LTCF CHAIN

Data value economic ecosystem

based on blockchain

WHITEPAPER

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Contents

Summary

Blockchain is the most eye-catching direction at the moment. It integrates distributed data storage, point-to-point transmission, consensus mechanism, encryption algorithm and other computer technologies. It is considered to be a chained data structure combined by the way the Internet is connected. A distributed ledger that cannot be tampered with or forged that is guaranteed by cryptography. The essence of blockchain is a distributed accounting system, which is difficult to tamper with. Once the information of the only trusted blockchain system is verified and added to the blockchain, the data on the chain is backed up in each network node and will not be deleted, resulting in a very high cost of attacking the entire network, thus ensuring The data in the blockchain network is difficult to tamper with and is uniquely credible. Blockchain technology has become the most concerned topic in the global innovation field, and is known as the core technology with the most potential to trigger the fifth wave of disruptive revolution.

At present, the application of blockchain has extended to finance, Internet of Things, intelligent manufacturing, supply chain management and other fields, which will bring new opportunities for the development of new generation information technologies such as cloud computing, big data, and AI. Trigger a new round of technological innovation and industrial transformation. The first driving force of economic growth is technological innovation, and its growth efficiency is jointly determined by the capital flow, information flow and logistics in this social structure. The growth and

development of the blockchain and its encrypted digital currency have brought about three underlying changes: the first is the realization of information as value, and the industry as finance; the second is the emergence of more decentralization, communityization and freedom The third is to achieve cost reduction and efficiency improvement in the collaboration mechanism. As defined in The Economist, the blockchain is a trusted machine. It will redefine production relations and make the entire ecology more credible.

In our real life, massive amounts of data are generated all the time, and people's clothing, food, housing, and transportation have been aggregated into countless information, recording the development and changes of various industries and groups. Many of these data are very meaningful and valuable. It can help us review history more clearly and predict the future. Big data is the "new oil of the future." More and more Internet services and products are beginning to store the data generated in people's daily digital life. From the moment the user turns on the computer or mobile phone, every behavior may be recorded.

However, there are many Internet services or products that are unwilling to disclose or even conceal the fact that user data is collected, which makes the trust relationship between users and service providers gradually weaker, and users are beginning to realize that they are contributing their data free of charge. And there is no way to know whether the data flow and privacy have been infringed, and there are guards against this, and precious big data resources are becoming more and more difficult to obtain.

Our solution is a decentralized, blockchain-based, brand new big data value economic ecology. In this new economic ecology, users can more transparently know the value of the anonymous data they disclose, and obtain corresponding incentives and rewards from it, and form a good and fair cooperative relationship with data users.

As the driving force for the future development of this economic ecology, we will issue a new virtual cryptocurrency-LTCF. LTCF will serve as the communication unit between users, data users, and data providers. LTCF quantifies the value of data, incentivizes users to share anonymous data, provides more efficient consumption plans for data purchasers, and provides more fair rights and protections for multiple parties.

Our vision is a decentralized, sustainable and fair value economic ecology for all user data, thereby promoting the development of the big data industry and the entire technology industry.

1. BUSINESS BACKGROUND

1. Business Background

The era of big data has come. With the gradual maturity of 5G, AI, IOT and other technologies, the magnitude and ability of human society to generate, obtain and process data will usher in a new leap, and the data economy will also enter a new stage of development. . Through the rational application of data, our level of awareness of the world, response speed to demand, and ability to plan business and social activities, and the efficiency of human-to-human collaboration will be raised to a new level.

The rapid development of the data economy is evolving around computer technology and the Internet. Internet companies, as a key role in it, are constantly expanding the scope of data acquisition, analysis and application, realizing data in many scenarios More efficient application. It can be said that the traditional Internet model has laid a solid foundation for massive data acquisition, convenient storage, analysis and application, and exchange and circulation. The entire world is digitizing, and the entire world’ s data is being networked. However, as the data economy develops and evolves in depth, the data economy also faces several major challenges. The first is the challenge of data ownership. With the application of personal data in more business scenarios, the huge value of data has become the consensus of the whole society and an important resource for business competition. Although it is a general trend that the ownership of personal data belongs to the individual who generates the data on a global scale, due to the lack of convenient means and

effective incentive schemes for managing their own data, in the current traditional Internet ecosystem, it is The popularization of "data managed by individuals" is still difficult. In addition, from the perspective of the economic utility of the whole society, strict control of the use and development of personal data by commercial companies has also caused a waste of data resources and hindered the effective allocation of data, an important resource, in the whole society. The data economy ecology urgently needs a dual solution that can protect user data ownership (meaning that you can use your own data, share your own data, and get value from your own data sharing) and enable data resources to be effectively used.

