

SSIRIUS

SSIRIUS Exchange

Whitepaper

A futuristic digital landscape with a laptop, data stacks, and binary code. The scene is set against a dark blue background with a grid of glowing dots. In the center, a laptop is open, displaying binary code on its screen. Surrounding the laptop are several stacks of glowing, multi-layered blocks, resembling data or server components. The ground is covered in a pattern of binary code (0s and 1s) and glowing lines, creating a sense of depth and digital connectivity.

SSIRIUS Global Community • 2024

Preface

In 2008, Satoshi Nakamoto first published a peer-to-peer cash system and its underlying protocol, Bitcoin: The White Paper, "Bitcoin: Electronic Cash in a Peer-to-Peer Network." This digital currency, called Bitcoin, can build a bridge of trust between the two parties to the transaction through intelligent code, without the certification of third-party intermediaries, so as to ensure the completion of the transaction behavior. After more than ten years of development, the blockchain technology behind Bitcoin has gradually become known to more people and continues to develop and innovate on its basis.

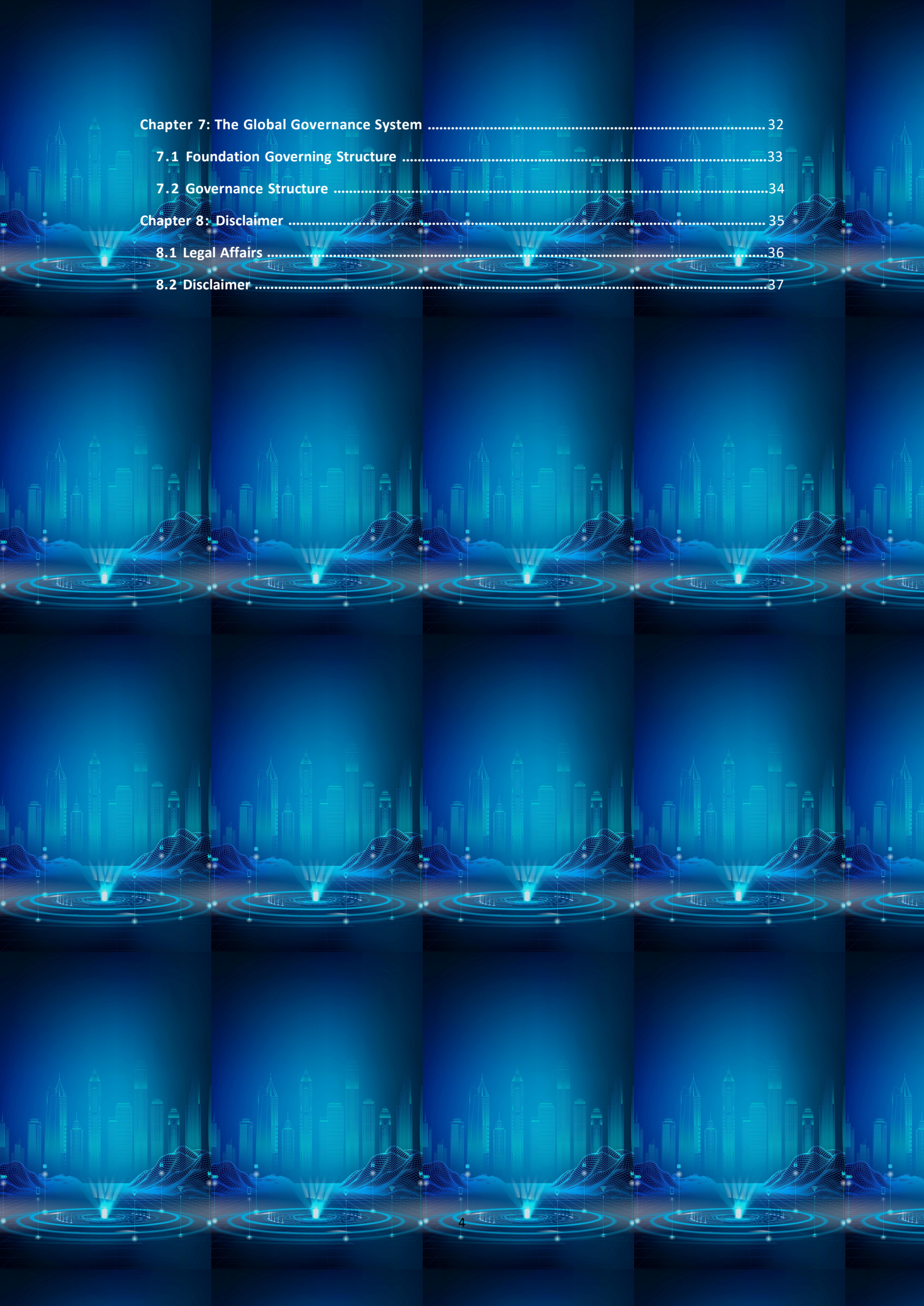
Blockchain plays a role in trust just as the Internet plays in information. The most lacking element of the Internet is the "credit agreement" to make sure that every transaction is approved and real and valid, and blockchain technology can provide the basis for solving this problem, optimizing the way people deal with trust, security and privacy issues. Thus, based on its ability to improve transparency and protect privacy, blockchain connects the deepest human need for "trust, pointing a way forward toward a fairer, more efficient, and more accessible global financial system."

The emergence of digital currencies, represented by Bitcoin and Ethereum is shaking the traditional monetary system and financial system with a burning trend. Although blockchain technology is still in the early stages of development, its more transparent and open concepts and mechanisms have shown great vitality. This will drive future changes in corporate and regulatory governance structures. We think the direction of this change is that companies evolve towards communities and regulation moves closer to technology. The digital asset trading platform itself

has the ability and responsibility to lead this change. Based on this, SSIRIUS Exchange issued SSIRIUS platform coins on the basis of fully absorbing the advantages of EOS, redefining traditional concepts such as assets, currencies, investments and transactions. At the same time, users can realize the transmission and exchange of high trust in a set of centralized and decentralized fusion mechanisms built through SSIRIUS through the ecosystem established by SSIRIUS Exchange.

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Chapter 1: Blockchain and Cryptocurrencies

1.1 Overview of Blockchain Technology

Blockchain is a new application mode of computer technology such as distributed data storage, peer-to-peer transmission, consensus mechanism, and encryption algorithm. The so-called consensus mechanism is a mathematical algorithm that implements the establishment of trust and equity between different nodes in the blockchain system. Blockchain is the underlying technology of Bitcoin, like a database ledger that records all transactions. This technology has also gradually attracted the attention of the financial industry and various fields because of its safe and convenient characteristics.

The emergence and development of blockchain technology is inseparable from Bitcoin. First of all, because with the birth of Bitcoin, blockchain technology has been released to the public, after several years of development, people have found that the blockchain technology behind Bitcoin has great potential and can be widely used in various industries and industries. In order to make better use of blockchain technology, a number of application platforms represented by Ethereum have emerged, which encapsulate the underlying protocols, build infrastructure, and provide developers with a friendlier and more flexible interface, so that developers can focus on business logic, which greatly improves development efficiency.

- **Decentralized:** The left describes the centralized characteristics of today's financial system, and the right describes the decentralization of the financial system that is forming, which has no intermediaries, the rights and obligations of all nodes are equal, and the cessation of any node will not affect the operation of the system as a whole.

- **Trustless:** All nodes in the system can trade without trust, because the operation of the database and the entire system is open and transparent, and nodes cannot deceive each other under the rules and time frame of the system.

- **Collectively Maintain:** The system is maintained by all the nodes with maintenance functions, and all the people in the system participate in the maintenance work.

- **Reliable Database:** Each node in the system has the latest full copy of the database, and modifying the database of a single node is invalid because the system automatically compares and considers the most frequent occurrence of the same data record to be true.

At present, the most widely and successful application of blockchain technology is the cryptocurrency represented by Bitcoin. Cryptocurrencies have developed rapidly in recent years, due to the characteristics of decentralized credit and frequent transactions, which make them have a high transaction circulation value and can be used as super-sovereignty by developing hedging financial derivatives of currencies (decentralized not issued by the state) maintain relatively stable

prices. Since the birth of Bitcoin, hundreds of cryptocurrencies have emerged, forming a relatively large industrial chain ecology around cryptocurrency generation, storage and transaction. Taking Bitcoin as an example, the participating institutions can be mainly divided into four categories: infrastructure, trading platform, financing services, and blockchain integrated services.

1.2 Cryptocurrencies

From an economic point of view, digital assets are variable assets owned or controlled by enterprises, existing in the form of data, produced, operated or held for sale in daily activities. The application of digital assets ultimately plays a role in the "international Internet of Things, trade settlement, settlement and settlement problems." The reason why digital assets have attracted the attention of many fields around the world is because it is creating a global fast circulation, and the larger the circulation field, the wider the scope, and the higher its use value. Therefore, the issuance of digital assets must be issued in a global field.

In 2008, the birth of Bitcoin opened the door to the era of blockchain and encrypted digital assets. Due to the subversive design of "decentralization", in the past ten years, blockchain technology has been on the cusp of the times and has been elevated to a strategic height by countries around the world, and has made good progress in the commercial landing of finance, trade, credit, traceability, games, investment and other fields.

According to statistics, the number of investors in crypto digital assets is conservatively estimated to exceed 300 million. Although crypto digital assets have achieved phased development, looking at the global economy and traditional financial markets, there is still a huge market space for crypto digital assets in the future.

The trend of asset digitization has been formed, and the demand for Internet of Things, big data, artificial intelligence and asset security will drive the digitization of assets, and all assets will be digitized in the future, and rights and use can be confirmed and used in the network. The gradual maturity of blockchain technology and cryptocurrencies have inspired national economic systems, there are currently many countries issuing national cryptocurrencies, the International Monetary Fund believes that central banks should consider issuing cryptocurrencies, and the United States, China, and the European Central Bank do maintain close attention and active research on cryptocurrencies. At present, the investor penetration rate of crypto digital assets is still extremely low, and compared with investments in stocks, real estate, gold and other investments, crypto digital assets have more investment value under the trend of asset digitization.

1.3 Cryptocurrency Market Size

According to CoinMarketCap, as of 2021, there are more than 11,000 types of crypto digital assets worldwide, with assets exceeding trillions of dollars. Compared with April 2013, the total size of crypto digital assets is only \$1.5 billion, and in the past few years, the market value of crypto

digital assets has grown hundreds of times. At present, there are more than 16,000 digital currency exchanges around the world, and the number of investors in encrypted digital assets is conservatively estimated to exceed 300 million.

The era of digital economy is fairer, more transparent, more open, it is not only a change in technology, but also a change in thinking - altruistic thought. The era of digital economy will be more wonderful, not because the relationship between people and machines has changed, but because people's thinking has changed, the relationship between people has changed; in the era of digital economy, you have me, I have you, digital economy ideas let everyone connect together, achieve each other, strengthen each other, in the past 20% of people benefited, the future is 80% of people benefit. In the era of the digital economy, cryptocurrencies will play an even more important role.

1) Can reduce the risk of trust in funds

Blockchain technology has the characteristics of open source and transparency, the participants of the system can know the operating rules of the system, verify the authenticity and integrity of the book content and the history of the book structure, and ensure that the transaction history is reliable and has not been tampered with, which is equivalent to improving the accountability of the system and reducing the trust risk of the system. For example, blockchain can circumvent the current frequent explosions of thunder, running away and other events.

