

White Paper of Interstellar Chain

Intelligent digital assets, support the account of interstellar mass trade,
including the auction and transfer of the future interstellar land

November 6, 2017

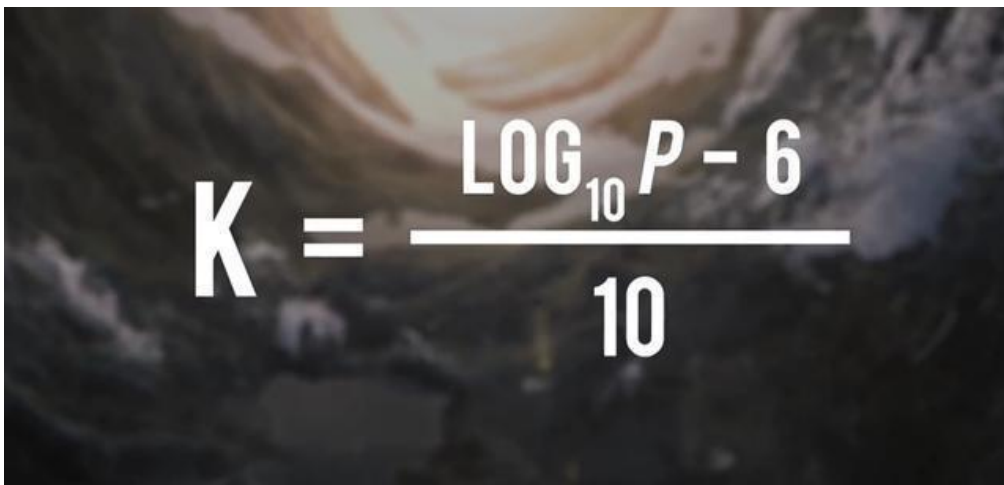
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Preface

Human evolution from wild times to modern civilization only took thousands of years, and in a blink of an eye, the scope of human activities extended from Europe to the whole world. We have reached many goals that we can't imagine 150 years ago. In 1969, the first man landed on the moon. Then in 1977, the space probe Voyager 1 which has flown out of the solar system had been launched. Next , we are going to leave footprints on mars in 2030. With the progress of science and technology, human beings will quickly escape from the earth's constraints and explore and develop interstellar space.

The image shows the formula for the Kardashev Scale, $K = \frac{\log_{10} P - 6}{10}$, overlaid on a background of a starry space scene with a bright, glowing celestial body in the upper left corner. The text is white and centered.
$$K = \frac{\log_{10} P - 6}{10}$$

In 1963 , the Soviet space scientist Nikolai S. Kardashev created an index to measure the universe civilization level -Kardashev Scale. Based on the level and total amount of energy that the civilization can use, 3 basic classes of civilization have been defined by it.

The first class, known as planetary civilization, is very similar to the present human civilization. Living things in this class can store and utilize all the energy from the fixed star. For earth, the fixed star is the sun—the energy from the sun is up to 7×10^{17} watt. At present, the civilization of the earth cannot completely reach the first class. We are in an extended civilization level: zero class.

Kardashev said that human beings were experiencing the puberty of Technological Development. This is a typical process of entering the first class civilization. Scientists believe that human beings will achieve the class in the next 100 years.

Interstellar trade will come true in the next 100 years. On the occasion the interstellar trade in land, energy, minerals, and knowledge technology will be common. The low efficiency and high cost of centralization trade currently will become a strong resistance to interstellar trade. The centralization of block chain technology solves this problem

Interstellar chain

1. What is the Interstellar chain

The interstellar chain is a decentralized, low-cost and privacy platform based on block chaining technology. It can support large-scale trade accounting among the interstellar, including the auction and transfer of future interstellar land.

2. ISC- The tokens of the interstellar chain

The interstellar chain currency abbreviated to ISC will be used as the token of the interstellar chain. At present, the circulation of ISC on the interstellar chain is 1 billion. In the future, when human colonize or land a new planet, the ISC will be issued one more 1 billion. The newly released interstellar currency will give to the previous holder in 1:1.

