LHC

Lightspeed Chain
white paper

Contents

Chapter I

project background

1.1 Scale and current situation of social communication market

As a transformative application in the development of Internet, social network once changed people's communication mode and information transmission channel.With the rise of the mobile Internet, social networks have ushered in New Subversive changes. According to the big data analysis report, in 2011, the number of mobile Internet users in China has reached 430 million, an increase of nearly 50% month on month. In 2012, the number of mobile Internet users is likely to exceed 600 million, exceeding the number of Internet users. Based on the continuous growth of large number of users, the development of mobile social networkingThe momentum is positive.

Compared with the situation that the communication industry was dominated by voice communication 10 years ago, but supplemented by SMS service at most, the current communication industry is changing with each passing day.There is no doubt that this is due to the rapid development of communication technology and the increasing communication demand of people.The biggest driving force for this change comes from the Internet.On the one hand, the data

service demand of the communication terminal urges the communication network to connect to the Internet on one side of the PS core network first, and with the full IP of the communication network, it begins to approach the IP based Internet in terms of transmission, exchange, etc.; on the other hand, the important factor to promote the integration of the communication network and the Internet is that the emergence of smart phones such as iPhone gradually blurs the communication terminal and the InternetThe boundary between network terminals and then the communication network finally integrated into the "big Internet" indicates the direction.

With the rapid development of the Internet, the Internet has a profound impact on all walks of life.The traditional communication industry has been greatly impacted.The simple communication function has been unable to meet the huge social needs of users. The value of the Internet for communication is not that it is generating a lot of new things, but to tap the potential of the communication industry again, and use the thinking of the Internet to upgrade and subvert the traditional communication industry.

Growth rate of total telecommunications (%) / Telecom business revenue growth (%)
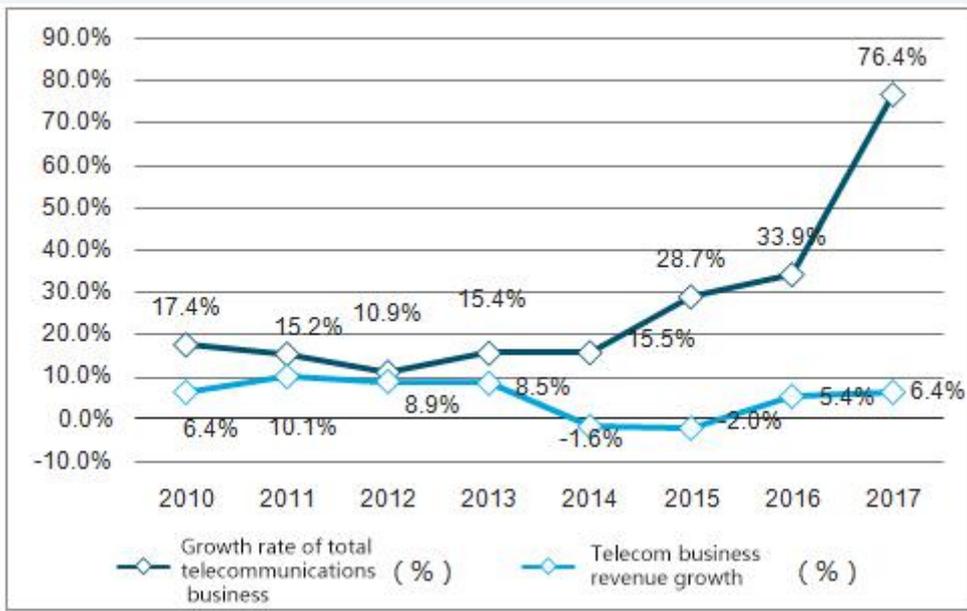
2017 The total volume of telecom business in the year has reached 27557 billion yuan, an increase of 76.4% over the previous year, and the growth rate has increased by 42.5% year on year.As of August 2018, the total amount of telecommunication business reached 3727.5 billion yuan, a year-on-year increase of 139.1%, and the growth rate rose month by month.With the continuous improvement of communication infrastructure, from 3G to 4G to 5g era, the rapid growth of China's mobile Internet traffic, the expansion of 4G mobile phone users, the continuous optimization of user structure, the common application of various mobile Internet social products such as payment, video broadcasting, etc., has driven the explosive growth of data traffic, and the 5g era that is about to enter will set off another oneInternet revolution.The overall target information consumption scale of Internet social communication is expected to reach 6 trillion yuan by 2020, with an average annual growth of 11% or more.

