



Woopay

Woopay -The opening of global digital intelligent
fast payment settlement system

white paper





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Project Background





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1.1 Industry Outlook

Technological progress has brought more possibilities to global payment transactions. According to World Bank statistics, the size of global cross-border payments has grown at an average annual rate of 5%. The rate reached 10.68%. At present, there is no unified clearing center in the world, because no organization or institution can obtain the credibility of endorsement and gain the trust of different financial institutions. The existing SWIFT (Global Financial Telecommunications Association) mainly serves bulk trade, fees and foreign exchange. High business fees make it difficult for users of small cross-border remittances to bear. With the advantages of the distributed ledger technology of the blockchain, the problems of transaction authenticity and reliability can be effectively solved, and intermediate transaction costs will be greatly reduced.

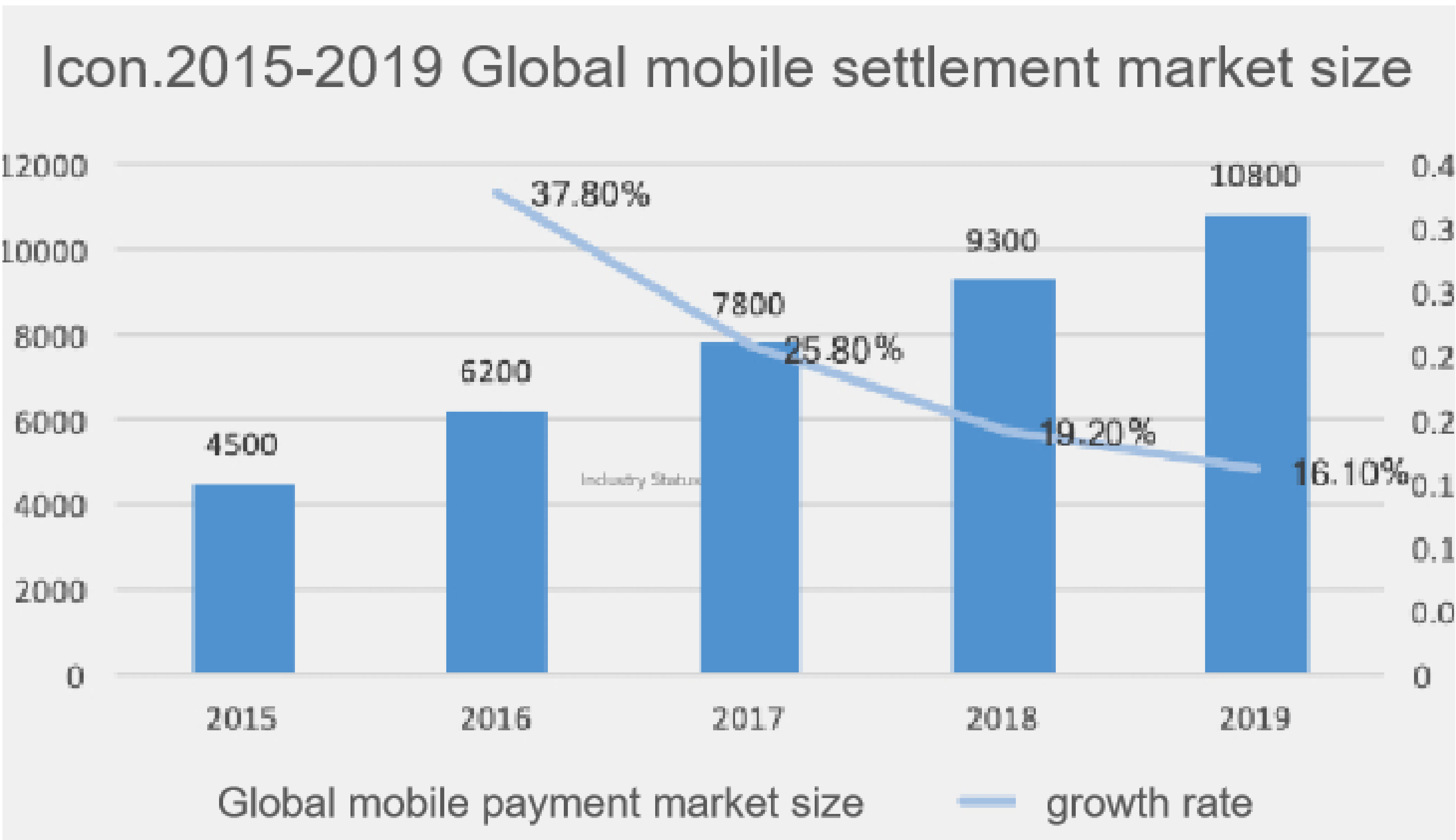
Woopay's blockchain-based transfer payment system has features such as high efficiency, high security, high availability, and high scalability. Adopting blockchain technology and using distributed accounting, each user can query the transaction status by password and real-time settlement of funds, which not only reduces transaction costs and risks, but also greatly improves transaction efficiency. Woopay is committed to creating the world's first safest, most reliable and fastest blockchain financial service point-to-point polymorphic digital asset transaction payment system, which supports users with one-stop diversified and intimate blockchain financial services. Woopay not only builds a multi-currency, multi-service digital asset ecological platform for consumers, reduces the inconvenience of managing digital currencies across platforms, but also has important significance for effective supervision of the digital asset industry. Therefore, Woopay's future value prospects are broad.





1.2 Industry Status

Today's global settlement market players, including not only banks, UnionPay, third-party settlement licensees, mobile phone manufacturers, also merchant cashiers are full of credit card POS machines, various code scanning equipment, code scanning cards, etc., merchants need to go to various settlement companies to apply for account numbers, and turn to technical companies for technology to achieve reconciliation on various platforms.



With the development of digital currency in recent years, the proportion of global digital asset value is increasing, and many problems that accompany it are urgently needed to be solved.

- Centralized hosting of digital currencies is not secure
- Irrational distribution of asset investment and financing income
- Decentralized wallet solution is not sound





Centralized hosting of digital currency is not secure

At this stage, the demand for digital currency transactions is very strong. 90% of digital currency assets are stored in digital currency exchanges or other centralized institutions. This is not only inconsistent with the core value of the blockchain, but also extremely insecure. That leads to hackers stole token, and 90% of exchanges are under various attacks almost every day.

Decentralized wallet solution is not sound

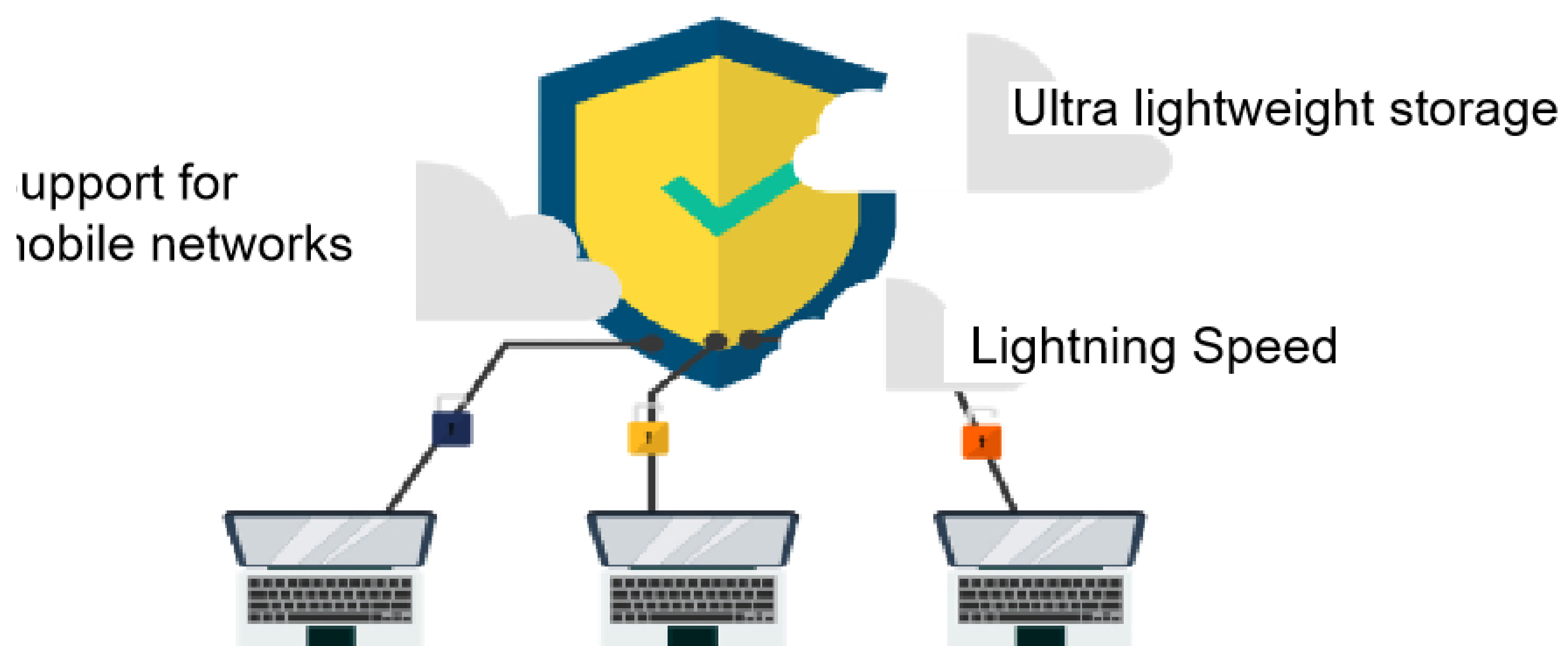
The security demands for digital assets of different orders of magnitude are different. The secure storage of enterprise-level digital assets, ordinary users' large amounts of money and loose change requires different products to solve. However, the security level of mobile phone cold wallets on the market cannot guarantee the security requirements of enterprises and large ordinary users. Although these wallets can guarantee the security of funds after disconnecting from the network, they cannot guarantee the security of the device after the device is lost and the private key is stolen problem.

Unreasonable distribution of asset investment and financing income

In the traditional financial field, such as banks, insurance institutions, and various wealth management platforms, a large amount of user funds for investment or provide loans to users who need financing are absorb by them . However, in the current blockchain industry, assets similar to wealth management roles do not have a safe and reasonable supervision method and tool. The financing of funds is very opaque to the providers and users of funds. The lack of digital asset management configuration is seriously affecting the asset security of investors, and the market urgently needs high-quality digital asset regulatory configuration.



1.3 Solution



Support for mobile networks : Many blockchains only support traditional PC networks, and weak support for unstable mobile networks. In the case of mobile terminals, there will be continuous reconnections and failure to provide application layer services. In Woopay, it can provide portable mobile terminals. Very good support, even when the network is unstable, it can also provide application layer services, so that blockchain nodes can participate in any network.

Ultra-lightweight storage: The blockchain requires huge storage space of tens of G, some even larger, which requires nodes to provide proprietary large-capacity storage devices. In Woopay, Woopay's required space will be reduced by about 100 times. Even smaller because it only needs to store the data after the blockchain hash tree and key checkpoints.

Speed of the Lightning Edition: BTC's transaction speed is 6.7 transactions per second, ETH's transaction speed is 25 transactions per second, and the peak value of IBM's hyperledger theory is 200 transactions per second. We have redesigned the consensus mechanism, separated the consensus steps, and discussed the blocks first, which greatly improved the performance of the blockchain network. In Woopay, the transaction speed can reach 1000 transactions per second. With the future upgrade of network bandwidth, the transaction speed will be further increased.

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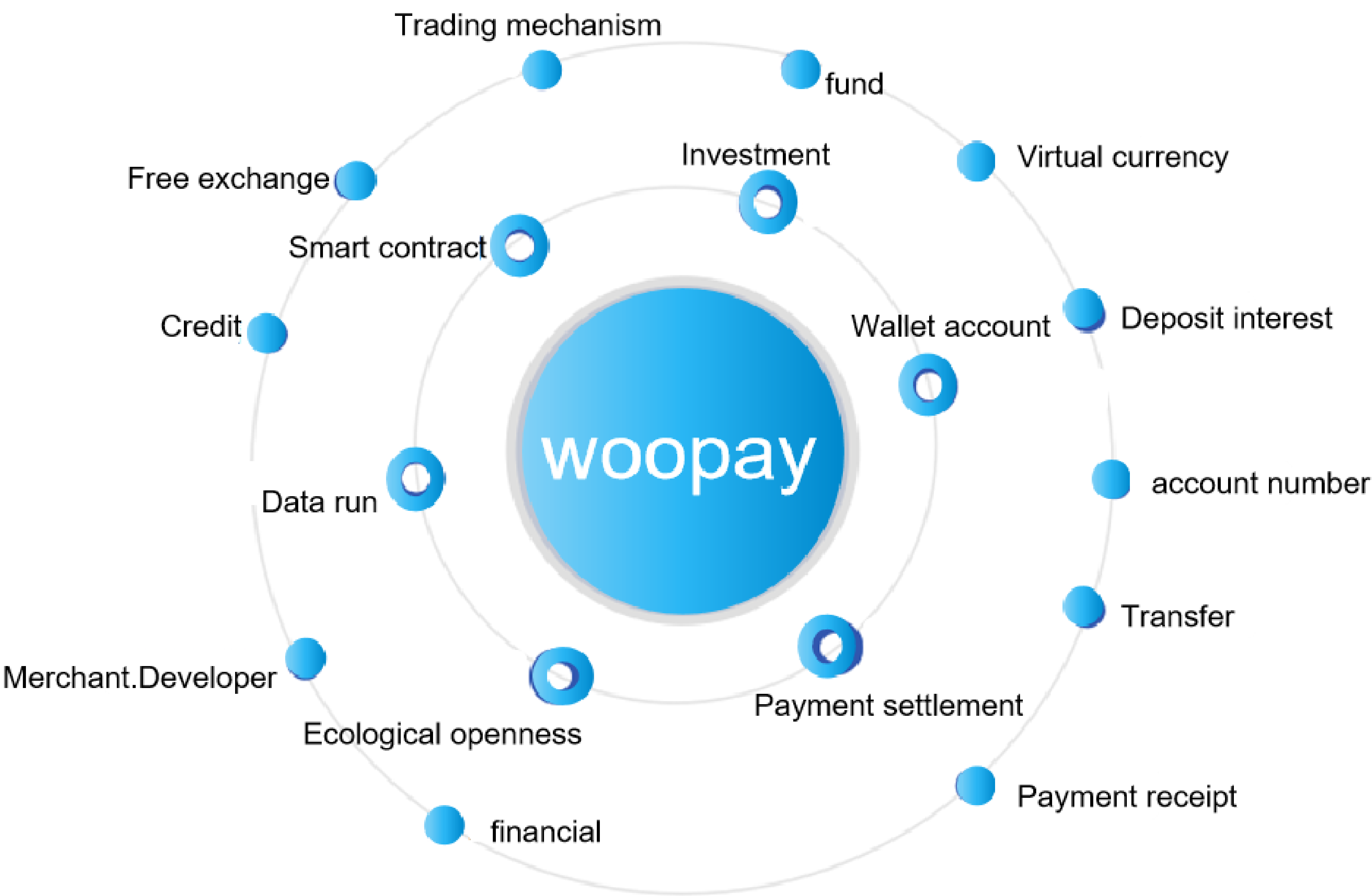
Project Introduction



Chapter 2 Project Introduction

2.1 What is Woopay

Woopay is a payment transaction system developed based on blockchain technology. The system is used in the global payment sector, online shopping malls, offline physical stores and other fields. Woopay will meet the needs of users with the advantages of lower cost, faster speed and higher efficiency. The system integrates virtual transaction information, security safeguards, and blockchain virtual digital asset information, and connects with global physical banking systems to achieve seamless docking of blockchain digital currency virtual property and physical wealth, and establish a link between digital currency and legality money bridge.