2) It can improve the efficiency of fund payment, transaction and settlement

On the blockchain, the process by which a transaction is confirmed is the process of liquidation, settlement, and auditing. Blockchain uses distributed accounting, and all transactions are displayed in real time on a spreadsheet platform similar to global sharing, with real-time clearing and greatly improved efficiency. Blockchain, on the other hand, can increase efficiency to the minute level, which can reduce the settlement risk by 99%, thereby effectively reducing the cost of funds and systemic risk.

3) Can effectively prevent failures and attacks

Traditional financial models center on financial institutions such as exchanges or banks, once the center fails or is attacked, it may lead to the overall network paralysis and the suspension of transactions. Blockchain has many distributed nodes and computer servers on a peer-to-peer network, and any part of the problem will not affect the overall operation, and each node keeps a copy of the blockchain data. Therefore, the block chain has built-in business continuity, which has high reliability and fault tolerance.

4) Can improve the level of automation

Since all files or cryptocurrency assets can be represented in the form of code or ledgers, smart contracts and automated transactions may be implemented on the blockchain by setting up

data processing procedures on the blockchain. For example, a smart contract can write a set of financial contract terms into the agreement to ensure the automatic execution of the contract and the payment of default.

1.4 Cryptocurrency Exchange Market

In the entire cryptocurrency market ecology, as one of the most important circulation links, the exchange platform has an irreplaceable and important position. The most important role of the exchange is to export the value of the project's cryptocurrency to all investors, tightly connecting them to each other. With the development of cryptocurrencies, digital asset exchanges are also increasing.

From the perspective of functional classification, cryptocurrency exchanges are mainly divided into two types: centralized exchanges (fiat exchanges, coin exchanges, futures exchanges) and decentralized exchanges.

When more and more people are invested in the wave of blockchain and digital assets, both in development and assets, they expect to get the harvest and value they want. The existence of digital asset exchanges is for the safe circulation and exchange of digital assets and the existence of value preservation and appreciation.

At present, the vast majority of cryptocurrency exchanges in the market are centralized exchanges, which can be divided into legal tender exchanges, coin exchanges, futures exchanges, etc. Decentralized exchanges are exchanges that are generated in response to the many drawbacks of centralized exchanges and the practice of blockchain decentralized consensus, and decentralized exchanges are the main trend of cryptocurrency trading and investment in the future.

SSIRIUS Exchange adheres to the original intention of solving the pain points of existing exchange problems, builds an international station for the circulation of encrypted assets with centralized and decentralized integration and development, and drives a more stable, efficient, secure and reliable blockchain trading system. SSIRIUS Exchange through the innovative underlying protocol, the construction of exchanges in the exchange, with the global chain, UnionPay-like model, to achieve cross-exchange transactions, will obtain a larger user base, higher income and more anti-risk capabilities, but also let the global enterprise chain reform usher in a new dawn.

Chapter 2: Overview of the SSIRIUS Project

2.1 SSIRIUS Exchange

SSIRIUS Exchange is the world's leading autonomous digital asset trading platform, committed to creating an autonomous, efficient and transparent digital asset trading environment, so that traders and investors can confidently conduct transactions of any size without worrying about the fairness and transparency of the platform, the reliability of data security and privacy protection, or the integrity and robustness of its order management system. The SSIRIUS community is an open and transparent, tokenized organization, and the SSIRIUS represents all the rights and interests of the trading platform.

SSIRIUS Exchange's mission is to create a fair and ideal environment for investors to invest, trade and manage digital assets. Therefore, the goal of the platform design is to fully guarantee the fairness and transparency of the order. And meet the needs of regulatory compliance such as security, auditing, reporting, and analysis in the safest and most efficient way.

1) Open and transparent

SSIRIUS Exchange will be a real-time open and transparent trading community. Traditional types of exchanges are unable to be transparent about assets, and the main reason is that they are constrained by technology. The birth of blockchain technology makes this goal technically feasible. SSIRIUS Exchange's mission is to translate this feasibility into real practice. SSIRIUS Exchange will establish a real-time asset and transaction data inquiry verification mechanism and make it public.

2) Community-based autonomous organizations

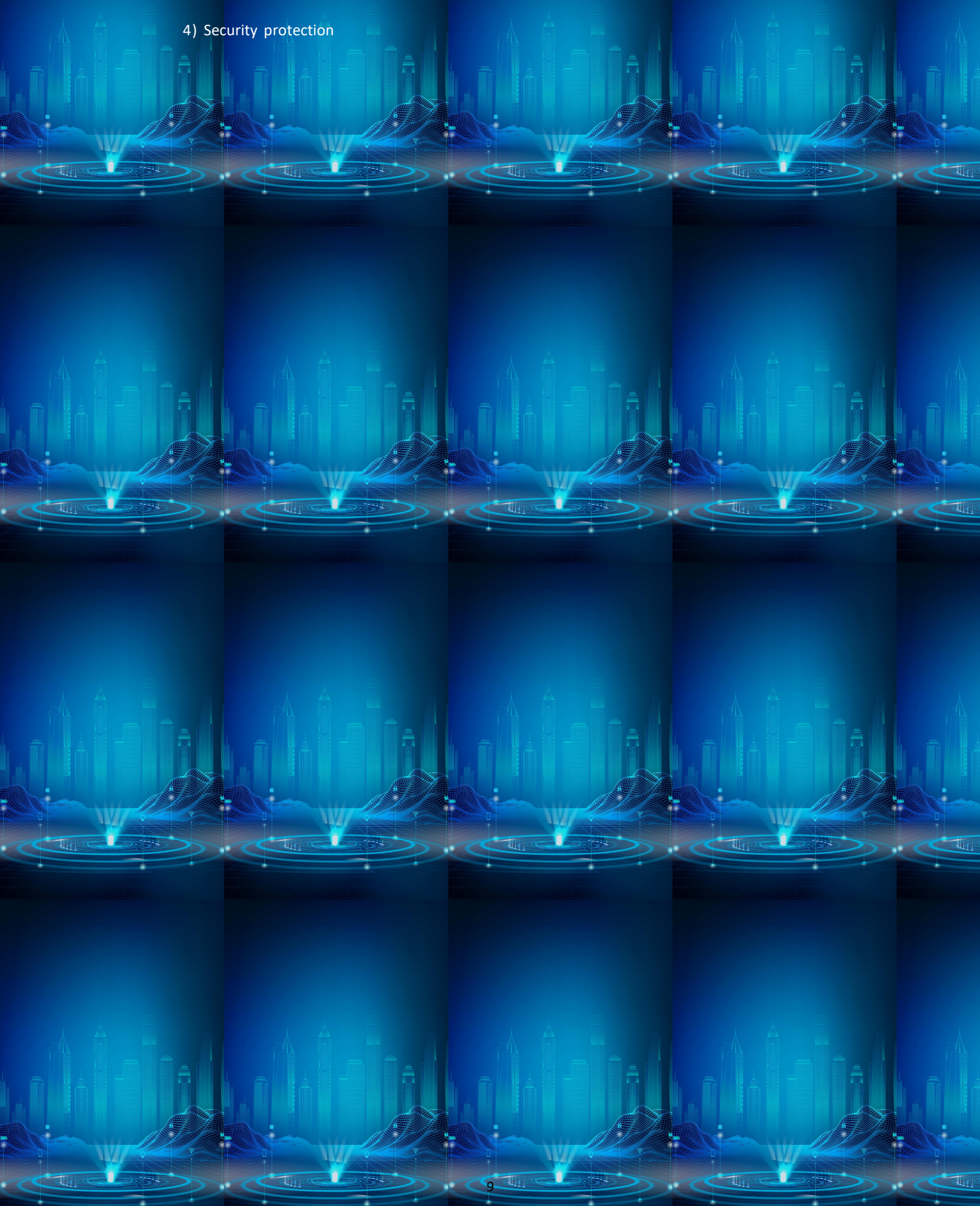
SSIRIUS Exchange does not use a traditional centralized corporate structure and does not have a CEO or board of directors. Relying on blockchain technology and token economy concepts, SSIRIUS Exchange will be the world's first autonomous community-based trading platform. SSIRIUS rewards 5% of SSIRIUS to the community through the "trade is mining" model. At the same time, SSIRIUS Exchange distributes 80% of the revenue to the holders of the SSIRIUS, and all SSIRIUS holders vote to complete community governance through smart contracts.

3) Financial grade trading system

SSIRIUS Exchange's trading system can achieve financial level of fast and stable, making transactions efficient and secure. The exchange provides securities-grade algorithms to provide

professional quantitative support for traders, and the matchmaking draws on the relevant experience of LMAX Exchange, which can process 2 million transactions per second.

4) Security protection



For digital asset trading, security is a top priority. SSIRIUS Exchange uses a security design based on multi-signature, offline signature, hierarchical architecture and other security, storing 95% of digital assets in a cold wallet. Unbiased zero-knowledge order encryption is done through keys provided by CertEurope6's PKI-on-blockchain service. We will conduct regular external audits.

2.2 SSIRIUS Platform Coin

SSIRIUS is the platform coin of SSIRIUS Exchange, built based on the EOS base protocol, and belongs to the encrypted digital assets issued by non-central banks/credit institutions/electronic money institutions. The blockchain solves the problem of decentralization and trustlessness, transmitted through cryptographic algorithms, making digital currency a means of payment based on virtual or specific environment circulation and application, therefore, SSIRIUS is committed to creating a more fair, just, democratic and free value circulation ecosystem, driving the advent of the token economy era.

SSIRIUS Exchange technical team in Singapore for 6 months of closed development cycle, through continuous stress testing, high concurrency testing, underlying security architecture, anti-anti-deployment, 100% asset reserve proof, ingenious construction of Merkle Tree, user website barrier-free query of asset data, decentralized wallet hosting, fully ensure the openness and security of user assets. The most reliable low-latency trading system in the industry, the order matching delay can reach an average of 0.00009 seconds, the multi-signature mechanism ensures the rights and interests of customers' funds, and the top technical team protects the normal operation of the platform for 24 hours.

2.3 Technical Advantages of the Exchange

SSIRIUS Exchange has made significant improvements to all levels of the blockchain in infrastructure, making groundbreaking innovations at some levels, especially in anonymity.

Key SSIRIUS Exchange technology innovations include:

- At the level of node communication in the underlying P2P network, combined with the advantages of the existing Tor-based anonymous communication network and blockchain-based distributed VPN, the original anonymous P2P communication network is realized, the method of anonymous access of nodes is designed, and the communication protocol of private encryption is realized, which greatly enhances the anonymity of nodes in the underlying communication network and ensures that inter-node communication is difficult to track and crack.
- At the level of the underlying data structure, a new type of data structure is adopted, which greatly reduces the storage space required by the node and improves the efficiency and security of the underlying data storage.

- At the level of distributed consensus mechanism, a secure and efficient transaction-based DPoS transaction group consensus is designed, which has the characteristics of high concurrency and fast transaction confirmation speed, which can quickly build an ecosystem for different application scenarios.

- At the level of anonymous transactions, combined with the characteristics of traditional encrypted virtual currencies, through zero-knowledge proof and ring signature, the transaction anonymity and privacy protection methods with high efficiency ratio and excellent security are designed to meet the privacy protection needs of different application scenarios.

- At the smart contract level, by implementing advanced Turing-complete smart contracts, the advantage is that it better supports off-chain data access, supports the issuance of third-party assets, and can be implemented into practical application scenarios in the form of public chains, alliance chains, and private chains.

- At the level of cross-chain communication and multi-chain fusion, the cross-chain communication and multi-chain fusion function modules are implemented as a single-layer Overlay using relay chain technology to maintain the independence of cross-chain operation and various functions.

- At the level of ecological incentives, the use of SSIRIUS Token allocation means and methods to support innovative mining for ecological incentives.

