Blockchain in Java

Development of the RedeeCash ATS

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Purpose

The recent crash of the cryptocurrency market has raised concerns with regulators. The crash could have been avoided if development was done properly and correctly, and not based on greed?

The toughest concepts to understand is how cryptocurrency was creating something of value from nothing? The law of conservation energy even states energy cannot be created. The mining process for cryptocurrency is flawed in this aspect, as the miners increase the debt owed in mining rewards increases and when the miner's wish to cash out, the deficit created in the mining, there will be losers.

Then there are the security flaws in the smart contracts to permit unethical participants to fleece the market.

The regulators want free markets and are initially reluctant to enforce established laws, but when these problems occur, the regulators have no choice but to investigate and prosecute, when necessary, the bad participants.

Additionally, blockchain transactions have become expensive and appears that the industry is regressing back to a time-based computing model, when computer time was expensive.

Blockchain technology is another distributed technology that permits isolated and independent operations to occur and share data. This project intent is provide a platform that can be easily setup and properly registered with the regulators to offer an alternative trading system (ATS) to small public issuers using the S-1 public offering statement for a public float of less than 75 million dollars.

In doing, to offer transaction-free smart contract deployment and execution as well as to permit only vetted participants. Node participants will have the freedom to charge listing fees to issuers as well as provide additional trading functionality for registered trading persons and entities. A Node participant must be registered as an ATS provider to participate in this network.

A small business should be able to raised a small amount of revenue from the public without incurring a large expense. The current options available like crowd funding are still cost prohibitive and restrictive of the participating companies.

Why would a firm want to raised over billions when they do not have a clear plan to profitability?

High Level Architecture

The RedeeCash ATS will have three main components: datastore, blockchain and proxy.

DATASTORE

The datastore is the database and in this case a SQLite database, that will hold the blocks, transactions, accounts, etc. Only the BLOCKCHAIN component will have access to the datastore.

BLOCKCHAIN

The BLOCKCHAIN component is a Java package which executes the smart contracts and interacts with the datastore. The BLOCKCHAIN provides access through remote method invocations (RMI) as opposed to remote procedure call (RPC) that the current ethereum network uses. RMI is more superior than RPC because RMI can include objects while RPC is strictly for procedure programming.

PROXY

The BLOCKCHAIN RMI methods should NEVER be exposed to the public internet because of the lack of authentication by design. The PROXY component will provide authentication and interface between the BLOCKCHAIN and wallets like METAMASK. Also the PROXY will provide an authenticated and permission-based PubSub server for authorized nodes to receive updates. The BLOCKCHAIN will interact with the PROXY through send PubSub notifications. Additional applications developed will interact with the PROXY component.

Status

The current status of the RedeeCash ATS is in development with periodic pre-releases for evaluation-only and should not be used for production environments.