



# QYBX

Global payment based on blockchain technology



QYBX LIMITED

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# Chapter 1 Blockchain Technology and Global Payment and Clearing

## 1.1 Overview of the Current Payment and Clearing System

Payment transaction is the basis of social and economic activities. Its functions are mainly undertaken by banks and supervised by banks and CBRC. With the iterative update of information technology, the mobile terminal of payment scenes and the small and high frequency of offline payment, various scenarios and terminal demands for payment and settlement are growing rapidly, and the banking system has become increasingly difficult to meet the growing demand for payment. Third-party payment, by undertaking a large number of small and high frequency payment and settlement demands, By undertaking a large number of small high-frequency payment and settlement demands, third-party payment forms a complementary relationship with the large and low-frequency settlement business of traditional financial institutions, and provides customers with more convenient and personalized payment services.

The market size of third-party payment will grow rapidly from 16.9 trillion yuan in 2013 to 200 trillion yuan in 2023, and the transaction size will increase by more than 10 times, with a compound growth rate of more than 80% in the past three years. It is expected to reach a market size of 400 trillion yuan in 2026, while it will still maintain a high growth rate in the next three years.

After more than a decade the development of the industry, the rise of the Internet, mobile payment, further more than \$one hundred trillion deal size of the development of the third-party payment industry, the rise of the third party payment to some extent the greatly improved the high transfer fee, the traditional bank problem such as time slowly.

In the traditional sense, third-party payment includes online payment, mobile payment, bank card receipt business, cross-border e-commerce and so on. As non-financial institutions, third-party institutions establish payment and settlement channels among banks, merchants and users. On the one hand, they sign agreements with banks to build data exchange and information transmission



networks. On the other hand, they link merchants and integrate users to gradually form a platform with transaction as the core and establish a fast, convenient and effective transaction settlement service.

At present, the third-party payment market has become the most mature industry in the field of Internet finance, and is widely used in various scenarios as a basic service. Payment is an important stop node of information flow and capital flow in transaction activities. Controlling payment means controlling the entrance of traffic. For Internet enterprises, traffic brings users, data and capital flow, is the core competitiveness of the era of everything; For blockchain enterprises, the import of traffic activates the application scenarios of cryptocurrency. In the early stage of blockchain development, mastering the payment terminal means mastering the channel entrance.

Although the third-party payment has made great progress compared with the bank clearing and settlement system, the third-party payment is still based on the bank clearing and settlement system, and the traditional bank clearing and settlement system still has many disadvantages, which need to be solved urgently. Let's take the cross-border payment as an example, and we can clearly see the core problems.

## 1) Low efficiency

In the traditional cross-border payment mode, banks will process payment transactions in batches at the end of the day, and it usually takes at least 24 hours for a cross-border payment to be completed. In addition, manual reconciliation between banks is required in the traditional payment model, which can also take some time.

## 2) It's expensive

The traditional cross-border payment model has four costs: payment processing costs, receiving costs, finance and operation costs, and reconciliation costs. According to the World Economic Forum report, The Future of Global Financial Infrastructure, remitters typically pay 7.68 percent of the amount of money sent. Using the agent bank to complete a cross-border payment of average cost between \$25 to \$35, the costs is to use Automatic exchange center (Automatic Clearing House, ACH) in Japan, for example to complete a settlement, pay the cost of more than 10 times.



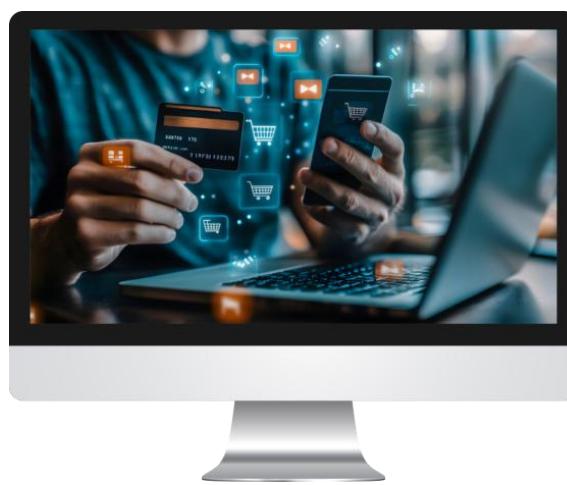
### 3) Poor liquidity

In the traditional cross-border payment model, banks need to hold multiple countries' currencies in their bank accounts, called "current accounts," in order to maintain liquidity. The remittance bank has to hold a certain amount of foreign currency in the current account because it can't predict when the correspondent bank will confirm the transfer.

### 4) Force majeure factors

Due to external force majeure reasons such as the change of a country's currency by policy or war, it is very likely to lose trust and endorsement, resulting in the devaluation and uncirculation of the country's currency. Moreover, in the traditional cross-border payment mode, not all banks can join SWIFT, or it is not economical to join SWIFT.

The emergence of blockchain technology has a huge impact on hundreds of billions of payment industries. The theory and time of network payment, mobile terminal payment and smaller and higher frequency M2M (machine to machine) payment are focusing on the decentralized network payment, and the payment method based on blockchain technology has become the focus of current research. At the same time, based on blockchain technology, the birth of cryptocurrency has brought powerful changes to the reform of payment mode.





## 1.2 Blockchain and token economy

After more than 40 years of development, the Internet has brought new things and concepts to people, such as email, web companies, social media, mobile networks, big data, cloud computing and the Internet of Things. It has greatly reduced the cost of searching, collaborating and exchanging information, as well as the barriers to entry in multiple fields, and promoted the emergence of new media, new entertainment and new retail industries. And on its basis, a new work organization structure model and an unprecedented digital business model have been generated. However, for business and economic activities, only the sharing and transmission of information can not meet the development of economic society. Without the verification information provided by the third party, people cannot quickly confirm the identity of the transaction party, and they cannot establish the trust relationship needed for business activities.

In 2008, Satoshi Nakamoto (Satoshi Nakamoto) first published a peer-to-peer cash system and its underlying protocol - Bitcoin: a white paper "Bitcoin: An Electronic Cash in a peer-to-peer network", bitcoin was born. After more than ten years of development, the blockchain technology behind Bitcoin has gradually been recognized by more and more people, and continues to develop and innovate on its basis.