Woopay builds a new payment system featuring openness and ecology, realizes a truly global payment method, and builds a decentralized self-care credit inquiry platform and Woopay digital by continuously adding new institutions, nodes, and user access. Asset balance system. Users can deposit into the Woopay digital asset balance platform through fiat currency, and



Woopay fund institutions can value applications of funds to achieve interest income, and distribute the collected interest to users who use Woopay digital asset balance storage according to storage. Therefore, Woopay strives to create a universal block payment system that can be used by payment users and enterprises, so that online payment technology applications are easier and more popular.

2.2 Woopay Project Highlights

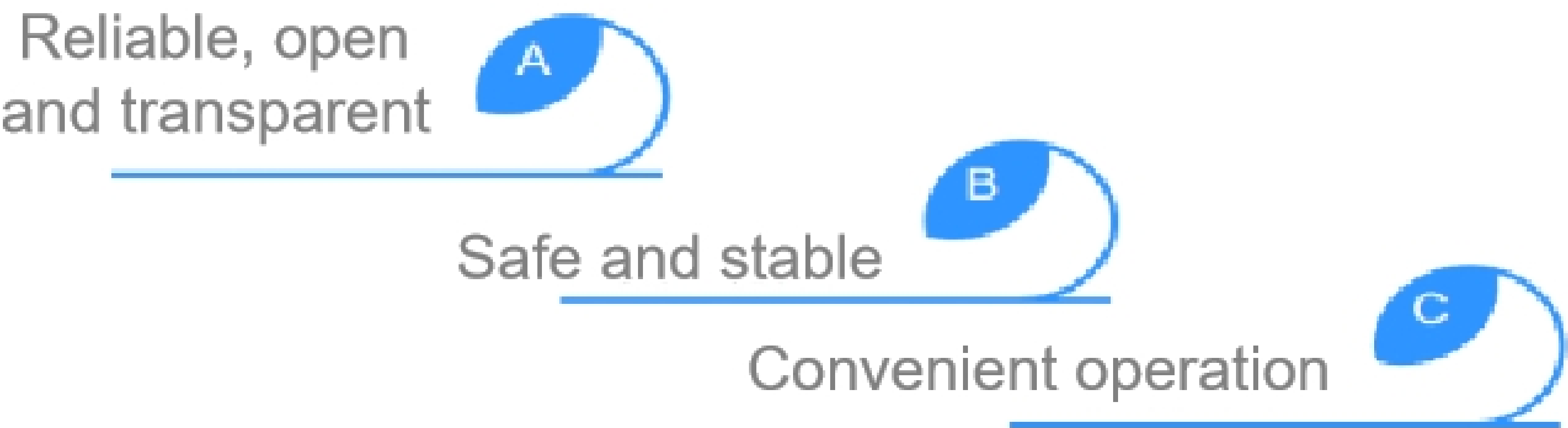
As a payment method, Woopay encrypted digital currency naturally has the advantages of lower cost, faster speed, and higher efficiency, and meets users' needs for other system integration. Woopay encrypted digital currency represents the future currency. Through the use of encryption technology, fast and direct transfers can be guaranteed to ensure its security. Users of the platform come from all over the world and choose the corresponding services according to their needs, including collection and sharing of digital transactions, sharing of storage space, sharing of computing capabilities, and contribution of blockchain nodes.

2.3Woopay Features

Eight highlights of Woopay digital asset wallet application hashing power comprehensive :

- 1.Split (originally issued 10 million platform coins)
2. Mutual assistance (buy and sell point-to-point matching payment)
3. Dividend (minimum 2 ‰ release per day)
4. Compound interest (magnification and multiplication)
5. Virtual currency (blockchain mining mechanism, with circulation as the algorithm base)
6. Digital assets (low entry, high out of speculation)
7. Asset securitization (up to reinvestment after release)
8. Consumption rebate (2% off consumption)

2.3Woopay Features





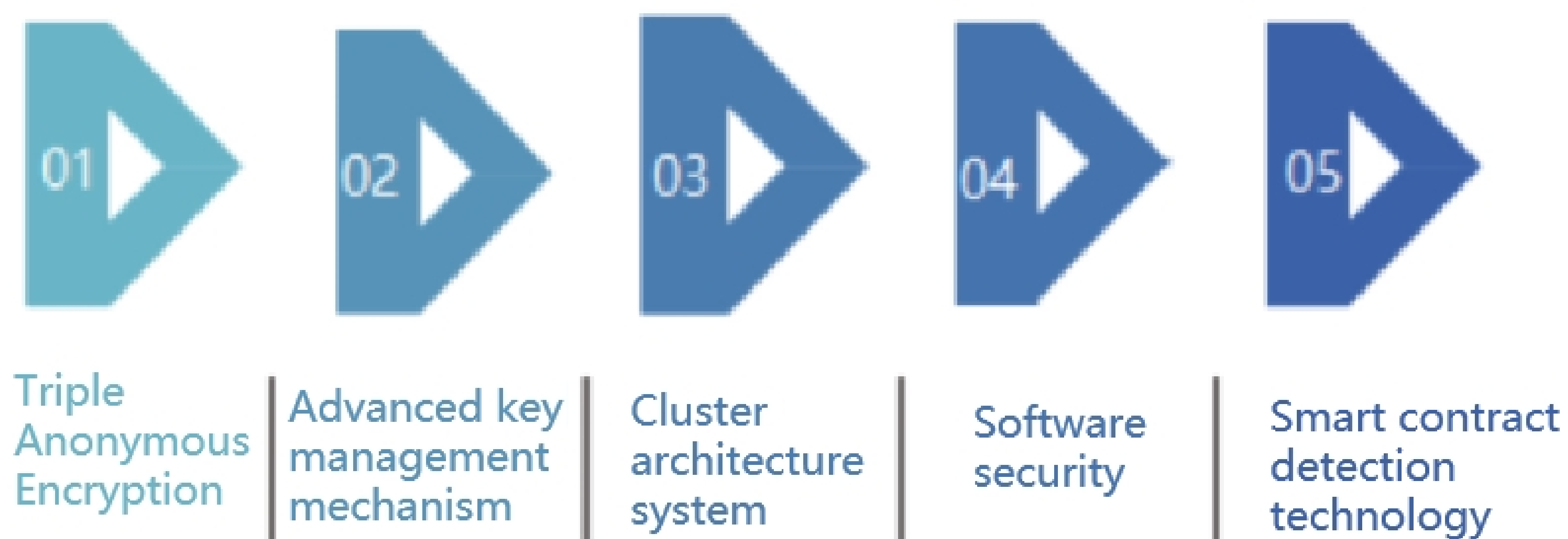
1.Reliable, open and transparent

The issuer's foundation accepts third-party independent audit institutions to regularly verify, sign and financial statements, and regularly disclose the audit situation to users, which has obvious advantages in transparency and risk control.

Woopay is deployed on the Ethereum public chain, is open and transparent, and does not have the problem of black box operation and manipulation; the purchasing power is stable; there is no risk of collapse.

We will also continue to work hard to apply for a license and be subject to regulatory supervision. Transparency and inspection and verification become necessary conditions for the system to ensure its integrity and mobilize market confidence.

2.Safe and stable



1) Triple Anonymous Encryption

In order to prevent others from tracking personal transaction records through blocks, Woopay will use public keys for encryption during the transaction process; it uses a three-layer encryption algorithm to hide the user's network traffic, and changes the source of the transaction by jumping between different servers. Woopay will maximize the anonymity of the transaction process and protect personal privacy.



2) Advanced key management mechanism

When the user applies for a transaction key, the private key will serve as a three-stage key management mechanism to achieve an autonomous and controllable hybrid hot and cold wallet mode. With this multi-signature implementation, the public key held by the user, wallet, and backup organization will The keys will jointly create a synthetic password for digital asset transactions. Except for the wallet server, the remaining parts are sent to customers and key backup parties through independent secure channels. When the cryptographic chip is disassembled or the security channel is attacked, the smart contract starts to issue a self-destruction instruction, the key is automatically locked, the transaction is frozen, and the security of user assets is guaranteed.

3)Cluster architecture system

Woopay uses an independently designed multi-layer and multi-cluster architecture system design to improve system performance, security, stability, and scalability. Simultaneously deploy multiple protection measures of the relational database service (RDS) to monitor database performance in real time. In addition, with decentralized data storage, cloud computing clusters will be deployed in many countries, which can prevent servers from being interrupted due to natural disasters or man-made reasons.

4)Software security

Woopay software mainly uses independent research and development of non-open source software, such as the development of independent operating systems, independent wallet software, transaction systems, user management systems, etc. At the file and communication level, multiple encryption protection methods, two-factor authentication mechanisms and other cross-protection systems are mainly used to prevent hackers from invading the operating system.

5)Smart contract detection technology

When the smart contract runs incorrectly or is programmed incorrectly, it will cause DAO events to occur, which will cause customers to suffer huge losses. Woopay smart contract detection tool prevents malicious attempts to invade user data through smart contract vulnerabilities, while providing a secure container to continuously monitor the operating status of the container. If vulnerabilities are found, effective isolation is performed, and container access permissions are strictly controlled to ensure Contracts run safely.

3.Easy operation

Woopay will be listed on major exchanges at the same time after launch. Woopay will become one of the mainstream media for transactions between digital crypto assets, and is used in various business scenarios such as reserves, transactions, and remittances anytime and anywhere. Establish a cross-border trading platform, open up the exchange channel between



Woopay and physical objects, continuously expand the Woopay ecosystem, and enrich Woopay usage scenarios.

2.4 Woopay Business Strategy

Woopay builds a database center based on block technology, which achieves unique identity authentication, and builds a fully-functional, interlocking, excellent-function distributed global payment and wallet certificate ecosystem. Database anonymity, irreversibility, trustworthiness and other technologies can provide users with accurate, efficient and secure trading platforms, and then store transaction data. Users can conduct transactions through virtual currencies to understand the transaction price.

Step 1: Consumption Circulation

In order to adhere to Woopay's original technological advantages, the project party abandoned the traditional concept that the currency circle has always held the so-called speculation in order to have cash, so that the value of the currency has always remained at a relatively stable market value. Woopay's landing scene application has laid a solid foundation.

Step 2: Global Payment

Scenario applications including offline consumption, hotels, real estate, tourism, games, recharge, car purchases, travel, online train ticket booking, etc. have been launched.

Step 3: Internet of Everything

The technical team has made full efforts in the field of intelligent robots, blockchain mobile phones, and artificial intelligence. In 2020, it will be fully commercialized in Woopay.