- At the industry application level, it covers decentralized finance, asset management and trading, pledge lending, liquidity mining, games, e-commerce, payment and other application levels.

2.4 Platform Development Prospects

The SSIRIUS project is not a public chain in the early stage, and the independent public chain mentioned above will be built synchronously with the development of the project. SSIRIUS tokens are issued on EOS in the early stage, and the public chain created by SSIRIUS Exchange in the later stage will systematically support them. In the future, under the support of the SSIRIUS Exchange public chain, SSIRIUS will be used as a SSIRIUS Exchange asset, access to the global ecological application, and b

undled with the exchange value. The income and profit of SSIRIUS Exchange mainly come from the transaction fees, withdrawal fees, asset launch fees, leverage fees, and other income obtained through the output of various types of its own resources when trading. In the future, under the collaborative application of the underlying SSIRIUS public chain application, SSIRIUS Exchange and SSIRIUS

token, the following high-value ecological pattern will be realized:

- You can buy other virtual currencies and directly use SSIRIUS coins for trading, which is easy to use and has rich trading scenarios.





- You can buy and sell directly on the platform pending orders, without the need to exchange bitcoin and other currencies.

- Enjoy the platform dividend, the dividend of the trading platform revenue, in strict accordance with the proportion of the currency to the holder of the currency feedback.

- Deflationary tokens, never issue additional issues, constant total issuance appreciation and preservation.

- Periodic repurchase and destruction of the Fund. The platform profit regularly repurchases SSIRIUS until the market circulation is constant, and the value preservation and appreciation is realized.

Chapter 3: The SSIRIUS Exchange Ecosystem

3.1 Service Modules

In order to drive the safe, efficient and low-cost circulation transactions of global digital currencies and the integration with entities, SSIRIUS Exchange will create three major service modules: digital economy tokenization module, coin trading and fiat transaction module, and DeFi commercial bank.

1) Digital economy tokenization module

Digital tokens encourage the use of various proofs of rights and interests, valuable asset rights and interests, etc., to be represented by a token, placed on the blockchain to circulate transactions, and let the market price all in the transaction process. Through SSIRIUS transactions can be completed simply, quickly and at low cost. For example, tickets, points, contracts, certificates, point cards, securities, permissions, qualifications, etc. are tokenized in the digital economy, put on the blockchain for circulation, put on the market for trading, so that the market automatically discovers its price, and at the same time can be consumed and verified in real economic life.

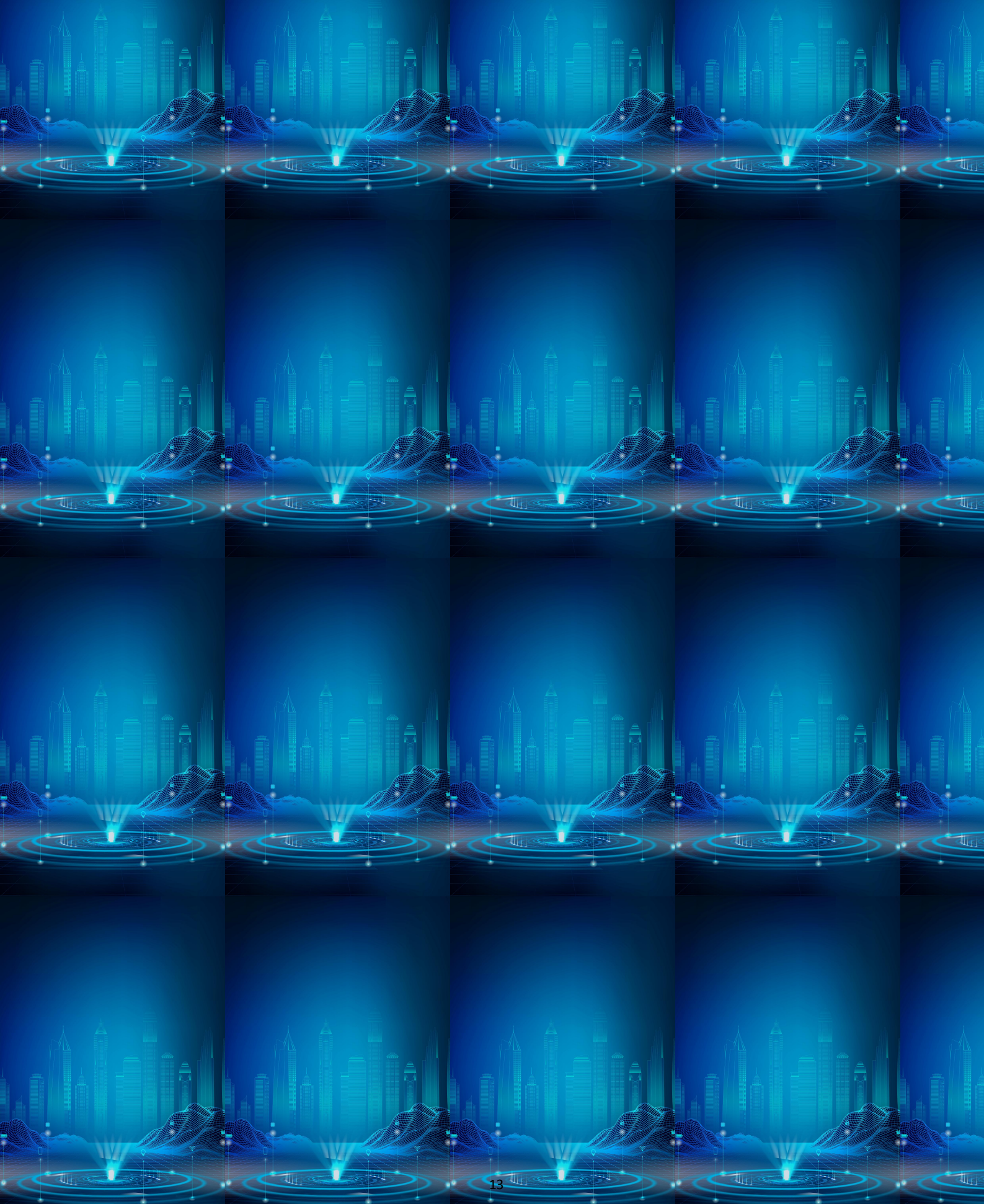
2) Coin trading and fiat trading module

In the future, the SSIRIUS Exchange technology code will be open source, all transaction records are recorded on the blockchain, the data is open, transparent and traceable, cannot be tampered with, and the financial ecology on the chain is concentrated. To this end, it provides an efficient and secure entrance to coin transactions, fiat currency transactions, and C2C services. When a user buys APC or any other currency on the platform, the platform will automatically match the exchange with the lowest current price of the purchase currency to buy. At the time of selling, the platform matches the highest priced exchange in the world to sell. In terms of transaction matching services, the distributed load and storage architecture is adopted to avoid service stoppage due to server failure; it can support hundreds of thousands of matching requests per second, and the service supports horizontal expansion, which can be rapidly expanded with business growth; service calls use the https protocol, and add mechanisms such as authentication and tamper prevention to improve security.

3) DeFi Commercial Bank

In the future, SSIRIUS Exchange will gradually upgrade to a 2.0 decentralized DEFI aggregation financial platform, creating a commercial bank in the DeFi field, opening up defi lending, swap, games, etc., with the help of DeFi to carry global financial services, and promote the connection between blockchain and the traditional financial world.

The core value of the blockchain is from not doing evil to not being able to do evil, therefore,



the SSIRIUS ecological application in the basic function setting to achieve "can not do evil", while solving the pain points and drawbacks of traditional exchanges, SSIRIUS uses blockchain technology to establish a collective witness, can not be tampered with the trusted value exchange network. With this as the core, we will build a commercial value circulation ecology that supports multiple industries, and create basic functional facilities, including independent wallets, digital asset transaction circulation systems, and global business ecosystems.

3.2 Standalone Wallets

SSIRIUS Exchange independent wallet for the storage, management, transaction of digital assets, users can not only fully control their own digital assets, but also greatly reduce the use of digital tokens threshold and management burden, effectively promote the flexible application of digital assets, through the SSIRIUS Exchange independent wallet transactions will become the main electronic payment method for global cross-border payment users.

1) Asset management

Through the SSIRIUS Exchange independent wallet, users can provide unified management of multi-blockchain assets, with local wallets, cloud wallets and transaction functions to achieve asset management integration.

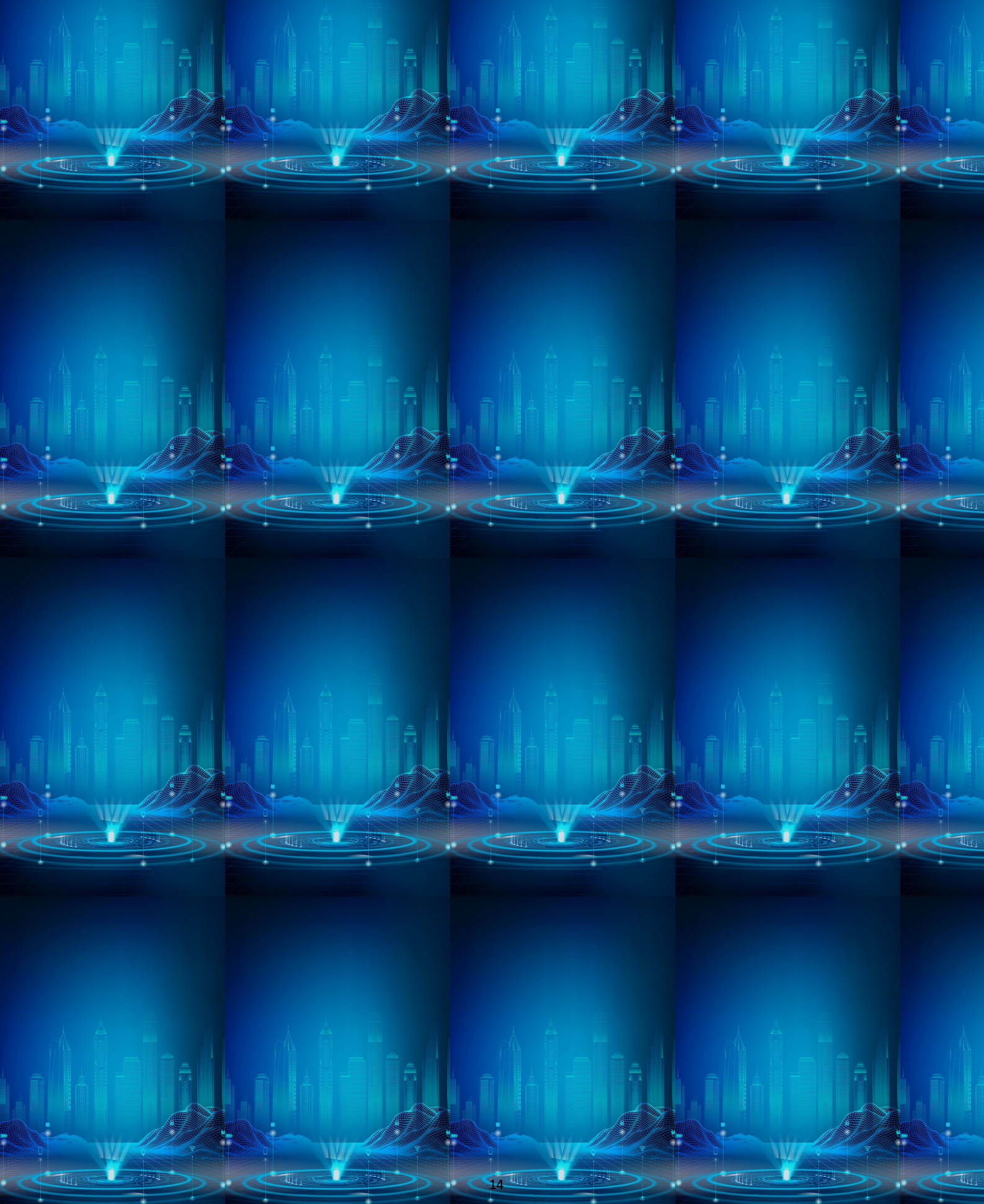
2) Multi-currency service

The SSIRIUS Exchange system can manage multiple digital currencies at the same time, not only supporting storage and management of main stream assets such as Bitcoin and Ethereum, but also supporting standard protocols of smart contract platforms such as EOS, and rapidly increasing the number of tokens issued based on each platform. Realize the integration of multiple digital asset management and reduce user operating costs. At the same time, it provides cloud wallet and local wallet, local wallet private key support, cloud wallet free transaction fee, real-time arrival, convenient for users to transfer inside and outside the wallet.