1.2 Future development trend of social communication market

With the improvement of Internet communication infrastructure and the popularization of mobile social products, users have been globalized, younger and diversified.It can be said that the social communication market is a trillion level huge market for global users.

With the arrival of 5g era, in the early stage of 5g business, operators began to carry out large-scale network construction, 5g signal base station construction and equipment investment, and the iteration of mobile electronic equipment will lay the hardware foundation for the further development of social communication. It is estimated that the total income of network equipment and terminal equipment in 2020 will be 450 billion yuan, which will become the main source of 5g direct economic output.In the middle of 5g stage, terminal equipment expenditure and mobile social traffic service expenditure from users and other industries continue to grow. It is estimated that by 2025, the above two expenditures will reach 1.4 trillion yuan and 0.7 trillion yuan, accounting for 64% of the total direct economic output.In the middle and later period of 5g business, the information services and social communication products related to 5g of Internet enterprises will show explosive growth, breaking through the market volume of 5 trillion yuan at one stroke.It is estimated that in 2030, the total income of Internet social communication will reach 10 trillion, and the global user coverage rate will exceed 85%.

1.3 Blockchain technology promotes the development of social communication market

On November 1, 2008, Satoshi Nakamoto published a paper entitled "Bitcoin: A Peer-to-Peer Electronic Cash System" on the cryptography mailing list of the "metzdowd.com" website. The paper describes in detail how to create a decentralized electronic trading system, and this system does not need to be built on the basis of mutual trust between the parties to the transaction. Soon, on January 3, 2009, he developed the first client program that implemented the Bitcoin algorithm and conducted the first "mining" (mining), obtaining the first batch of 50 Bitcoins. This also marks the official birth of blockchain technology. The core technology of blockchain includes asymmetric encryption technology, point-to-point transmission technology, and hash cash algorithm mechanism. The so-called symmetric encryption technology corresponding to the asymmetric encryption technology refers to the private key encryption technology, which refers to the encryption algorithm that uses the same key for encryption and decryption. Sometimes called the traditional cryptographic algorithm, it means that the encryption key can be deduced from the decryption key, and the decryption key can also be deduced from the encryption key. In most symmetric algorithms, the encryption key and the decryption key are the same, so this encryption algorithm is also a secret key algorithm or a single key algorithm. It

requires the sender and receiver to agree on a key before secure communication. The security of the symmetric algorithm depends on the key. The leakage of the key assumes that anyone can decrypt the messages they send or receive, so the confidentiality of the key plays a vital role in the security of the communication.

For example: Suppose Agent A sends Agent B such a secret letter "Tomorrow according to plan B to perform the task." Because symmetric encryption uses the same password, they must communicate in advance what the password is. But this will cause problems. Since encryption and decryption are the same string of passwords, what should Agent A and Agent B be monitored during the transmission of the password? What if the password is leaked? Then, asymmetric encryption technology came into being. The birth of blockchain technology can be considered to have greatly promoted the development of the social communication market.

1.4 Analysis of the pain points in the current social communication market

In 1976, American scholars Whitfield Diffie and Martin Hellman published the "New Direction in Cryptography" paper. In order to solve the problem of public information transmission and key management, a new key exchange protocol was proposed to allow communication on insecure media. The two

parties exchange information and securely agree on a key. This is the "public key system" and has created a new direction for cryptography research.

