## 1.1 Introduction to Blockchain Technology

On October 31, 2008, Satoshi Nakamoto (Satoshi Nakamoto) proposed a white paper on the design of Bitcoin. Since then, we have ushered in a world with blockchain. As the original application of blockchain, Bitcoin has fulfilled its original intention as "a decentralized electronic current system". The production of Bitcoin does not depend on any institution. Instead, it relies on a large number of calculations based on a specific algorithm to ensure the consistency of the distributed accounting system of the Bitcoin network. Ethereum Ethereum takes it a step further and provides us with a universal blockchain framework that can run Turing-complete codes. Blockchain is the core technology of the digital cryptocurrency system represented by Bitcoin and Ethereum. Through the use of data encryption, time stamping, distributed consensus and economic incentives, there is no need for mutual trust at nodes Realize the point-to-point transaction, coordination and collaboration of decentralization of credit in the distributed system, thus solving the problems of high cost, inefficiency and insecure data storage that are common in centralization institutions. It should be noted that the blockchain technology is not a brand new technological innovation, but rather a model innovation produced as a combination of a series of technologies (including peer-to-peer communication, cryptography, block chain data structure, etc.).

## 1.2 Commercial and technical challenges

The system of decentralization and self-governance represented by blockchain technology is attracting more and more attention and research. There are currently more than 2,000 global blockchain projects, and the total value of global encrypted digital assets has reached US\$90 billion. The user base in the blockchain/digital asset field is also rapidly increasing. From 2 million users worldwide in early 2013 to 20 million users in early 2017. We believe that around 2025, global users are expected to reach 1 billion. With the popularization of blockchain technology, more and more application scenarios based on blockchain technology have been excavated. The application scenarios of blockchain technology have gradually expanded from the original digital currency nature to more scenarios and user groups. For example, the community represented by Ethereum introduced the concept of smart contracts in blockchain technology, while Ripple used blockchain technology to implement a global settlement system. With the diversification of application scenarios, users' demands for blockchain technology have also increased, and we have seen many challenges. The lack of value scale We believe that the blockchain world needs a universal value scale to measure the value of users and smart contracts. The upper-level application can combine this universal value scale with self-scenarios to dig deeper. Value, which will bring more business model innovation, just like the rise of Google in the connected world. The upgrade of the blockchain system is different from the version iteration of ordinary software. Due to its natural decentralization feature, the blockchain system cannot force users to upgrade their clients and protocols. Therefore, protocol upgrades in the blockchain system often lead to a "hard fork" or "soft fork" of the blockchain, causing huge losses, which further restricts the application of the blockchain system Scenes. Taking Bitcoin as an example, there are still huge controversies in the community regarding block expansion, leading to the slow evolution of the Bitcoin protocol, severely inadequate block capacity, and nearly 1 million transactions waiting to be written in the transaction pool. Block. Users often have to pay extra high "transaction acceleration fee", which seriously damages the experience performance. In addition, from the perspective of the "hard fork" of Ethereum, although the DAO problem was temporarily solved, it produced the "heavy asset" of ETH and ETC and the "side effect" of the split of the community. The construction of the blockchain application contextual environment With the rapid growth of various applications (DApps) on the blockchain, a good contextual environment is the foundation for improving user experience. This includes how users can

retrieve their desired DApps from a large number of blockchain applications, how to incentivize developers to provide users with more DApps, and how to help developers build better DApps faster. Take Ethereum as an example. The total number of DApps based on Ethereum is already tens of thousands. Just imagine how to find and find the DApp users expect if the DApp in the blockchain world is close to the total application scale of the Apple App Store. Very big question.