3) On-chain and off-chain dual storage concept

Adhering to the core essence of the blockchain, SSIRIUS Exchange provides digital currency storage solutions, user-owned wallet keys and address private key information such as all types of currencies, and the platform does not touch user assets. At the same time, the SSIRIUS Exchange standalone wallet provides convenient and other key backup solutions - users only need to make a backup once, write down 12 mnemonic words, and save them to a safe place. Even with subsequent increases in the types of digital currencies, all classes of digital currency assets can be recovered with the 12 mnemonic words of the backup.

4) Multi-factor security verification



In addition to allowing users to hold their own wallet keys and private keys, SSIRIUS Exchange independent wallet also provides multi-signature technology guarantee and two-step authorization verification for digital asset management of different scales, in addition to the verification methods such as mobile phone verification code, fingerprint, and face recognition when transferring transactions, so as to ensure the security of digital currency assets in an all-round way.

5) Dual wallet app

SSIRIUS Exchange independent wallet for the convenience of users, open cloud wallet and local wallet two wallet forms, users can freely choose the wallet they need. Cloud wallet: Cloud user transfer seconds to the account, no handling fee; the cloud keeps the private key, stores the user's address and transaction records, and the wallet does not contact the user's assets. Users can retrieve their cloud accounts through user name, password, and face recognition verification. Local wallet: The user's private key is self-sustaining, and the assets are more secure. Users can derive any number of sub-accounts (that is, subkeys) through the master key, and add multiple wallet addresses to each digital asset in the local wallet to facilitate asset separation.

3.3 Digital Asset Trading Circulation System

SSIRIUS Exchange is based on the application of blockchain ecology, the actual combination of global digital assets use of the grassroots, through the ecological grassroots real online transaction + offline physical merchants on the chain resources, to achieve the basic operation of digital assets in the global circulation, but also for SSIRIUS token holders and SSIRIUS token investors to bring a deep resource operation mode of asset operation.

SSIRIUS Exchange digital asset transaction circulation system has peer-to-peer value transfer, decentralized features, and all information is publicly recorded in the public ledger. All transaction information, financial service information, transaction record information, data transparency, can not be tampered with, everyone can view at any time.

SSIRIUS Exchange digital asset transaction circulation system formulaic data, blockchain system management mode, to ensure the long-term global operation mode, facing the global digital asset circulation management efficiency, business management, asset wealth management, asset circulation, etc., a sequence of data-based commercial circulation global development.

3.4 Global Business Ecosystem

Through the Global Business Ecosystem of SSIRIUS Exchange, it can achieve data storage, global business products, business services, digital asset management, digital asset transactions, and financial service production data, and provide value application logic for including malls, games, transactions, payments, live self-media, DeFi pledge lending, etc., such as the application mode of

building blocks, and adopt global business data and intelligent storage. Step by step digitalization to the blockchain, so as to form a diversified on-chain ecological kingdom.

Through the application of global data finance, SSIRIUS Exchange will be a comprehensive global financial ecosystem:

- Global circulation transaction, based on blockchain technology to achieve SSIRIUS Exchange global circulation transaction (online + offline) grassroots.
- Financial system, to open up the future blueprint of financial services, financial management, financial investment, and financial payments in the global circulation.
- Ecological foundation, after landing the entity, the users of the global SSIRIUS Exchange will get the same profit feedback from the financial ecosystem as the project party, and as the value of the SSIRIUS token increases, participants will get more ecological participation opportunities and the exchange's feedback value.

Chapter 4: Technical System

4.1 System Technical Overview

The SSIRIUS Exchange technology system is composed of three levels: the participant management, the blockchain layer, and the application layer, of which the exchange system consists of two sub-levels: verification node and voting node.

1) Management of the participating parties

SSIRIUS Exchange system participants join the blockchain network as supernodes. Different business parties can join and exit according to their needs. The information exchange between supernodes jointly ensures the authenticity of the depository carrier and the depository data. Through the effective formulation of unified and applicable transaction standards, STO gateways, smart contracts, etc., the effective link conveys the identity functions and contract elements of each node in different events.

2) Blockchain layer

Key technologies: This part is the basic support for each module of the application service part.

Blockchain technology: including network structure, data structure, consensus mechanism, signature verification, etc., is the basis for the operation of the system.

Related Technologies:

- **Data storage module:** based on the IPFS system, the content-based address replaces the domain-based address, that is, the user is looking for content that is not an address but stored somewhere, without verifying the identity of the sender, but only needing to verify the hash of the content, which can make the web page faster, more secure, more robust and more durable. At the same time, it provides storage security measures to avoid data being forcibly stolen, and data access audits are convenient for tracing data changes and circulation.

- **Identity module:** the user, device for blockchain authentication, registration of identity and its validity, while the user's identity is the private key management, the system also includes access security functions, as an important guarantee of system security.

- **Timestamp service:** Provides unified time service for the system.

- **Data encryption and decryption module:** provide data encryption and decryption services for the system, the module should support the national secret algorithm, can support pluggable

encryption and decryption algorithm.

- Client module: The client provides users with management and query functions for accounts, blocks, nodes and wallets, such as creating a new account, sending transactions, generating random seeds, obtaining block information, obtaining wallet status, etc. All transactions are signed and encrypted through the client terminal and sent to the blockchain.

- P2P module: The P2P module connects various nodes and broadcasts transactions and block-related information throughout the network.

Mempool module: Transaction cache pool, where mempool stores transactions from the RPC interface and transactions from P2P. The implementation of Mempool is mainly to solve the problem that the processing speed of the consensus module is slower than that of the RPC module.

3) Application layer

App Service is based on the support provided by the key technologies of the SSIRIUS Exchange system, and is implemented and encapsulated for various service modules. Each service consists of a set of related specifications, processes, and supporting interfaces.

You can call the blockchain layer application service of the SSIRIUS system and connect specific business scenarios through secondary development.

4.2 Technical Architecture

The SSIRIUS Exchange system is a high-speed, secure, and scalable blockchain infrastructure consisting of two layers: supernodes and storage nodes. And through IPFS technology, it processes millions of transactions per second, and provides Dapp with unlimitedly expanded storage capabilities through a secure decentralized cloud database.

The SSIRIUS Exchange architecture system consists of the following parts, namely:

- Homogeneous multi-chain system, providing high TPS access capabilities, cross-chain transaction capabilities, etc

- P2P network system SSIRIUS P2P, providing the addressing capability of the network layer;

- Multi-database cluster system with unlimited scalable secure encrypted data storage capabilities;

- The underlying structural support system of the SSIRIUS Exchange system, including a block-storage system and a distributed file system;

- Attribute-based cryptographic authentication access system composed of multi-node consensus, access control gateway for databases;
- Data integrity verification organization composed of multiple validators nodes;
- Adaptive probe system with memory data storage, performance monitoring, security monitoring, and Metrics data upload capabilities.

The core of the SSIRIUS Exchange system is the chain library separation mechanism and function sub-chain design. Decentralized applications can store data on the chain and in the database system according to different trust and public verification levels of data, and the SSIRIUS Exchange system provides different types of data collaborative management at different levels. Also, since the multi-database cluster system is a Missionless environment. The SSIRIUS Exchange system also completes an access control mechanism based on multi-authority attribute based encryption, as well as a complete proof of holding of stored data.

The main reason for the separation of the chain library design is for the future upgrade and update of the system, because the update of the blockchain system will lead to the fork of the system, which will have an irreversible impact on the entire economic system, so we put the main data processing power on the database system, and the access control system for the database system is completed through the function chain. The function chain is designed for future scalability, and more for the completion of the two core functions of the decentralized storage system: privacy protection and data retention proof. We implement access control and encryption functions for cloud storage data through an efficient multi-authority attribute-based encryption scheme.

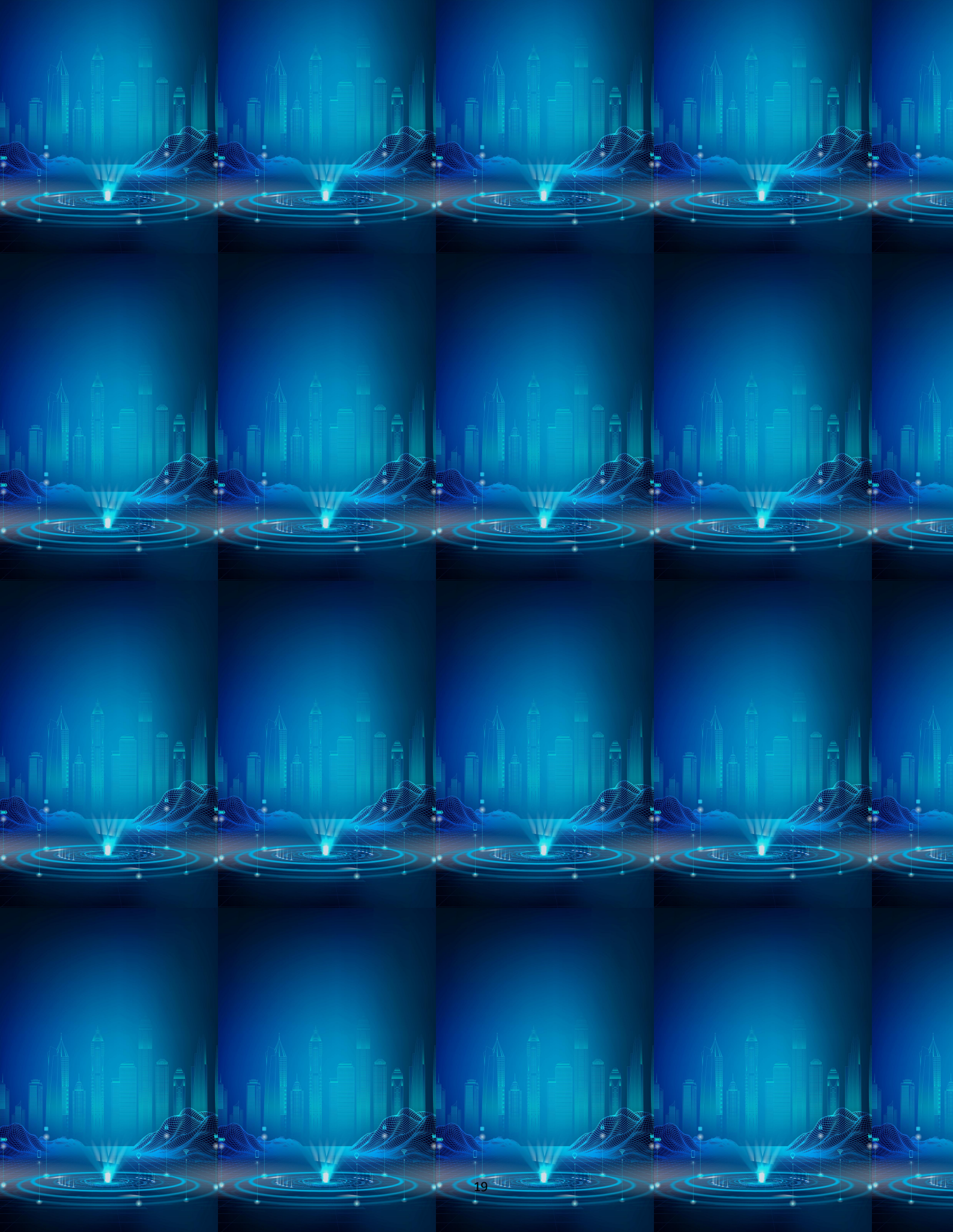
1) Account

SSIRIUS Exchange uses the concept of state to store a series of accounts, each with a authentication information and its own unique data. In some cases, if a code that needs to be executed is accepted in the account, the transaction triggers the execution of the code, then the internal memory of the account may change, and may even create additional information to be sent to other accounts, resulting in a new transaction occurring.