The biggest difference between asymmetric encryption technology and symmetric encryption technology is that there is a public key and a private key. Asymmetric encryption algorithm requires two keys: public key (publickey) and private key (privatekey). The public key and the private key are a pair. If the public key is used to encrypt the data, only the corresponding private key can be used to decrypt; if the private key is used to encrypt the data, then only the corresponding public key can be used. Decrypt. The public key is public and the private key is confidential.

Since the transmission of private keys is not involved, the entire transmission process becomes much safer. Later, an asymmetric RSA encryption algorithm with commercial practicality and later elliptic curve encryption algorithm (ECC) appeared, which laid the foundation of the encryption algorithm theory, but the NSA originally believed that these technologies posed a threat to national security. Therefore, these technologies were closely monitored. It was known that the NSA only gave up monitoring these technologies in the late 1990s, and these asymmetric technologies finally entered the public's vision.

In September 2013, the Snowden incident told everyone that the NSA secretly controlled the international encryption standard and secretly monitored everyone ... Fortunately, Satoshi Nakamoto did not trust the encryption technology published by the NSA, so it was not the NSA standard but the A

little-known curve, only a handful of programs in the world have escaped this loophole, and Bitcoin is one of the very few programs.

In 2017, the global malware volume increased by 11 times, the number of vulnerabilities increased by 31%, the 0Day vulnerability increased by 98%, the ransomware increased by 32%, the number of IoT botnet reaper nodes increased by 53 times in 4 days, and cybercrime estimates Nearly 60 billion US dollars. With the growth and improvement of the penetration rate of the Internet and mobile communications, the hidden dangers of communication security are becoming more and more serious. As a social communication industry that exports a large amount of important information, how to protect the security of user information has become a major pain point.

Chapter II
design concept of Lightspeed chain

2.1 overview of Lightspeed chain

Lightspeed chain (LHC for short). Lightspeed chain is a blockchain project based on big data communication and social networking, and also a cryptocurrency project.Based on the use of blockchain distributed infrastructure, the optical speed chain constructed a communication social platform based on

Internet data security encryption, providing secure, anonymous and unique key verifiable communication social services, and developed a social privacy security encryption gateway based on the intelligent contract of the optical speed chain.It is a cryptocurrency based on powb consensus. It was born in April 2020, with a total of 1 billion.Lightspeed chain big data communication and social networking aims to create a complete encrypted communication ecosystem integrating video, communication and social networking.

2.2 Lightspeed chain to build a secure social communication ecosystem in the future

Compared with the user privacy leakage, information theft and malicious attacks in symmetric encryption technology in the traditional social communication market, Lightspeed Chain intends to use the new generation of blockchain technology to solve the above pain points from the root cause. To achieve a truly decentralized peer-to-peer technology in the Bitcoin network, that is, a technology that can transmit information between individuals without a central server. The important goal of the P2P network is to allow all clients to provide resources, including broadband, storage space and Calculate ability.

Combined with the hash cash mechanism (that is, the Bitcoin issuance mechanism) transformed by Satoshi Nakamoto, let users contribute hash power to perform hash operations in return. The bitcoin network will give bitcoin to the first miner who dug out the block, which is bitcoin. Coin mining mechanism to prevent denial of service attacks and anti-spam.

At the same time, the second-generation blockchain technology is based on the first three stages of Ethereum's POW consensus mechanism, namely Frontier, Homestead, Metropolis, and Serenity, combined with the original community of Lightspeed Chain. Consensus mechanism, this mechanism is relative to the evaporation mechanism of Ethereum's POS (Casper Betting Consensus), and the selection of validators from several nodes based on the idea of POS increases the community's overall ecological consensus value verification, that is, Ethereum's On the basis, the overall ecological rules of Lightspeed Chain have been added.