03

Application and Value of
Woopay



Chapter 3 Application and Value of Woopay

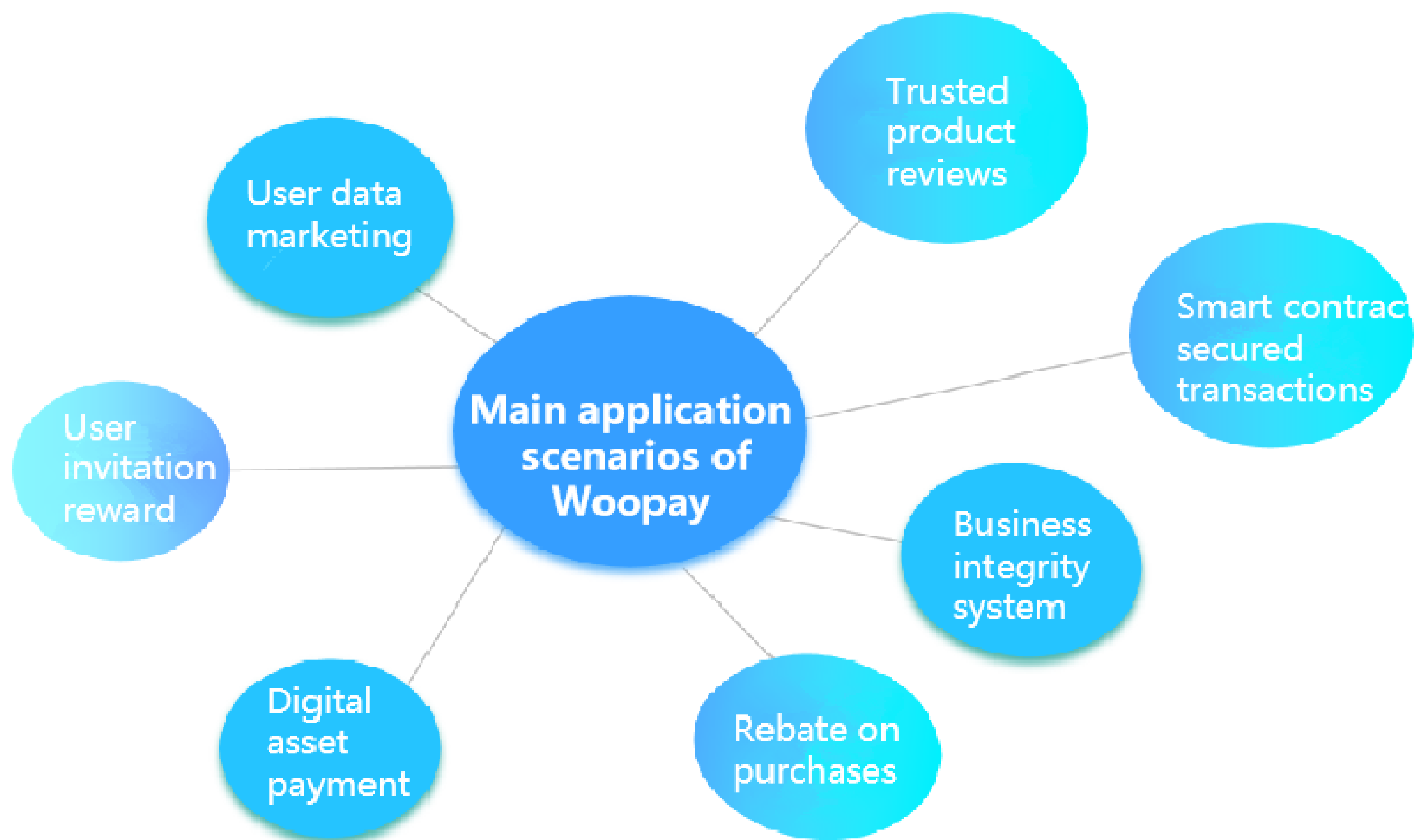
3.1 Ecological Opening Mechanism

Woopay is built on the basis of the Internet of Things system and credit information system. Woopay will be ecologically open to all enterprises. First of all, Woopay will establish a real-name authentication mechanism. All users who join the Woopay settlement ecological platform must pass real-name authentication on the blockchain. The platform provides SDK tools to make complex distributed payment interfaces simple. Developers and communities can easily create custom payment networks. All accounts are recorded in the block, and businesses do not need to pay extra accounting and auditing work. Business settlement with customers is based on smart contracts to build trust, light and efficient. Woopay will build a PayPal-like payment port, and all back-end functions will be packaged in the platform SDK. Developers and the community can implement various functions they need by calling open source code and examples provided in the SDK, such as malls, shopping carts, Online invoices, email / SMS notifications, refunds and more.

3.2 Main application scenarios of Woopay

Woopay Mall solves many problems of the traditional e-commerce mall model by systematically collecting user personal data (such as user cross-border consumption, transfer, payment and other transaction data), combined with the decentralized, traceable. Woopay will greatly enhance the business value of the online mall model in terms of payment, incentives, transactions, and marketing. After building a decentralized and trusted settlement platform, Woopay will further develop the settlement industry in the future. It will provide a solid payment technology infrastructure for more application scenarios, improve industry efficiency, and reduce business operating costs. Credit, points, asset securitization, and supply chain finance will have a lot to offer.

In the direction of asset trading business, actual project landings can be conducted in the directions of interbank asset transactions, commercial paper, and supply chain finance; Settlement and settlement direction, which can be applied to inter-bank settlement and settlement, cross-border settlement, and points; Credit business direction, which can be applied to credit collection, credit, pledge, loan, supply chain finance and other businesses; Other business directions can be applied in conjunction with blockchain in P2P, crowdfunding and other fields.



1) Rebate on purchases

Users who make purchases in the mall can return tokens to stimulate users to spend more.

2) Digital asset payment

Users can use the Token to deduct all or part of the amount in the mall to achieve the extension of the offline consumption payment scenario of the Token.

3) User invitation reward

Users invite others to register to get Token rewards, which can encourage users to develop other users autonomously.

4) User data marketing

Record user consumption and browsing data on the blockchain, cooperate with data marketing agencies, and users who use the data can also get token rewards.



5) Trusted product reviews

The user's product review data is recorded on the blockchain, so that the product review data cannot be tampered with and is authentic.

6) Smart contract secured transactions

Secure transactions through the trust of smart contracts.

7) Business integrity system

All transaction information, reviews, and after-sales information of the merchants are recorded on the blockchain. The information is authentic and credible, which improves the integrity of the merchants.

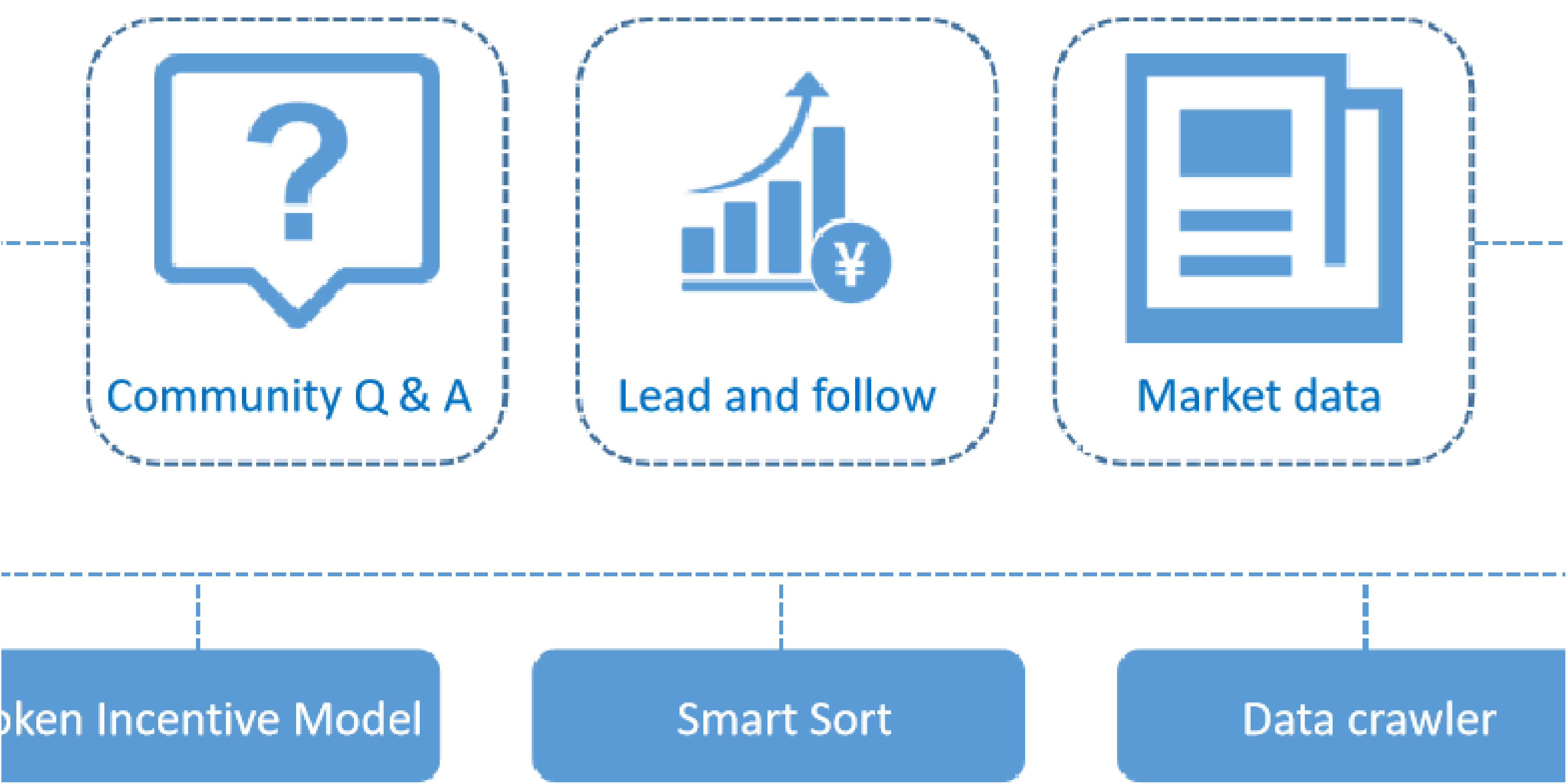
3.3 Woopay future application value analysis

1) Woopay will become a one-click portal for the next generation of digital asset transactions. As Woopay becomes a wider transaction payment medium and a more important value storage carrier, it is an inevitable trend to use Woopay to create new value and obtain corresponding benefits. In the future, the market value of the Woopay payment market will reach tens of trillions. Woopay will become a one-click entry point for the next generation of digital asset transactions, with huge market potential.

2) Woopay will be widely used in transfer, settlement and remittance. Remittance using the Woopay platform is very simple and convenient. With Woopay Token as the transaction medium and the Woopay transaction payment ecosystem, it can easily solve the problems of foreign exchange quota control, high processing fees, and long time to account. In addition, users who use Woopay can enjoy free and real-time fast transfers, which can save a lot of fees in large trades, overseas remittances, and online shopping.



3.4社区服务功能



Market analysis and consulting aggregation: Provide market quotations, trend charts and fundamental information for all digital currencies on the market, including the in-depth introduction of the source item of the coin, the value basis, its classification, and related competing currencies. Provide various information collections about the currency such as the official website, the latest news from the official community, news media reports on the currency, and so on. Provides technical analysis tools, including rich technical indicators, capital flows, and market data charts. Users can set take profit and stop loss early warning.

Q & A interactive community: Users can ask questions and answer questions, they can post their investment opinions, they can browse questions and search questions by category, the system encourages users to ask high-quality questions and publish valuable answers, and through the token incentive mechanism, Let users who have made great contributions get rewards for tokens, so that poor quality information has no room for survival.

Investment strategy and lead investment and investment: Investors can create their own investment portfolios, publish investment strategies, and record their investment trajectories. Including the participation of blockchain projects in the primary market, the portfolio plan of the secondary market, etc., to facilitate review and performance management, and to decide whether to publicly list their own strategies in the community. The community will rank according to different time periods to get everyone's attention and follow-up.



3.5 Woopay miner mechanism

For Woopay, mining has two meanings. First, mining is the basic process of generating money supply, and money supply is the fundamental motivation of miners. Secondly, the mining process actually encrypts the integrity of transaction data to form a checksum, so it is also the core means of protecting currency credit and preventing fraud.

Multiple algorithm mining. Woopay uses the Proof of Work (POW) mining principle. It is one of the few cryptocurrencies with multiple algorithm support. Woopay has 5 different hash functions: Scrypt, X17, Lyra2rev2, myr-groestl, and blake2s.

In order to ensure that each master node can get a fair reward, the network must force each block to pay the correct master node. If miners do not comply, the network must reject their blockade, otherwise cheating will be encouraged. Woopay came up with a strategy where the master nodes form a quantum, choose a successful master node and broadcast their messages. After N messages are broadcast to select the same target payee, a consensus will be formed, and the block in question will be required to pay the master node.

3.6 Woopay-mine pool protocol and role

1) Mining pool agreement:

Woopay's "mine pool" uses a proprietary protocol to coordinate hundreds or thousands of miners. After setting up a mining pool account, miners set their mining machines to connect to the mining server. When the mining machine runs mining online, it needs to maintain a connection with the mining pool server and work synchronously with other miners.

Common protocols include: Stratum (STM protocol) & get Block Template (GBT protocol) and the outdated Get Work (GWK protocol).

2) Role:

The roles in Woopay's "mine pool" include:

Miners: Earn relatively stable rewards based on the contribution of computing power;

Mining pool administrator: A certain percentage of the processing fee is charged. The mining pool administrator can also participate as a Solo miner to contribute computing power.

