab from previous week, hopeful to make fast progress on this.
  - Dakota Moore: look over the UI and API components more closely to gain a better understanding of them for the purpose of looking for possible vulnerabilities for security reasons.

- **Summary of weekly advisor meeting**

Friday, 24 January - Make a request for a domain name to ETG, set up a meeting with Gelli next week. Short presentation to give context to Gelli regarding our technology, how we have deployed our components in the VMs so far, then communicate our needs to Gelli. 1-hour meeting, 15 minutes for presentation and Q&A.

Grading criteria

Each weekly report is worth 10 points. Scores will be awarded as follows:
- **8 – 10**: Progress for your project seems to be suitable. Documentation and hours reported by team members are adequate.
- **6 – 8**: There is scope of improvement both in your report and your project progress. Can consult with instructor/TA after class for further inputs.
- **< 6**: Please talk to instructors/TA after class hours about any difficulties that you/your team is facing.

Each weekly report should be unique in that they have a unique set of supporting details for your contributions. So please do not just copy your reports from the previous week. In addition, please avoid any personal pronouns (he, she, I, you). Try to keep your reports as neat as possible.