**Technical Architecture of Bitcoin**

Bitcoin works like a digital ledger, kind of like a record book, but it's online and spread across many computers worldwide. This record book, called the blockchain, keeps track of all Bitcoin transactions.

This record book is stored in the form of nodes. These nodes maintain the blockchain by storing a copy of it and verifying transactions. Each node has its own copy, ensuring transparency and security.

Imagine the blockchain as a long chain made up of blocks. Each block holds a bunch of transactions, like when you send Bitcoin to someone else. These blocks are linked together, forming a continuous chain. Each of the block has separate unique identity also known as hash. Now determining the hash value depends on various parameters like nonce, previous transactions, data and etc.

Now, to add transactions to this chain and make sure everything is legit, we need miners. Miners are like the workers who check and validate transactions. They do this by solving tough puzzles (finding the appropriate hash value), and whoever solves it first gets to add a new block to the chain. And the hash value that is founded by the miners acts as the proof of work.

For everyone to agree on which transactions are valid and which ones aren't, we need something called consensus. This means that most of the computers in the network need to accept the same chain as the correct one. This agreement keeps the system secure and trustworthy.

Users store their Bitcoin in digital wallets, which contain a pair of cryptographic keys: a public key (like an account number) and a private key (like a password).

Security is a big deal in Bitcoin. Each transaction is locked up with special codes(hash), kind of like a digital lock, so only the right person can access the Bitcoin. Plus, because the blockchain is spread across so many computers, it's super hard for anyone to mess with it.

However, Bitcoin does have some challenges, like how many transactions it can handle at once. Think of it like a busy highway; sometimes, there's too much traffic, and things slow down. But smart folks are working on solutions to make Bitcoin faster and better, like the Lightning Network and SegWit.

Overall, Bitcoin's technical setup is all about making sure transactions are secure, transparent, and agreed upon by everyone involved. It's like a digital money system that runs on teamwork and math!