3.The parameters and issues of ISC

Chinese name : Interstellar chain

English name : Interstellar chain

Abbreviation : ISC

Circulation : 1 billion (when human colonize or land a new planet, the ISC will be issued one more 1 billion)

Issuing date : November 10,2017

Issuing mode: the system will pre-produce 1 billion ISC, 200 million belong to

team, and other 800 million will give away in related channels

4. About team

The interstellar chain team, headquartered in Hamburg, currently has nearly 130 people (continuous expansion), organized by legend Dr. Aaron who devoted himself to the block chain and digital currency development for 9 years, and Jovian, an investment manager for billions of capital in the financial field, and Noble , a “Wizard ” of Internet Design. The core members of the team work together for more than 5 years, tacit understanding and stable.

5. The advantages of the interstellar chain

•Openness

The design of the interstellar chain system is open and transparent, and the public transparency is the cornerstone of the entire interstellar chain system

•Centralization

No centralization of individuals and organizations can control the entire interstellar chain. This endows the interstellar chain with the characteristics of self-similarity and centralization, which ensures the vitality of the interstellar chain system..

•Safety

Although the development of the interstellar chain is based on bitcoin, it has raised the security mechanism. The creation and transfer of the ISC is based on an

open source encryption protocol of the Internet, which is not controlled by any central institution

- Value**

If a token system want to survive, it must be useful. Bitcoin is applied to international network payment, anonymous trading and tax avoidance because of its unfreezing and unregulated characteristics. The value of the interstellar chain is to support the account of large-scale interstellar trade, including the auction and transfer of future interstellar land.

Technologies involved

1. Consensus algorithm

The interstellar chain is a public block chain, and there are several outstanding consensus algorithms in the public block chain, including the POW (proof of work) pioneered by the bitcoin system, the POS (proof of stake) created by the PPCoin, the DPOS (delegate proof of stake) pioneered by Bitshares , and other mechanisms based on BFT(Byzantine Fault Tolerance)

Most of the encrypted currencies selectively ignore the Byzantine fault tolerance algorithm, because this algorithm does not solve the problem of token distribution. The ISC is not a currency, but as a feedback to the network security contribution nodes, it will be distributed to these nodes.

In the future, with the maturity of the project, the interstellar chain will switch to an improved DPOS consensus algorithm. This algorithm will take "currency block high destruction" into consider as an important index.

2. POW mechanism

In the first few years of the interstellar chain system, it will use a centralization timestamp service to ensure the security of the system. We will avoid using the bitcoin's SHA256 algorithm and the Litecoin's scrypt algorithm to prevent the 51% force attack from the pool of bitcoin and Litecoin.

3. HBTH-DPOS

Although the POW mechanism can ensure security of the interstellar chain for the first few years, it has its own problems. By contrast, the DPOS (an equity representation mechanism), created by the Bitshares, is a more robust mechanism for centralization.

But the DPOS still has two defects: firstly, the financial interference problem. An attacker can hold a lot of token votes to support or against the bill of the system in a short time. After manipulating the vote, the attacker can benefit from selling tokens.

Secondly, voters are indifferent. Voting holders generally don't care about the working conditions of the system. Most of them don't want to change after having chosen their representatives, even when the representatives are evil.

The interstellar chain has improved the DPOS consensus mechanism, adding the concept of the currency block height and heartbeat. The basic model as follows

The concept of currency block height (TH) originates from the Bitcoin Days Destroyed.

Bitcoin days destroyed = receive amount * time before spent

TH= receive amount *block numbers after last spent* the Interstellar chain's constant

The interstellar chain uses TH as the weight of the vote in the DPOS to avoid financial interference. If attackers intend to manipulate voting by temporarily getting a large number of ISC from the market, their impact of voting is also weak, because

their currency block is small. In order to achieve the purpose, attackers have to get more ISC from the market, or hold ISC for enough time to get the block height. Either way will significantly increase the cost of the attackers.

In the DPOS phase, the interstellar chain, like other systems that adopt the POS consensus mechanism, distributes ISC to different holders according to their current rights and interests. Differently, ISC holders of the interstellar chain system will not acquire the new ISC by passive. Instead, the holder needs to send a heartbeat to the system to prove that he is still active. This heartbeat is equivalent to a digital signature from the ISC holder's private key. When ISC heartbeat is sent, the holder must choose to replace or maintain his own rights and interests representative.