Thanks to the characteristics and advantages of blockchain technology: block chain data structure to verify and store data, distributed computer nodes consensus algorithm to generate and update data, cryptography to ensure the security of data transmission and access, self-script code composed of smart contracts to program and operate data and form a new distributed infrastructure and computing paradigm. In addition, blockchain technology can establish a reliable trust between point to point in the network, so that the value transfer process is free from the dependence on intermediaries, which not only publicizes information but also protects privacy, but also protects individual rights and interests. This mechanism improves the efficiency of value interaction and reduces the cost.

The role of blockchain in trust is similar to the role of the Internet in information. Based on its ability to improve transparency and protect privacy, blockchain connects the deepest human need for trust and points the way forward



to a fairer, more efficient and more accessible global business system. Blockchain technology has great potential to revolutionize traditional commerce, financial industry, government and even human society.

With the development of blockchain technology, the token economy relying on the underlying technology of blockchain is also booming. Blockchain enables the Internet to jump from "information" to "value" and brings two unique functional features to the Internet and the digital world:

- The first is a technical blockchain credit layer for "value transfer" in the digital world;
- the second is economic tokens, which are used as "representations of value" in the digital world.

With the great development of blockchain technology, especially the basic public chain, all walks of life have conducted extensive discussions and attempts on the application of blockchain, and the possibility of implementation is gradually emerging. At present, on the basis of the value representation and value transfer of blockchain, major application platforms and international top institutions are using the incentive and governance functions of tokens to mobilize various user groups and partners to transform the Internet platform, in order to build a fair, just and open decentralized value ecology.

However, the current Internet technology cannot achieve peer-to-peer value transfer. Different from the replicable characteristics of information transmission, value transmission needs to ensure the uniqueness of ownership, so the current value transmission still needs to rely on the central organization to undertake the bookkeeping function. Therefore, if the network itself can provide reliable accounting function, the value transfer will no longer be completely dependent on the central organization, and the peer-to-peer transfer of value can be realized.

With the support of DLT (Distributed Ledger Technology) and the token economy model, blockchain can enable all parties involved to establish Trust at the technical level and has the potential to become the infrastructure for building a future network of free circulation of value. That is, the Internet of Value is formed.



## 1.3 The global payment settlement landscape is changing

### 1) Shortcomings of the traditional payment system

The value transfer of the traditional payment system needs to rely on the clearing center for data interaction between banks. With the development of Internet finance, third-party payment (especially mobile payment) has seen explosive growth, but it still relies on centralized solutions to solve the value transfer.

The centralized solution is to put all the value transfer calculations in a central server (cluster) through the endorsement of a company or government credit. Although all the calculations are automatically completed by the program, the centralized person or institution must be trusted. In fact, to solve the credit problem through the endorsement of the centralized organization can only limit the credit to a certain organization, region or country.

In the operation process of the traditional payment system, customer A of Bank A initiates a payment to customer F of Bank C, which requires the endorsement and settlement of intermediary institutions. Assuming that Bank A does not open a clearing account with the central Bank, Bank A must use Bank B as the correspondent bank, and the payment between Bank B and Bank C is settled through the clearing account of the central bank. Finally, customer F receives the currency transferred by A. When cross-border payments are involved, the process is more complicated.

At present, the settlement and payment of cross-border trade transactions must rely on third-party intermediaries, through the opening bank, the central bank, and overseas banks (correspondent banks or overseas branches of the bank). Each institution has its own bookkeeping system and is isolated from each other, so it is necessary to establish agency relations and credit lines between each other. Each transaction needs to be recorded in the bank, and it also needs to be cleared and checked with the counterparty, which leads to slow transaction speed and high cost. Many small and medium-sized enterprises (smes), especially those in developing countries, pay high costs for cross-border payments.



## 2) Break through the limitations of Internet value transfer

At the beginning of the birth of the Internet, the core problem to be solved is information manufacturing and transmission, but it cannot solve the problem of value transfer, that is, the precise transfer of a certain part of value (including monetary assets, securities, financial derivatives, etc.) from one address to another in the network in a way recognized by everyone. Can block chain technology in information asymmetry and uncertainty of environment, established a "trust" satisfying economic activity is the ecological system, break through the Internet transfer limited value.

COINS are block chain technology first used in the field of finance, but if the block chain running on fiat money, rather than the currency after the commercial Banks to form an alliance chain, set up to pay private money just as digital assets on the block chain by registration, transfer, not limited by the currency 7 transactions per second, can quickly complete the payment and clearing with block chain technology.

## 3) Blockchain technology to the reform of payment system

Compared with the traditional payment system, blockchain payment is a direct data exchange between the two parties of the transaction, without involving intermediaries. Even if part of the network breaks down, the operation of the whole system will not be affected, which greatly reduces the systemic risk of centralized payment methods. Known from the figure, block chain technology under a payment does not require any centralized organization participation, in the market and customers can establish a private chain is complete payment process.

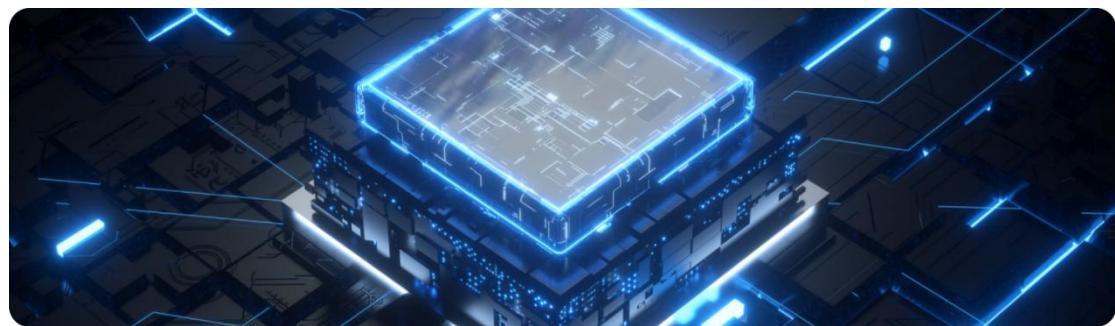
Suppose A initiates a payment to B that exceeds its account balance. Since each participant has a copy of all historical payments in the distributed ledger, no other participant can authenticate in step 4 of the figure above. A deal for certification, and once on behalf of the blocks of the transaction will be permanently joined data chain, and the data chain cannot be modified. The process of transaction confirmation on blockchain is the process of clearing, settlement and audit, which is of great significance to optimize the business process of financial institutions.