Compared to a single decentralized peer-to-peer, hash algorithm, POW consensus mechanism and POS mechanism, Lightspeed Chain adds the community's overall ecological consensus value to it for the first time. Lightspeed Chain believes that all values of social communication security are based on individual values. Only the combination of the community ecological consensus value mechanism and the POW consensus mechanism can build a safe ecology for future social communications.

2.3 Lightspeed chain guarantees the privacy of social communication users

We must have received a lot of spam in our daily life, such as various advertisements and various scam messages spread through social communication networks ... In fact, the spammer is essentially For those who send messages to many people at the same time, how to avoid the mail not being occupied by spam? The answer is to make those who make spam pay the corresponding price! The sender needs to pay a certain amount of work, such as hashing Seconds are nothing for ordinary users, but for spammers to spend a few seconds on each message, there is no way to afford such a cost. At the same time, each operation will be stamped with a unique time stamp, so as to ensure that the sender of the email cannot reuse an operation result.

The creation of Lightspeed Chain is to build a social communication ecological network with blockchain technology as the underlying architecture. In this ecosystem, there is no centralized operator involved, and all social communication information will be based on the Internet and communication base Asymmetric encryption technology spreads, and some people may think that this will increase the cost of communication social time, but it is not. The overall ecological consensus value of Lightspeed Chain's community will give ecological miners a very tempting reward, ensuring the timeliness of social communication and ensuring its security.

2.4 Lightspeed chain ecological role: building the basic ecosystem of social communication encryption

Lightspeed Chain aims to build a complete social communication encryption basic ecosystem. In this system, we cover all aspects of communication, social networking, video, gateway encryption, etc., rather than the landing of a single functional blockchain product. Relative to the reinforcement of a gateway of a single functional blockchain product and a single key technology, Lightspeed Chain expects to create an open source, comprehensive encryption gateway from the underlying technology of communication and social communication, only through the consensus of the entire ecological community The recognition of the value mechanism can solve the original pain points in the entire social communication market from the root.

2.5 Lightspeed Chain ecological development: community collaborative autonomy under the encryption ecosystem

Lightspeed Chain implements a completely decentralized operation and management. Adopt a blockchain technology framework to build a decentralized new social communication ecosystem service system. Use the equivalence of

rights and obligations of each node of the blockchain to ensure that all participants of the platform have the same rights and obligations, and can highlight individual value based on the difference in personal contribution value, and ensure the fairness and transparency of the platform to the greatest extent; community The core of self-government is decentralization, adopting community self-government and full participation management, which is to transfer community power to the public and fundamentally solve the security and credit problems in the current social communication market. Therefore, Lightspeed Chain establishes an autonomous management community based on a multi-signature mechanism based on smart contracts.

Autonomy is to achieve mastership in the region, thereby managing the internal affairs of the community, which can minimize the waste of management resources, promote the progress and development of the community, and is conducive to community unity. Lightspeed Chain based on blockchain technology uses the core consensus mechanism and incentive mechanism of the blockchain to provide community order and security maintenance based on the communication social ecology, encouraging users to diversify themselves through the communication social ecology of Lightspeed Chain , The use of multiple forms and secure social communication functions. Let the blockchain technology be combined with the community-made consensus mechanism, and use the blockchain communication social technology to better expand the global communication security channel.

Chapter III

Lightspeed chain solution

3.1 Overview of Lightspeed chain product system

Through the combination of advanced blockchain technology and community ecological consensus mechanism, Lightspeed chain has built a traffic information ecology of the leading industry.It not only establishes a more complete and stable social communication system, but also provides a foundation for the diversified development of social communication industry products.At the same time, Lightspeed chain takes building a decentralized and secure social communication network as its core, breaks the intrusion of social communication network operators and rogue software, steals user privacy, and encrypts multiple social communication gateways, making great contributions to communication security, payment, asset transaction, and social communication.Lightspeed chain integrates its three business sectors, social, communication, video and ecology. In the

future, Lightspeed chain will extend its application scenarios based on the existing social communication market to provide more high-quality products and innovative services.

