

a decentralized network

It is operated by those who participate ——————————No single government or company controls it ——



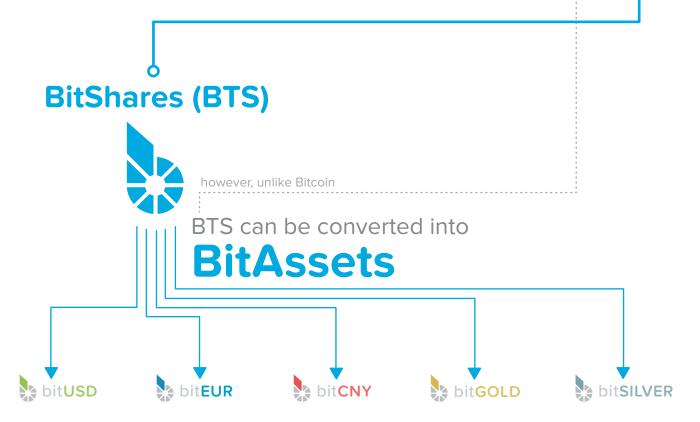






BitShares has digital tokens?

These have the properties of cryptocurrencies (like Bitcoin) but maintain a stable value and can be used as a medium of exchange (money)



BitAssets are market-pegged

to currencies and other assets





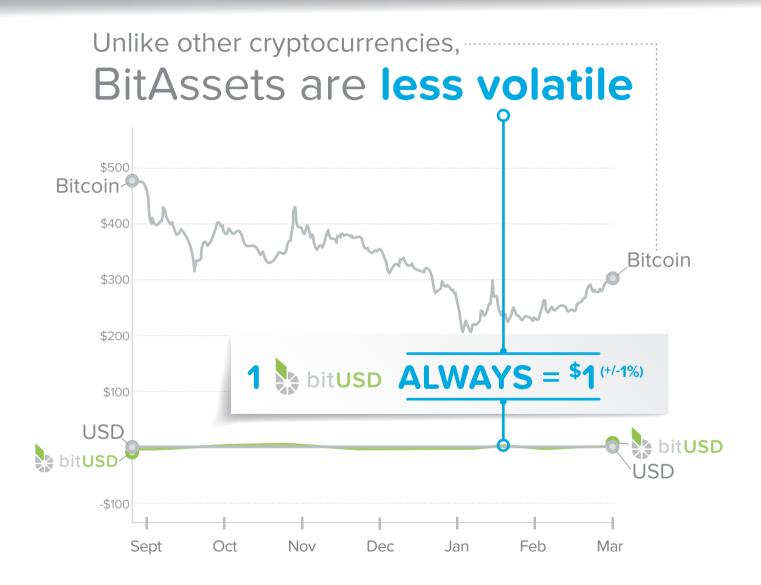






^{*}Bitassets fluctuate slightly around the underlying assets' value but are guaranteed to be exchangeable at a 1:1 ratio within just a few days







BitAssets can be sent around the world for minuscule fees





money transfer services

- up to 3 days



average bank wire fee (USA)

- **\$45.**50 fee
- 2-3 business days



BitShare transaction fees on bitUSD

- less than \$0.05 fee
- instant



No bank account needed



Simply,

Download the wallet app and connect to the internet





Jack sends BitUSD to Jill

How it works:



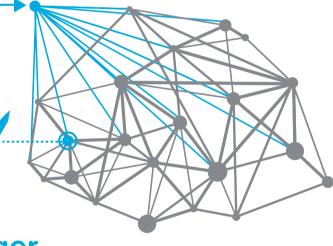
Jack requests his account to be -\$1000 BitUSD and Jill's to be +\$1000 BitUSD



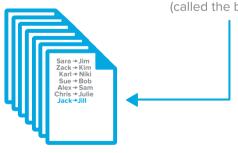
The transaction is cyptographically signed by Jack

The transaction is **broadcast** to the BitShares network,

where it is **confirmed** by a randomly-assigned **delegate**

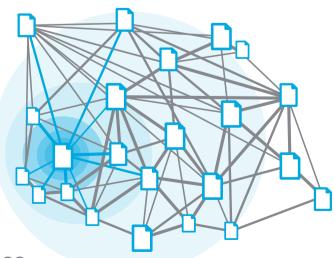


The transaction is added to a **ledger**



The ledger is

updated across the entire BitShares network



• Everyone in the network has the same copy of the ledger that includes Jack's transaction