Payment networks based on blockchain technology are expected to solve global payment problems safely, quickly and with low fees. Trust is the difficulties faced by information interaction, namely in the network trust any node can



communicate with each other, how can you create consensus basis for security of information interaction without worrying about data been tampered with. Blockchain technology can help market players solve the problem of mutual trust without any centralized organization's audit and endorsement. Block chain using algorithms prove mechanisms to ensure the safety of the network, all nodes in the whole system can be to trust (truQYBXess) under the environment of automatic and safe data exchange.

By using block chain technology, can realize the point-to-point real-time transaction and improve transaction efficiency, so as to make the central node or clearing houses become redundant, helps businesses to save 80% - 90% of the transaction costs, and because the authenticity of the transaction data is through the entire network node of mutual authentication, is not to be tampered with, So can eliminate the necessity of the trading intermediary, to reduce the transaction costs. In addition to the advantages listed above, by combining block chain technology can also make payment more fragmented, payment method based on block chain technology has a lower cost of the fixed fee, so in the online and offline payment rich scene gradually under the future trend of increasingly flexible pay to meet user needs.



## 1.4 QYBX for those routes

Comparing the development path of Internet technology, we find that whether it is blockchain technology, digital payment itself, or payment applications based on blockchain technology, they are all in the early stage of industry development and



there are many directions worth exploring. Therefore, we hope to build a new block chain payment ecosystem, as a future world optional Internet option value transfer protocol, and ease of use of the whole block chain industry one step further. Therefore, QYBX LIMITED to build a global payment and settlement systems based on block chain technology and barrier-free pay media - QYBX (QYBX) tokens.

QYBX LIMITED that block chain and the development of digital currency to have longer, you must have a wider range of application scenarios. At present, with the deepening of research in the field of blockchain, especially the exploration of smart contract direction, there are gradually some product solutions combined with the real economic life, seeking win-win cooperation in the enterprise end. However, there are still few products that are really implemented and used on a large scale, and there are only a few services for the user side. Whether it is bitcoin, ether, or a variety of newly issued tokens based on smart contract platforms, only when there is more interaction with the real world can the value of digital currency be increased, thus promoting the market prosperity of digital currency and the efficiency improvement of the real world.

For pain points and challenges existing in the current payments, QYBX a series of innovations in technology and ideas, provide complete payment and financial settlement solutions, high performance chain makes QYBX likely to block chain bridge of the world and the real business world. QYBX expect to expand chain blocks and payment system and technical application of boundary, make ordinary Internet users can feel the value of the block chain technology, and build a new technology based on block chain + payment of developers and users of ecosystem.

The underlying clearing system of "blockchain + digital currency + diversified solution" built by QYBX mainly includes:

- Build the underlying clearing infrastructure of QYBX blockchain to provide support services for on-chain payment and financial settlement;
- provide blockchain + financial settlement solutions, and third parties can formulate reasonable blockchain application models and token issuance mechanisms based on the actual situation of various industries;
- Build QYBX ecosystem, integrate payment industry assets, and realize industry-finance docking services.



In the future, QYBX will continue to expand the application and technology boundaries of high-performance on-chain payment and financial settlement, so that ordinary Internet users can feel the value of blockchain technology, and build a new ecosystem of developers and users based on blockchain + payment settlement technology. In addition, QYBX has made a series of innovations in technology and concept to provide a complete settlement solution for blockchain + physical scene application, making it expected to become a bridge between the blockchain world and the real business world.





# Chapter 2 Overview of QYBX project

## 2.1 Introduction to QYBX

QYBX, initiated by QYBX LIMITED, is a blockchain project focusing on the field of high performance on-chain payment and financial settlement. QYBX focuses on high performance on-chain payment and financial settlement scenarios. Its core design logic revolves around low fees, high-speed transfer and multilateral clearing. It aims to build a Web3 commercial payment layer and provide efficient, low-cost and reliable payment and settlement infrastructure for various commercial activities in the blockchain world. To meet the increasing demand for payment and settlement business application block chain, as a powerful "engine" of liquidation, pushing block chain business ecosystems running smoothly.

At the same time, QYBX intelligent blockchain bank coin is a comprehensive solution for digital asset management and realistic payment scenarios, aiming to solve users' core pain points in multi-currency management, cross-chain exchange, value transmission and application implementation. Through cross-chain and cross-contract technology combined with high-performance public chain architecture, QYBX provides a secure, convenient and scalable infrastructure for the digital currency ecosystem, promoting the deep integration of digital assets and the real world.

Users can store and manage bitcoin, Ethereum and other mainstream digital currencies in a unified manner in QYBX wallet, realizing one-stop management of multiple assets, lowering the threshold for use and improving overall asset liquidity. The main chain of QYBX focuses on financial-grade security attributes to avoid complex security risks caused by Turing-complete smart contracts and ensure the stability of assets and transactions. At the same time, the side chain supports Turing-complete smart contracts to meet the diversified needs of enterprise-level applications and developers in business logic and innovation scenarios.

At the performance level, QYBX is deeply optimized for transaction throughput and confirmation speed, which is suitable for high-frequency scenarios such as large-scale payment, clearing and asset circulation. At the same time, it provides distributed computing and mining support for digital assets in the QYBX ecosystem.



to enhance network security and long-term asset value support. Users can complete asset storage, exchange and payment operations in the same platform, significantly improving the practical availability of digital currency.