2) Merkle Patricia Tree

Bitcoin is through a way called the Merkle tree. IPFS also saves this data through a directed acyclic graph data structure of the Merkle tree. Merkle Patricia tree is simply that when our file is relatively large, let alone one or two trillion, two or three megabytes, or even larger, the IPFS system will upload the file to the IPFS node when you upload the file, it will split the file, and then after the partition, each file is used as its file name. Then these files are saved in a numerical way, and the total number, for example, is like there are many leaves, and then the branches of the two

leaves are actually a hash of the two leaves, so from the leaves to the branches, and then from the branches to the roots.



In this way, it is ensured that when the data on a certain leaf changes, the hash value directly reflected in the root of the tree also changes. This method is actually consistent with the way Bitcoin's data is stored. Its purpose is to allow the entire network to verify the integrity of a piece of data at the fastest speed. Because we don't need to compare the whole file, we just need to see if the values of the roots are still the same. If it is consistent, different nodes can prove that this data has not been tampered with.

The Merkle Patricia tree/trie, conceived by Alan Reiner and implemented in the Ripple protocol, is the primary data structure of the SSIRIUS Exchange system, storing all account states, as well as transaction and receipt data in each block. MPT is a combined abbreviation for Merkle and Patricia trees, and the structure created by combining these two trees has the following properties:

- Each unique key-value pair uniquely maps to the root hash value; in MPT, it is not possible to trick a member with only one key-value pair (unless the attacker has $\sim 2^{128}$ hash rate);
- Add or delete the logarithmic level of the time complexity of key-value pairs.

MPT provides SSIRIUS Exchange with an efficient, easily updatable fingerprint that represents the entire state tree.

3) RLP encoding

RLP is intended to be a highly simplified serialization format whose sole purpose is to store nested byte arrays. Unlike existing solutions such as protobuf BSON, RLP does not define any specified data types - such as Boolean, float, double, or integer. It simply stores the structure as a nested array and leaves it to the protocol to determine the meaning of the array. RLP also does not explicitly support map collections, and the semi-official recommendation is to adopt `[[k1, v1], [k2, v2], ...]`. Nested arrays to represent key-value pairs of collections `[k1, k2, ...]`. Sorts by the standard of strings.

Schemes that have the same functionality as RLP are protobuf or BSON, which are algorithms that have been used all along. However, we prefer to use RLP because:

- It is easy to implement;
- Absolutely guaranteed byte consistency.

4) Node architecture

SSIRIUS Exchange system itself is a homogeneous multi-chain design, including verification nodes (super nodes) and storage nodes (voting nodes), super nodes for "block producers", refers to those collect, package, verify transaction information into the block of the node, is the basis for the stable operation of the SSIRIUS Exchange system network, which is based on the CONSENSUS

mechanism based on POS, POS works as follows: similar to property stored in the bank, This model will allocate the corresponding interest to the user according to the amount and time you hold the digital currency.

To put it simply, it is a system that pays interest to users according to the amount and time of the currency held by the user, in the proof of stake POS model, there is a term called coin age, each coin produces 1 coin age per day, such as the user holds 100 coins, a total of 30 days, then, at this time, the coin age is 3000, at this time, If a user finds a POS block, the coin age is emptied to 0. For every 365 coins that are emptied, the user will receive interest of 0.05 coins from the block (assuming that the interest can be understood as 5% per annum), then in this case, interest = $3000 * 5\% / 365 = 0.41$ coins, which means that there is interest on the holdings.

In addition, pos-based pledge lending will also have efficient, safe and stable system performance, which we will describe in detail later.

4.3 Database Design

The SSIRIUS Exchange system uses IPFS distributed storage for database design.

IPFS (Inter-Planetary File System) is a globally oriented, peer-to-peer distributed version file system with the goal of supplementing (or even replacing) the Hypertext Transfer Protocol (HTTP) that currently dominates the Internet, connecting all computing devices with the same file system. The principle is to replace the domain name-based address with a content-based address, that is, the user is looking for content that is not an address but stored somewhere, without verifying the identity of the sender, but only needing to verify the hash of the content, which can make the web page faster, more secure, more robust, and more durable.

At present, the traditional HTTP has the problem of hyper-centralization, there are too many insecurity factors in terms of security, from the recent network security accidents can see the drawbacks of centralized network storage, IPFS fundamentally changed the way of looking, using HTTP to find the location, and using IPFS we are looking for content.

IPFS is a general purpose infrastructure with no storage limitations. Large files are cut into many small chunks that can be downloaded from multiple servers at the same time. IPFS networks are non-fixed, fine-grained, distributed networks that can be well adapted to the requirements of content delivery networks (CDNs). This design allows for the sharing of all kinds of data, including images, video streams, distributed databases, entire operating systems, chains of modules, backups of 8-inch floppy disks, and most importantly, static websites.

IPFS files can also be abstracted into special IPFS directories, thereby marking a readable file name (transparently mapped to an IPFS hash) and fetching a directory index like HTTP when accessed.

The process for setting up a website on IPFS is the same as in the past, and the instruction to add a website to an IPFS node requires only one instruction: `ipfs add -r yoursitedirectory`. The connection between web pages no longer needs to be maintained, and IPFS's own lookup can be solved.

IPFS does not require each node to store all the content, and the owner of the node is free to choose the data they want to maintain. This is like a bookmark, in addition to backing up your own website, voluntarily serving other content of interest, except that this bookmark will not eventually become invalid as before. Copying, storage, and website support between IPFS nodes is easy, requiring only one instruction and a hash of the website.

IPFS is generic and has very few storage limits. For some large files, it will automatically cut them into small pieces, so that IPFS nodes can not only download files from one server like HTTP, but also download synchronously from hundreds of servers.

IPFS does not require each node to store all the content published to IPFS. Instead, each node stores only the data it wants. If each node hosts a little data, all the data accumulates to provide more space, bandwidth, and availability than any centralized HTTP. Distributed networks will soon become the fastest, most available, and largest data stores in the world. No one has the ability to shut down all the nodes, so data is never lost.

4.4 C2C support

The original traditional centralized trading method relies on the platform to do credit endorsement to ensure that the transaction is true and reliable, but it also exposes the risk of personal privacy and asset theft. Individuals cannot grasp their own information, but in the blockchain network, personal transaction information is stored decentralized on all nodes, and anyone can publicly review it, forming a multi-centralized data storage model. Skip the centralized platform to directly trade between individuals and individuals, and the transaction efficiency is higher. In a blockchain system, each node is characterized by a high degree of autonomy. Any one node may become the center of the stage, but does not have a mandatory center control function. Between nodes and nodes, non-linear causal relationships will be formed through the network, realizing a decentralized, open, flat, and equal system.

Compared with centralized trading, there are many barriers that need to be crossed due to the need to comply with the relevant regulations of the regulatory authority to supervise customer funds. Users who transact in this way must comply with the various rules of the centralized trading service provider and pay the corresponding fees.

In the future, SSIRIUS Exchange will solve this problem through DEX (Decentralized Exchange) decentralized transaction rules to achieve convenient and secure transactions. There are two ways to implement DEX decentralized transactions: Bitcoin Cross-Chain Support (BTC Relay) and Hash Locking.

4.5 System security protection

1) Proprietary security team

SSIRIUS Exchange defense system, professional security team, mature security system, rich protection experience, for digital asset services to provide multi-level three-dimensional protection.

2) Resist DDoS attacks

SSIRIUS Exchange advanced defense algorithm + HTTPS encryption mechanism + massive DDoS cleaning.

3) Triple system protection system

- The first is the physical isolation between the front-end, back-end, and database;
- Second, two-way encryption of communications, information verification review mechanism;
- Third, the system multi-site standby mode, instantaneous, smooth, user-friendly server switching capabilities.

4) Seven audits of smart contracts

Overflow → conditions → permission control → security design → denial of service → gas optimization → design logic, layer by layer.

5) Pay attention to wallet security

- Physical defense, hot wallet, cold wallet, user wallet separation;
- Software defense, independently developed dedicated wallet tool;
- Defense-in-depth, multiple audits of wallet codes and always-on security program scanning.

4.6 Privacy Support

The immutable and distributed nature of blockchain technology can indeed avoid the problems of users' privacy being mastered by centralized institutions, resulting in trafficking, hacking, etc., but the open and transparent ledger has exposed massive user data on the chain, and privacy problems are still like lofts in the air, which have not been fundamentally solved. For

example, the original shopping on Taobao, now decentralized, not through Taobao transactions, A and B direct mail. Although Taobao does not have the data of these two transactions, their transaction data is recorded on the blockchain network and can be viewed by anyone.

Based on the mixed model of account and UTXO, SSIRIUS Exchange implements a blockchain privacy transaction system, which retains the account system while using the UTXO system, adding ring signatures and one-time addresses, so that the accounts can flow freely between privacy and publicity, and at the same time have untraceability and non-connection.

