Magpiecoin: A peer-to-peer cryptocurrency where everyone can participate

Whitepaper Ver. 1.0

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Abstract. Magpiecoin (MGPC) is a cryptocurrency based on Bitcoin, but uses a POW algorithm that resists ASCI. This will allow most people who do not have expensive hardware equipment to participate in mining. Currently, it uses Proof of work for consensus algorithm, the latest YespowerMGPC. Moreover, in order to support education all over the world, it created the original POEE airdrop. On the one hand, it will enable students and teachers who lack social resources to get funding; on the other hand, it will also make the distribution fairer and decentralized. In the future, it will be organically combined with 2d/3d games and become an integral part of the game platform. Just like its name “Magpie”, it will bring joy and luck to most people.

1. Introduction

Magpiecoin (MGPC) is a distributed peer-to-peer electronic payment system based on Bitcoin [1], which is completely based on cryptographic principles. Compared with other consensus mechanisms, PoW is still the least controversial consensus mechanism. In order to use the largest decentralized consensus system, we tried to use an ASIC-resistant algorithm, YespowerMGPC. This algorithm is CPU friendly, not GPU friendly, and FPGA/ASIC neutral. In other words, this means that calculations are performed relatively efficiently on the current CPU, while the efficiency on the current GPU is relatively low. In addition to the payment function, Magpiecoin (MGPC) can also implement certain functions such as multi-signature and e-commerce through certain programming scripts. Moreover, in order to support education all over the world, it created the original POEE airdrop. On the one hand, it will enable students and teachers who lack social resources to get funding; on the other hand, it will also make the distribution fairer and decentralized. Online games are one of our entry points, in the future, it will be organically combined with 2d/3d games and become an integral part of the game platform.

2. General principles

Our general first principle is KISS [2], which is "Keep it simple and stupid". This is consistent with the principle of the Internet. It is embodied in the First World War and is simple and easy to use, without complicated or useless functions. Our second principle is happiness, just like its name "Magpie". It means that the user is happy and can be used for entertainment, such as games, videos, and music.

3. Mission

3.1. You can mine with your CPU

OCOV: One-CPU-One-Vote; POW; Yespower [3]; GPU, ASIC & FPGA resistant.

3.2. MagpieCoin will be integrated into 2D/3D games.

Play games with mining and/or purchase game equipment.

3.3. Funding to aid undergraduates, postgraduates and faculties.

Most of them have no or lack of social resources.

1% reserved for airdrop to the students and faculties who own the edu email address, such as .edu, .edu.uk, etc.

The list of the airdrop will be shown on github.

4. Proof of work for consensus

Compared with other consensus mechanisms, PoW is still the least controversial consensus mechanism. In order to use the largest decentralized consensus system, we tried to use an ASIC-resistant algorithm, YespowerMGPC. This algorithm is CPU friendly, not GPU friendly, and FPGA/ASIC neutral. In other words, this means that calculations are performed relatively efficiently on the current CPU, while the efficiency on the current GPU is relatively low.

The production workload is It is related to the laws of physics and driven by productivity. It guarantees the safety of Magpiecoin. The network is protected by computing power.

5. Proof of Edu mailbox for airdrop

Why use edu mailbox? Because edu mailboxes are difficult to forge, most people only have one edu mailbox, and most families only have a few edu mailboxes. So this is relatively fair.

Perhaps, in the near future, we will consider using Gmail for airdrops.

6. Integration with games

We will integrate algorithms and wallets into online games. Currently we use cocos2d-x [4] as the 2d engine and Unreal Engine [5] as the 3d engine. Due to the use of Qt [6], libevent [7] and protobuf [8], which are consistent with the wallet, the work of integration will be much simpler.

7. Specification

Algorithm: YespowerMGPC (Based on latest Yespower 1.0.1 version)
Total number of coins: 68,948,811,840 MGPC
Block time: 2 minutes
Block halving: every 420000 blocks
Consensus: POW
Confirmation: 340 blocks

1% reserved for airdrop to the students and faculties who own the edu email address, such as .edu, .edu.uk, etc. And 8.8% reserved for the further development, network, exchange, platform airdrop & ecosystem.

In order to ensure that there are mines available for mining, the algorithm is designed with a theoretical mining time of approximately 56 years, see Figure 1. Unlike Bitcoin, only the first halving coefficient is 0.5, and the following is 0.76, see Figure 2. In addition, the airdrops are also in progress for a long time.

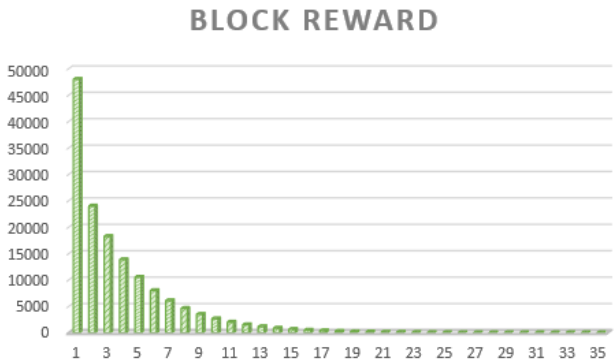

Figure 1. Block reward curve

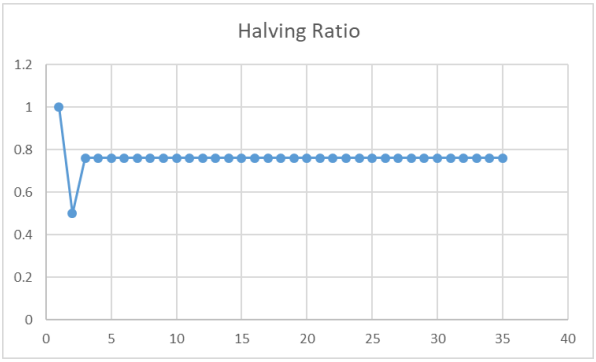

Figure 2. Halving coefficient curve

8. Future roadmap

Development of YespowerMGPC

Done

Development of Nodes

Done

Development of Wallet

On going LTS.

Development of Block Eplorer

Done.

Join the 3-rd party mine pools

On going LTS.

Development of 2d game engine modification

Done. (Cocos2d-x-magpiecoin)

Pump to Latest Modern OS and Librariy

On going LTS.

Development of 3d game engine modification

On going LTS.

Development of 2d game with magpiecoin

On going LTS.

References

[1] S. Nakamoto. Bitcoin: A peer-to-peer electronic cash system, 2008.
[2] WOLFE, Hanke. KISS-Keep It Simple Stupid. Computer Fraud & Security, 2004, 2004.5: 11.
[3] Yespower. https://www.openwall.com/yespower/
[4] cocos2d-x. https://github.com/cocos2d/cocos2d-x
[5] Unreal Engine. https://www.unrealengine.com/
[6] Qt. https://www.qt.io/
[7] libevent. https://libevent.org/
[8] protocol-buffers. https://developers.google.com/protocol-buffers

Links

Official Website: http://magpiecoin.org/
GitHub: https://github.com/mgpc-lab/
Explorer: http://explorer.magpiecoin.org/
Discord: https://discord.gg/jBx52PNxdp
Twitter: https://twitter.com/mareels1
BitcoinTalk: https://bitcointalk.org/index.php?topic=5323267.0
Cocos2d-x-magpiecoin: https://github.com/mgpc-lab/cocos2d-x-magpiecoin