In terms of real-world payment bridge, QYBX plans to cooperate with banks and card issuers to issue QYBXCARD, which supports both virtual and physical card forms. Users can recharge digital currency to their card accounts and spend or withdraw cash at the global merchant network and ATM outlets, achieving a seamless connection between digital assets and the real financial system.

QYBX was originally designed to build a multi-dimensional clearing and payment infrastructure. Through the underlying technology of blockchain, a set of perfect schemes are built on QYBX, and the unified digital currency (QYBX) produced by blockchain technology is used to reward:

- QYBX Token Economy solution;
- High performance on-chain payment and financial settlement solutions;
- multi-type digital currency payment and circulation ecosystems;
- global cross-financial scenario solutions based on blockchain technology;
- global accessible cross-chain payment solutions.

At QYBX, the underlying technology of blockchain and payment clearing is innovatively applied to enable peer-to-peer value transfer through blockchain technology and build a decentralized clearing application ecosystem that supports multiple industries based on the underlying communication protocol. This distributed computing storage can protect the system from attacks and faults to the greatest extent. The decentralized network structure can solve large concurrent data access in a short period of time, which is suitable for the future development of clearing. This gives QYBX payment system three development possibilities:

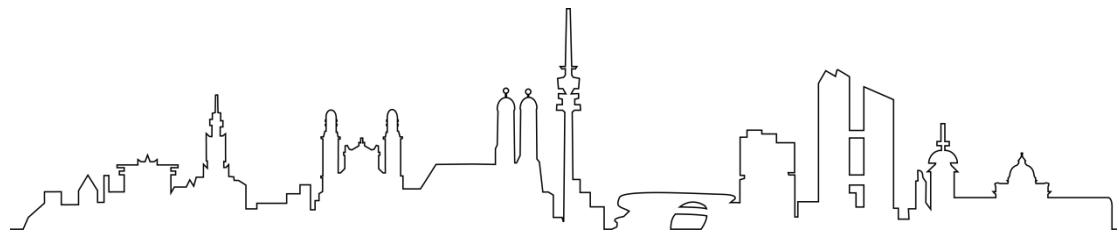
- Peer-to-peer merchant payment scheme: users normally deposit money on the blockchain platform, transfer money to merchants by jumping to QYBX, and merchants exchange money through the built-in OTC function of the platform, and the amount deposited by customers will be transferred to the merchant platform.



, barrier-free payment solutions: support across different scenarios and chain payment, customers to use fiat purchase digital currency (e.g., QYBX), turn into QYBX purse, through the cooperation of payment institutions make payments to merchants, pay the agency to customers in the middle of the digital currency converted to fiat merchants seat quickly after payment to the merchant.

- Third-party interface invocation: Based on the form of payment interface, QYBX will provide payment services for global on-chain payment and financial settlement scenarios.

In the future, when QYBX participants make ecological contributions in various solutions and scenarios, the system will provide corresponding reasonable returns (QYBX) based on the calculation of contribution mechanism. As the "clearing engine" in the blockchain world, with the support of QYBX LIMITED's global strong capital, business network, core talents and strategic cooperation, QYBX will form a diversified business matrix and token incentive ecosystem, laying a solid foundation for the borderless and barrier-free flow of value.



## 2.2 QYBX LIMITED

QYBX LIMITED is a leading global digital payment service provider, committed to providing efficient, secure and convenient digital payment and clearing solutions for global enterprises and users. With its advanced technology platform, rich industry experience and extensive global business network, QYBX LIMITED has established itself as a leader in the digital payments sector.

### 1) Scope of business



, payment and settlement solution: QYBX LIMITED provides many industries to provide customized one-stop payment and settlement solution, covering digital currency, financial institutions, multinational Banks, trade in goods, hotels, tourism, transportation, digital entertainment, education and other fields. Its solutions not only meet the payment needs of traditional industries, but also adapt to the innovation needs of emerging digital businesses, helping enterprises easily carry out cross-border trade and e-commerce activities on a global scale.

- Diversified payment method support: The company supports a variety of payment methods, including digital currency wallet, international credit card, overseas local wallet payment and convenience store payment. This diversified choice of payment methods ensures that the needs of different regions and different user groups can be met, and improves the convenience and accessibility of payment.
- Cross-border financial services: Its business covers services such as cross-border receipt, global collection and payment issuance, helping enterprises to achieve fast and secure fund flow in cross-border transactions. Both corporate and individual users can easily make payment and collection across borders through QYBX LIMITED services.
- Compliance and Security certification: QYBX LIMITED holds Hong Kong MSO license, US MSB Financial license and PCI-DSS Level 1 security certification. These compliance assets prove the legality and security of the company in the financial services field. The certification ensure the security and privacy of client money, let the customer can use their services.

## 2) Global business layout

The core team members of QYBX LIMITED are from well-known financial institutions and technology enterprises around the world, such as Citibank, Royal Bank of Scotland, Canadian Imperial Bank of China, Google, IBM, etc. These team members not only have excellent academic backgrounds, but also have rich practical experience in financial product innovation, digital platform building and operation management. On average, members of the management team have more than 10 years of experience in banking, payment, finance and risk control. They have accumulated deep knowledge and skills in the global financial services sector, and are able to accurately grasp market dynamics, formulate effective



business strategies, and ensure the efficiency and stability of the company's operations.

At present, QYBX LIMITED has been in San Francisco, Toronto, Berlin, Hong Kong, Tokyo, Singapore, Jakarta and London have branches such as much as possible.

These branches are widely distributed, covering the world's major economic regions and market, provide localized service and support for local customers. Also in France, the united Arab emirates, Russia, Australia and other regions planning branch, to further expand its global business landscape. In the layout of these emerging markets, QYBX LIMITED will be able to better meet the needs of different clients, increase its influence in the global payments market.

### **3) support for QYBX**

QYBX LIMITED, as the sponsor of QYBX, provides strong resources and experience support. By sharing technology platforms, customer resources and market channels, QYBX is able to develop rapidly in a quality environment, accelerating its layout and application expansion in the blockchain payment sector.

