ATOS BLOCKCHAIN

Bi-Weekly Report: Issue 9 – 10/03/2017

Group 14: Andreas Zinonos, Charles Albert Desbaux, Gabriel Vanca

MEETINGS HELD. PROJECT COMMUNICATION

- 07 / 01 / 2017
  - Team meeting. Discussions about progress made over the past week.
  - Progress exhibition to our teaching assistant, Olawole Oni and Dr. Yun Fu.

- 10 / 03 / 2017
  - Meeting with the team's client, Mr. John Hall. Discussion about the progress made, recommendations on improving the project and general tips concerning the contest.

Besides the previously mentioned meetings, several meetings and discussions between the team members have been conducted using Microsoft Skype and Facebook Messenger. The team has continuously communicated with John Hall, the team's client from ATOS, via e-mail, as well as with Mr. Hirsch.

PROGRESS MADE & FUTURE PLANS

All tasks were divided on three main areas, each team member taking charge of one such area:

1. **Front-end – Charles Desbaux**

   Charles has continued expanding the website to create a more complete platform for the project. He has modified the design to make it more appealing for the user, as well as worked on uploading custom files and

images for companies. Furthermore after meeting with our client John Hall he received feedback on how to make the website even better and has started working on the updates.

2. **App back-end – Gabriel Vanca**

   Gabriel has continued experimenting with ways to connect the front-end of the app to the back-end blockchain. After attempting to connect them using truffle and webpack unsuccessfully and connecting Angular and Truffle but without being able to call functions from contracts, he resorted to learning NodeJS and trying to make the connection using ABIs and SolC (Solidity Compiler). Most of his work has been research and trial and error, but he is positive that he will have managed to build a connection by next week.

3. **Solidity back end – Andreas Zinonos**

   Andreas has continued improving the smart contracts for the back-end blockchain of the platform. He introduced a new feature after a past discussion with our client and he is currently working on it. The feature is to allow shareholders to choose how many shares they wish to sell and if they want to – instead of simply having all their shares available for sale. Furthermore he is going through the already existing contracts and making them more efficient.

All three team members have also started discussing how each respective part works and ways that we could integrate the front and back end. We are trying to minimize the functionality on the front-end and instead focus more on the back-end, while at the same time ensuring that the two pieces will fit together in the end, without having to perform multiple alterations.

PROBLEMS ENCOUNTERED

Gabriel has issues connecting the back-end with the front-end as the methods he has tried did not prove successful. He continuous to do research and trying different ways to achieve this.

Andreas has encountered some issues with the solidity governance contract, as well as the paying of dividends and how this could be achieved.

They will both have a meeting with Hirsch in the following week to discuss these issues.

PERSONAL EFFORTS MADE BY TEAM MEMBERS

Gabriel:

For the past two weeks, I have spent time getting to know Angular JS better as well as learning NodeJS. Then I have started working on the bridge between the front end and the solidity back end. My first attempt was using truffle 3 and webpack , but I was not able to make a connection this way. My next attempt was using Node JS. I have successfully managed to enable communication with the Angular front end through Express JS and by making use of Http requests. Node JS manages routing on the server and Angular sends GET or POST requests to the server with the data it needs to. Node JS catches the requests and acts on it, but it is also able to respond to the request Despite having success on this side, there were some issues with accessing different functions of the contract. I have therefore decided to stop using Truffle and attempt to solve the problem by making use of ABIs and of a tool called SolC (SolidityCompiler). I will attempt to ensure the connection by the time of the next laboratory meeting.

Andreas:

For the past two weeks, I have continued working on the smart contracts and improving the already existing ones, making them more efficient. I have also started working on an update on the Shareholder contract, which is to allow users to choose the amount of shares they want to have available for sale. Additionally I have brainstormed ways of implementing the dividends payment and governance contracts, but I still haven't created a full plan. This will hopefully clear out after my meeting with Hirsch next Monday.

Charles:

During the past couple weeks I have kept working on the user interface. The main challenge has been to be able to upload company files and images to the firebase bucket. After much research I found that angular didn't offer any useful library to do this so I solved the problem by writing a JavaScript file which does the job. I have stored these files in folders named after the reference numbers of the companies they are linked to so it should be easy to tie them back to each other when needed to display. Furthermore, I have had a meeting with John, our client, discussing how to display the sale and acquisition of shares in the front end. He proposed to create a display pool showing all available transactions and users could choose to sell to others who were intentioned to buy and vice versa. This seems like a solid plan and I shall be working on this for the next two weeks.