

ATOS BLOCKCHAIN

Bi-Weekly Report: Issue 4 – 02/12/2016

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MEETINGS HELD. PROJECT COMMUNICATION

- 24 / 11 / 2016
 - Team meeting. Discussions about Ethereum and TestRPC.
 - Meeting with Hirsch. Discussions about Solidity and Truffle.
 - Meeting with the team's own teaching assistant, Olawole Oni. Discussions about the progress made and about the tasks set out for the near future.
- 30 / 11 / 2016
 - Meeting with Dr. David Chapman, Deputy Head of Department for the School of Management, about financial approach to this project. Extensive explanations of how investing works.
- 01 / 12 / 2016
 - Team meeting. Discussion on financial approach of this project and conclusions in wake of the previous meeting. Team divided into tasks.
 - Meeting with Hirsch and further discussions about Solidity and Zeppelin as well as other technical details in regards to the development of the project.
 - Meeting with Dr. Yun Fu related to the content of the website and deliverables for the current project / module. Initial showcase of the website.

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 Prof. Philip Treleaven, the team's internal supervisor.

RESEARCH CONDUCTED

The research over the past two weeks was orientated on two main issues:

1. Technical issues

- a. Research into Solidity, both with Mr. Hirsch's help and with the help of multiple online tutorials.
- b. Research into Truffle, the development framework the team has decided to use.
- c. Research into TestRPC, the testing platform the team has decided to use.

2. Financial issues

- a. Equity crowdfunding
- b. Shares. Types of shares.
- c. Minor and major shareholders. Different rights and privileges for different classes for shareholders. Management of large numbers of shareholders.
- d. Types of investment
- e. Initial research into company registration procedures via the Companies House.
- f. Companies' Articles of Association (AoA)
- g. Taxation in the UK. Dividends tax and Capital Gains Tax.
- h. Initial research into tax relieves for investors: SEIS (Seed Enterprise Investment Scheme) and EIS (Enterprise Investment Scheme)

The meeting with Dr. David Chapman, Deputy Director of UCL's School of Management, on 30 / 11 / 2016 was highly beneficial for the team understanding of many of the financial issues involved.

PROGRESS MADE

Following the initially proposed Gantt chart, the team has accomplished a lot of progress over the past two weeks.

The project name was chosen to be “Ammoenio”. The team name for the purpose of the ATOS contest was chosen to be “BlockSolvers”.

The website has been almost completed and it is nearly ready for submission.

The team has also worked on a short, 1-minute video, briefly explaining the way Ammoenio will work. This video was added both on the website as well as on the submission page for the ATOS IT Challenge.

The team has compiled an extensive explanation and description of the way Ammoenio will work and has submitted this explanation, together with the video, to the ATOS IT Challenge. The description of the project and the video were agreed with the client. The team has communicated with the ATOS team responsible for the IT Challenge to make sure the submission progress is as smooth as possible.

The team has also done a lot of research into Blockchain, Ethereum, Solidity, TestRPC and Truffle, but also a lot of tests using these technologies.

The following team roles have been assigned for the following period during the team meeting on 01 / 12 / 2016:

- Andreas Zinonos: Back-end development and research
- Gabriel Vanca: Financial research and business model design
- Charles Albert Desbaux: Front end development and design

PROBLEMS ENCOUNTERED

Lack of financial knowledge has proved to be a problem. Certain Solidity knowledge and understanding is still lacking. That is why the team members were assigned different roles, so that research can be conducted at a much faster rate and to ensure development can be started on time.

FUTURE PLAN

- Continue the research into the Ethereum platform, Solidity, TestRPC and Truffle
- Run more tests on Ethereum. Fill information about the conducted tests on the project website
- Discuss further steps with the client
- Continue financial research
- Decide what types of shares should be used and how to make tax relieves like EIS and SEIS easily accessible to investors
- Decide on how to manage shareholders, especially different classes of shareholders
- Decide how to deal with voting rights
- Decide how the initial shares (founder shares) should be issued and managed
- Look on how to register the company with the Companies House and decide if this should be a project feature
- Finish the website

PERSONAL EFFORTS MADE BY TEAM MEMBERS

Gabriel:

For the past two weeks, I have spent a good amount of time researching Ethereum and Solidity. I have research smart contracts and have starting testing my first smart contracts written on Solidity on an Ethereum test network.

I have also spent a lot of time researching how equity crowdfunding would work and thought of a business model.

I have managed to compile the project description and explanation, the (basic) business model and the team's vision for the ATOS IT Challenge submission.

After being put in charge of the financial research due to my previous knowledge on the subject, I have started looking into which is the best way to deal with all the financial issues that will come up as we are aiming to innovate through the financial approaches that we offer our investors and businesses.

Andreas:

For the past two weeks, I have been researching and experimenting with Truffle, TestRPC and Solidity. After figuring out how all the parts work together, I wrote several test contracts in Solidity and deployed them on the local TestRPC server using Truffle.

At the meeting with Hirsch, we wrote a smart contract for creating smart tokens and assigning them to accounts on the Blockchain. After analyzing the code and understanding how it works, I realized that it could be used to create shares for our specific project which would then be exchanged for Ether.

I also looked into a smart contracts library called Zeppelin, which provides secure functions to power crowdfunding applications; something that should prove very useful for our project.

Furthermore, after e-mailing our supervisor, Dr. Philip Treleaven, I arranged a meeting with Dr. Chapman who helped us understand some concepts of the share market, such as starting a company and issuing shares.

In the meantime, I kept in touch with our client John Hall concerning the status of the project and the submission to the ATOS contest.

Moreover I created a one minute video for our submission to the contest, which explained what Ammoenio does, its use and how it works. I've shared the video and the description with the client and he was happy with both.

Finally, after talking with my teammates, we divided the team into different departments, setting me responsible for the back-end of the application.

Charles:

This week I worked on researching even further the deployment of smart contracts. I researched TestRPC and how to deploy smart contracts on it using Truffle. I started furthermore writing some tests and, with the help of Hirsch, wrote a contract creating a user token.

Also, we unfortunately realized that the website we created was not up to the standards we wished so I was put in charge of redesigning it. We then showed the website to Dr. Yun Fu, who was very happy with our product.