- Expansion of ecological application scenarios: With the support of QYBX LIMITED, QYBX will gradually expand its ecological application scenarios to cover more industries and regions. This will help QYBX fast growth for block chain world "engine" of liquidation, for global block chain to provide efficient, reliable payment and settlement business infrastructure, promote the development of the whole block ecological chain.
- Global business synergy: QYBX LIMITED and QYBX will achieve global business synergy to jointly provide one-stop payment and blockchain solutions to customers. This synergy will enhance the efficiency and quality of services, provide global enterprises and users with a more seamless and convenient payment experience, and further consolidate QYBX LIMITED's leading position in the digital payments sector.



## 2.3 Design Principles

QYBX around the driver value chain (block encryption payment and settlement) Internet era of core values, principles of design include:

### 1) Principles of value dissemination

QYBX is a value-oriented output, which presents a three-dimensional model of blockchain payment application and QYBX token asset incentive through multiple dimensions. In the model, all participants are attached to the whole carrier, no longer presenting the results separately, and the on-chain payment and financial settlement in a field through different permutations and combinations to reflect the multi-dimensional value.

### 2) The principle of autonomy

QYBX thinks, decentralization should be less intervention by external forces, but as far as possible to maintain normal operation of the system. By releasing power to countless carriers, individual productivity can be further released. If the Internet has liberated productivity, then decentralization has further released productivity, allowing individuals to reach consensus with each other, then node autonomy is the law that decentralization must follow. QYBX embraces node autonomy and maximizes its value.

### 3) Sustainable principles

The dissemination of information can create value, open up the intrinsic value link of crypto assets, achieve sustainable development, constantly give birth to new needs, the birth of new products and applications, promote the continuous iteration of information, forming a virtuous cycle. The growth rate of information carrier does not depend on the height of the starting point, but on the number of iterations. With the change of demand, the more iterations, the higher the maturity of the system, the greater the influence, the higher the value degree, and the stronger the sustainability of its internal value chain.

### 4) Principle of high efficiency

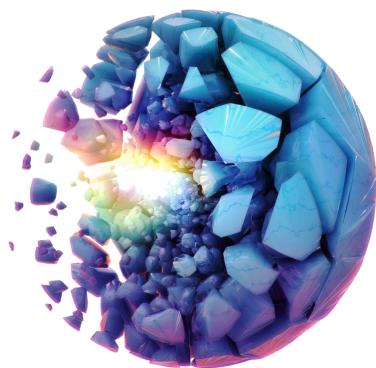


QYBX with block chain technology support, USES the dynamic lamination technology, the network nodes according to the characteristics of the trade request and the characteristics of node resources fragments, pieces of each node only processing trade request corresponding characteristics, the fragmentation mechanism improves the node trade, improve the processing speed of TPS; In order to ensure the reliability of the shard nodes, the shard adopts a dynamic mechanism, and the members of each shard node are not fixed, but elected. In theory, the dynamic sharding technology can enable the clearing system to reach the TPS processing capacity of millions per second.

## 5) Tokenization principle

QYBX accounting qualification campaign from node, data packaging, user service charge to an account request access, distributed data processing, distributed computing, collaborative degree of each link to ensure the fair and credible, and from the ecological mechanism on network in the true sense the decentralization of the incentive.

QYBX hopes to build a "clearing engine" in the blockchain world, as an alternative Internet value transfer protocol in the future world, and advance the ease of use and practice of the entire blockchain industry. At the same time, QYBX will first gain market share and accumulate solid user support through its penetration of on-chain payment and financial settlement scenarios. Based on this, QYBX will gradually develop into the top infrastructure for payment and settlement in the blockchain world.





## 2.4 Core design logic

QYBX positioning on the chain of high performance pay and financial settlement scenarios, and become the "engine" of liquidation of block chain in the world. The core of its design is low fees, high-speed transfer, multilateral clearing and Web3 commercial payment layer.

### 1) Low commission and high speed transfer

- Low fees: QYBX is optimized for high fees in traditional blockchain payments. By adopting advanced consensus mechanism and resource allocation strategy, the fee per transaction is significantly reduced. This enables users to complete transactions at a very low cost, whether for small payments or high-frequency transactions, lowering the threshold for use and improving the convenience and economy of payment.
- high-speed transfer: speed is the lifeline of the payment system. QYBX enables high-speed transfer by optimizing network architecture, increasing block generation speed and transaction verification efficiency. To be specific, it USES the technique of distributed books and the optimized combination of consensus algorithm, able to complete the transaction in a short time packaging and confirmation, to ensure that funds to flow quickly, meet the needs of users for immediacy. This for cross-border electricity, digital currency trading, instant payments is crucial for high speed requirements of the scene.

### 2) multilateral settlement of accounts

- Multilateral clearing model: In complex financial transactions, which often involve multiple parties, the traditional bilateral clearing model cannot meet the demand for efficiency and convenience. QYBX multilateral settlement mechanism was introduced and allows multiple transactions subject to trade the liquidation in the same environment at the same time the reconciliation and settlement. This model greatly simplifies the process of liquidation, reduce the repeated operation in the links of liquidation and potential risks, improve the overall efficiency of liquidation.



Support and compatibility across the chain: QYBX is not limited to a single block of ecological chain, support chain more deal. It through the chain bridge technology, has realized the transfer of assets between different block chain network and transaction liquidation. This means that the user can be applied to the chain of different blocks and platform seamlessly, without having to worry about the barriers between the chain and chain. This cross-chain compatibility provides strong support for the development of multi-chain ecology and promotes the interconnection of the entire blockchain financial market.

Driven, intelligent contract settlement rules: QYBX using intelligent contracts to define and execute settlement rules. Automatic execution characteristics of intelligent contracts to eliminate human intervention, ensure that the liquidation process fair, transparent and efficient. Once the deal to satisfy the terms of the contract, the liquidation will be instant automatically, greatly improved the accuracy and speed of the liquidation. At the same time, the programmability of smart contracts also enables the clearing rules to be flexibly customized according to different business needs to meet various complex financial transaction scenarios.

### **3) pay Web3 business layer**

Pay, decentralized network: QYBX built a decentralized network, aims to pay support for Web3 provides the underlying business. Compared with the traditional centralized payment system, decentralized payment network has higher security, transparency and resistance to censorship. It through distributed technology books, ensure that every transaction has not tamper with the record, to the user and the enterprise provides a reliable payment environment.