The product system ecosystem of Lightspeed Chain includes:

✓ Lightspeed chain user encryption authentication system

✓ Lightspeed chain payment and transaction system

✓ Lightspeed chain ecological credit evaluation system

✓ Lightspeed chain decentralized social e-commerce platform

✓ Lightspeed chain private encrypted communication gateway customization service

3.2 User encrypted identity based on blockchain technology

Compared with the traditional communication operator's mandatory verification of personal identity, Lightspeed Chain is based on the blockchain's asymmetric encryption technology, which greatly protects the security of user information, and the user's identity is no longer data that can be collected everywhere. Lightspeed Chain depends on the complexity of the algorithm and the security of the user's identity depends on the algorithm and the key. However, due to the complexity of the algorithm, the encryption and decryption speed is not as fast as the

symmetric encryption and decryption. There is only one kind of key in the symmetric cryptosystem, and it is non-public. If you want to decrypt it, you need to let the other party know the key. Therefore, to ensure its security is to ensure the security of the key. The asymmetric key system has two types of keys, one of which is public, so that it is not necessary to transmit the other party's key like a symmetric password. This way the security is much greater.

3.3 Lightspeed Chain payment and transaction system

In the closed-loop ecosystem of Lightspeed Chain, the payment and transaction system is a heavy-weight ecological organic component. Lightspeed Chain fundamentally breaks the existing global payment and transaction model by creating an independent encrypted identity and social communication network, drawing on the huge system of payment and transaction of WeChat, Alipay and other mobile social products. influences. On the basis of the blockchain-based communication social ecology, Lightspeed Chain applies the identification in the ecology to the payment transaction system, associates payment and transaction systems with specific application products such as ecological video, communication, and social networking, and will also reach a consensus mechanism with the community in the future Expand to Lightspeed Chain physical cooperative merchants.

3.4 Lightspeed chain ecological credit system

In the ecosystem of Lightspeed chain, in addition to the basic encrypted identity, payment and transaction system, the whole ecosystem together constitutes the ecological credit system of Lightspeed chain.The goal of Lightspeed chain is to build a chain ecological credit system for Lightspeed chain ecological members based on encrypted identity and community consensus mechanism.With the development of the Lightspeed chain community ecosystem and the landing of social communication application scenarios, the entity merchants have joined the Lightspeed chain social ecosystem, and the ecological users can obtain a series of services by virtue of the credit system.Compared with most countries and regions in the world to obtain user credit certificates through the banking system, Lightspeed chain comprehensively weighted and averaged the user's credit life in the whole ecosystem. Users will not affect the comprehensive credit due to one or two low-frequency defaults, but also can increase the credit value through community ecological contribution.

3.5 Lightspeed chain decentralized social e-commerce platform

Compared with the traditional centralized e-commerce platform, Lightspeed chain is based on the community consensus mechanism. Each ecological member can become a merchant and a buyer.Ecological users can obtain or share commodity information through multiple dimensions such as social communication products and video products of Lightspeed chain. Based on the ecological credit system and payment transaction system of Lightspeed chain, combined with basic encrypted identity identification, they can easily purchase their intended commodities.For Lightspeed chain, the decentralized social e-commerce platform is just one of the priority landing scenarios of its business application scenarios.

3.6 Lightspeed chain private encrypted communication service

With the development of Internet and communication industry, leaders or large entrepreneurs and scientific research teams in various countries and regions all over the world pay special attention to the security of some important information.As an important bridge to communicate with the outside world, the communication service has been exposed in more than one eavesdropping scandal, based on this.Lightspeed chain's encryption gateway technology and encryption anonymous identity can provide private personal encryption communication services

for these special needs. Lightspeed chain's optical speed chain is used as the encryption bridge to expand the decentralized technology and provide private security exclusive encryption communication services.