Second, there is the issue of leakage in data processing and exchange. From the embezzlement of Facebook user data to the stolen 500 million pieces of China Lodging Hotel Group’ s data for sale on the dark web, the centralized data storage and use schemes of Internet commercial institutions have always been unable to escape the moral hazard of data abuse and the security of being attacked. risk. This not only brings great danger to personal privacy, makes us become "network transparent people" with a little carelessness, and also causes high security costs for enterprises. The repeated outbreaks of data security incidents have also changed the public's eagerness for big data to talk about it.

Third, the authenticity and quality of data. Behind the sunshine of the big data era is the industry shadow of the flood of junk data. Due to the existing centralized data management model, whether it is an enterprise or an individual, it requires extremely high costs to verify the authenticity of data, and there are very few accessible

channels. The cost brought by the difficulty of authenticating data as an important means of production greatly reduces the efficiency of collaboration in the data economy.

Fourth, the issue of data incentives. Personal data will still be the main source of data in the future. At present, most of the public have insufficient motivation to collect and manage personal data. The core lies in the lack of incentives and the inability to feel the value of data. Although individual personal data is tiny, it is like the capillaries of the data economy, occupying 97% of the human blood vessels. Only by activating the individual's awareness of data collection, management and application, can the data economy obtain more fresh blood. In the current data ecosystem, individuals are the producers and contributors of data, but Internet companies have cut away most of the cake in the data economy. If there is a better data benefit distribution plan that can obtain multi-party consensus, not only individuals can benefit from To obtain incentives in the production and sharing of data, companies will also legally obtain more dimensional data to make the overall scale of the big data economy.

The way of calculation and exchange requires a new generation of data economy infrastructure. More specifically, to solve the difficulties faced by the data economy, we need a transparent, decentralized, efficient, and consensus-based data service and network.

2. LTCF PROJECT DESCRIPTION

2. LTCF Project Description

In traditional relationships, users have little knowledge about the value of their data, and they don’ t know the ultimate value of their data. And data buyers sometimes have no way to predict the true value of the data and the authenticity of the data, but mostly judge by experience. The economic ecology surrounding the LightChain will be fair, transparent, and open. The LightChain is designed for circulation and use on various Internet product platforms, and it is open and designed for any users who are willing to join and build a more harmonious and win-win sharing economy ecosystem.

The era when users passively compromise their own data to exchange services will eventually come to an end, and we will be greeted by a brand new, fair and mutually beneficial Litechain data sharing economic ecology.

LTCF will serve as a unit of communication between users, data buyers, and data providers to quantify the value of data, provide users with an incentive to share anonymous data, and provide more efficient consumption plans for data buyers, and provide both parties with More fair rights and protection.

The Litechain is a future-oriented data economy basic chain. Based on the distributed characteristics of the blockchain, cryptography and other technical means and token design, it provides a new blockchain solution for the development of the data economy and leads the development of data services. New changes. Focusing on issues such as data ownership distribution, data leakage, data authenticity, and data

incentives in the existing data economy, the LightChain team has developed a wealth of trusted data components, gradually opening up data chaining, data storage, data calculation, and data exchange. All links provide shared, co-governance, transparent, and secure underlying services for the petascale data economy market in the future, and become public facilities in the digital era of humanity.

3. TECHNOLOGY ARCHITECTURE

3. Technology Architecture

3.1. Data layer

The data layer is the bottom layer of the blockchain model, and the data layer describes the chain structure of the block. In addition to this, the design of a multi-signature account model is introduced, which is stored in the memory as an object. On the basis of the account model, the LightChain introduces the concept of digital identity, that is, each account on the LightChain can be mapped To a unique digital identity; blocks, accounts and digital identities constitute the data layer of the LightChain.

3.2. Network layer

The Litechain network is a distributed topological network composed of full nodes. Each node on the network is connected to each other in a point-to-point manner, and the nodes are equal to each other. Each node can independently verify all blocks and For transactions, there are no special nodes. The P2P network is an important infrastructure on the blockchain data layer; the network layer realizes the underlying mechanism for nodes to discover, connect, and communicate with each other in the network, and supports the efficient and stable operation of the Litechain blockchain system.