, privacy and data security: in Web3 business, privacy and data security is very important. QYBX adopted advanced encryption technology and privacy protection measures, to ensure that the user when making payment and transaction of information security. At the same time, it also follows the Web3 decentralization concept, make the data control back to the user, the user shall have the right to decide how their data is used and Shared.

- Business development: QYBX is not just a technical stack, but is designed for real business application scenarios. It can satisfy various Web3 business



needs, such as decentralized electricity, digital content consumption, block chain game, etc. Combining with these application scenarios, QYBX pay provides a new solution for business, promote the development of prosperity of the Web3 business ecosystem.

QYBX core design of logic is its payment and financial settlement high-performance chain positioning key support. Lower fees high-speed transfer and reduce the transaction cost, improve the efficiency of payment; Multilateral settlement liquidation process was optimized to achieve the compatibility across the chain drive and smart contracts settlement rules; Web3 commercial layer constructed decentralized payment network, guarantee the privacy and data security, and expand the business application scenario. These design constitute the QYBX become the solid foundation on which block chain world "engine" of liquidation, for its development in the field of chain blocks, payment and settlement laid the important advantage.

## 2.5 the core advantage

QYBX clearing system has obvious advantages:

- , safe and reliable: the use of advanced encryption technology and multiple authentication mechanism, ensure that users assets safety and reliability.
- , intelligent efficient: through the clearing system intelligent and smart technology contract, payment processing automation and efficient.
- User friendly: It provides a simple and easy-to-use user interface and operation process for users to get started quickly.

Global coverage: support global payment and settlement services, to provide payment and financial settlement in the chain of the solution.

- Compliance supervision: strictly abide by laws and regulations to ensure all-round operational compliance and protect users' rights and interests.

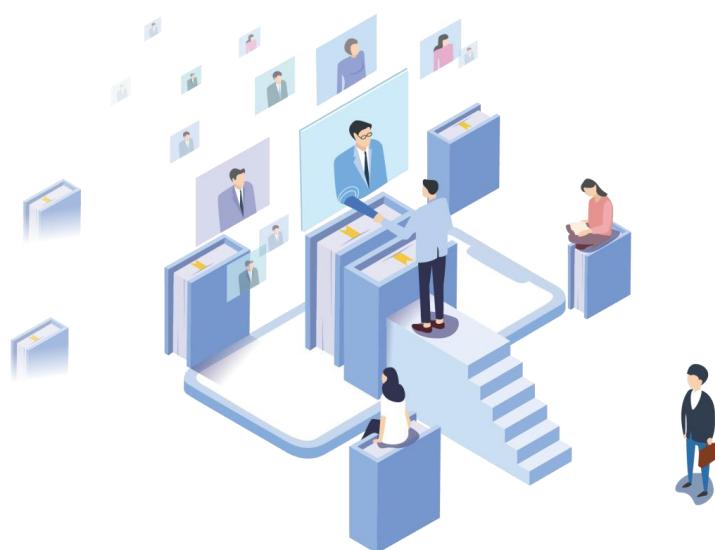
In terms of application, QYBX provides different services and products for



business users and individual users. For merchant users, QYBX will provide a Commercial platform, which can realize one-click access to QYBX and application payment and clearing solutions. In the face of individual users, QYBX will provide mobile DAPP wallets, communication module based on RSA algorithm to encrypt and otc trading of guarantee, fast encryption digital currency users to customize various functions.

In the incentive scenario, when participants make contributions to the development of QYBX, the system will provide corresponding reasonable rewards (reward QYBX tokens) according to the calculation of the contribution mechanism. As a commercial application-level blockchain payment solution, the ecological construction and transformation and upgrading of third-party commercial institutions can also be solved through the application of QYBX.

QYBX perfectly inherits the characteristics and advantages of traditional clearing technology and blockchain technology, and solves the technical bottleneck of the current blockchain, which truly combines blockchain with commercial applications. And QYBX vigorously and sustained by block chain technology business r&d and innovation of science and technology, its applied to enhance the value of traditional industries and the promotion of block chain technology the vigorous development of the ground application in all walks of life, to create mutually beneficial and win-win future block chain clearing system.





# Chapter 3 QYBX application module

## 3.1 the purse system

In the QYBX system, the wallet will play a key role. QYBX wallet can be used for the storage, management and transaction of digital assets. Users can not only fully control their digital assets, but also greatly reduce the use threshold and management burden of digital currency, effectively promote the flexible application of digital assets. In the future, trading through QYBX wallet will become the main payment method for global payment users.

QYBX core value is to carry out the wallet and reflect the market circulation of authenticity and force of digital assets, create individual users more convenient and fast encryption industry authenticity currency globally performance. In our plan, any cryptocurrency can be paid by scanning the code as long as it is in QYBX wallet, and scanning the code is the secure address. Even if the imitation COINS, currency, or more. QYBX wallet has the following features:

- safer: the path to security, data security, tamper-proof and no single point of failure;
- Faster: real-time transactions, no payment intermediaries, faster cross-border settlement;
- Cheaper: low cost transactions, low transaction commission, no middleman commission.

### 1) Asset management

Through QYBX wallet, it provides users with unified management of multi-blockchain assets, with local wallet, cloud wallet and transaction functions to achieve integrated asset management.



## 2) multi-currency service

QYBX wallet system various digital currency unified management at the same time, not only support the BTC, ETH, etheric lane in major assets such as storage and management, also supports standard protocols of the intelligent contract platform, and the rapid increase based on the platform issue tokens. Integrated management of multiple digital assets can be realized to reduce user operation costs. At the same time, it provides cloud wallet and local wallet, local wallet private key support; The cloud wallet is free of transaction fees, real-time to the account, convenient for users to transfer money inside and outside the wallet.

