I/O Coin

POS I/O

Introduction

Abstract

Make time required for generation of new blocks dependent on the number of transactions. Implement deflation mechanism to mitigate market volume volatility.

Motivation

Several problems that are observed in I/Ocoin and other digital currencies (including Bitcoin) could be solved, by using awaited transactions dependent on block time:

1. Abruptly decreasing mint-rates.
2. Occasional block time lag.
3. inflationary money supply that is independent of market demand.
4. Impossibility of early taking money from the minting deposit.

Specification

1. Difficulty target of minting block depends on transactions fee for this block exponentially with a minimal limit.
2. Transactions fee eliminated from rewards.
3. New type of blocks starts at block height 100 000.

Backward compatibility

Older clients need mandatory update.

Discussions

The mechanism of mitigating the difficulty barrier has both pros and cons. The primary advantage is the ability of the network to speed up desirable transactions. The primary disadvantage is the dangers of double spend attacks. Another possible attack is an attempt of a selfish node attempting to gain an unfair advantage in minting. The here proposed mechanism retains all the advantages and eliminates the disadvantages. In this system users can speed up their transactions not only by increasing the fee by promotion in order, but also by decreasing block time. A double spend attack in this system becomes too expensive. In addition an attempt to get unfair advantage becomes also increasingly expensive. This is an advantage: now any node can speed up PoS-minting by destruction fee (and loss of profit) in a private (not sent to network, until stacked into the block) transaction. Currently PoS-coins are inflationary. The proposed improvement allows a market-based mechanism of volume control.

In this new system we have two concurrent processes: inflation of coin volume by minting and deflation of coin volume by destruction of fees. When the volume becomes insufficient to ensure the demands on the market, each coin and accordingly each transaction fee become more expensive. Transactions rates and eventually coin destruction rates decrease, and full volume increases. In the opposite circumstance transaction rates and eventually coin destruction rates increase and full volume deflates further.

Proposed Implementation

Block height 100k

POS I/O Code Vetting by

Rat4 (BlackCoin Lead Dev, Creator of POS 2.0)