4.7 Cross-chain support

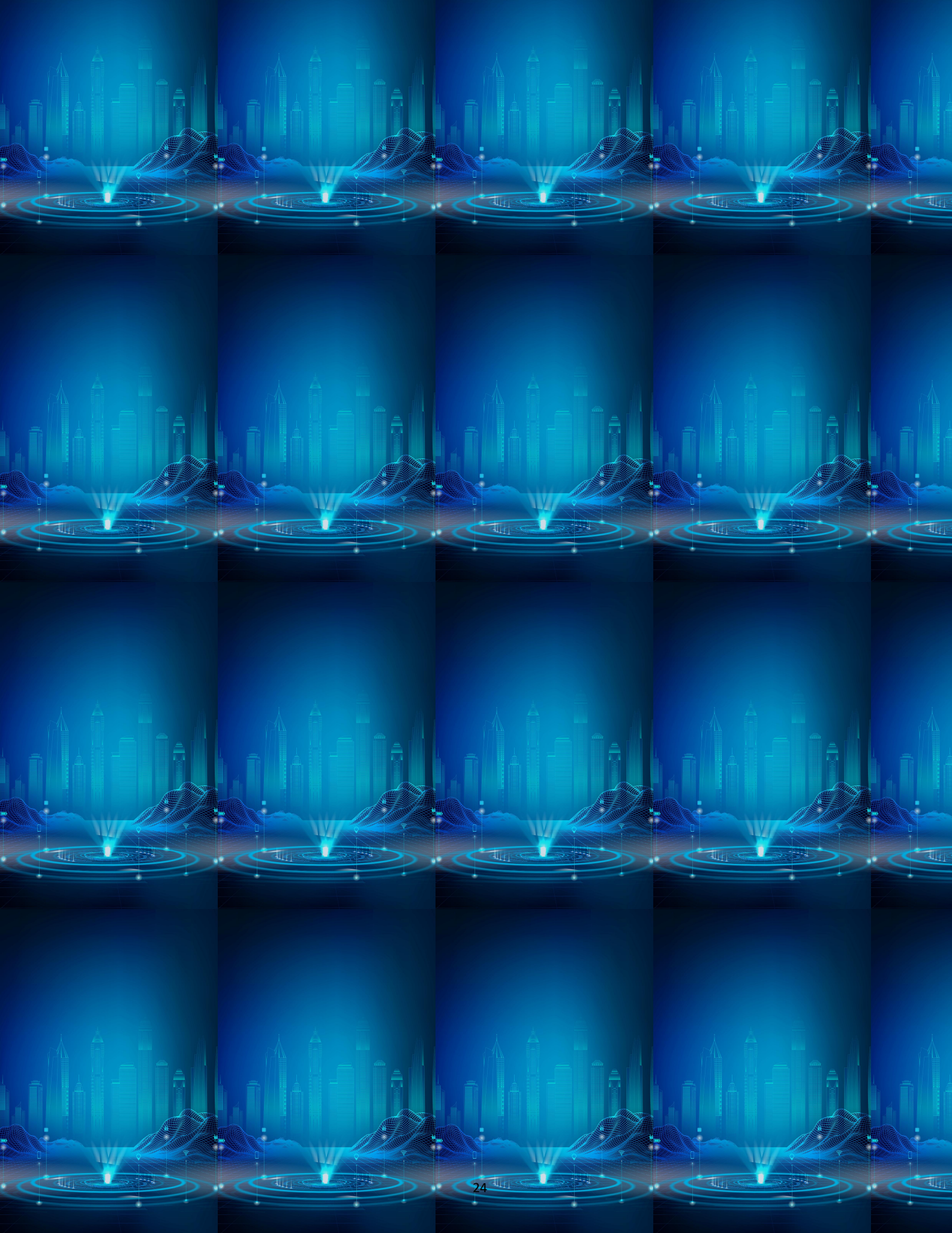
SSIRIUS Exchange has independently developed a cross-chain technology solution based on multi-signature, which supports a variety of cross-chain assets such as Ethereum, tron, and quantum chain. To complete a cross-chain transaction, the user first sends the A asset to a specific address on the A main chain, which is a multi-signature address. The benefit of a multi-signature address is that assets are securely locked on that address. Because only one or a few gateway members cannot complete the transfer of this asset, depending on the multi-signature algorithm, a certain percentage of the relevant member signatures are required to unlock the asset.

Once the user sends the A main chain assets to a specific address, the listener who listens to the transaction information on the chain will monitor the transfer of the main chain, after receiving the information, the confirmer will verify the authenticity and accuracy of the transaction on the main chain through txid, and once it is determined that it will not be revoked, the confirmer will sign the cross-chain transaction on the relay contract to confirm the cross-chain transaction. The Executor meets the signature threshold, issues the same amount of anchor coins, and recharges to the SSIRIUS Exchange smart contract, and the user adds the asset to the security account of USDc Exchange, thus completing the process of transferring the asset from the main chain to the SSIRIUS Exchange smart contract.

Then, if the user wants to transfer his assets from the EOS main chain to the A main chain, the user first needs to initiate a withdrawal request in the SSIRIUS Exchange, the token will be withdrawn to the relay contract, the relay contract will destroy this part of the token, at this time the watcher will initiate a multi-signature transfer on the A main chain, and record this multi-signature request on the relay contract, the confirmer confirms the authenticity of the token burning, And provide a signature on the A main chain. After meeting the threshold conditions, Executor completes the transfer to the A main chain, and the user receives the assets of the A main chain at the address of the user who withdraws coins.

In general, depositing is to pin a certain number of tokens on the A main chain, and then issue new tokens on the EOS chain according to the matching tokens. In turn, it is the EOS chain to

withdraw, after destroying a certain number of tokens, unlock the corresponding number of tokens on the A main chain.



Chapter 5: The SSIRIUS Token Economic Model

5.1 SSIRIUS Overview

SSIRIUS (SSIRIUS Coin) is a native encrypted digital token officially issued by SSIRIUS Exchange. The first phase will be generated on EOS based on smart contracts, the second phase will be based on the self-developed SSIRIUS public chain, and as the basic digital currency and decentralized platform coin of SSIRIUS Exchange, which will be used for settlement, transaction, and smart contract performance, and will also be used for cross-chain payment, transaction fees, transfer fees, and technology development consumption coins.

SSIRIUS: Total issuance of 100 million, 10% private placement release, 24% ecological foundation, 15% team, 51% mining reserves.

1) Mining incentive mechanism

SSIRIUS Exchange will first launch the pledge mining model, and users can participate in community Q&A, community promotion, recommended airdrops, and free purchase of income quota SSIRIUS after the platform coin is online trading.

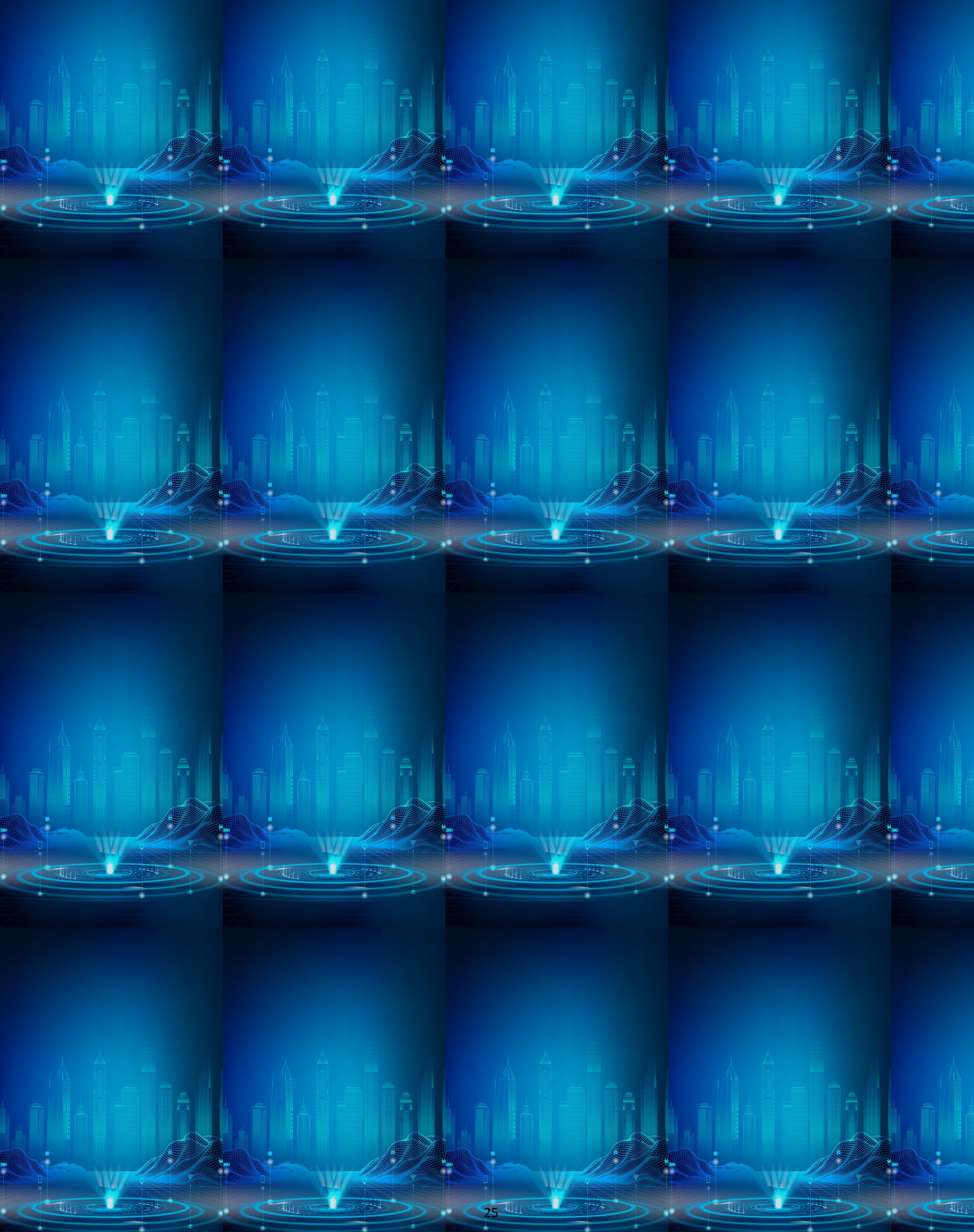
80% of the platform's daily transaction fee income (including all currency income) 50% of the currency fee Online sales of cloud computing power products and mining machine products 40% of the income, the foundation will be five percent of the total daily project flow, many plate proceeds for repurchase SSIRIUS, and half of the daily repurchase of SSIRIUS is destroyed, half is invested in community construction, and airdrop rewards to the loyal evangelists of the community. In the later stage, it is only repurchased and rewarded, not destroyed.

2) SSIRIUS release rules

The circulation of the SSIRIUS market consists of two parts: mining and issuance.

- Mining part: Users obtain it through pledge mining, and the platform currency obtained by mining will be distributed to absenteeism in real time.
- Issuance: Private placement is divided into two stages: cornerstone round and public offering round. Accounting for 10% of the total, the first period is issued 50%, and the locked position is 50% unlocked and released in 6 months. The unlocked portion is issued after the end of the public offering.

5.2 Ecology and activities



1) Platform ecology

By giving away the platform rights token SSIRIUS, it will attract more fans' attention to SSIRIUS

Exchange. In the ecology of SSIRIUS Exchange, users who hold SSIRIUS can enjoy a series of rights and interests such as SSIRIUS token appreciation, fee deduction, asset appreciation, platform income rebate, supervision, voting and election, and interest holding. SSIRIUS Exchange rewards users who

contribute to the liquidity of the system by mining through transaction mining, holding currency rebates, and rewarding 51% of SSIRIUS tokens. The platform feedbacks SSIRIUS Exchange community users through the mining incentive mechanism, and enjoys the SSIRIUS Exchange community benefits by holding SSIRIUS.

2) Online activities

The exchange goes online initially through kol, media news, community leaders and other multi-channel publicity. Send registration bonus activities, recruitment of hero partners activities, transaction fee reduction activities, and actively build the operation and construction of community communities. Through the community management of heroic leaders, all-round community promotion activities, lottery activities, Q&A gift-giving activities, etc., community evangelists and newcomers can see the determination of the Group to be the head service provider.

3) Development planning

SSIRIUS launched major exchanges to create a complete autonomous community ecology and create more value foundation for the application and value-added of SSIRIUS

In 2022, SSIRIUS Exchange will realize diversified trading of mainstream currencies, Internet finance, DeFi pledge and liquidity mining, contract and leverage trading, etc., becoming a mainstream site loved by users; in April, it opened the globalization process of the exchange, opening operation centers in Singapore, Hong Kong, the United States, South Korea, Japan, Russia, Vietnam, and other places to review high-quality projects and do on-line services.

It is estimated that before 2023, SSIRIUS Exchange will launch its own SSIRIUS public chain, laying

a solid foundation for the development of the entire blockchain industry.