## 3) The concept of on-chain and off-chain dual storage

QYBX holding block chain core principles, provide the decentralized digital currency storage solutions, such as a user self sustaining keys and wallet all types of monetary private key information such as address, platform does not touch the user assets. At the same time, QYBX provides a convenient key backup scheme -- users only need to make a backup once, write down 12 mnemetics and save them to a safe place. Even if the subsequent additional categories of digital currency, with backup 12 mnemonic word can recover all kinds of digital currency assets.

## 4) Multiple security verification

In addition to let the user self sustaining purse key and a private key, also according to different size of digital asset management, providing multiple signature technology guarantee and two step authorization verification, in addition to the user in transfer deals in mobile phone verification code, fingerprints, face recognition, such as authentication, secure digital currency assets.

## 5) multi-language support

QYBX wallet will support the Arabic, Chinese, English, Russian, Japanese, Korean, German and other mainstream digital currency market and so on the many kinds of languages, provide a more comprehensive global service, using world-class purse.

## 6) double wallet application

For the convenience of users, QYBX will open two wallet forms, cloud wallet



and local wallet, users can freely choose their desired wallet.

- Cloud wallet: transfer between cloud users in seconds to the account without handling fee; Keeping the private key by the clouds, store the address of the user and transaction records, purse does not contact the user. The user can retrieve the cloud account by means of user name, password and face recognition verification.
- Local wallet: users keep their own private keys, making their assets more secure. The user can use the master key to derive any number of sub-accounts (that is, sub-keys) to add multiple wallet addresses for each digital asset in the local wallet, facilitating asset separation.

## 3.2 the global payment and settlement systems

QYBX is positioned as the "clearing engine" in the blockchain world, and will realize the construction of a global payment and clearing system based on blockchain technology through the application of lightning payment network and the integration of high-frequency payment.

### 1) Transaction channel and lightning payment

QYBX use multiple signature technology to establish trade channels, to achieve comparable lightning speed trading network. The core of QYBX technology is to realize ultra-fast transaction through multi-signature technology. Its security is higher than zero confirmation, and its simplicity and landing performance are better than that of Lightning network.

### 2) High frequency payment and clearing system

- Personal node: QYBX will design personal distributed account node for users based on blockchain node, that is, the unique ID of QYBX users. Through the platform's built-in payment system, based on the scalability and cross-chain technology of Ethereum technology, QYBX users will be able to realize the global fast payment system through the platform.



- Data collection: Through data collection, the platform will analyze the data of individual node users and build a trust system for users. All data information will be based on the private data of individual user data. At the same time, in the process of trust certification, broadcasting, transmission, through data encryption desensitization, fully protect personal privacy and data.

, a private key DApp: QYBX user's data is a financial transaction through personal private key DApp flow data. All data will be sent to you by block chain technology certification, as well as intelligent contract confirmation also individual users purse, real trust, fairness, safety. QYBX has real global cross chain cohesion at the same time, all users can be based on QYBX enjoy quick global financial transactions, financial services, financial services such as application data, also can achieve fast digital assets for other block chain long-term preservation of digital assets, This mode will make the commercialization of financial data become more fair, more durable storage and long-term value-added benefits.

Encrypted data: QYBX user data encryption, is based on decentralized storage technology, the security of all transaction data process, platform will broadcast way and desensitization of privacy information. To enable QYBX users to authorize the use of payment and financial services data, there is no worry.

### 3.3 multi-currency management and trading systems

QYBX through wallets, payment and settlement system, can provide users with more block chain the unified management of assets, forming a complete system of asset management, in this system has realized the "one-stop" work style, decentralization, multiple security and multi-language support, etc.

, a rich variety of applications

, the pursuit of easy to use and satisfaction of the user experience



A variety of digital assets, mining application scenario

Circulation of the comprehensive control for value better and faster

QYBX digital asset exchange network, through the intelligent, across different chain gateway and intelligent technology, can realize digital currency exchange risk free service. Users through the QYBX network digital currency, the exchange between the flat island's or other third parties to create exchange of intelligence contracts, monitoring and implementation of exchange by contract mechanism, avoid the default risk in the process of the parties involved in the deal. In the future, will build QYBX including multi-currency account and exchange function, point-to-point trading function, some approaches to trading function of the new digital asset information ecology.

### **1) Multi-currency account and exchange function**

- QYBX plans to provide users with fiat and digital currency market exchange rates

By means of the most popular social media, transfer to other users for free

- Collaborate with other licensed financial institutions
- , efforts to provide more service for our users

### **2) point-to-point transaction function**

Global value transfer should be as simple as in a chat say "hello". No matter where you live. QYBX transfer completely barrier-free design. Through we support any channels, users only need to:

Specify the transfer amount (for example: 0.1 the ETH)

- QYBX will then return a "hash value" in the form of a unique 18-word hexadecimal string
- The first user to submit this "hash value" to QYBX will receive the transfer amount

The user can transfer the amount by specifying the name or phone number of



the payee directly in the chat tool and complete the transaction instantly.

### **3) Peer-to-peer transaction function**

For each user who passes (KYC) authentication, the user will get a virtual debit card provided by QYBX. A virtual debit card will allow eligible users can at any place of the card to pay (including online and offline) using the card for consumption.

### **4) Security and compliance commitments**

We believe that compliance and security are fundamental to the adoption of mainstream cryptocurrencies. As QYBX's business and team grow, compliance and risk management professionals will follow compliance policies and procedures to ensure full compliance with all regulatory requirements.

- QYBX follow "defense in depth" concept, safety and compliance mentality is associated with QYBX all aspects of the business. Everyone plays a role in the security, we will take comprehensive measures to network security.

, along with the development of the project, QYBX will complete the detailed real-time safety assessment, including external penetration testing, threat modeling and risk control.

- QYBX will hire leading third-party security professionals a thorough external security testing, to ensure the integrity of the safety control. Anti-money laundering, anti-terrorist financing, proliferation of weapons of mass destruction and regulatory compliance nature sanctions (collectively "AML/CFT") are also important to QYBX.

## **3.4 the financial settlement services**

### **1) Collection and payment of commercial finance**

QYBX can focus on the overall upstream and downstream links of financial settlement, and provide comprehensive financial services such as rapid capital settlement, turnover, credit and wealth management with QYBX tokens as the medium. For example, it provides financial institutions with optimal interest rate credit and lending, and supports flexible credit granting based on collection, credit and mortgage. QYBX financial settlement will meet the different value-added



needs of funds.

