

Crowd Funding using Blockchain

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ABSTRACT

Crowd funding is an online money-raising strategy that began as a way for the public to donate small amounts of money to help creative people finance their projects. Through crowdfunding, individuals are able to invest in entrepreneurial start-ups through an intermediary, such as a broker-dealer. The problem with the current sites is they don't provide the Donor Guarantee Policy and they don't have control over the money they donated. This paper is to propose crowdfunding using blockchain technology. Through this, we can provide a safe, secure and transparent way for crowdfunding. This work of this paper is to provide interactive forms for campaign creation, donation and request approval through which both campaign creators and donors can easily create and fund the campaigns. The Donor can able to track the money that they were sent. The Blockchain will record all the transaction and store as a block.

Keywords: Crowdfunding, Blockchain, Campaign, Smart Contracts, Request-Approval, Consensus.

I. INTRODUCTION

The blockchain is an incorruptible digital ledger that records every transaction. It is a distributed system thus all the records are stored in every node in the decentralized network. Ethereum allows running applications in the blockchain called Smart Contracts. All the Smart contracts are run on the Ethereum Virtual Machine. Crowd funding provides an easy way to find cash for innovative project ideas. The problem with the current crowd funding companies charging high fees and sometimes there were scams happened. Implementing a crowd funding strategy in blockchain

will help to avoid these types of problems. By incorporating Peer to Peer smart contract for crowd funding remove the traditional transaction fees and platforms fees normally associated with other crowd funding platforms, such as Kickstarter. The objective of our project is to create a reliable application so that every new idea gets life. We have designed a crowd funding site which is a blockchain based website. We provide an easy to use interface for everyone to create and post their ideas on this application. These ideas then become public to everyone. Anyone who wishes to support their ideas can contribute. All these processes are done in an interactive manner.

II. RELATED WORK

As a result of existing literature research on crowdfunding platforms, we have concluded that there is always a trusting relationship between the product team and the supporters. This type of system is known as a centralized crowdfunding system. In this type of system, product team funding is paid based on the progress of the project. That is, when the event is over, the sponsor pays. In return, supporters expect their discoveries to proceed to the right project. Or, if the project crashes prematurely, they regain the discovery from the product team. The crowdfunding platform acts as the middleman by taking considerable charges from both the supporters and product team. Hence, this maintains the risk factors like project might not get completed, supporters may claim not to support the project further.

Blockchain Revolutionizing Crowdfunding: Crowdfunding is steadily growing as an alternative to venture capital financing. A growing SME allocates the type of funding that an investor provides to a start-up or SME. Meanwhile, blockchain is gaining momentum around the world. When such a concept is combined with the most innovative financing concepts that are on the road to becoming viable in a startup culture. Crowd Funding is the extreme of venture capital financing. It is growing steadily as a good alternative. Nontraditional projects are attracting a new audience to apply for raising funds.

III. PROPOSED SYSTEM

All the contract code is written in solidity which is used to deploy contract in blockchain platform. The Campaign Factory is built which contains all the source code to deploy new campaign in the network. With the use of campaign factory, the new campaigns can be created. Whenever a campaign factory is deployed a one-time gas fee is needed and it is a very small amount. Initially, the new Campaign is created by giving the Idea of the project, Minimum Contribution to the

project and detailed description of the project. When a new campaign is created a block will be created and added to the blockchain. Fig.1 shows the architecture of the system.

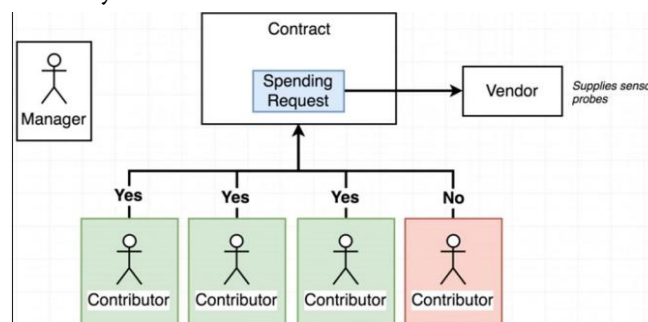


Fig 1: Architecture Diagram

The proposed system is implemented using the solidity programming language. Solc is the solidity compiler used to compile the Campaign Factory and Campaign file into bytecode and abi. The Bytecode will be deployed in the blockchain where the abi is in JSON format and is used to interact with the front-end. The front-end is designed using the React Js, Next Js, and Semantic-UI. The user interactive form will be used to contribute easily. The creator or manager of the project is to request money for buying some accessories. He will create a request using the request form. This will be recorded and stored in the blockchain. All the investors need to approve the request if it is necessary. If not they can reject the request. Once all the investor all voted then the request will be finalized, there should be a minimum of 1/2th of the investor should be approved the request. If it meets the requirement then the money will be transferred to the vendor.

IV. CONCLUSION

Blockchain in crowdfunding is a relatively new concept to the community. We have taken that into consideration and designed this app so that even a common man can use it with ease. But this is not the end. With the evolution of Blockchain and introducing of ICOs, our application has a bright future and a large scope for improvement and evolution. The world is still adjusting to Blockchain and Cryptocurrencies and

it'll take a couple of years more for Ethereum based Dapps to become popular and to be recognized by the community. In such a situation Blockchain based crowdfunding application is a tough concept to be understood by everyone. We have taken that into consideration and designed this app so that even a common man can use it with ease. But this is not the end. With the evolution of Blockchain and introducing of ICOs, our application has a bright future and a large scope for improvement and evolution. In the future, we wish to provide an even easier and safer way for all ideas to get life through our crowdfunding application.

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