3.3. Consensus layer

The value anchor of the blockchain lies in the consumption and output of the chain itself. When the blockchain chooses PoW (Power-of-Work, Proof of Work) as the consensus mechanism, the computing power consumed by each block generation will become the cornerstone of its value. In addition, on the Wright chain, every node has the ability to solve real-world problems and can provide products and services in the data industry. If each node of the Litechain can participate in the settlement of shared work, the entire blockchain will have realistic output value. Therefore, in order to maximize the value of the blockchain itself, the LightChain will default to the consensus mechanism based on PoW. The core meaning of PoW is: the greater the computing power, the greater the probability of digging a block, and the greater the weight of maintaining the security of the blockchain.

However, because PoW has obvious defects such as slow transaction speed, the consensus mechanism of subsequent data chains in the platform will be designed to be modular, which can be configured through control chain parameters, and can dynamically apply to public and private chains. Different application scenarios. The platform will select an appropriate consensus mechanism based on the application scenarios and transaction conditions of the data chain itself to ensure that all distributed nodes obtain data consistency through algorithms.

3.4. Contract layer

The contract layer of the LightChain is composed of multiple built-in contracts, smart contracts and oracles, and on this basis, cross-chain relay is implemented, so that the LightChain can achieve credible cross-chain interactions with homogeneous and heterogeneous chains .

3.4.1. Smart Contract

LVM uses WebAssembly (WASM) to execute smart contracts. With WebAssembly, developers can use their familiar programming language to write smart contracts, and currently supports C++. In order to lower the threshold for developers to write smart contracts, LightChain will support more programming languages in the future.

Using the compilation tool provided by LightChain, you can compile high-level language code such as C++ into WASM format bytecode, and then call the contract deployment interface to deploy the code on the chain. The successfully deployed smart contract will create a smart contract account on the blockchain. The bytecode of the contract and the corresponding ABI (Application Binary Interface) are stored in the account. Unlike ordinary LightChain accounts, contract accounts and assets are controlled by contract codes without private keys. To call the smart contract, the user needs to specify the contract account name and contract method, and use ABI to interact with the smart contract. The ABI is generated by the LightChain compilation tool and contains information such as contract interfaces, interface parameters and persistent storage structure. The persistent storage of smart contracts is sequentially

stored in the memory in the form of objects. The storage fields and types of the objects are customized by the developer according to business needs.

In order to make reasonable use of blockchain resources, a certain amount of miner fees must be burned every time a smart contract is called. The fee is composed of 3 parts:

Basic fee (fixed), memory fee (charged based on persistent storage usage), CPU fee (charged based on the CPU time occupied by this call), the price of the three fees and the CPU upper limit of the calling contract can all be dynamic through the council Adjustment. Smart contract fee calculation rules:

Contract deployment fee: benchmark fee + transaction message body size * unit KB fee

Contract call fee: benchmark fee + memory usage + cpu usage

3.4.2. Built-in contract

LightChain has written the protocol layer and the more versatile contracts into built-in contracts, which are very rich. These contracts are HardCode (hardcoded) on the chain. Developers can call according to the interface parameters of the contract. For non-compliant interfaces The requested request will directly refuse the call. Although such a HardCode contract loses some flexibility, it also improves security and stability.

3.4.3. Oracle

Oracle Machine (OracleMachine) reliably and securely input off-chain data to the LightChain, which provides great convenience for the calculation of smart contracts and DApps.

The oracle will be realized by the built-in contract of the Wrightchain system and the nodes of the Wrightchain. At the same time, the LightChain has an effective reward and punishment mechanism to encourage nodes to provide true and reliable external data input (datafeed) services.

3.4.4. Cross-chain relay layer

The cross-chain relay layer implements the basic logic of asset custody and inter-chain interaction through smart contracts, and nodes use oracles to achieve input of off-chain states; through the relay layer, the light chain and parachain, application chain, and decentralization can be realized Trusted interaction between business alliances and heterogeneous chains.

The cross-chain relay layer of WrightChain has the following characteristics:

1) Nodes are relays: As trusted nodes for fair elections across the entire network, the nodes of the WrightChain can participate in the datafeed service of the relay layer in addition to the transaction verification and block production of the entire network, which can be realized through the oracle Input of external status;

2) Margin/Reward and Punishment Mechanism: The nodes of the WrightChain will mortgage certain assets in the relay contract to provide margin and exchange services. All other participants can jointly act as supervisors to supervise the behavior of the nodes. Once discovered If the node commits evil and the proof is successful, the supervisor will receive a certain share of the proof reward;

3) Multi-party data verification of the oracle machine: In addition to the deposit and reward and punishment mechanism, in order to further improve the credibility of the external parameter input of the oracle machine, the LightChain uses multiple parties to participate in the verification of multiple data;

4) No fees for nodes: The traditional relay mode needs to initiate a large number of broadcasts on the chain, which consumes a lot of fees. The WrightChain has designed a unique scheme to ensure that when the node calls the oracle to input external parameters, There is no need to pay a fee. Such a scheme is jointly guaranteed by the node that is the relay, the deposit/reward and punishment mechanism and the multi-party data verification method.