## 1.3 PFEcoin design principles

In response to the above-mentioned opportunities and challenges, we need to design a self-evolving blockchain system based on value incentives. Specifically, we have the following design principles: • Fair ranking algorithm to define the value scale. We believe that the blockchain world needs a universal value scale, which is used to measure the value of simple data at the bottom of the blockchain and discover information. More high-dimensional information, from the exploration and mining of the greater value of the blockchain world. Similar to Google's PageRank, we also propose the CE algorithm for the blockchain world, which takes into account the capital liquidity on the blockchain, as well as the speed, depth and depth of the spread of resources, and provides fairness to blockchain users. Ranking. The role of PFEis to give the blockchain world a scale of value to help developers effectively measure the importance of various users, smart contracts, and DApps in the blockchain in combination with their own scenarios. PFEhas huge commercial potential and can be used in search, recommendation, and reporting fields.

Self-evolution of the blockchain system and its applications We believe that a healthy blockchain system and its applications should be able to achieve self-evolution. With less external involvement, faster calculations, stronger systems, and better experiences can be achieved. We call this self-evolving capability CE Smart contract. In the PFEsystem architecture, through a good design of the block structure, the basic protocol will become a part of the data on the chain, and the upgrade of the basic protocol will be realized through the addition of the data on the chain; for the application in PFE(smart Contract), PFEcompletes the upgrade of the smart contract by storing and supporting the design of state variables in the bottom layer of the smart contract that can be accessed across the contract. PFE, which has the ability to upgrade and evolve itself, will have a faster development speed and greater storage potential than other currencies in the future. At the same time, it will enable developers to respond faster and upgrade to vulnerabilities and avoid customers. The event brings huge losses to users.

The construction of the blockchain application contextual environment. In PFE, we proposed a PoD algorithm based on account contribution, using CE's value scale assessment to find out accounts with higher contribution to the status, and assigning accounts equally Qualifications, to prevent the monopoly of bookkeeping rights, and integrate the economic penalties in PoS, to prevent the malicious destruction of the public chain, and to help the free development of the state. It can not only ensure a faster consensus speed, but also be more resistant to cheating than PoS and PoI, and has a good role in promoting the development of blockchain status. In PFE, we propose DIP (Developer

Incentive Protocol) for smart contract and DApp developers. The core idea of DIP is to provide developers of smart contracts or DApps with high contributions to the community and give them corresponding developer incentives. Incentives are written by the bookkeeper. Based on the Nebulas Rank mechanism, PFEfurther includes a search engine to help users better explore high-value applications in the blockchain. Considering that Ethereum already has a huge status, it is a very successful public blockchain platform. PFEhopes to learn as much as possible from the excellent design of other blockchain systems such as Ethereum, and fully compatible with Ethereum from the programming of smart contracts, so that products based on Ethereum can be migrated to PFEat zero cost. Based on the above design principles, we are trying to build a blockchain operating system and search engine based on the value scale.

## 1.4 PFEfuture planning

From a high level of abstraction, the blockchain is a decentralized way to confirm the right of data, and the token itself is the carrier for the value of right to confirm. The interconnection solves the problem of data communication, while the blockchain further solves the problem of data confirmation on the upper layer of the interconnection. For the first time ever, the blockchain has made the data of the family truly become the data of its own, and will no longer be arbitrarily analyzed and used by the company. The essence of the blockchain represented by the public chain adheres to the concept of openness, open source, sharing, and non-profitability, and is fundamentally different from the existing commercial state. Tokens are the carrier for confirming the value of rights, and there will be more application scenarios in the future. It is far from the attribute of only virtual currency and electronic presence. The tool is only for the specific technical implementation of the blockchain application scene. If the combination of the first two is lacking, it alone cannot fully reflect the charm of the blockchain system. The blockchain system represented by the public chain is the future of the blockchain, because its basic characteristics of "non-trust" and "unprivileged" are the real value of the blockchain system. On the contrary, as alliance chains/enterprise chains, most of them have the attributes of "trust-based" and "privilege-based", and cannot break through the existing paradigm, which is an improved innovation. The public chain system subverts the existing collaborative relationship, is a subversive innovation, and is the true manifestation of the maximum value of the blockchain. PFEis currently online and circulated on the international platform BitCoinCash, and is expected to be launched on trading platforms such as Binance, Coinbase, Bittrex, Bitfinex in 2022, and is committed to creating an exclusive ecosystem of PFE and creating greater market value.