Chapter IV

Lightspeed chain community plan

4.1 Market distribution mode of Lightspeed chain

Lightspeed chain, the token is LHC for short.It is a blockchain project based on big data communication and social networking, and also a cryptocurrency project.Based on the use of blockchain distributed infrastructure, the optical speed chain constructed a communication social platform based on Internet data security encryption, providing secure, anonymous and unique key verifiable communication social services, and developed a social privacy security encryption gateway based on the intelligent contract of the optical speed chain.The total number of Lightspeed chain is 1 billion, and its distribution plan is as follows: behavior mining 70%, community reward 13%, technical team 7%, operation distribution 7%, and strategic reserve 3%.

entry name	Lightspeed Chain(LHC)
Total LHC	1 billion pieces
Behavior mining	700 million pieces
Community Award	130 million pieces
Technical team	70 million pieces
Operational allocation	70 million pieces
Strategic reserve	30 million pieces

Behavior mining refers to that users automatically become ecological nodes after holding LHC, and can obtain a certain amount of LHC rewards through behavior mining and sharing.

Community reward: reward those who contribute to the social communication ecology of LHC during the operation of LHC project. Community reward has no lock-in regular token.

The technical team, who makes technical contributions to the sound development of LHC ecology in the initial stage and development process of LHC, will release all rewards on January 1, 2021.

Operation allocation: reward those who have made special contributions to LHC's marketing and operation, and release all rewards on January 1, 2021.

The strategic reserve, LHC strategic reserve, will be released on January 1, 2021.

4.2 Lightspeed chain community ecological model

The Lightspeed chain takes the community ecological consensus mechanism as the confirmation mechanism, and the community ecological model abides by the principles of ecological autonomy, ecological sharing and bonus.Ecological autonomy refers to that within the social communication ecosystem of Lightspeed chain, every ecological user enjoys the voting right, dividend right and reward right in the community. Lightspeed chain is committed to building a fair, just and autonomous community ecology; incentive dividend refers to that ecological users can share according to the community, while enjoying static and dynamic benefitsThe mining proportion of chain community is up to 70%. According to the community contribution, users can get different proportion of bonus rewards according to the community tasks completed, so as to truly realize the autonomous sharing of the community.

Chapter V

core resources and advantages of Lightspeed chain

5.1 strong background of Lightspeed chain distribution body

The Lightspeed chain is led by Barings and alliance Bernstein, and then followed by BlackRock and regional consensus laboratory.With strong capital strength, Lightspeed chain has supported the construction of a complete Lightspeed chain social communication ecosystem, laying a solid foundation for the sustainable and stable development of Lightspeed chain ecosystem.

Barings is one of the global investment giants, established in 1762, with a long history. It is the main investment management company in British history.LianBo asset management company, headquartered in New York, is the largest publicly listed asset management company in the United States.Her huge investment capacity includes growth stocks, value stocks and fixed income investments. In addition to serving retail customers all over the world, she also meets the professional asset management needs of enterprises, government agencies, central banks, etc. all over the world.BlackRock, founded in 1988, is the largest fund company in the world.Lightspeed chain, as a blockchain project led by traditional and old-fashioned investment institutions, has won the favor of many investment institutions with its extensive business application scenarios,.

5.2 introduction to core advantages of Lightspeed chain

At the early stage of its establishment, Lightspeed chain was recognized by a large number of old investment institutions with strong capital strength. At the same time, the Lightspeed chain team is composed of outstanding blockchain, social and communication industry elite teams from London, New York, Taiwan, Hong Kong and other parts of the world.Team members include professionals who have worked in Facebook, Tencent, Alibaba and Goldman Sachs (Hong Kong) for many years, and have made important contributions to the global sustainable development of Lightspeed chainChain has made a strategic market layout for the whole world. It is planned to build an encrypted communication social network covering 33 countries and regions by 2022, and use blockchain social communication technology to solve the industry pain points of traditional social communication technology, such as security attack, information disclosure, payment information theft, etc.In the future, Lightspeed chain will actively develop more diversified and specialized social communication products based on its own public chain encryption gateway.