3.5. Application layer

Like the application layer in the traditional OSI model, the application layer of LightChain provides an interface for application software. It also provides client encapsulation in multiple languages to simplify the calling process. The application layer mainly includes the following parts:

Through the simplified cross-chain interaction components provided by the application layer, the inter-chain between the Wright chain and the Para-chain, the App-chain and the Distributed Business Consortium Chain can be realized communication.

3.6. Trusted data components

3.6.1. Trusted universal digital identity

A credible universal digital identity will be the passport of the blockchain world, opening up all blockchain applications, and allowing users to unimpeded in the blockchain world. A decentralized and non-tamperable blockchain is the best solution to strengthen the trust between identities. The influence of digital identity is enormous. It can not only affect the demographic coverage that currency can cover, but also involve the collaborative consensus of everyone in the world. Behind the anchor of digital identity are asset ownership, personal information, personal background, credit history, and social relationships. Like currency, it requires strong trust.

3.6.2. Trusted data on the chain

As a distributed and non-tamperable trusted ledger, the blockchain provides a good means of storing value. However, the blockchain technology itself only provides the non-tamperable modification of the data on the chain, ignoring the process of data from the chain to the chain. . How to ensure the credibility of this process is one of the

important topics to be studied and solved by the trusted data component of LightChain.

When we discuss the credibility of the data itself, we will think of implementing it through some trusted verifiers. For example, in the verification of personal identity, we may use the two-element (name + ID number) verification interface provided by the public security. ; In other words, our bank card information needs to be verified through the bank’ s interface. Therefore, we recognize that centralized trust institutions such as banks and public security are irreplaceable to some extent. The emergence of blockchain technology is not to subvert such trust mechanisms, but to supplement such mechanisms to be more secure. And efficient solutions.

3.6.3. Trusted Data Exchange

Data is the most important production resource in the future, as well as the most important hidden assets (HiddenAssets) for everyone and companies in the future. This is the huge wealth that everyone and companies have accumulated from birth. How to make such hidden assets circulate efficiently, reasonably and safely is also one of the key problems to be solved by the trusted data component. In the above content, we have discussed some solutions to solve the credibility of the data on the chain process and the credibility of the data storage. On this basis, we need to think about how to make the data circulation process credible, that is, how to achieve credibility. Data exchange. In our view, the focus of trusted data exchange is to solve the problem of privacy leakage during data transmission and storage.

From a business perspective, we can isolate the environment where the data is used through off-chain computing, or through data desensitization and other means to ensure that the data is reasonably used without involving privacy; from a technical perspective, we can use different scenarios Consider the following options:

1) Asymmetric encryption and decryption: Asymmetric encryption and decryption technology ensures that only the two parties holding the private key can decrypt the content during data transmission, thereby ensuring that the third party cannot intercept and blast the content. The LightChain uses the ECC public and private key algorithm. Through ECDH, the shared key between two pairs of public and private keys can be calculated, thereby realizing the transmission of private data between the two accounts.

2) Secure multi-party computing (MPC):

Secure Multi-Party Computing (MPC) was formally proposed by Yao Qizhi in 1982. It mainly discusses that n participants input information to calculate a predetermined function, while ensuring the correctness of the calculation, it does not reveal the privacy of the participants' input data. Specifically, for n participants, each participant i knows its own input xi, and they want to collaboratively calculate a predetermined function f(x1,...,xn)=y, so that all participants can obtain the final The result y, but the input data of other participants cannot be obtained.

3) Homomorphic encryption (HE): Homomorphic encryption is an encryption method that allows calculations on ciphertext. In addition to the original components of the traditional encryption scheme, there is another calculation algorithm that takes the

objective function F and encrypted data as input. Homomorphic encryption generates an encrypted result. When decrypting this result, the obtained message is like performing F on the plaintext of the encrypted data. A cryptographic system that supports arbitrary calculations on ciphertexts is called Fully Homomorphic Encryption (FHE).