04

Woopay Digital Asset
Functional System

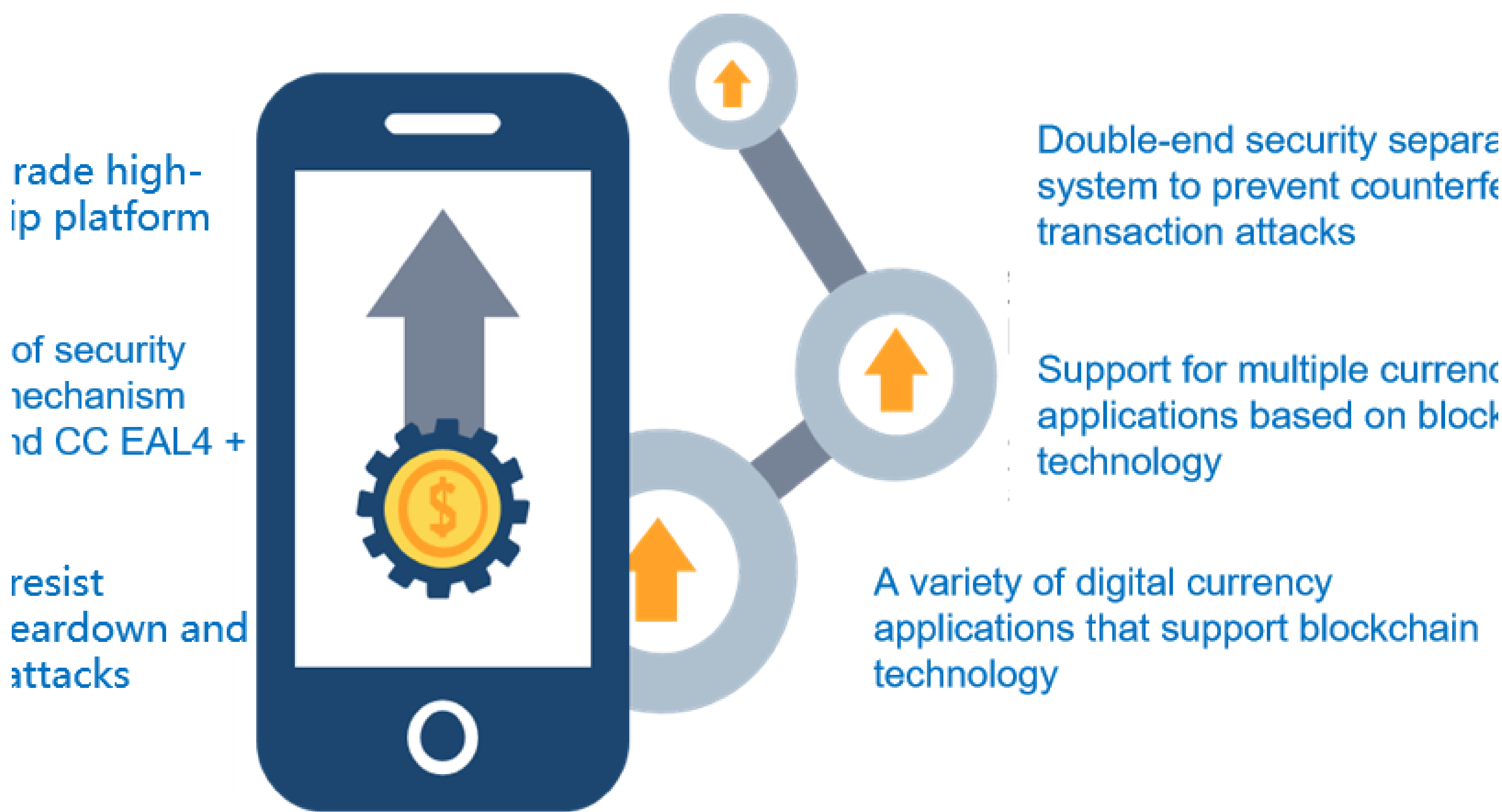


04 / woopChapter 4 Woopay

Asset Functional System

4.1 Digital Asset Wallet

The security of digital currency wallets is a prerequisite for asset appreciation. In a decentralized blockchain digital asset network, due to the anonymity of digital asset accounts, value-added digital assets can only flow back to the basic account, so the security of the basic account is particularly important. Once the basic account is stolen during the transaction process, it will also directly affect the security of value-added digital assets. The security of the basic account depends on the decentralized wallet technology. On the basis of the decentralized wallet, it is necessary to provide the highest level of protection for the keys and provide users with a secure basic account for asset management and value-added.





Woopay's digital wallet has multi-functional quantification, supports the storage management of all regular currency transactions in the international trading market, and does not require downloading many wallets. Blockchain + finance is the core strategic plan of Woopay DAPP application, introducing the most advanced blockchain technology in the world As well as the new financial system, compared with traditional blockchain technology, it adds the highest security level blockchain technology. We also provide cold wallet support, users can protect personal assets offline at any time, and can trade online at any time. Users can convert the fiat currency of the platform into any virtual currency at any time to conduct anonymous transactions to protect the anonymity of the assets. The wallet security technology is mainly to prepare for the real-time settlement of multinational finance, and to comprehensively protect the privacy funds of each user from being violated.

Woopay digital wallet supports IOS and Andriod, which are mainly divided into three types, as shown below:

Full node wallet-Woopay digital wallet full node, which records all nodes of Woopay's ledger, and is also the Woopay management interface, which can receive and send information and can view transaction history records;

Light node wallet-a digital decentralized platform wallet docked by Woopay super nodes and endorsed;

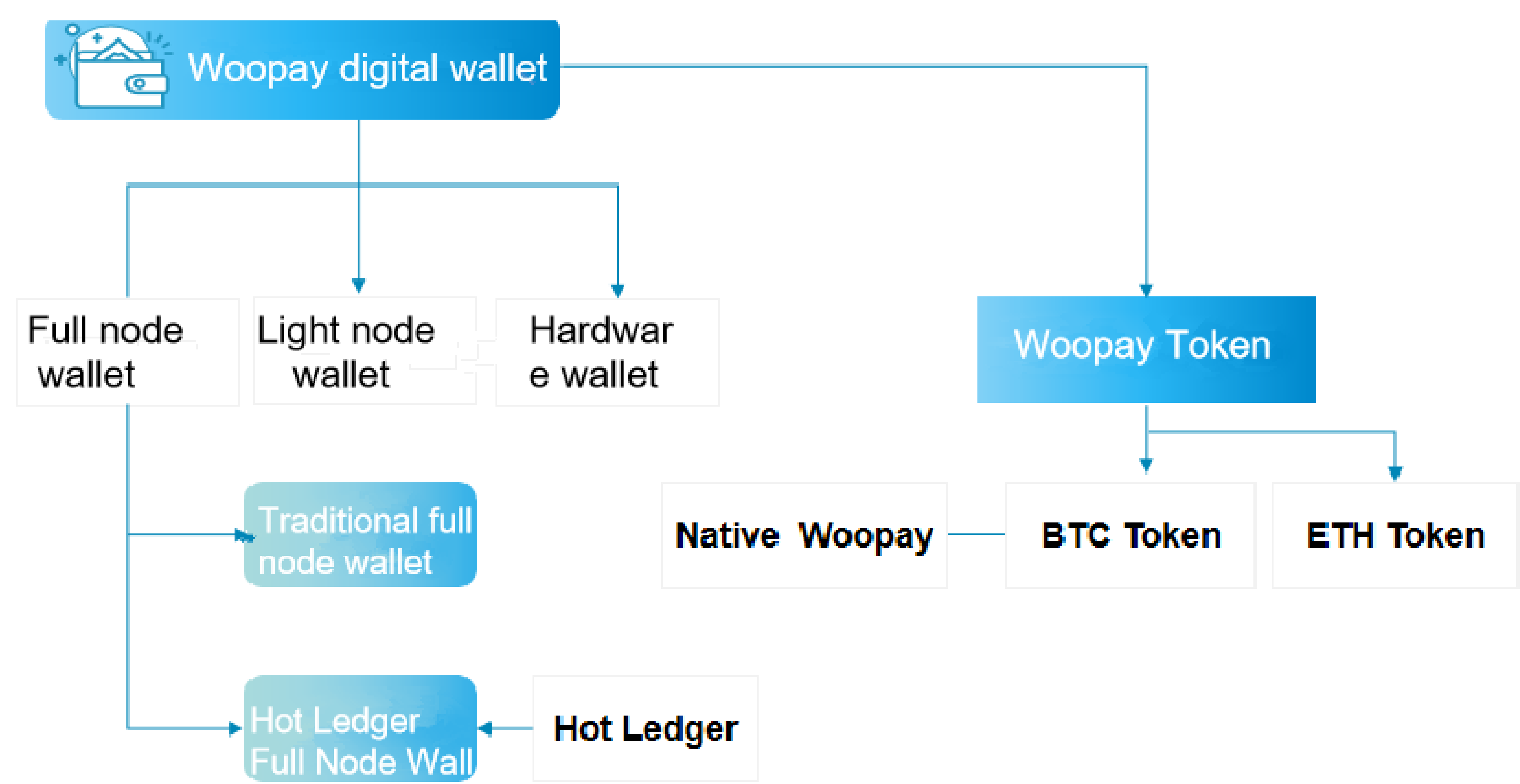


Figure: Woopay digital wallet type diagram



The main functions of Woopay digital wallet are as follows:

Chat: support voice, file transfer, red envelope, transfer, send picture, send personal business card, send location, share real-time location, etc .;

Red envelopes: support the function of sending single red envelopes and group red envelopes by friends;

Transfer: Support friends to transfer currencies to each other, and get the corresponding currency without the confirmation of friends. Two transfer methods are available: "transfer to friends" or "transfer to currency address";

Currency circle market dynamics: currency circle news information display, multi-currency dynamic market K-line display, multi-currency early warning reminder function;

4.2Woopay payment system

The Woopay payment system includes account numbers, cash wallets, digital wallets, accounts (existing / standby funds), and order matching systems.

1) Account: user registration, authentication, personal information, password, verification code login and other basic functions, session session and back-end authority verification, etc .;

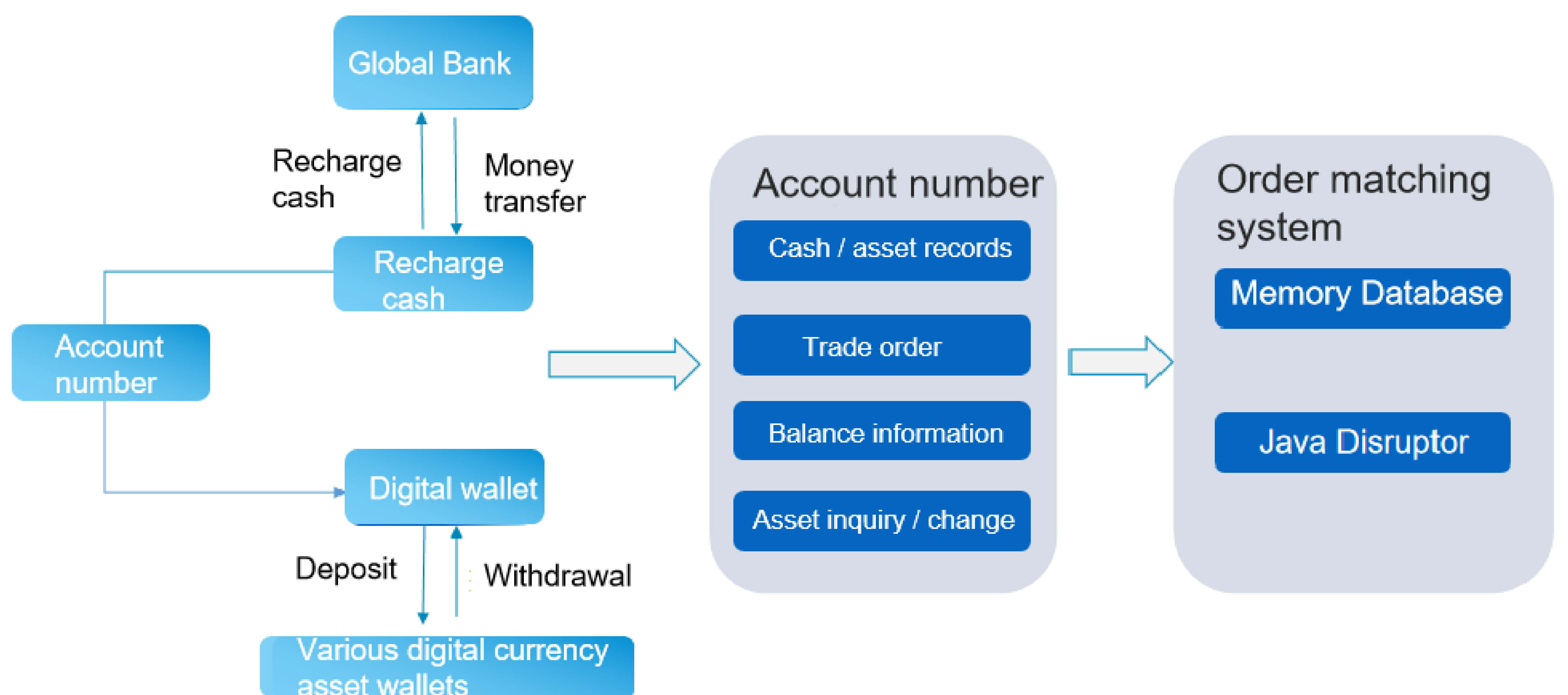
2) Cash Wallet: Docking with banks and payment transfers, providing corresponding transfer log management, and providing other service end users with relevant service support for depositing cash and withdrawing cash;

3) Digital wallet: Provide wallet API management and encapsulation for multiple digital currencies and assets, and provide related service support for depositing and withdrawing coins to other business ends;

4) Account: Maintain the cash and digital asset records and various transaction order records of the user and the platform as a whole, provide asset query and other services to ensure safe and reliable (strong consistency) change services; provide transactions based on MySQL transaction management Multi-table status consistency of account balance, order entrustment / cancellation / transaction, deposit / withdrawal, and withdrawal / recharge process; read-write separation and cache control of related table library plans that read asset balance information with more writes and less Consider the hot and cold data sub-database for the cumulatively increasing order records;