The blockchain is a ledger of transactions

It is a **permanent**, **shared**, digital history that **cannot be altered** or deleted

It's a revolutionary technology pioneered by Satoshi Nakamoto

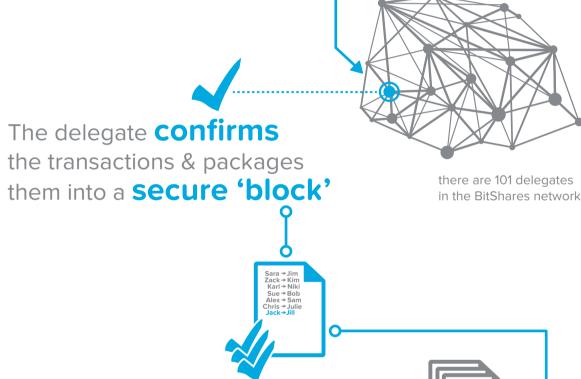
How it works:



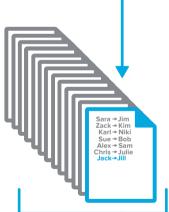
Every 10 seconds,

transactions are sent to a

randomly-selected delegate



This block is **validated** by the other 100 delegates and **digitally 'chained'** to **ALL** previous BitShares transactions



This continuously expanding ledger is the blockchain.



It is **Secure** because it is signed (confirmed) by an authority (delegates)



It is **consistent** because there is only one valid blockchain that is shared



It is **representative** because the delegates are elected by BitShares shareholders

Delegates do the 'work'

Building and maintaining BitShares as a company*

How it works:

*BitShares is not really a company in the standard sense...but can function in a similar way

101 participants of BitShares are voted in as delegates

All those who own BitShares can vote for delegates



Those with the most votes receive a delegate position .



Responsibilities include:



Package transactions into blocks and validate them (done automatically through a cryptographic algorithm)



Maintain a consistent blockchain and verify every other delegates blocks for consistency



Publish price feeds (this facilitates bitAsset trading)



Provide a random number in each block



Improve the ecosystem (through code development, marketing, design and other roles)

Delegates are paid by the blockchain

 For most delegates, the payrate is to **cover costs** of running a block-producing server (3% of the 50BTS currently paid out per validated block)

Delegates can campaign for a higher payrate (typically this is used to develop the BitShares ecosystem: developers, marketers and designers)



'Employment' is a democratic process The Board of Directors, CEOs, CTOs, marketing team, etc. are

Delegates are held accountable

all elected by the BitShares Community. All are #paidbyprotocol

to BitShares shareholders and other delegates through:



Published statistics See bitsharesblocks.com/delegates



News of their marketing and other efforts Online forums and the monthly newsletter

If a delegate misbehaves or fails to deliver s/he is quickly voted out by shareholders (this creates positive competition among delegates)

The BitShares network uses a **Delegated Proof of Stake (DPOS)** system to ensure security

How it works:

DPOS is a mechanism to achieve 'consensus' about the content of a database (in this case account balances, account names, etc.)

> BitShares and other cryptocurrencies (like bitcoin) use similar blockchain technology (which addresses how consensus is distributed: so everyone has the same data)

 There are differences in how consensus is achieved





CONSENSUS METHOD



Delegated Proof of Stake (DPOS)

Proof of Work (POW)

TRANSACTION VALIDATORS (Validators are incentivized to maintain the network by being paid block rewards)

■ Voted in

Delegates

They essentially work for the blockchain

Miners

Miners 'pool' together to increase the chance to be rewarded

BLOCK REWARDS (How those running the system are 'paid')

Reward is **shared** by delegates

U= **U** Reward corresponds to the percentage of total hash (mining) **power** one has

Delegates (people) are paid for maintaining & improving the system

Miners use powerful computer equipment to 'mine

Reward is **looped back** into BitShares to enrich the environment

Miners use a portion of reward to pay for equipment and resource use (electrical utilities) to run the computation

CONSENSUS EQUATIONS

Pre-determined order \rightarrow \rightarrow \rightarrow \rightarrow \rightarrow

Luck

*

Efficient;

based on trust of delegates

no trust required

Inefficient;

Works by relying on trust of the delegates that are voted in

Works by solving cryptographical math puzzles the hard way

Delegates verify eachother System holds block producers

Because of the complexity of the algorithm, energy is wasted during to validation/mining

DECENTRALIZATION



101 delegates

accountable



Less than 10 mining pools

Located all over the world

Located where electricity is cheap