3.6.4. Trusted data calculation

Trusted data exchange focuses on the privacy protection of data transmission and storage, while trusted data computing focuses on the security of data use and processing. Off-chain computing, data desensitization, secure multi-party computing and homomorphic encryption are all important technical means for the realization of trusted data computing. Although secure multi-party computing (MPC) and homomorphic encryption (HE) are theoretically feasible, the former requires a lot of interaction, and the latter requires a lot of calculations. Therefore, performance and efficiency determine that these two solutions cannot be large-scale for the time being. application.

4. LTCF APPLICATION SCENARIO

4. LTCF Application Scenario

The LightChain is positioned as a value network of trusted data, serving the global data economy market. The high performance, rich on-chain supporting functions and massive on-chain data of the LightChain have laid a solid foundation for its large-scale commercial use. The LightChain has built a series of complete infrastructure for the data economy, enabling many commercial applications to provide users with high-quality products and services based on the LightChain. The blockchain technology solutions provided by LightChain can solve the problems of data ownership, dominance, and income rights in various fields, data leakage problems, data authenticity problems, and data on-chain incentive problems, etc. In the near future, the big data economy ecology will emerge on the basis of the LightChain, covering but not limited to personal data rights management, financial services, mobile social networking, entertainment games, medical health, food, clothing, housing, transportation, etc.

4.1. Personal data rights

Through data on-chain, data ownership, control and income rights can be returned to users, allowing users to become the masters of their own data, thereby reconstructing the credit society through blockchain. In the current Internet world, personal data is not well protected, such as data theft, black market proliferation, wrong ownership of

data, etc. Personal data security issues frequently occur, and more than 50% of the world’ s top 500 companies have reported Data security issues such as data leakage and hacker attacks. The major Internet giants and data black market merchants use data processing and trading to take the value generated by data into their own. Using blockchain technology, after the user’ s authorization, tools are provided to allow users to self-collect their own Internet data and save it on the LightChain through asymmetric encryption, and at the same time hand over the only key "Data-Key" that can unlock the data The user himself manages, and the user has complete control over the ownership, control and income rights of the data. When an application wants to obtain or use personal data, it needs to be authorized by the individual. After the individual unlocks the data through the Data-Key, the application can view or use the personal data. Individuals who authorize applications to use their personal data can obtain corresponding token rewards.

4.2. Financial Services

The financial field is the first field where blockchain technology has landed. The emergence of Bitcoin is to solve some stubborn problems of the traditional monetary system. Subsequently, blockchain technology has also continued to land in the fields of cross-border payment and settlement. Currently, blockchain technology is serving a wider range of financial fields, including banking, insurance, equity trading, financial derivatives, and payments. Judging from the 2019 annual reports disclosed by many banks, the "blockchain" technology, a new financial technology that was deployed by

many banks and other financial institutions several years ago, is gradually moving from the "concept verification" stage to the "application results" stage. . The Litechain can break through the problems of complicated credit verification, long process, high cost, and data transmission errors in previous financial transactions through technologies such as trusted data on the chain, distributed data storage, and verifiable data storage.

Data is the core of financial applications, and most financial products revolve around data. Risk and return are the core content of finance, and risk control relies on massive amounts of data. LightChain is a trusted data basic chain, and its reliable data can provide the best risk control support for financial application scenarios. For example, credible uploading of enterprise ERP data, inventory data, cash flow data, logistics data, business flow data, etc., and then credible data calculation and exchange based on the data on the chain, can provide real and effective supply chain finance Risk control services. The immutability, openness and transparency of the data on the chain better guarantee the authenticity and consistency of the input data in the financial risk control model.

4.3. Mobile Social

Social has a strong attraction to users, and it is also a rigid demand of most users, which makes social networks one of the most basic and important applications in the

Internet era. In 2019, global social network users accounted for 83.9% of Internet users, which is a huge group. So far, the blockchain still does not have an application that covers a large-scale mainstream population. Social networking is undoubtedly a good direction for the blockchain to quickly enter the mainstream population. At present, Internet-based social networks have many pain points, such as information fraud, insufficient security, proliferation of low-quality content, and content exporters not getting their due income rights.

The blockchain social application based on LiteChain can better solve some of the pain points of existing Internet-based social networks. Data storage on the chain and asymmetric encryption can ensure the authenticity and security of user information. Trusted data exchange allows users to exchange information at ease and reduces information asymmetry in social interactions. Decentralized social platforms can keep users away from the forced distribution of Internet platforms, return content review rights to users, and improve the quality of the content on the platform. In addition, the introduction of the Token economy can better stimulate the output of high-quality content.