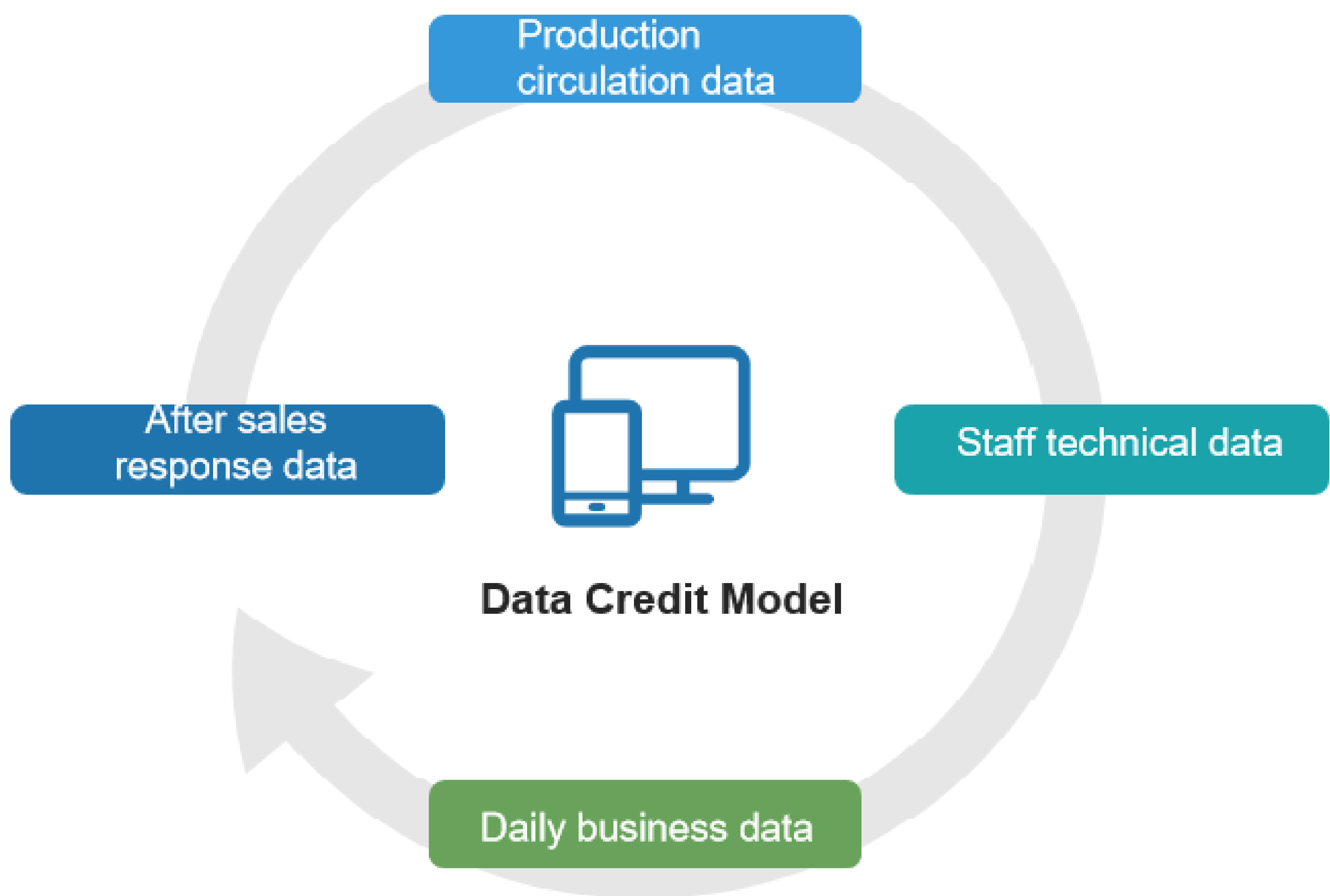
5) Order and matching transaction services: The in-memory database and Java Disruptor high-performance concurrent framework are used to implement the order matching system.



4.3 Enterprise Credit Information System

The Woopay team builds an enterprise credit information system based on the Internet of Things system to evaluate the company's credit information. The evaluation content mainly includes the company's production capacity, personnel mobility, technical capabilities, operating data, item circulation and product sales response. These modular data in the Internet of Things are used to access the data model to form an enterprise credit model. In the future, we will connect the central banks of various countries to grant credit and access more corporate credit data, so as to shape the authority of the Woopay credit system.

At the same time, in order to solve the problem of misuse of credit information, the Woopay team uses the smart contract of the blockchain to establish a credit inquiry query authorization mechanism, and uses the blockchain traceability feature to record the authorization and query. The irreversible attribute of the blockchain can strictly prevent credit institutions. Irregular use of credit information. In addition, the sensitive information recorded in the blockchain has been kept secret and can only be accessed after authorization.



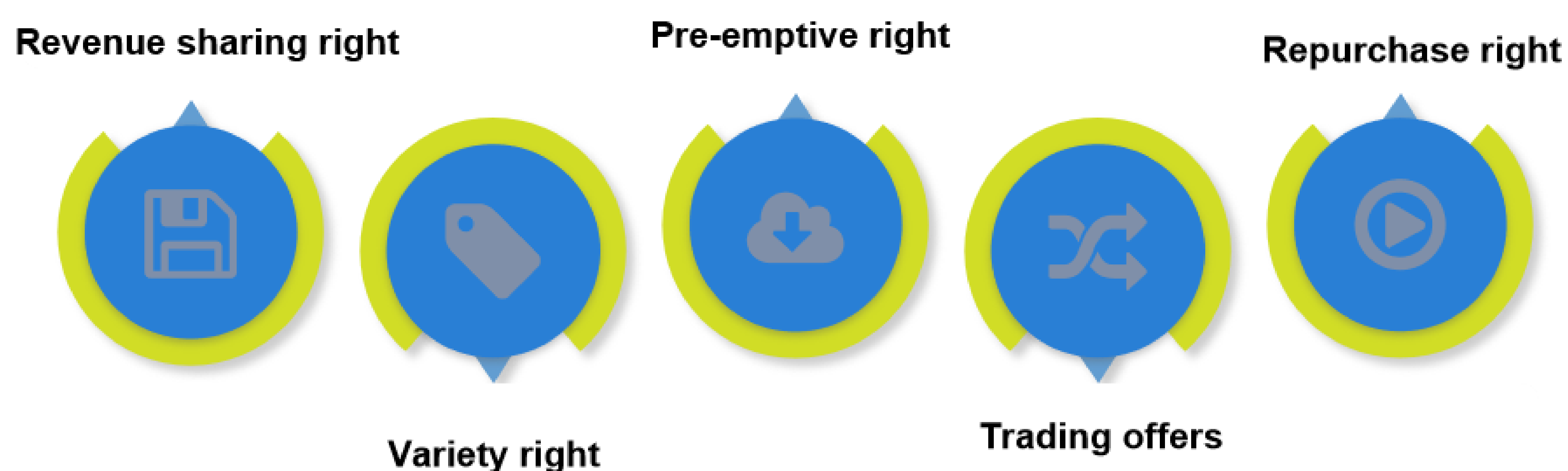
4.4Woopay mall service system

Use Woopay digital wallet for payment and settlement. User behavior data will be stored on the data link. Users can get a certain discount and token reward after paying with the wallet. This is also a disguised mode of consumer finance. At the same time, mall points generated by purchases can be freely circulated in the blockchain-based ecosystem, and points will be circulated as digital assets between various industry platforms. Realized the realization of points.

Users can browse product information on the platform, select products and make online purchases. When a user finds the product they want to buy and makes an online payment, the user can pay with Woopay.

4.5 Decentralized Exchange

Based on the characteristics of the Ethereum blockchain technology, Woopay built a centralized digital asset international trading center and adopted smart contracts to deposit assets, match transactions, and clear assets.



1. Revenue sharing right: Users can invest in any trading product listed on the Woopay platform, and receive all commissions on financial derivatives of that product and other dividends during the investment period. The specific amount of dividends will depend on the total income of financial derivatives produced by the trading symbol and the total amount of Woopay investment in the symbol. Woopay will set an upper limit on the total amount of investment for different trading varieties and set a minimum income floor to ensure the user's investment income.
2. Variety issuance rights: Users who hold a certain amount of Woopay will have the right to issue their own trading varieties, including but not limited to currency / futures / options trading varieties. The paid Woopay will be regarded as the user's investment in the variety, and the user will enjoy the revenue sharing right of the variety.
3. Priority subscription rights: When Woopay launches new options or other financial derivatives and subscribes, users who hold Woopay will have priority subscription rights for new product shares. The more they hold, the higher the priority subscription amount.
4. Transaction discount: When a user conducts a transaction in Woopay and needs to pay a handling fee, the user can pay with Woopay as the handling fee, and when paying with Woopay as the handling fee, he will enjoy a 50% discount on the handling fee.
5. Repurchase rights: The platform will periodically repurchase Woopay with a portion of the platform's revenue at a price higher than the market price at that time.

05

Woopay Blockchain
Technology Application



Chapter 5 Woopay Blockchain Technology Application

5.1 Application of technological innovation

The blockchain can be simply divided into three layers, the protocol layer, the extension layer, and the application layer. Among them, the protocol layer can be divided into a storage layer and a network layer, which are independent but indivisible.

The protocol layer refers to the lowest technology. It mainly includes network programming, distributed algorithms, cryptographic signatures, and data storage technologies.

The extension layer is to make blockchain products more practical. This project is aimed at the extension of the payment direction. The "smart contract" is a typical extension-level application development.

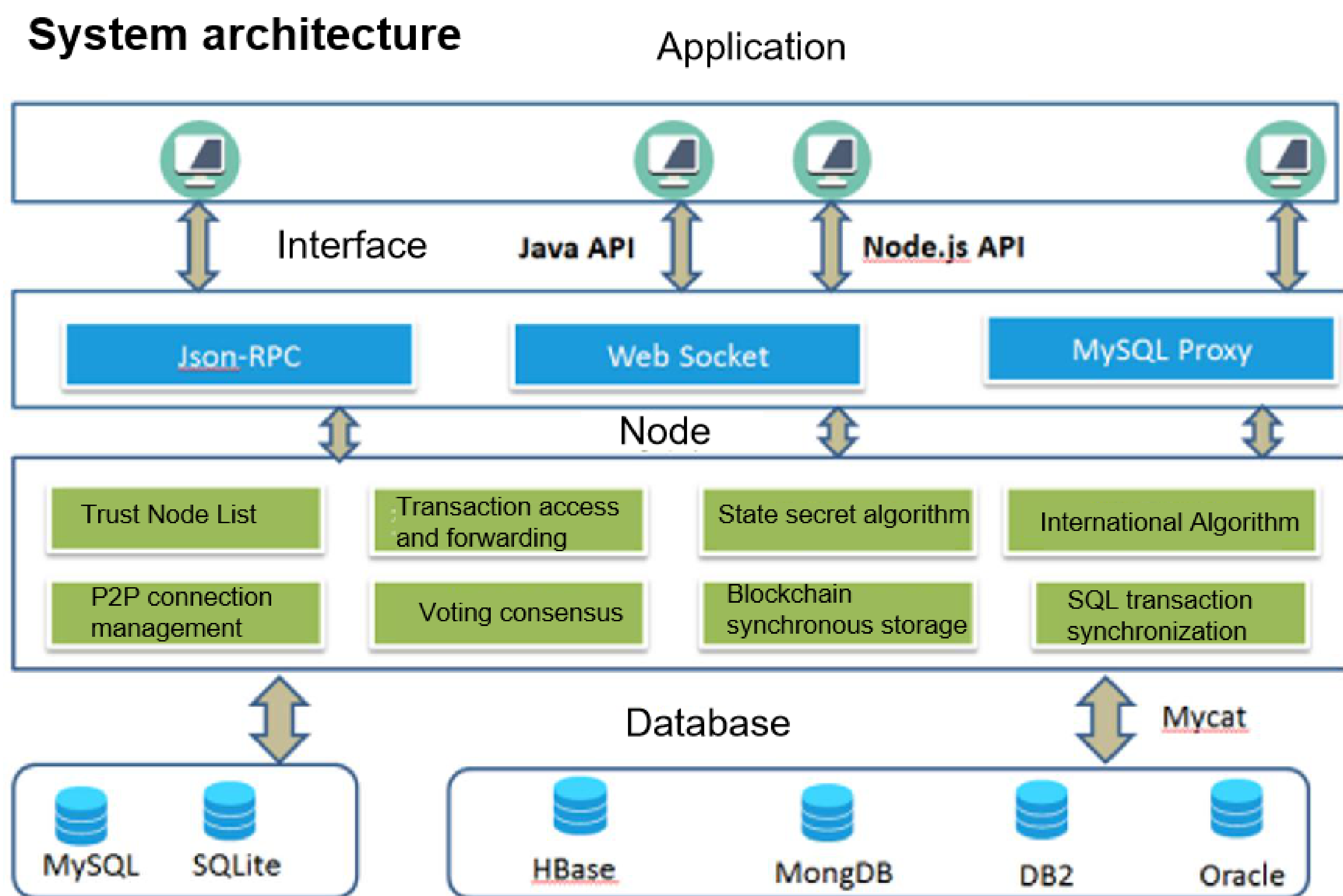
The application layer is a product that ordinary people can really use directly, and it can also be understood as the browser side of the B / S architecture products.

Guided by the design principles of "independent innovation, security, efficiency, and open sharing", the overall blockchain architecture of the Woopay payment platform is divided into three levels:

The bottom layer of the Woopay blockchain is the Woopay blockchain-connected platform independently developed by Woopay. The Woopay chain provides the functions of basic blockchain services for upper-level application scenarios through the interface of SQL and API. The core positioning is to create a leading enterprise-level blockchain basic platform.

In the middle is the platform product service layer. On the bottom layer, a high-availability and scalable blockchain application basic platform product is built, which includes multiple ledgers, authentication services, shared economy, and tokens, and integrates the foundation of related fields. Product features help companies quickly build upper-layer blockchain application scenarios.

The application service layer provides end-users with reliable, secure, and fast blockchain applications. Woopay will work with industry partners and their technology suppliers to jointly explore the development direction of the industry blockchain and jointly promote the implementation of blockchain application scenarios. . The overall frame structure is as follows:



1)The underlying platform

User management: Responsible for the identity information management of all blockchain participants, including maintenance of public and private key generation, key storage management, and maintenance of the user's real identity and the correspondence between the blockchain address, etc., and if authorized, monitor and audit Some real identity transactions. For the application of Token and financial transactions, it also provides risk control rules to ensure system transaction security.

Basic services: The basic services are deployed on all the nodes of the blockchain to verify the validity of business requests and record them on storage after completing the consensus of valid requests. For a new business request, the basic service first adapts and analyzes the interface, performs authentication processing, and then signs and encrypts the transaction or contract through a consensus algorithm, and then stores it on the shared ledger completely and consistently. The Woopay consensus blockchain solution is adaptive, has high concurrency under normal conditions of the network and nodes, and has strong fault tolerance in the event of network anomalies or node deception.

Smart contract: responsible for the registration and issuance of the contract, as well as the triggering and execution of the contract. The user defines the contract logic through a certain programming language. After publishing to the blockchain, according to the logic of the contract terms, the user's signature or other events trigger the execution to complete the contract logic such as transaction settlement.



Operational monitoring: responsible for the deployment, configuration modification, contract setting and real-time visual output of product operation during product release, such as alarms, transaction volume, network conditions, node health status, etc.

2) Platform product service layer

The platform product and service layer abstracts various types of typical blockchain applications and provides the basic capabilities and implementation framework of typical applications. Users can use these basic capabilities to stack the unique characteristics of their own business and easily complete the blockchain implementation of business logic. Help users quickly relocate existing services to the blockchain to meet new scenario needs, or build completely new business scenarios, using the blockchain's immutability and non-repudiation features to solve previously difficult problems.

