

ATOS BLOCKCHAIN

Bi-Weekly Report: Issue 10 – 24/03/2017

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

MEETINGS HELD. PROJECT COMMUNICATION

- 14 / 03 / 2017
 - Team meeting. Discussions about progress made over the past week.
 - Meeting between Gabriel and Mr. Hirsch in order to fix some ABI related issues.
- 20 / 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.
- 21 / 03 / 2017
 - Team meeting. Discussions about progress made over the past week.
 - Discussion with the team's assigned TA and feedback.
- 23 / 03 / 2017
 - Team meeting. Discussions about progress made over the past week.
 - Gabriel and Charles worked on solved a contract deployment issues.
 - Andreas informed Gabriel about how the rest of the contracts need to be binded with the front-end.

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.

Despite multiple attempts, the team was not able to contact Mr. Hirsch. for the past 10 days.

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 added new functionality like coloured banners. A very important functionality he added is categories for company sorting and searching. He also added a “My Investments” section.

2. App back-end – Gabriel Vanca

Gabriel has continued working on connecting the front-end with the back-end. Despite many issues related to impossibility of deployment and then due to JavaScript asynchronous functionality behaving strange, Gabriel has managed to connect the front end with the back end, to deploy the master contract and other related contracts, to store data in the blockchain, query the blockchain and transfer data.

Gabriel has completed the transfer methodology which works in the following way: the AngularJS front-end sends HTTP requests to the NodeJS server which manipulates the data in the blockchain (deploys new contracts, deletes contracts, add/changes/remove data or query data).

Gabriel also had to renounce at TestRPC and now he is using EtherSIM for testing.

3. Solidity back end – Andreas Zinonos

Andreas has continued improving the smart contracts for the back-end blockchain of the platform. He encountered multiple issues and has spent many hours trying to fix them, but in the end, he was successful and managed to fix everything. He also got Gabriel through all the contracts in order to make it easier for him to connect the blockchain and the front-end. Furthermore, he is going through the already existing contracts and making them more efficient.

PROBLEMS ENCOUNTERED

Gabriel has issues connecting the back-end with the front-end as the methods he has tried did not prove successful for the first weeks, but he managed to fix them late in the second week, as well as an issue with JavaScript asynchronous function calls which he fixed. He still has an issue with EtherSim that he needs to fix in order to be able to use multiple accounts.

Andreas has encountered some issues with the Truffle, with Solidity asynchronous function calls, contracts not updating correctly and some functions not working as they should, but he managed to fix them.

Charles did not encounter any issues on his work, but he helped Gabriel on one of his issues with JavaScript asynchronous function calls.

PERSONAL EFFORTS MADE BY TEAM MEMBERS

Gabriel:

For the past two weeks, I have spent time working on connecting the front-end with the back-end. I have encountered a large number of issues: inability of deploying contracts (fixed through replacing TestRPC with EtherSIM), inability of getting references to deploying contracts (fixed through ABI addressing), other JavaScript asynchronous function call issues (fixed through the proper use of JavaScript promises) and also issues with sending data through responses at HTTP POST Request from AngularJS (fixed after some debugging and some short research).

I have managed this week to complete the transfer methodology and I am able to send data and calls (through HTTP request) from AngularJS to NodeJS, query and manipulate the data on the blockchain from NodeJS (through the use of ABI addressing).

I am happy with my progress. I still need to fix one or two issues, but I am confident everything will be done on time.

Andreas:

For the past two weeks, I have continued to work on and improve the smart contracts for the back-end. I have managed to eliminate a bug that was causing problems for days and after that the progress speed skyrocketed. I have now finished all the must-have requirements for the smart-contracts and have also restructured them to be more efficient and organized for when they are deployed. I have also gone through them and added extra security layers such as checking if the person who is calling a certain function has the right to do so in order to eliminate malicious acts (eg. the shareholder adding more shares to their account without buying them).

Additionally, I organized a meeting with our client John Hall where we discussed the state of the project, and we concluded that there was no need to implement something advanced such as voting in the smart contracts. This is because we have limited time to finish the project and the judges wouldn't care that much about these extra features, but will be happy with the functionality we currently have.

Charles:

During the past two weeks I have worked on making the user interface more aesthetically pleasing. I have added coloured banners at the top of each page to make the website more user friendly. Also I have created categories for the companies and a search bar to look for the user's favourite enterprise. Each category has a specific and unique colour. Furthermore I have modified the layout of the company thumbnails, using bootstrap cards. Moreover, I have created and implemented the "buy shares" section.

I have also created the "My Investments" page for investors. I arranged a meeting with our Atos supervisor for him to assess the quality of my recent work and he gave positive feedback.