Social applications based on LightChain can also provide users with more convenient and accurate social services through massive amounts of data on the chain. For example, the credit information function in the Wright chain can easily let two strangers know each other's most authentic information. There are currently very rich

personal information data on the Wright chain, which are bound to the G-ID on the chain, such as credit card bills, e-commerce, social security provident funds, student status, age, communications, and so on. This information is stored on the LightChain through trusted data, which guarantees the authenticity and security of these key data. When two strangers meet on social software, A can apply to view B's data. After B agrees, he can use the Data-Key to unlock the data and authorize A to view his personal data. We believe that blockchain technology and the massive data on the Wright chain can well enable social applications and help the rapid implementation of blockchain social applications.

4.4. Entertainment games

The game industry has a huge market scale and is naturally integrated with the blockchain and Token economy. The game industry has maintained rapid growth as a sunrise industry in the past 20 years. There are currently 580 million game users worldwide, including 550 million mobile game users, 260 million web game users, and 160 million mobile game users. The size of the entire market exceeded 350 billion yuan in 2019.

But the current game industry practitioners are also facing numerous difficulties. Game user dividends are attenuated and the game life cycle is short. Except for a few head games, there is little room for improvement in payment rate and ARPU. In addition, the concentration of oligarchs continues to increase, making it difficult for small and medium-sized game manufacturers to survive. The development of the

blockchain has given practitioners in the game industry an opportunity to break through the predicament. On the one hand, the blockchain has formed a globally distributed high-net-worth user group, providing more mining space for game ARPU. On the other hand, the development of the blockchain industry is still in its early stages, and it is a fairer market for new entrants. At the same time, the Token economy can give game participants a stronger sense of incentive and project participation. Blockchain games will be a globalized new market with a high-quality user base, giving new game manufacturers a fair starting point. The millions of high-net-worth users and extremely convenient token issuance and circulation experience of LightChain are the best catalysts for blockchain games.

4.5. Medical health

The medical industry is an important industry related to people's livelihood, and the scale of the industry is huge. Blockchain also has a huge room for play in the medical industry. Blockchain can trace every transaction between drug manufacturers, wholesalers, pharmaceutical companies and patients, verifying and protecting drug information that is important for tracking counterfeit drugs and other issues. In addition, unregulated distribution of some potential drugs can be avoided.

LightChain is committed to solving the problem of efficient and safe circulation of medical data in various fields, and uses Token economy to fully encourage users to upload medical data on the chain. For example, an individual's medical data can be authorized to view by a specific business company, and the individual can be

rewarded with Token. In addition, the project can also solve the problem of medical data isolation encountered when seeking medical treatment overseas. Through blockchain applications, individuals can safely and quickly share medical data with overseas hospitals.

4.6. Food, clothing, housing and transportation

In addition to the above areas, the LightChain ecology will have tens of thousands of applications in the future, serving the needs of consumers around the world. The high-performance, rich on-chain supporting functions and massive amount of trusted data on the Litechain can empower blockchain applications in various fields, including retail, catering, food traceability, short-term rental, long-term rental, property market, and taxi , Car rental, etc. Food, clothing, housing and transportation are implemented around credit, and all use scenarios involving credit can be developed and applied based on the LightChain. Credible data is the cornerstone of a credit society. The process of enriching personal credible data by LightChain is also the process of establishing identity files and building a credit society.

The massive credible data on the Wright chain can provide the cornerstone of credit evaluation for food, clothing, housing and transportation applications. The data of enterprises and institutions is more like a collection, with a large volume but a small overall volume. Personal data is more like the capillaries in the human body, thin and heterogeneous, the individual body is small but the total number is large. The final data must be returned to the individual. These data are taken from the individual and

used for the individual. We believe that with the continuous expansion of personal data dimensions, the value of the C-end market is far greater than the value of the B-end market. These user data, after cleaning and processing, can have a very wide range of use.

5. TOKEN ISSUANCE AND DISTRIBUTION

5. Token Issuance and Distribution

5.1 Token Issuance Plan

Token name: LTCF

Total circulation: 1 billion

Circulation: 100 million

5.2 Token distribution plan

Token will be allocated according to the following scheme:

Proportion	Quantity	Allocation Plan
10%	100 million	Team
10%	100 million	Management
20%	200 million	Fund
20%	200 million	Operation
40%	400 million	Ecology

6. FOUNDATION AND MANAGEMENT

6. Foundation and Management

6.1 Foundation establishment and governance structure

In order to ensure the sustainability of the LightChain project, the effectiveness of management and the safety of the raised funds, the LightChain team will establish the LightChain Foundation.