Tokens: Based on the analysis of tokens such as virtual currencies, settlement transactions, commercial papers, points, and coupons, we find that asset chaining is a key link. To this end, the concept of "asset gateway" is introduced to assist users in the conversion of off-chain assets to on-chain assets. Once the asset is on the chain, operations such as transfer, split, and withdrawal will be strictly controlled through the public and private key system of the account, and all operations will have signature verification, and both parties to the transaction will leave traces and cannot be erased. Such as commercial paper, card coupons and other assets that have a valid period of time, they will also provide the ability to automatically liquidate upon maturity, including asset issuance, asset transfer, asset withdrawal, asset liquidation, and asset inquiry.

Assurance services: For the application scenarios of intellectual property, policy security (proof of equity), personal and corporate qualification certification, the blockchain fully utilizes its indelible and public capabilities, allowing institutions and individuals to use a simple interface or APP client. It is possible to publish copyright information, insurance information, qualification certificates, etc. on the blockchain, and let all bookkeeping nodes testify for themselves. In addition, based on Woopay's self-built intellectual property platform, users' rights protection will be more convenient, and the evidence confirmation will be more authoritative. Such as registration of ownership, cancellation of ownership, entry of infringement evidence, etc.

Shared ledger: At present, the reconciliation and settlement between financial institutions are basically performed on a daily basis, and the reconciliation methods are basically to issue reconciliation statements to compare the transaction flow between the two parties. This brings a certain delay to the final transaction confirmation and fund transfer. Some business scenarios that require real-time payment must even require business operators to advance funds. The blockchain's natural shared ledger allows the reconciliation not to be sent the next



day, but can be carried out at any time. As long as the two parties connect the reconciliation logic to the blockchain, the funds can be verified. It can basically realize quasi-real-time transaction confirmation and fund transfer, and no party can deny it. In particular, it has a competitive advantage for businesses that have long capital chains and involve many links. Regulators can also participate in shared ledger records.

5.2 Security mechanism

5.2 Security mechanism

The blockchain is a distributed database, composed of continuous blocks, containing multiple pieces of information. The blockchain has no administrators, it is completely decentralized, and the biggest concern is the security of transactions.

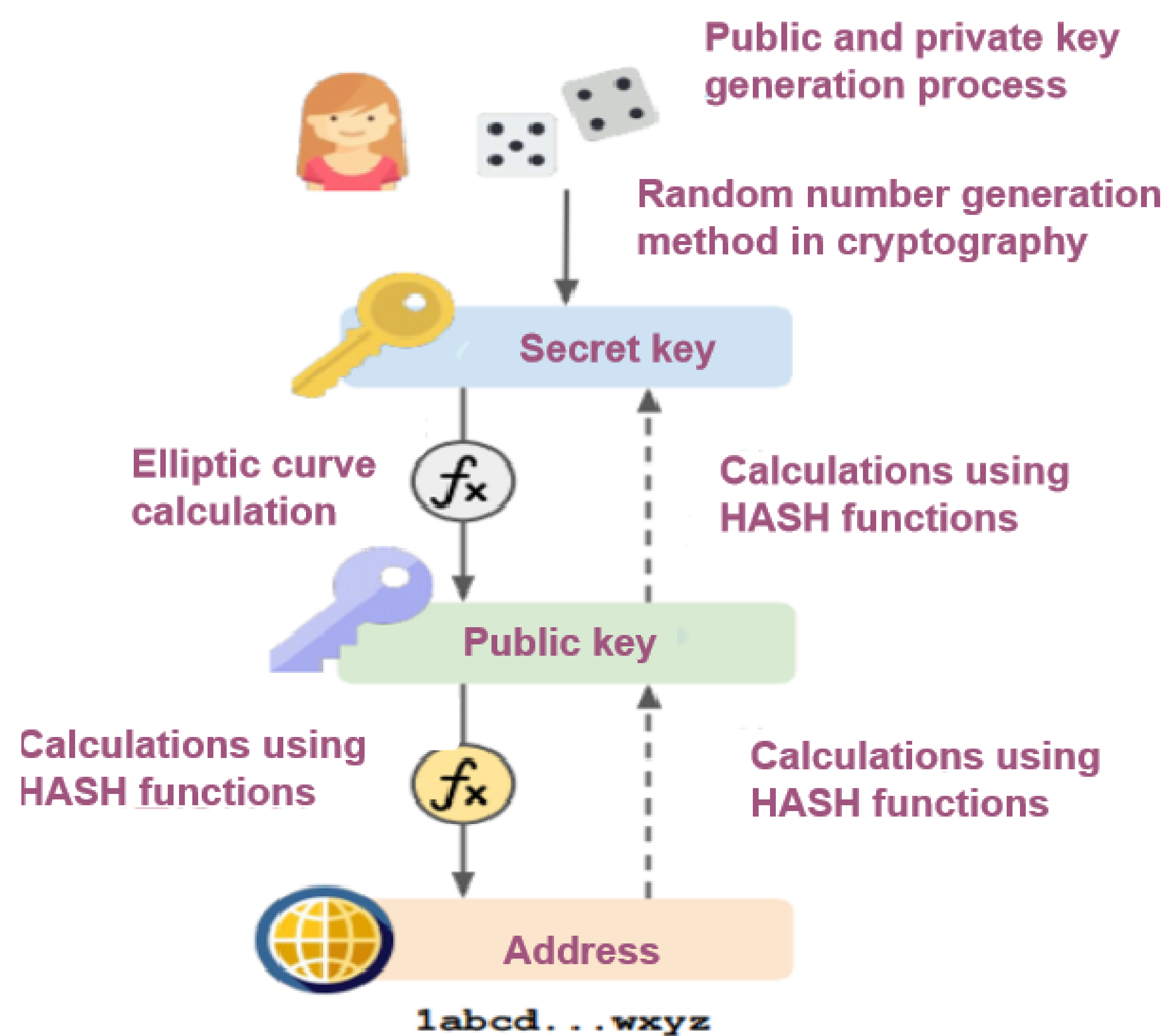
The mechanism of the Woopay platform security mechanism is as follows:

(1) Generation of public and private keys

The user must first use the SHA256 (Security Hash) algorithm to generate a 256-bit private key (yellow key) from the ciphertext. When the HASH function is used, the data length changes and the hash value length does not change; each Data character corresponds to a unique hash value, which can be used as a data fingerprint.

Use this private key with an elliptical encryption algorithm to generate a public key (light purple key). This public key can let everyone know. Everyone can get the user's address through this public key and HASH function.

Because of the one-way nature of the HASH function, that is: $\text{Hash}(x) = y$, it is difficult to find x through y . If you want to crack the public key by address, or the user's private key by public key, it is almost impossible.

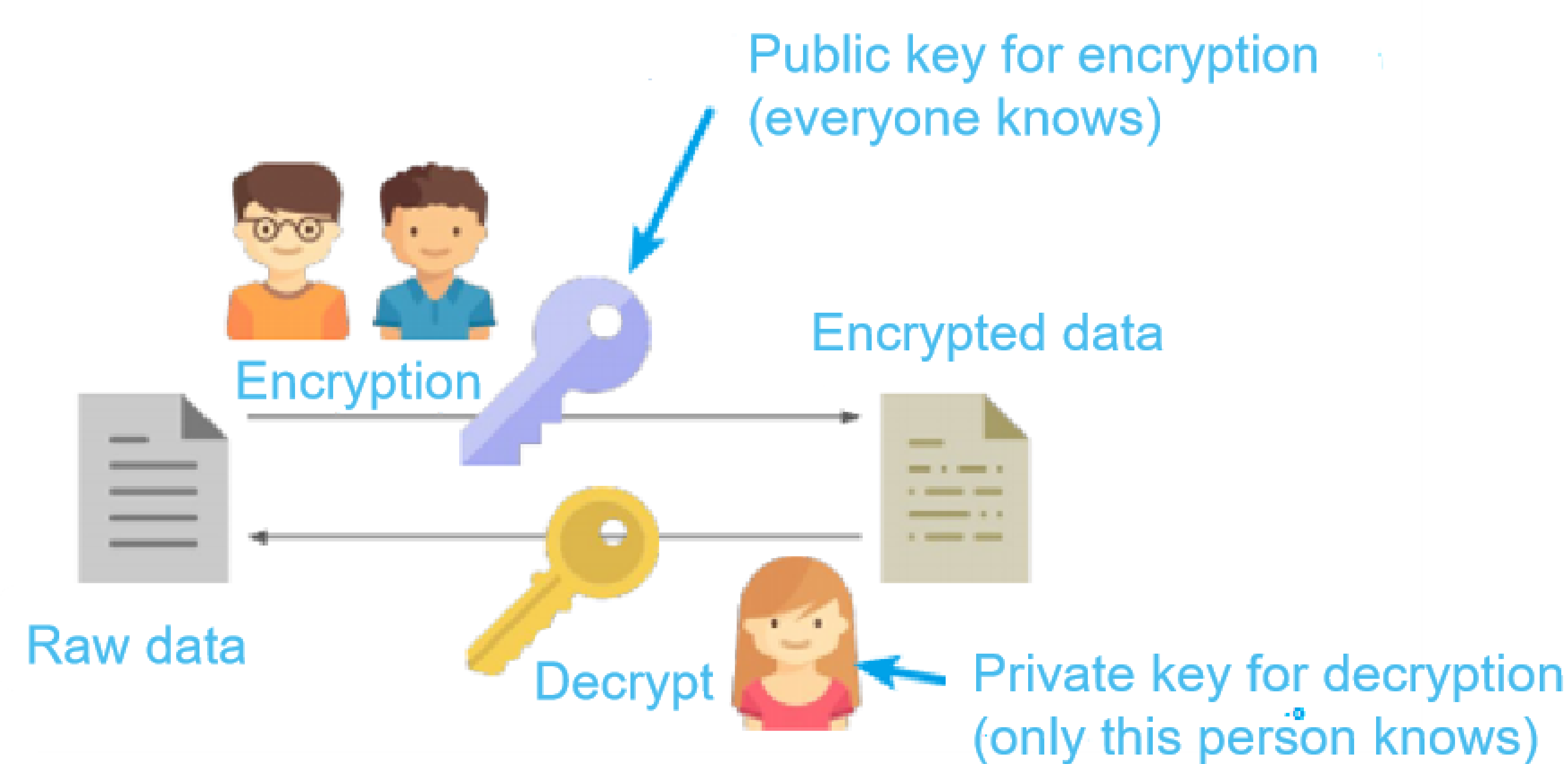


(2) Encryption and decryption

Encryption: If someone (such as a user) wants to encrypt data, it is encrypted using a public key.

Decryption: The private key is required for decryption. This is only known to the user.

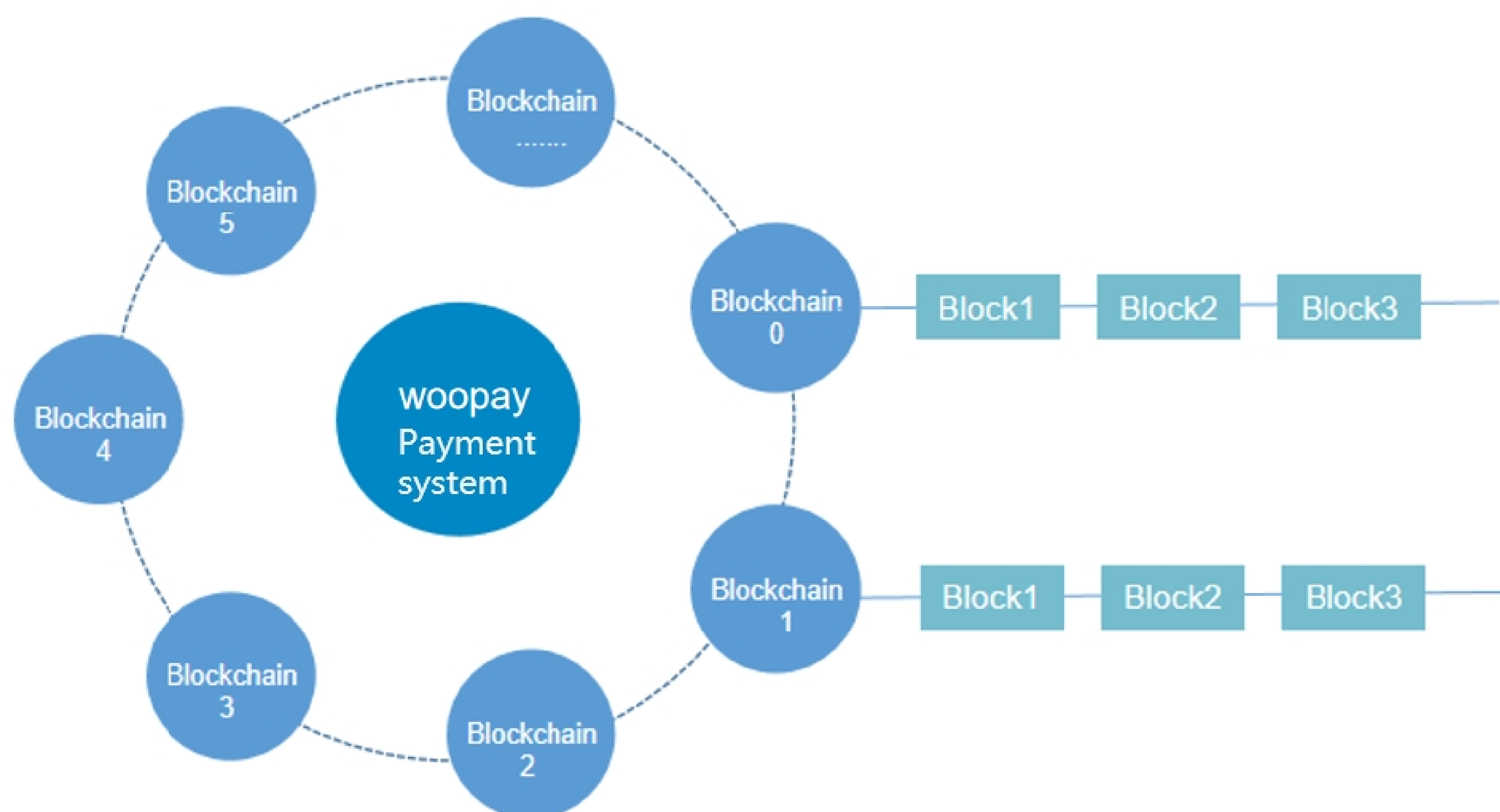
Encryption and decryption





5.3 Ring topology relay technology

Woopay's Ring Topology Hub technology connects multiple chains to one Hub, allowing digital asset terminals to easily achieve one-click cross-chain and conversion. The advantage of the ring is that the topology consumes resources much less than the star and tree. Fewer nodes and short distances may not be obvious, but long distances and many nodes make this advantage of a ring network obvious. The general design structure is shown in the figure:



5.4 Super Full Node Wallet Technology Engine

The NOBLOCK technology engine used by Woopay payment system can make light wallets truly achieve the lightest purpose. At present, a huge problem of light wallets is to receive the block BLOCK information of the blockchain network. Since the blockchain network implements data security through data synchronization redundancy, the network requests of light wallets occupy a large amount of network bandwidth.