4. Type of transaction

In order to prevent bifurcations and efficiently deal with the concurrency and transaction, the interstellar chain introduces an extended technology that supports many types of transactions. The technology is when a transaction fails, a UTXO output. the UTXO is the basic unit of a trade in the interstellar chain. Once a transaction uses a particular output, the same output can not be used in other transactions. The interstellar chain maintains a global pool of UTXO, all the blocks of the input are actually related to one or more of the existing UTXO.

Once the transaction is confirmed, the used UTXO will be removed, and a new UTXO will be added. Most of the types transactions in interstellar chain are the

UTXO model. Combined with the interstellar chain account system, the traditional UTXO model is optimized to improve efficiency and reduce transaction size.

5 Virtual machine among chains

The interstellar chain, focuses on research and development of virtual machine among chains to realize the value exchange between different public block chains

Potential risks and considerations

With the development of the block chain and overall situation of industry, the interstellar chain may face some unforeseen risks. Participants are asked to fully understand the team background, the overall framework and ideas of the project before making a decision, and participate rationally in accordance with your own wishes.

Disclaimer

1. This document is only used for conveying information. The content of the document is for reference only. It does not have any advice, instigation, or invitation to any investor in the process of selling stock or securities of the interstellar chain and related companies. Such invitations must be carried out in the form of a confidential memorandum and in conformity with the relevant securities laws and other laws.
2. This document shall not be interpreted as forced investors to participate in the sale of the token. Any act related to this white paper shall not be deemed to be involved in the sale of the token, including the request for a copy of the white paper or the sharing of the white paper to others.
3. Investors participate in the sale of tokens are considered to have reached the age of full capacity for civil conduct, and the contract signed with the interstellar chain is true and effective. All participants signed the contract voluntarily and made a clear and necessary understanding of the interstellar chain before signing it.
4. The interstellar chain team will continue to make reasonable attempts to ensure that the information in this white paper is true and accurate. During the development process, the platform may be updated, including but not limited to the platform mechanism, the tokens and their mechanisms, and the distribution of the tokens. With the progress of the project, Part of the content in this document may be adjusted. Once it happened, the team will publish the updated content through the announcement on the website or renew the white paper white paper.

Participants must get the latest white paper in time and adjust your decisions according to the updated content. The interstellar chain is not liable for any loss of the participants caused by the actions depending on the content of the document or the inaccuracy of the information.

5. The team will spare no effort to achieve the goals mentioned in the document. However, based on the presence of force majeure, the team can't promise to complete the commitment.

6. As an official token of the interstellar chain, ISC is an important tool for the efficiency of the platform, but not an investment product. The possession of ISC does not represent the owner having the ownership, control, and decision-making power of the interstellar chain platform. ISC, as an encrypted tokens used in interstellar chains, does not belong to the following categories: (a) any kind of currency; (b) securities; (c) equity of legal entities; (d) stocks, bonds, bills, warrants, certificates or other instruments that grant any rights.

7. The value added of ISC depends on the market rule and the demand after landing. It may not have any value. The team does not commit to its value added, and is not responsible for the consequences caused by its increase or decrease.

8. Within the maximum scope permitted by applicable law, the team shall not be liable for damages and risks arising from participation in public financing, including but not limited to direct or indirect personal damage, loss of business profits, loss of business information or any other economic losses.

9. The interstellar chain platform complies with any regulatory regulations that are

conducive to the healthy development of the sales of the tokens and the self-discipline of the industry. Participants are deemed to be voluntarily fully accepted and observed this kind of examination, and ensured that all information provided must be complete and accurate.

10. The interstellar chain platform explicitly conveyed the possible risks to the participants. Once participated in tokens, it has confirmed that you have understood and recognized the terms and conditions of the rules, and accepted the potential risks and would carry out the consequences by yourself.

11. Citizens banned by the state to participate of the sale of tokens are not allowed to participate in the interstellar chain transactions.

Conclusion

Similar to Bitshares, the interstellar chains are inspired by BitCoin. It solves the problem of the transactions of interstellar land, energy, mineral resources and knowledge technology in future by block chain technology. It supports the account of large-scale interstellar trade, including the auction and transfer of future interstellar land.

In the interstellar chain, intelligent assets can be transferred safely in different digital identities through the role of value intermediaries. Thanks to the block chain, the interstellar chain inherited the advantages such as tamper-resistant and non-bifurcation, will wander in the digital assets ocean.

The interstellar chain team

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