The LightChain Foundation is a standing management organization organized by the founding team of the LightChain project. As an independent non-profit entity, the Foundation is responsible to the LightChain community and takes the promotion and development of the LightChain ecology as its primary work goal, and promotes the safe and healthy development of the LightChain business ecosystem.

The LightChain Foundation has a decision-making committee, executive director, technical committee, business committee, finance committee, and personnel committee. Major issues are decided by the election of the council, technical committee, market and public relations committee, operation finance and personnel management committee. Committee decision.

Decision Committee (Board of Directors)

The foundation’ s decision-making body has functions including nomination and voting of executive leaders (Secretary-General) and heads of functional committees; making important decisions; and holding emergency meetings. The term of office of the members of the decision-making committee and the secretary-general is three

years. The members of the decision-making committee of the first Lightchain Foundation are selected from the following three parts: core team, partners and consultants with rich industry experience, and community representatives. The 20 community representative candidates calculated by weighting the number of tokens held by the Litechain and the token holding time, the candidates elect their own community representatives based on the principle of difference. Starting from the second session, additional members will be added to the council for each session to enable the community to express opinions smoothly.

Executor

The highest person in charge of the foundation's administrative affairs, conducts unified guidance and coordination on daily operation management, technology development, market expansion, community maintenance, and public relations. The secretary-general is elected by the council and reports to the council regularly.

Technical Committee (TechnicalCommittee)

It is composed of core developers in the LightChain team, responsible for the formulation and decision-making of technology R&D direction, underlying technology development, open port development and review, technology patent development and review, etc. In addition, members of the technical review committee regularly learn about the dynamics and hot spots of the community and the industry, communicate with co-builders in the community, and hold technical exchanges from time to time.

Market and Public Relations Committee (PublicRelationsCommittee)

Ecological development and community construction have always been the core tasks of LightChain. Under the supervision of the Finance Committee, the committee will use the initial funds and the digital asset income obtained from community operations to carry out marketing promotion and business cooperation, and incorporate more potential partners into the business. In the ecological scope, promote the sustainable development of ecology. At the same time, the committee will also be responsible for all external publicity and public relations.

Operational Finance and Personnel Management Committee

Responsible for the use and review of foundation funds, personnel recruitment and salary management, daily operating expenses management, etc. Foundation funds are embodied in the light chain token, which comes from the following aspects: the light chain token allocated to the foundation account in the initial token crowdfunding; the exchange and use of the token should be approved by the board of directors and the financial and personnel management committee Audit and publicly disclose in the periodic report of the foundation.

6.2 Foundation governance structure

The LightChain Foundation and various stakeholders form an association through various contracts based on common goals. It contains operational procedures and rules for daily work and special circumstances, and identifies all stakeholders who have the right to supervise and know in the governance of the corporate foundation.

7. PROJECT TEAM MEMBERS

7. Project Team Members

Founder: Algernon

Algernon graduated from Johns Hopkins University with a master's degree in economics. Algernon is an outstanding leader. He has served in many senior management positions at JPMorgan Chase. The financial derivatives he conceived are sought after by investors, and he vigorously advocates and promotes blockchain solutions. Has more than 20 years of rich experience. The responsibilities of him and his team include sustainable development of the Litechain, ecological construction, derivative products and the formulation of corporate strategic plans. He has achieved recognized outstanding results in dealing with complex operational issues, developing and implementing sustainable improvements in operational costs and supply chain flexibility.

Co-founder: Benedict

Responsible for venture capital and new business investment. Graduated from the University of Michigan School of Law with a JD and a Bachelor of Finance degree from the Goizueta School of Business at Emory University. Before joining LightChain, Benedict was an M&A lawyer for SkaddenArps. At present, he has participated in the design of more than 100 digital currencies and discovered several security vulnerabilities. He is a trusted and well-known member of the digital currency community. And participate in the development of multiple cryptocurrency projects.

Marketing Director: Cleveland

Responsible for cooperation between portfolio companies, subsidiaries, investors and the wider network. With a career in venture capital and non-profit technology advocacy, Cleveland brings valuable experience to teams that use data, research, and community organizations to provide support for emerging technologies. He has in-depth research and unique insights into business operation models. Possess professional financial knowledge and complete project experience.

Technical Director: Aaronwesley

Aaronwesley is a blockchain developer and enthusiast. He began to devote himself to the blockchain industry in 2013 and has participated in the development of multiple cryptocurrency projects. Aaronwesley participated in the development of the Proof-of-concept platform, block explorer, online wallet and one of the largest coin mining pools.