5.3 Ecological landing value

The ultimate vision of SSIRIUS Exchange is to realize the anonymization of a comprehensive value system such as payment, communication, transaction, and assets, break through various key technologies of value transmission networks, build a global value Internet, and provide a basic

network for various value transmission applications.

With the support of SSIRIUS Exchange application, through the SSIRIUS ecological model and mining mechanism, the corresponding token is generated, and the incentive and circulation are



realized within this value system; the token mechanism is introduced in the incentive layer to achieve the purpose of realizing the flexible consensus mechanism for the public chain, and the community is encouraged to maintain the public chain and develop DApp applications on the public chain, adding value to the SSIRIUS and promoting network effects.

In the future, in the SSIRIUS Exchange application ecosystem, SSIRIUS will be used to:

- Encourage users to participate in asset transactions in the SSIRIUS Exchange network, obtain transaction fees and notarization fees, and jointly maintain the network security of SSIRIUS Exchange; reward trading nodes and notary nodes to support mining;
- As a measure of equity, support various types of consensus in the early stage and realize the original consensus system of SSIRIUS;
- Support the SSIRIUS Exchange ecosystem to implement advanced smart contracts, avoid the "Logic bomb" contract execution of the network performance, and provide anti-fraud mechanism;
- Play the base currency function of the SSIRIUS Exchange ecosystem, and provide the corresponding token characteristics and asset liquidity basis of the public chain DApp sub-currency
- Implemented SSIRIUS Exchange DApp product management as a hosting target to increase DApp visibility and exposure.

5.4 SSIRIUS Future System

In the future, we will continue to develop and optimize the application of SSIRIUS tokens on the basis of the self-developed SSIRIUS public chain. Complete code open source work and reward outstanding code contributors within the community. Establish a network of developers and DApp development communities, distribute generations when completing a certain stage and creating DApps; jointly conduct blockchain technology research and development with the world's top teams and platforms, and develop relevant payment terminal devices to achieve the adoption of unified and fully compatible devices for enterprises joining the chain, enabling them to smoothly transition to the SSIRIUS main chain system. The future SSIRIUS ecological scenario mainly includes three major parts: digital currency, pan-financial applications, and non-financial applications.

1) Digital currency

Digital currencies mainly involve third-party asset issuance, crowdfunding, etc. Based on the

SSIRIUS public chain, the issuance of third-party assets can be realized; at the same time, the

application of digital currency assets such as crowdfunding can be realized on the chain.

2) Pan-financial applications

Pan-finance refers to the fact that in addition to the traditional financial industry, it also includes industries that are closely related and closely related to it, such as asset management companies and related investment consulting companies. Based on the SSIRIUS public chain, various pan-financial applications can be realized, such as cross-border payment, supply chain finance, and digital bills; at the same time, asset securitization, bank credit reporting, supply chain finance, insurance business, etc. can be further realized.

3) Non-financial applications

SSIRIUS Exchange enables direct transactions between multiple points and the processing of all information, improving efficiency, saving transaction costs, and creating credit to drive non-financial applications.

- The non-financial applications that SSIRIUS public chain can achieve mainly include medical treatment, Internet of Things, IP copyright & cultural entertainment, and public services & education.

- In terms of medical treatment, mainly based on the SSIRIUS public chain, it can realize the trust and decentralized management of electronic health cases (EHR), DNA wallets, drug anti-counterfeiting and other industries.

- In terms of the Internet of Things, supply chain management, sharing economy, energy management, etc. can be realized mainly based on the SSIRIUS public chain.

- In terms of IP copyright and cultural entertainment, mainly based on the SSIRIUS public chain, it can realize the copyright of works, the certification and traceability of image works, intellectual property registration, decentralized digital copyright management, etc.

- In terms of public service & education, public audits, land rights confirmation, public welfare projects, and education information registration can be realized mainly based on the SSIRIUS public chain.

Chapter 6: Global Team and Community Building

6.1 Global Teams

1) Technical team

Danilev: Software engineer with more than a decade of experience in commercial development. Participates in and manages software development for leading Russian brands: Sberbank, RZD, aircraft construction companies. The core developer of the company's blockchain open source library: `exonum-bootstrap`, involved in project development and acted as a consultant: Brat, Edem, Proof-of-Status. Keynote speaker at Cryptocademy on smart contracts and distribution applications.

Nick Lavie: Software Engineer, graduated from Afeka University in Israel with a bachelor's degree. More than 5 years of experience at a major software and game development company in Israel. He entered the world of Ethereum 4 years ago and currently works as a programmer in Solidity, Python, C/C++ and C# languages.

Andre Pass: Blockchain developer and enthusiast, began to devote himself to the blockchain industry in 2013 and has participated in the development of several cryptocurrency projects. Includes the proof-of-concept platform, blockchain explorer, online wallet, and one of the largest token mining pools.

Wolf Carr: Graduated from the University of California, with a master's degree in mathematics and a doctorate in computer science, the main research direction is applied cryptography. He was an architect at RSA Security, a major provider of world-class information security and encryption solutions, a core developer of RSA Go IDSM products, and a blockchain expert and an expert member of the Digital Currency Association of America.

2) Consultant team

Larry Rosenberger: Mr. Rosenberger holds a master's degree in physics from MIT and a master's degree in engineering from UC Berkeley. From 1991 to 1999, he was President and CEO of FICO Corporation. During this time, FICO experienced several consecutive years of record growth, with annual revenue rapidly increasing from \$31 million to \$276 million. From 1999 to 2007, he led FICO's research group, which focused on early-stage innovation prediction and decision analysis, focusing on helping enterprise customers in the consumer market make better decisions.

Jimmy Clinton: Dr. Jimmy is a well-known computer scientist who is the inventor of the rule optimization algorithm `Rese` and decision engine software. In 2002, Dr. Jimmy founded Rules Power in Boston as Chief Scientist. During this time, he further refined the `Rethe2` algorithm, fusing it with relational logic techniques, and thus developed the `Rethe3` algorithm.

Alston Reed: Graduated from the University of Frankfurt with a master's degree in economics. He has conducted in-depth research in macroeconomics and new institutional economics, and has conducted economic research at IBM's Thomas Watson Research Center, and has been a visiting professor in the Department of Economics at Princeton University, an advisor to the Securities and Exchange Commission of the Japan Financial Services Agency, and a business innovation consultant for the Japanese Bitcoin Exchange.

Edward Adam Davis: Attended New York University and Columbia Law School. He is the author of "Legal Practice of Interest Guarantee for Movable Securities" and "Legal Risk Disposal of Private Equity Project Financing", and specializes in M&A financing, mezzanine financing, securitization, various fund matters, and related businesses centered on the Financial Commodities Exchange Law. Legal counsel for NASDAQ exchange and financial lawyer at Deloitte Law Firm.

6.2 Community Building

Communities are the most important driving force behind the development of blockchain. But at the same time, each member or team of the community may have different values and interests. In addition, there is an irrefutable fact in the blockchain industry: although it has been developed for more than 10 years, the community and application ecology are still not prosperous enough, and there is a huge gap with the traditional Internet. From the perspective of grassroots organization management logic, whether there is a benign community governance environment and mechanism is not important for the rapid development of blockchain.

Adhering to the concept of decentralization of blockchain technology, SSIRIUS Exchange is based on the power of the community and the interests of users as the foundation, and gradually transitions to a fully autonomous community-based digital asset financing ecosystem.

In the first stage, SSIRIUS Exchange adopts global distributed collaborative office based on the support of the underlying technology of EOS, brings together the forces of all parties with obvious advantages and consistent concepts, and builds the SSIRIUS community into a world-class blockchain + commercial value platform.

In the second stage, SSIRIUS Exchange will implement the business philosophy of "enhancing user value" and achieve sharing, sharing and co-governance with the community and users.

Based on the above development goals, SSIRIUS Exchange's global community building follows a high degree of decentralization, through a combination of on-chain and off-chain models.

Off-chain governance is our common loose governance model, there is no strict procedure, no one has the final decision, the whole process is completely open, people can have a variety of ways to express their intentions. On-chain governance has a clear governance process, under which

proposals can be proposed, how to vote, and how to count and approve are clearly stipulated. Because these programs often occur directly on the chain in order to be trustworthy, it is called



"on-chain governance".

SSIRIUS Exchange's on-chain governance, combined with the off-chain proposal system, will prosper with decentralized autonomy in the cryptographic protocol with the advantages of community governance. SSIRIUS Exchange's on-chain governance is based on consensus rule voting, which has a certain reference value in setting protocol parameters. Consensus rule voting is mainly for SSIRIUS Exchange functions and bug fixes, need to participate in the total number of votes 75% of the approval can be executed, consensus rules voting is mainly to change the SSIRIUS Exchange itself functional protocol and so on.

The advantage of SSIRIUS Exchange is that the governance of the global community allows the community to have a well-prepared, discussion phase, and the whole process is transparent and visible. It can be put to a vote after extensive discussion in the community, anytime, anywhere, without having to save time for a specific meeting. The results of governance embody the greatest consensus of the community and are enforced by the community.

Chapter 7: The Global Governance System

7.1 Foundation Governing Structure

To ensure the openness and transparency of the SSIRIUS Exchange project, we will establish the SSIRIUS Investor Protection Foundation, which will be managed by establishing the highest decision-making body, the Decision Committee.

The decision-making committee consists of a business committee, a technical committee, an integrated affairs committee, and a community development committee, and the governing body will be composed of developers and functional committees. The members of the decision-making committee are appointed for a term of two years, and the first decision-making committee members are composed of core team members, blockchain industry celebrities, legal experts and early investors, and some members of the subsequent decision-making committee are elected by the community.

7.2 Governance Structure

The functions of the decision-making committee include the appointment and dismissal of executive heads and heads of various functional departments, the formulation of important decisions, the convening of emergency meetings, etc., and the term of office of the members of the decision-making membership is two years.

The members of the inaugural SSIRIUS Exchange Decision Committee have extensive industry experience in the blockchain space or digital currency trading space, and are briefly introduced as follows:

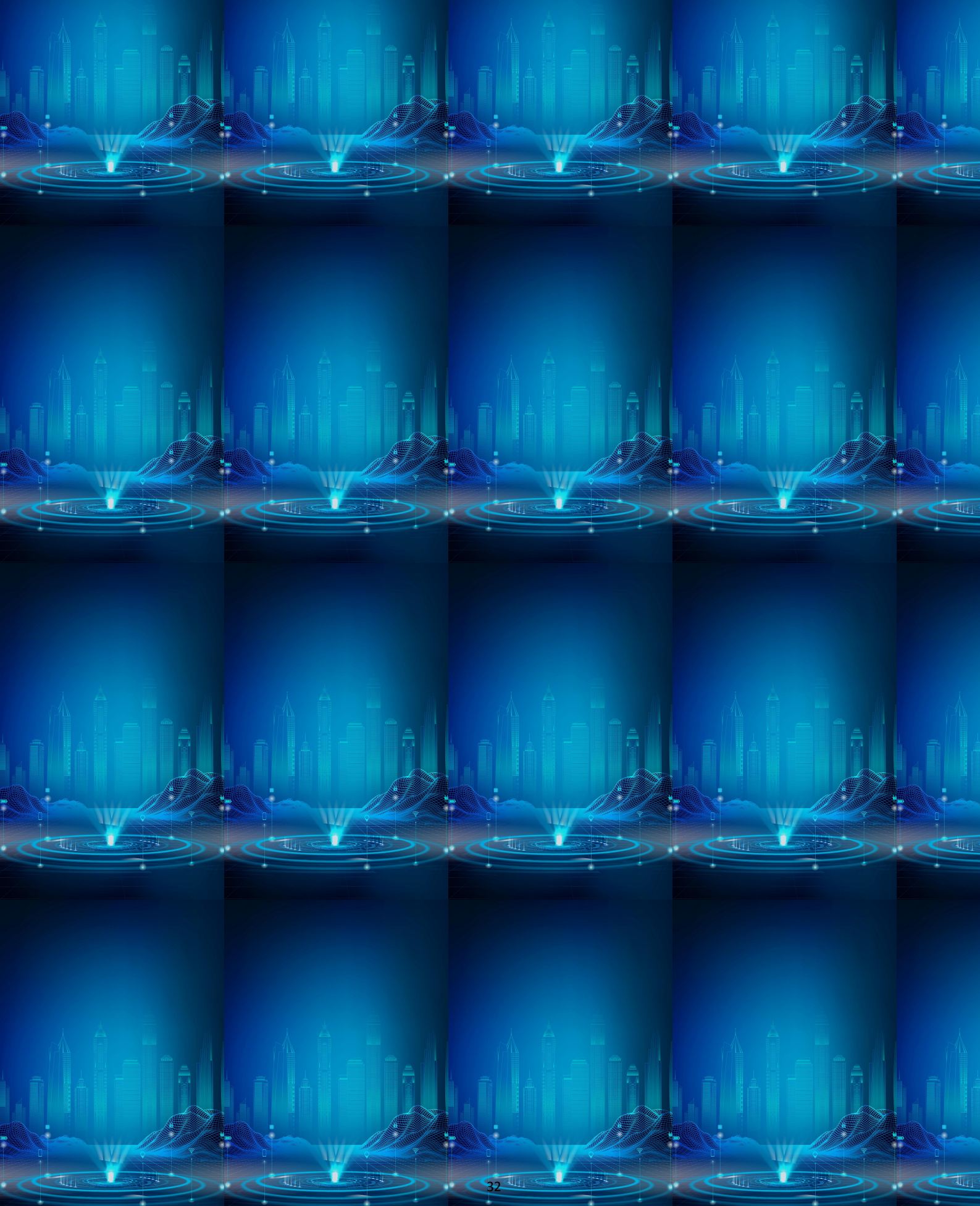
1) Decision-making committee

After the expiration of the term of office of the decision-making committee, all members of the community who hold coins will vote according to the number of SSIRIUS held and the weight of the age of the currency, and elect no more than 9 core members of the decision-making committee, and the selected core members will make important and urgent decisions on behalf of the SSIRIUS community, and need to receive credit investigations and disclose remuneration during their tenure.

2) Executive officer

The executive head is elected by the decision-making committee and is responsible for the

daily operation and management of the SSIRIUS community, the coordination of the work of the subordinate committees, and the chairing of the decision-making committee meetings. The



Executive Head regularly reports to the Decision-making Committee on the progress of its work.

3) Business Committee

The Operations Committee is responsible for the design and planning of the community as a whole.

4) Technical Committee

The technical committee is composed of core developers and is responsible for the development and review of the underlying technology, product development and review, etc. The technical committee holds regular project tracking meetings to communicate the needs and progress of the project. Technical committee members need to understand community dynamics and hot spots, communicate with business participants and SSIRIUS holders in the community, and hold technical exchange meetings from time to time.

5) Committee on Integrated Services

The Integrated Affairs Committee is responsible for the use and review of project funds raised, developer compensation management, daily operating expenses and audits, etc.

6) Community Development Committee

The goal of the Community Development Committee is to serve the community, responsible for the promotion of the SSIRIUS Exchange project, the promotion and promotion of open source projects, etc. The Committee is responsible for the publication of all community announcements and media collaboration.

7) Financial management of SSIRIUS Exchange

The SSIRIUS Exchange Decision Board is committed to devoting all of the digital assets raised to community development and building.

8) Audit of SSIRIUS Exchange

Due to the particularity of SSIRIUS Exchange, it is in fact difficult for existing companies and institutions of all shapes to regulate under the existing system. To ensure governance of the SSIRIUS Exchange platform and the public transparency of the use of digital assets, the SSIRIUS Exchange Decision Committee will engage professional auditors to conduct audits.

Chapter 8: Disclaimer

8.1 Legal Affairs

The Foundation will be an independent legal subject with full responsibility for organizing the team to develop, promote and operate the SSIRIUS Exchange project, with all related responsibilities.

The Foundation will exchange them for specific groups of people in an appropriate manner in strict accordance with local laws and regulations, and give SSIRIUS coins. Due to the restrictions of citizens or groups of countries with legal restrictions, SSIRIUS will not conduct public crowdfunding or public fundraising in some countries and regions. SSIRIUS tokens are used as a virtual commodity with practical uses, not as securities, nor as speculative investment vehicles.

The income obtained by the Foundation in the SSIRIUS coin swap will be mainly used by the Foundation for technology development, marketing, community building, financial audit, business cooperation and other purposes.

SSIRIUS Exchange is still likely to be questioned and regulated by authorities in different countries around the world. In order to meet and comply with local laws and regulations SSIRIUS Exchange may not be able to provide normal services in some areas.

8.2 Disclaimer

Before and during the sale of this project, we will not organize any public publicity and advertising promotion activities in any media, and the platform team has not organized any social software groups and mailing lists for promotion, please be cautious before participating.

This document is for informational purposes only and does not constitute an opinion or investment opinion on the future sale or purchase of native digital assets, nor is it a contract or commitment of any kind.

Once the investor participates in the private placement and sale, he or she understands and accepts the risks of the project, and is willing to bear all the corresponding results or consequences for this, and the platform clearly states that it does not bear any direct or indirect losses caused by participating in the platform project.

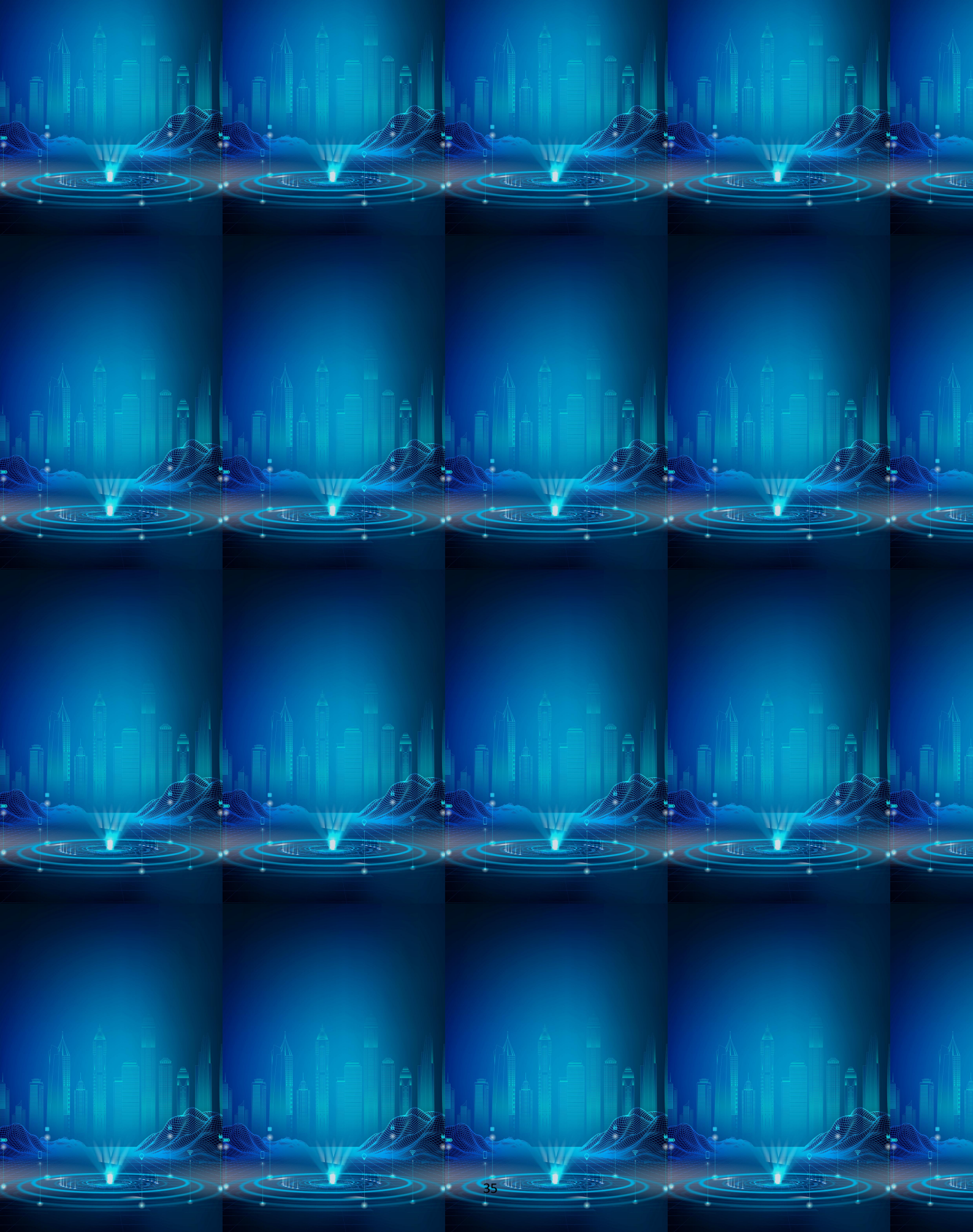
The native digital asset involved in this project is an encrypted digital code used on the platform and does not represent the equity, debt, revenue rights or control of the platform project.

At the same time, the Foundation hereby expressly does not recognize and refuse to assume

the following responsibilities:

- (1) Anyone is swapping SSIRIUS Coins in violation of any country's anti-money laundering, counter-terrorist financing or other regulatory requirements;
- (2) Any person who violates any representation, warranty, obligation, undertaking or other requirement stipulated in this White Paper when purchasing SSIRIUS Coins, and the resulting inability to use or withdraw SSIRIUS Coins;
- (3) The swap scheme of SSIRIUS Coin is abandoned for any reason;
- (4) The development of SSIRIUS Exchange fails or is abandoned, and the resulting non-delivery or inability to use SSIRIUS Coins;
- (5) The postponement or postponement of the development of the public chain, and the consequent inability to achieve a pre-disclosed schedule;
- (6) errors, defects, defects or other problems with the source code;
- (7) Failure, collapse, paralysis, rollback or hard fork;
- (8) SSIRIUS Coin fails to implement any specific function or is not suitable for any specific purpose;
- (9) Yes Use of funds raised by the SSIRIUS Exchange program;
- (10) Failure to disclose information about the development of the public chain in a timely and complete manner;
- (11) Any participant who discloses, loses or destroys the private key of SSIRIUS Exchange's wallet;
- (12) Breach of contract by a third-party distribution platform, violation, infringement, collapse, paralysis, termination or suspension of services, fraud, misoperation, misconduct, error, negligence, bankruptcy, liquidation, dissolution or closure;
- (13) There are differences between the agreed content between any person and a third-party distribution platform and the content of this white paper, conflict or contradiction;
- (14) any person's trading or speculation in SSIRIUS Exchange;
- (15) Listing, suspension or delisting of SSIRIUS Coin on any trading platform;

(16) SSIRIUS Coin is classified or treated as a currency, securities, commercial paper, negotiable instrument, investment product or other thing by any government, quasi-governmental agency,



competent authority or public authority to the extent that it is prohibited, regulated or legally restricted;

(17) Any risk factors disclosed in this White Paper and damages, losses, claims, liabilities, penalties, costs or other negative effects arising out of or in connection with such risk factors.