**What is Burstcoin?**

Burstcoin is a decentralized crypto-currency that shares the same blockchain technology as bitcoin. Here I will explain the purpose and reason for each part of the coin that we know as burstcoin.

**Vocab**

Blockchain - a chain of blocks linked together, contains all the transaction ever created and starts with a genesis block

Blocks - a file that contains all the transaction that are not in any other previous block and are ready to be added to a block

Genesis Block - The first block in the blockchain, every block is linked to this block in the blockchain

**Wallet**

The burstcoin wallet gives a means of creating transactions that can be submitted to the burstcoin network. When you run a local wallet you are actually running a node on the network. Remember that the burstcoin system is decentralized so a local wallet is part of the network and it helps relay new transactions and new blocks to other local wallets in order to keep all of the local wallets updated with new transactions and new blocks. Lets say that you want to send 2000 burst to someone. When you enter the transaction details and click submit, your transaction's data is sent to other nodes on the network. It enter a category known as unconfirmed transactions. It has not been put into any blocks and need to be added to a block in order for it to be confirmed and solid in the blockchain (meaning that it can be agreed upon by every local wallet that is up to date with the latest blocks). When it is added to the blockchain it will then be spendable by the person you sent it to because other nodes can all agree that they have 2000 more burst.

**Mining**

Mining is the process in which blocks are added to the blockchain and how new burst is added to the ecosystem. It ensures that the system stays decentralized because anyone can mine and add blocks to the blockchain. In order for a block to be accepted by other nodes on the network it must have a mathematical proof to a math problem. To get a valid proof it takes a lot of work meaning that you can not figure it out easily but it needs raw power to get. If an individual wanted to mine more than half of the blocks they would need more than half of the mining power so it is unlikely that a single person could ever control the majority of the blockchain. But pools combine mining power of many miners and the pool chooses what block should be distributed. So a pool could control the majority of the blockchain very easily if it gets to big. This is why we as a community encourage miners to spread between the pools and pick the one that fits there setup best. When a valid mathematical proof is found for a new block, the local wallet creates a block based on the unconfirmed transactions that it has received, the mathematical proof that was found, and a connection to the block right before it which makes the blockchain a chain of "linked" blocks. It then distributes this new block to other nodes on the network.

**Proof of Capacity**

Burst uses a new algorithm for proof of HDD capacity (POC) mining, which means that Burst is the first crypto-currency mined using free space on your hard-drive!

Instead of buying expensive mining equipment, like graphic cards, all you need to mine Burst is some free space on your device.

Miners pre-generate chunks of data known as 'plots' which are then saved to their disk. The number of plots you store is effectively your mining speed. Every block the miner will skim through the saved plots, and come up with an amount of time until it is able to mine a block if another block hasn't yet been found. After reading through the plots is complete, your hardware can just sit idle until the newest block is found. And if you ever decide to stop mining Burst you can delete your plots at any time and use your HDD-space again.

**Greentech**

The energy consuming part of mining is performing the calculations, but with Burst, the computer performs the calculations once, then all it does while mining is to read a few megabytes off of a hard drive every few minutes and checks every nonce it pulls off, instead of working through heavy calculations like Bitcoin. Burstcoin's transaction network only uses 10 kW compared with Bitcoin's 200 MW. Transaction costs therefore are 0.02 Cents for Burst and 5 Cents for Bitcoin.

**Android Client**

The Burst Android client was originally just an interface for the Burst official web wallet. It currently supports logging into and using your Burst wallet. The client now also supports official Burst Android Plotting and Mining. This means, that you have the option to mine the coin on your mobile devices, something that isn’t available on any other PoW based coin.