8. RISK WARNING

8. Risk Warning

There are risks in the development, maintenance and operation of the LightChain, many of which are beyond the control of the development team. In addition to the other content described in this white paper, participants are requested to fully understand and agree to accept the following risks:

Market risk

The price of the Litechain is inseparable from the situation of the entire digital currency market. If the overall market is sluggish or there are other uncontrollable factors, it may cause the Litechain itself to have good prospects, but the price is still underestimated for a long time.

Regulatory risk

Since the development of the blockchain is still in its early stage, there are no relevant regulatory documents related to the pre-requisites, transaction requirements, information disclosure requirements, and lock-in requirements in the fundraising process. Moreover, it is still unclear how the current policy will be implemented. These factors may have an uncertain impact on the investment and liquidity of the project. Blockchain technology has become the main target of supervision in major countries in the world. If the regulatory body intervenes or exerts influence, the Litechain may be affected by it. For example, legal restrictions on the use of digital gold coins may be restricted, hindered, or even directly terminated. Development of chain applications.

Competitive risk

At present, there are many projects in the blockchain field and the competition is fierce. There is strong market competition and project operation pressure. And with the development of information technology and mobile Internet, other application platforms emerge in an endless stream and continue to expand, LightChain will face continuous operating pressure and certain market competition risks.

Brain drain risk

LightChain has gathered a group of technical teams and consultants with leading advantages and rich experience in their respective professional fields. Among them, there are many professionals who have been engaged in the blockchain industry for a long time and a core team with rich experience in Internet product development and operation. The stability of the core team and consultant resources are of great significance for the LightChain to maintain its core competitiveness in the industry. In the future development, it is not ruled out that the departure of core personnel, the loss of core personnel or the consultant team, may affect the stable operation of the platform or bring certain adverse effects on future development.

Risk of hacking or theft

Hackers or other organizations or countries have the possibility of interrupting LightChain applications or functions in any way, including but not limited to denial of service attacks, sybil attacks, guerrilla attacks, malware attacks or consistency attacks, etc.

Risk of uninsured loss

Unlike bank accounts or accounts of other financial institutions, assets stored in LightChain accounts are usually not covered by insurance. In any case, there will be no public individuals or organizations that will cover your losses.

Risks related to the core agreement

The light chain is currently developed based on a specific chain. Although the team will select the most secure and stable blockchain as the infrastructure, any failure of the chain, unexpected functional problems or attacks may cause the light chain to fail Unpredictable ways to stop working or lack of functionality.

Systemic risk

A fatal flaw in the software that is overlooked or a risk caused by a large-scale failure of the global network infrastructure. Although some of these risks will be greatly reduced over time, such as fixing loopholes and breaking through computing bottlenecks, other risks are still unpredictable, such as political factors or natural disasters that may cause partial or global Internet disruption.

Unforeseen other risks

Cryptography-based digital gold coins are a brand new technology. In addition to the risks mentioned in this white paper, there are also risks that the founding team has not mentioned or anticipated. In addition, other risks may also appear suddenly or in a combination of multiple risks already mentioned.

9. DISCLAIMER

9. Disclaimer

Article 1

The purpose of this website is to provide professional international-level trading platforms and financial products for digital asset lovers and investors around the world without violating relevant international laws and regulations. It is prohibited to use this website to engage in all illegal transactions such as money laundering, smuggling, commercial bribery, etc. If such incidents are found, this website will freeze the account and immediately report it to the competent authority.

Article 2

When the competent authority presents the corresponding investigation documents and requires this site to cooperate in the investigation of the designated user, or when the user account is sealed, frozen or transferred, the site will assist in providing the corresponding user data in accordance with the requirements of the competent authority , Or perform the corresponding operation. This site does not assume any responsibility for the leakage of user privacy, the inoperability of the account and the losses caused thereby.

Article 3

If users of this website violate the relevant laws of the United States because they violate the provisions of this statement, this site, as the service provider, is obliged to improve the rules and services of the platform, but this website has no motives and

facts for violating the relevant laws of the United States. It does not assume any collateral effects on the actions of users.

Article 4

Anyone who logs on to this website in any way or directly or indirectly uses the services of this website shall be deemed to voluntarily accept the constraints of this website statement.

Article 5

For issues not covered in this statement, refer to the relevant laws and regulations of the United States. When this statement conflicts with the relevant laws and regulations of the United States, the relevant laws and regulations of the United States shall prevail.