B&C Exchange release 4.0

B&C exchange release 4.0 contains a number of key features, fixes, and security updates. You can find the full list of changes here:

https://bitbucket.org/JordanLeePeershares/bcexchange/branch/4.0-stable?dest=3.1-stable

Feature list

- Reputed signer voting
- Reputed signer reward voting
- Asset voting
- Protocol voting rework

Reputed Signer Voting

Shareholders can now vote on reputed signers. Reputed signers are entities of the network who will facilitate trading of blockchain assets between traders. BlockShares holders ultimately select who will be able to perform this critical function of the network by increasing or decreasing the reputation score of a BlockShares address. BlockShares addresses with the highest reputation scores will receive priority in handling new multi-sig asset deposit addresses.

Technical details from the whitepaper

"The user may place as many pairs of addresses and numbers as they like. This way it is possible for the user to express what the relative reputation of any number of addresses should be. Consider this example user entry as the basis for determining a reputation vote:

```
8RW7kF2bGhq175ipJWor8aTjM5LBUdZi2D 5
86BqkZdb79W2CT79o84j1pqnhs1R3w3QsB 10
8TgryZQ1dQNJYMjm74K3ajdRnDfsCjh3c3 1
8LMMdCqZYZSj48e8dZLci5kK7h7iMPrJ36 -5
```

Only three pairs can ever be selected for inclusion in a block, and the quantity of upvote or downvote cannot be specified: it is always understood as one upvote or one downvote. The absolute value of the number beside the share addresses indicate how likely (relatively) each is for inclusion in the block. Whether it is negative or positive corresponds to being an upvote or downvote. So, the first address above is just as likely to be selected for inclusion as the last address, but the first address

will always be upvoted and the last address always downvoted. The second address is ten times as likely to be chosen for inclusion as the third address."

Reputed Signer Reward Voting

Every block reputed signers have a chance to earn BlockShares as a block reward. The number of reputed signers and the size of the reward is decided by votes from shareholders.

Technical details from the whitepaper

Each block will have a reputed signer reward given to a single signer. The reward should be given in proportion to the reputations as they were 60 blocks deep. Here is an example using small numbers for clarity: Let us suppose that shareholders have voted to reward 3 reputed share addresses. Let us suppose that reputed share address A has 20 weighted reputation points, share address B has 50 weighted reputation points and share address C has 30 weighted reputation points. Over a period of 2000 blocks, the total rewards for each reputed address can be calculated. If A has received 19.9% of the reward, B has received 50.3% of the rewards, and C has received 29.8% of the rewards, the block reward must be awarded to C, because his reward over the last 2000 is the farthest below what it should be, according to his reputation score.

Asset voting

Shareholders can vote on what assets will be available for trading on B&C exchange. Assets are voted in when 1001 of a 2000 block window contains a vote for that asset. When an asset is voted in it cannot be removed. It is then up to reputed signers to support trading of that asset. Reputed signers can choose which assets they will support.

Shareholders can currently vote on a pre-defined list of 34 assets including:

Blockcredits, Blockshares, Blackcoin, Bitcoin, Cannacoin, Canada eCoin, DigiByte, Digitalcoin, Feathercoin, Groestlcoin, Jumbucks, Litecoin, Mazacoin, Nubits, Namecoin, NuShares, Novacoin, NXT, Pandacoin, Peercoin, Rubycoin, Reddcoin, ShadowCash, Viacoin, Vpncoin, Vertcoin, Counterparty, Primecoin, Clams, Dash, Dogecoin, Monacoin, Neoscoin, Burst

For each asset shareholders will be able to vote on the number of confirmations, required number of deposit signers, total number of deposit signers, and the mix/max trades for the asset.

Protocol voting rework

Protocol upgrades in the past were invoked after a certain date passed which was hard coded in the client and when 90% of the last 2000 blocks contained a vote for the new protocol

version. By using a newer client version which contained the upgraded protocol votes were cast automatically when a block was minted. Dates are no longer hard coded in the client. When the 90% threshold for protocol votes is met an upgrade date is automatically configured by the client to be invoked two weeks after passing the threshold.