

The POC crypto currency: white paper

1. Introduction

PARTICLE ORIGIN (hereinafter referred to as POC) is a new crypto currency based on proof of work (PoW) and directed acyclic graph (DAG). It aims to create an anonymized, high concurrency, real-time transfer currency system, which support smart contract and PoS mechanism. It can solve difficult issues that the concurrency of traditional blockchain is too low and the time of transfer confirmation is too long.

Why to establish POC?

There are different problems in DAG-oriented crypto currency that have mining mechanism in the market. For example, the main network is unstable, the project development is slow, the algorithm is decrypted by the FPGA and ASIC, the centralization is serious and so on. There is a crying need for a truly stable, efficient and trustworthy decentralized underlying network, so we developed POC and formed the communities. In POC, each block contains only one transaction. At the same time, this block is also an address. In all transactions, the main chain is the chain that has the most difficulties. It is allocated dynamically. In the main chain, new currencies are generated every 64 seconds. If a transaction is referenced by the main block, then it is valid. Effective transactions are arranged strictly in the order of the links on the main chain. Double spending is forbidden because only the first concurrent transaction (in this order) is adopted. In the first three months, 4096 POCs can be mined from each main block. 2048 POCs can be mined from each main block between 3 months and 9 months, 1024 POCs can be mined from each main block between 9 months to 21 months, and the rest can be done in the same manner so that the total output of POC is about 2.4 billion.

2. Description of parameters

Chain structure: DAG

Mining method: PoW

Hash algorithm: x28c (It is effective against FPGA and ASIC)

RPC: Fully automatic switching

The block is calculated 28 times by using the x28c algorithm, and the algorithm is as follows.

..Block->

sha256->blake512->bmw512->groestl512->shein512->jh512->keccak512->luffa512->
cubehash512->shavite512->simd512->hamsi512->fugue512->shabal512->blake512
->bmw512->groestl512->shein512->jh512->keccak512->luffa512->cubehash512->sh
avite512->simd512->hamsi512->fugue512->shabal512->haval256

..->Hash

White list: Because of the particularity of the project, the white list is applied to

ensure the stability and efficiency of the network in the initial stage, but this is only temporary. We plan to complete the construction of the full-node network in three months, so that everyone can build the mining pool and use the full-node wallet freely.

3. Community Operation

Fees for developer

10% of each block is taken as developer's fee to ensure the sustainability of the project. Free developers are also welcome to join us, and we will reward all developers who have made some kind of special contribution. The wallet of developer's fee will be frozen and it will not be unfrozen until the white list is removed and the full-node network is completed. The address will be shown in the whole network and it will be supervised by the community, miners and investors.

Team

We are a completely anonymous team.

4. Roadmap

The main network has been launched on the on January 6, 2019. There is no ICO plan and there is no pre-mining. Everyone can join the mining team fairly. In the future, we will develop the following items:

1. Remove white list and complete full-node network (2019.Q1)
2. Add anonymity mechanism and protect the privacy of every user (2019.Q2)
3. Add POS authentication mechanism (2019.Q3)
4. Complete the smart contract development (2019.Q4).

Thanks

The design of POC is inspired by XDAG. Thanks to the hard work of Deinel Cheatoshin, the original author of XDAG, and all developers of XDAG community. Their selfless efforts have laid the foundation of the POC blockchain.