Our design idea is to make the blockchain browser our block BLOCK data source, and we no longer synchronize the block BLOCK data ourselves. However, using the data source of the blockchain browser will bring a problem, how to ensure the correctness of the data source. We have adopted the design architecture of the BCBP (Block Chain Browser Pool) blockchain browser pool.



5.5 Faster Payment Network

The WV Coin platform has global liquidity and can be traded on the chain, eliminating the intermediate exchange and settlement process and accelerating transaction efficiency. At the same time, using blockchain smart contract technology, once a transaction is formed, a smart contract that cannot be tampered with will be automatically executed under certain conditions and paid to the asset holder in a timely manner.

The decentralization of the blockchain will bring the problem of low payment efficiency. We use the following technologies to achieve a faster Woopay payment network (essentially, to build a Woopay VPN subnet based on the existing blockchain network), confirm transfers in seconds, and ensure that real-time consumption is not affected by the blockchain. The technical design focuses on the following:

Customized mobile client, Blockchain transfer of Woopay users with SHA512-ZERO encryption mark;

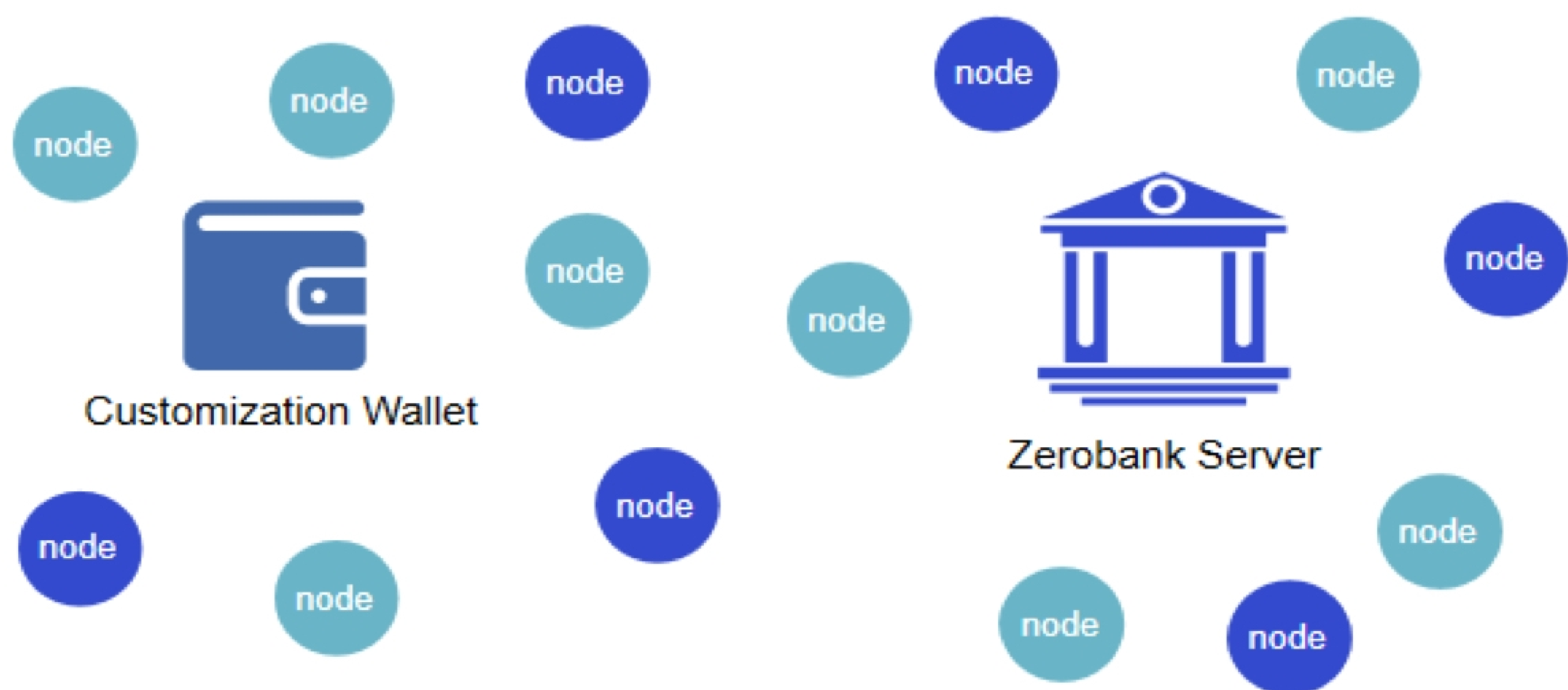
Develop enterprise-level blockchain nodes, detect the blockchain activities of Woopay users



at any time, perform legality verification, traffic analysis, etc. 7 * 24-hour continuous detection of enterprise-level nodes, providing analysis of balance changes to server users, and reporting to Woopay server;

The Woopay server receives the analysis results of enterprise-level blockchain nodes. When a user initiates a card swipe request, it can already be clear in real time whether the user has actually initiated a blockchain transfer request to prevent malicious double spending.

In summary, as shown in the figure (the blue node is our sniffing node deployed globally):



06

Woopay Profit Model



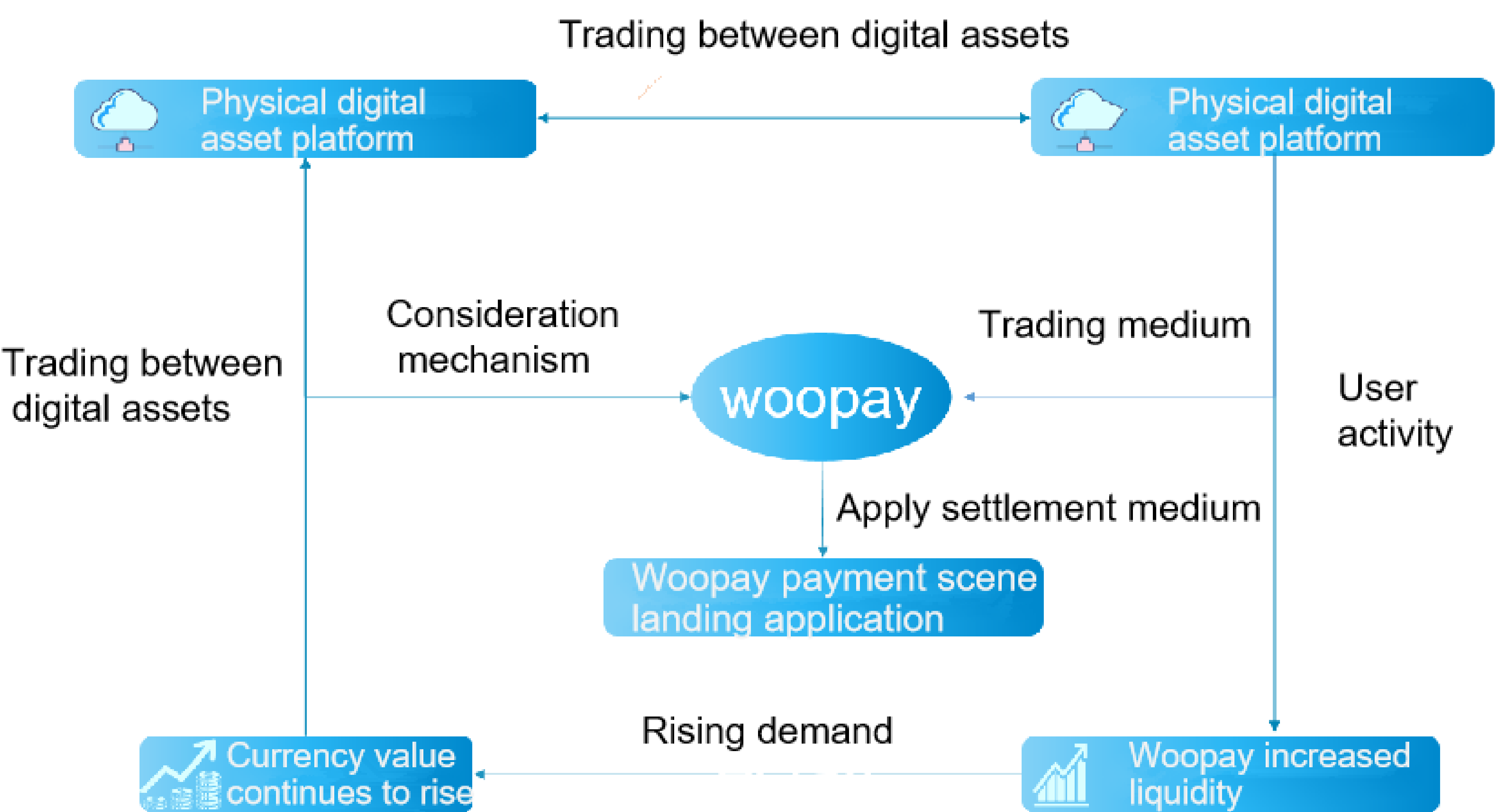
Chapter 6 WooPay Profit Model

The WooPay platform uses incentives to ensure the perfect operation of the entire system.

All reward transactions and strategy information are recorded in the blockchain, which is open, transparent and traceable. The incentive model ensures that each participant in the system takes what they want, and the platform and users get the economic returns they want.

"WooPay" is committed to breaking the cross-border payment industry profit model and creating a new profit model.

- 1. Business income: including WooPay platform output, as well as services provided on the platform to companies and companies, companies and individuals, merchants and merchants, individuals and individuals to obtain service fees, etc.
- 2. When the transaction activity brings more users to promote the rise of the token price, the platform also gains more profit and value;
- 3. Internet financial digital asset investment, providing big data analysis service fees for investors' investment behavior preferences for Internet finance;
- 4. It is a value-added charging project that may occur in the future with the issuance of digital assets;
- 5. Provide VIP investment consulting differentiated services for elite investors.





In addition, "Woopay" is a very profitable blockchain application platform, so all the things mentioned in this white paper:

Trading commissions. The international mainstream trading platform adopts the transaction fee of the buyer and seller, that is, a transaction can collect a certain amount of fees between the buyer and the seller.

Leverage fees. For index-based trading platforms supported by local regulations, the platform provides highly leveraged platforms. In addition to collecting transaction fees, it can also charge high leverage fees; the platform guarantees the security of platform funds through mandatory liquidation measures.

Fees for withdrawal and withdrawal. In order to keep users' digital currencies and funds on the trading platform, the major international trading platforms currently charge an average of one thousandth of the withdrawal fee and withdrawal fee;

Other income. Shelves and advertising fees for newly issued digital currencies. In the future, high-quality assets can be ICO, which will bring huge benefits to Woopay;

In addition, the main business and extension business of "Woopay" public chain are both sources of profit.

07

Issuance Plan



Chapter 7 Issuance Plan

7.1 Woopay Value System

Woopay, as an asset, can be used for investment in the platform, can also be used to exchange with digital currencies of other exchange platforms, and can also be used to exchange between fiat currencies.

The Woopay protocol token itself complies with the ERC20 standard and has native liquidity on the basis of smart contracts. This means that users do not have to go to traditional exchanges to buy and sell Woopay, but can use the decentralized matching of the Woopay protocol itself in the way discussed in this discussion. This is due to the agreement's flexible charging model.

7.2 Release plan

7.2 Release plan

Project name: Woopay

Issuance total: 10 million initial offerings, 700 million in assets, and 690 million remaining. Woopay wallet users use hashing algorithms to increase mining power through circulation.

Wallet mechanism: accumulation, compound interest calculation, currency dividend

Receiving currency: ETH. Woopay is a de-centralized blockchain digital asset based on Ethereum ERC2.0 technology.

In the early stage, it was based on ERC20 tokens. In the later stage, the mainnet was launched to develop blockchain digital assets of its own public chain.



7.3 Woopay Community Token Operation Mode

In a nutshell, in the Woopay community, every node and user and the digital content (such as consumption, invitation, sharing, advertising, etc.) generated by them, and user behavior data (browsing, forwarding, commenting, etc.) are all in the community. Platform rights, which are not exclusive to the Woopay community, but belong to all roles in the community. Then, through the recruitment method, each equity is tokenized, and the tokenized service equity is sold to all users in the industry chain. Users who have obtained tokenized rights can become partners, in-depth participants, and ecological builders at different levels in the Woopay community. What Woopay community wants to build is a Woopay community ecosystem where everyone participates, everyone contributes, everyone supervises, and everyone benefits.

