Literature review

To adequately prepare for the coming solutions discussed in this paper it is necessary to go over several primary technologies this paper relies on. These being Blockchains and The Onion Router Project (Tor)

Etherum is a distributed network of computers that manage their resources using cryptography and proof of stake algorithms. Resources are managed via the use of transactions that are signed off on using cryptographic techniques that verify their authenticity. The method that the Ethereum network uses is known as a Blockchain. Blockchains are ledgers of information that are tied to particular account known as "wallets". Each time this ledger is updated all computers on the network verify the authenticity of the update with proof of stake algorithms. The nature of the block chains cryptography allows for near absolute certainty of the validity of a transaction. Another well known blockchain is Bitcoin, which differs from Ethereum in that is can only store information relating to how much bitcoin a wallet owns. Ethereum allows for the storage of many different types of information such as code, which the network is able to use to run decentralized apps. This ability to store predefined behavior that operate securely on a distributed network is why it is the choice for this paper. The major downside of Ethereum however is its greatest strength. Due to the open nature of the ledger every computer on the network is able to see all the data in the ledger. Transactions can also be limited based on how much stress the network is currently under as well. To complement Ethereum the second technology that was disscussed above will be implemented.

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