7.4 Woopay's Community Token

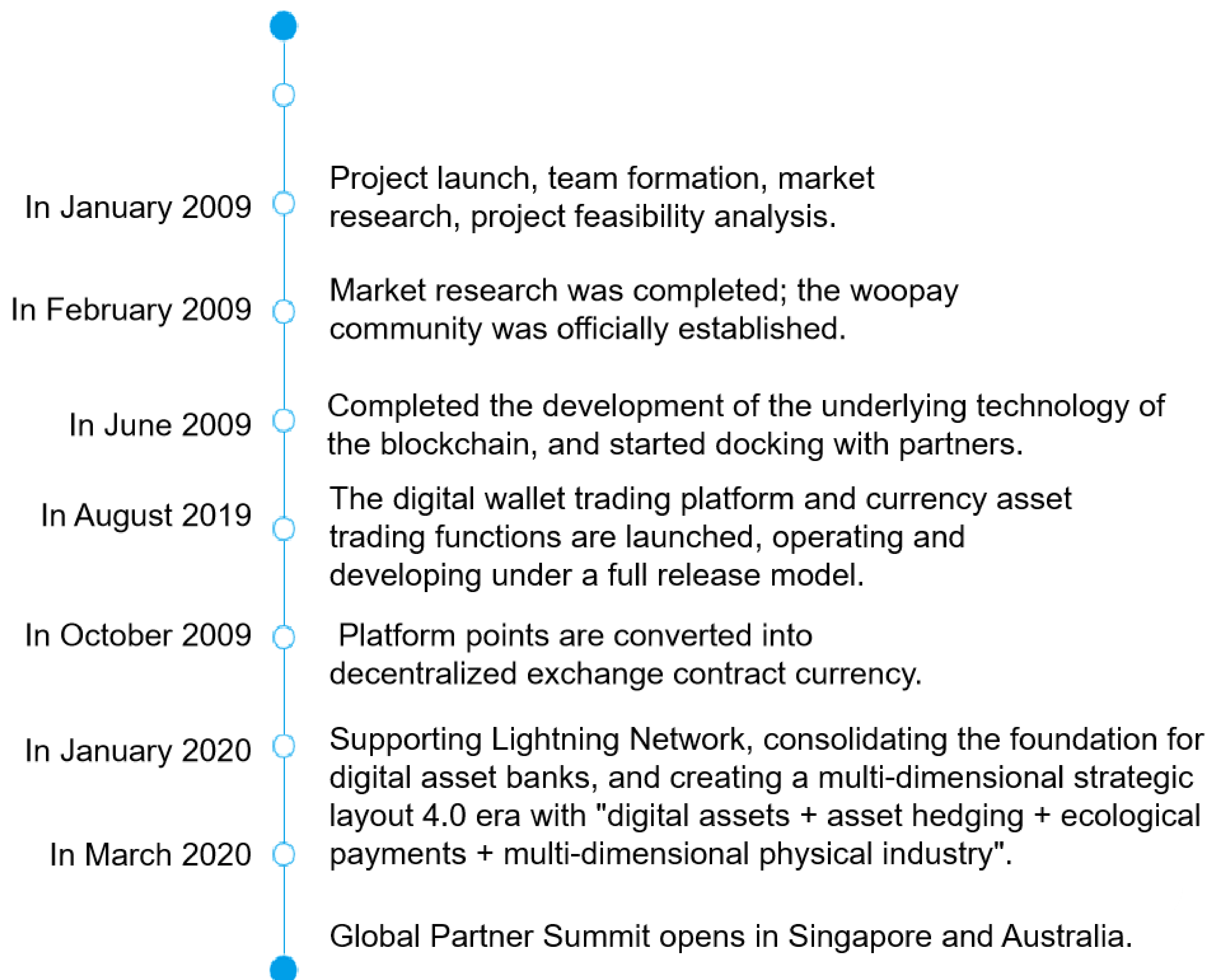
The token in Woopay's community-based blockchain-based token management system can be used and circulated in many scenarios of Woopay's ecological community. The purpose is to allow users to enjoy more rights and interests in Woopay's community ecosystem and open up Woopay. Community token full industry services.

08

Development Planning
Path



Chapter 8 Development Planning Path



09

Team Introduction



Chapter 9 Team Introduction

9.1 Foundation

In order to ensure the sustainability and management effectiveness of the Woopay project, the Woopay team established the Woopay Foundation in Singapore to regulate the organization and activities of the foundation and safeguard the legitimate rights and interests of the Woopay Foundation, relevant beneficiaries and users. The Woopay Foundation must abide by the Constitution , Laws, regulations, rules and national policies.

9.2 Team members

Woopay's core operation team has rich experience in blockchain senior technical personnel and major project managers with deep technical skills and mastered Woopay's core technology. It also has rich professional knowledge and excellent project management capabilities. Woopay's team is composed of experts who master blockchain technology and experts who have rich experience in the global payment industry, which is a strong guarantee for the future landing of Woopay projects.



Kris Marszalek Founder and CEO

Born in Pennsylvania, United States in 1955. From 2005 to 2012, he served as Google 's vice president of Latin America and South Atlantic affairs. He graduated from Stanford University with a computer engineering major, and previously worked at investment banks such as Lehman Brother and Barclays. Buenos Aires Operations Center.



Sean Rach Co-founder

Born in Ohio, United States in 1980, former technical officer of Google 's San Diego Operations Center in Latin America, graduated in computer science from Princeton University, and co-executive Google.org non-profit fund project in 2004 with Larry Bryant. Head of Technical Security and Defense at Morgan Stanley.



Rafael Melo Co-founder

Rafael received a bachelor's degree in information software engineering from the University of Chicago and a master's degree in software engineering from Boston University. With 15 years of software development experience, he has worked as the chief technical engineer of Cisco and Motorola in the United States, and has led the architecture design and research and development of multiple major project system platforms. Rafael has strong mathematical, logical, and data analysis capabilities and masters the world's leading software development technology. He has become a senior researcher at Oxford University and the IBM Blockchain Research Lab. He has conducted in-depth research on cryptography, distributed storage, and other technology.



Kasim Zorlu

Computer major at University of California, USA, has rich software technology research and development experience, familiar with front-end and back-end Development, interface design, database, mobile client, Single Page Application, Web Socket, HTML5 / CSS 3 and other technologies.



Jocelyn della

Founder of the Linx Group and Foundation in Toronto, Canada, and a member of the Southeast Asian Blockchain Association. He began participating in overseas blockchain company business in 2014. In 2016, he with the United States NASA technical team created the Canadian LINX Group Company and Foundation Organization.

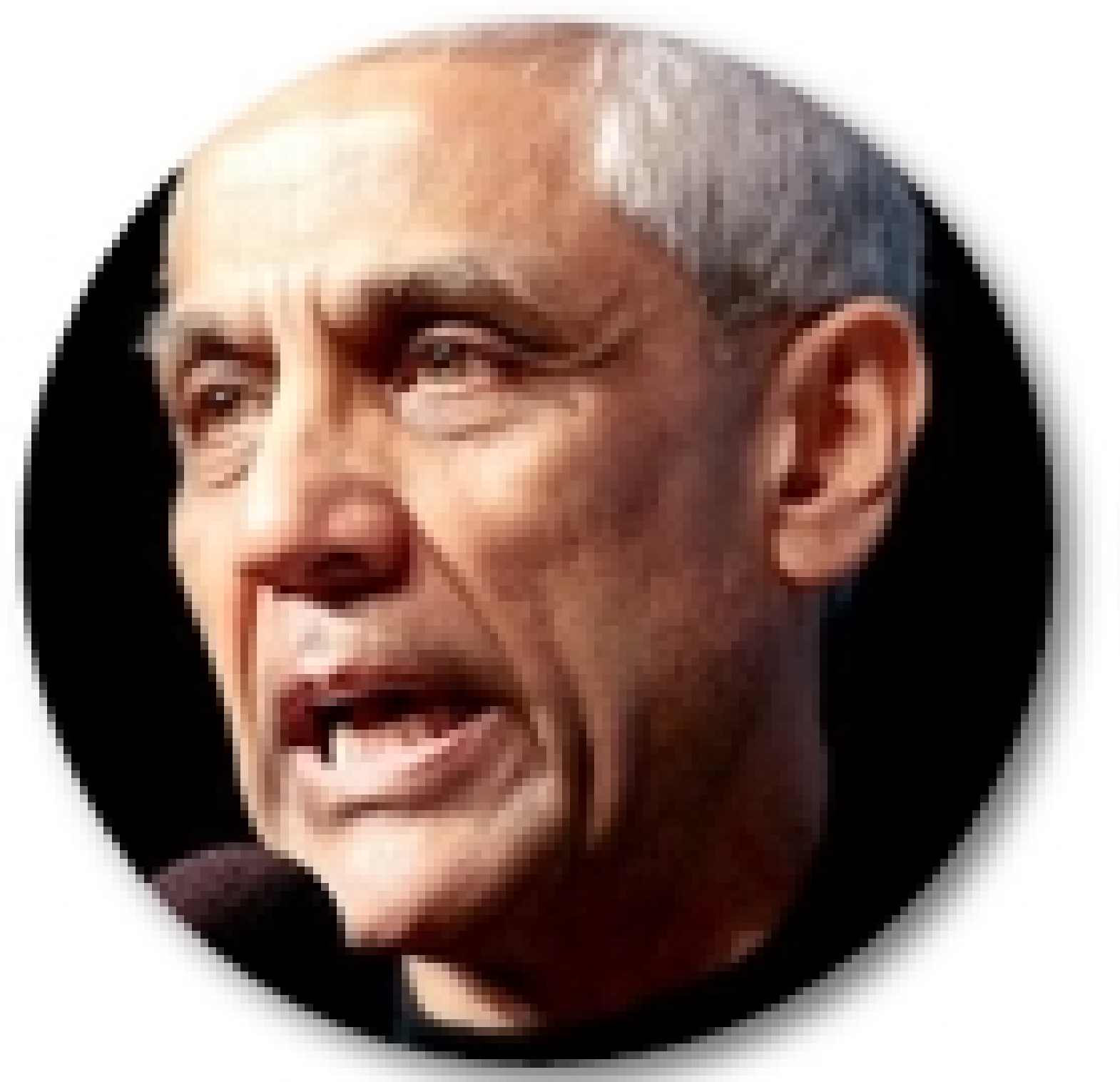


9.3 Strategic Advisor



Jerry Cuomo

Blockchain Technology Expert Jerry is leading the definition of IBM's strategic Blockchain, product and customer interaction approach. Holding the title of IBM Fellow, he is one of the founders of IBM WebSphere software. At IBM, Como has led projects in economic APIs, mobile computing, cloud computing, web application servers, Java, TCP / IP, real-time collaboration software, and high-performance transaction processing systems.



Khosla woopaynture

Khosla Woopaynture was born in Menlo Park, U.S.A., and was called "Big Big Ventures" by TechCrunch. Recently, Khosla has raised \$ 400 million for the next batch of seed stage investments, some of which will be used in the Bitcoin and blockchain fields. Khosla's Bitcoin investment list includes 21 Inc, which has received more than 120 million US dollars, Bitcoin sidechain technology company Blockstream, blockchain technology expert Chain, and financial service provider BlockScore.

10

Risk Warning



Chapter 10 Risk Warning

10.1 Compliance and operational risks

Compliance and operational risk refers to the risk that Woopay violates local laws and regulations in the process of identifying funds and conducting business, resulting in the inability to continue operations.

The hedging methods adopted by the compliance and operational risk operation team are:

- 1) The operation team and decision-making committee adopt a decentralized operation method to eliminate single points of risk;
- 2) Hire professional lawyers in the local area where the business is carried out, and design open platform, digital asset issuance, digital asset trading, blockchain finance, blockchain application and other businesses under the legal framework;
- 3) In order to meet and comply with local laws and regulations, the Woopay platform may not provide normal services in some international and regional areas.

10.2 Market Risk

Market risk means that Woopay is not accepted by the market, or there are not enough users to use it, the development of the business network is stagnant, and there is not enough profit to support it.

The hedging methods adopted by the market risk operation team are:

- 1) Accumulate actual market operation experience through the past year and confirm that the market pain points exist objectively;
- 2) Use the founding team's accumulated experience in Internet, payment and financial market services to quickly incubate the platform ecology and generate profits.



10.3 Technical risks

Technical risk refers to a major problem with the underlying technology that causes Woopay to fail to achieve its intended function and that key data is tampered with or lost.

The hedging methods adopted for the technical risk operation team are:

- 1) Develop a Woopay payment system based on a mature, open source, and secure blockchain technology and adopt an architecture that has been recognized and verified by commercial customers.
- 2) After identifying sufficient resources, attract more high-end talents from related industries to join the development team, lay the foundation, strengthen the capacity, and draw on mature development experience.

10.4 Funding risk

Fund risk refers to the significant loss of project funds, such as: theft of funds, loss of funds, reserves, sharp depreciation, etc.

The hedging methods adopted by the capital risk operation team are:

- 1) The reserve fund is jointly managed by the decision-making committee with a multi-signature wallet + cold storage method. Under the 5-7 multi-signature mode, when three directors cannot perform their duties at the same time, the reserve fund will face risks;
- 2) The operation team serves the financial industry all the year round and has rich risk control experience. The working capital will only lose money when the market price fluctuates sharply (a drop of more than 50%).

11

Disclaimer



Chapter 11 Disclaimer

This document is for informational purposes only. The content of this document is for reference only and does not constitute any investment advice, solicitation, or invitation to sell stocks or securities in Woopay and its related companies. Such invitations must be made in the form of confidential memos and must comply with relevant securities laws and other laws. The contents of this document shall not be construed as forcing participation in the swap. Any behavior related to this white paper shall not be considered as participating in the swap, including requesting a copy of this white paper or sharing this white paper with others. Participation in the swap means that the participant has reached the age standard and has full civil capacity. The contract with Woopay is true and valid. All participants signed the contract voluntarily and had a clear and necessary understanding of Woopay before signing the contract.

The value of Woopay in the future depends on the market size and the demand after the application is implemented. It may not have any value. The team does not make any commitment on its value addition and is not responsible for the consequences caused by the value increase or decrease. To the maximum extent permitted by applicable law, the team does not cover damages and risks arising from participation in crowdfunding, including but not limited to direct or indirect personal damage, loss of commercial profits, loss of business information, or any other economic loss. Take responsibility.。