## 2) QYBX POS service

Will build QYBX QYBX tokens based QYBX POS service, in order to realize the QYBX tokens, and including Visa, MasterCard, American Express, JCB, Diners Club, Discover, such as credit card transactions between global mainstream. In the future, QYBX POS can be paid with cryptocurrency at merchants around the world by simply transferring the cryptocurrency to the card wallet. In addition to launching physical cards in major economic regions around the world, QYBX will also add stablecoin (such as USDT) support to crypto debit cards, which can support users to pay with their tokens.

## 3) Global merchant collection service

QYBX can meet the diversified collection needs of enterprises in different business formats:

- Multi-currency: mainstream currencies such as US dollar, British pound and Euro, and small currencies such as Indonesian rupiah and Thai Baht;
- Multiple scenarios: support B2B trade export, mainstream cross-border platforms and independent websites;
- Enterprise account: it can open accounts with the same name for enterprises and support the creation of multiple accounts at the same time;
- global local payment account: covering Asia, Europe, America, Oceania, Africa and other countries and regions.

In the future, QYBX's global cooperative bank network will spread all over the world, effectively reduce the cost of enterprises with more competitive fee rates, and have local collection capabilities in many mainstream countries and regions, so as to complete global collection faster and cheaper. At the same time, support 7 \* 24 hours operation withdrawal, the fastest in real time to the account, can according to user requirements, a flexible choice currency, amount, account, etc. In addition, the independent research and development of powerful technology engine would be blessing for gathering the whole process, to provide a safe and timely response. Direct access to mainstream cross-border platform, powerful data



synchronization mechanism, to the order data to be step, automatic synchronization.

After the above payment, businesses/companies can put the money in the wallet converted into QYBX tokens, in order to get more services and support.

## 3.5 Supporting function support

### 1) Asset registration and right confirmation

QYBX for assets on the registration and approval chain, to provide whole process service, is accomplished by the gateway or gateway proxy. All assets registered by the gateway or the agent need to obtain the trust of the asset owner, and only the two trusted parties can trade the same asset. Registered assets are mainly divided into monetary assets and physical assets.

- Currency assets: they are mainly used to connect the gateway with other digital currencies and asset platforms. For example, the gateway can register BTC asset code, and any account with BTC can trust the gateway and recharge BTC assets to the gateway account. Unlimited currency types of assets, gateway has how many actual monetary assets, how many assets can register symbols.

Digital type, physical assets: refers to the assets, generally by the enterprises or institutions registration, by the gateway on a commission basis. Such assets has certain limits, registration has been completed, will be by way of killing operation access threshold, the asset register party no longer raising.

### 2) chain block the browser

QYBX browser provides a block chain, easy to check any ordinary users access QYBX number of assets. In order to ensure the validity of the ledger, the blockchain browser supports linking different blockchain nodes to query the ledger situation, and can observe each block and each transaction generation in real time. When entering the corresponding account, it can query the balance of various assets and all transaction records of the account.

### 3) on the traditional industry chain



QYBX asset upchain system has the demand and broad application scenarios for large fixed assets tokenization (issuance of tokens), providing a platform and service for enterprises to issue their own tokens, expanding enterprises' digital financial business, and enhancing brand influence and competitiveness. QYBX chain using blocks as the underlying technology, the fixed assets on the chain, around the core enterprise value, equaling, mortgages, trading, solve the problem of large circulation of fixed assets, promote the circulation of financial efficiency.

- Use third-party institutions to register, confirm, evaluate, appraise, value and custody valuable assets;
- Blockchain storage to ensure the validity of warrants: using blockchain technology features to ensure the immutability and transparency of information;
- With the help of blockchain token economics, tokenization of physical assets (issuance of tokens) is realized, so that fixed assets can realize value segmentation and rapid circulation become a reality;

Combined several gongxin CPA agencies, the copyright information coding, the only effective asset formed chains confirm the rights and interests;

- Use technical means to ensure the effectiveness of the circulation of tokenized assets (issuing tokens) and protect the rights and interests of all parties to the transaction.



# Chapter 4 QYBX tokens, economic model

## 4.1 Tokenomics

### 1) Positioning and advantages of tokens

QYBX is the core token of QYBX project. It is mainly used for high performance on-chain payment and financial settlement scenarios, and is also an important payment tool in Web3 business field. QYBX design fully consider the actual demand of block chain to pay, has the following significant advantages:

- Low commission: By optimizing the underlying technology and operation mechanism, QYBX charges extremely low commission in the transaction process, which makes it a cost advantage in handling large-scale and high-frequency payment transactions. Whether it is the daily collection of small and micro merchants or the fund settlement of multinational enterprises, it can significantly reduce the burden of transaction costs and improve the economy of transactions.

High-speed transfer: by means of the advanced block chain optimization technology and network architecture, QYBX can achieve rapid trade confirmations and funds to the account. In the common situation of blockchain network congestion, QYBX can still maintain high transfer speed, ensure the timely flow of funds, and meet users' strict requirements for immediacy, which is crucial for time-sensitive financial transactions and business activities, such as instant payment, instant delivery and other scenarios.

- Multilateral clearing: QYBX supports multilateral clearing mode, which allows multiple participants to quickly complete clearing and settlement in the same transaction. This mode reduces the complexity and time cost of the clearing process, improves the efficiency of capital use, and reduces the clearing risk. In complex financial scenarios, such as cross-chain transactions and multi-level supply chain finance, the multilateral clearing function can realize efficient reconciliation and synchronous settlement of funds of all parties, avoiding the tedious and delay in the traditional clearing process.



## 2) Basic information of tokens

- Token name: QYBX
- Issue protocol: ERC20 protocol standard
- Distribution phase: the ICO phase

QYBX, pass of global payments in the future. Designed for cross-border payment, it is safe, efficient and fast. Make digital currency truly easy to pay anytime, anywhere.

## 3) Token distribution scheme

QYBX tokens, comprehensive consideration is passed the allocation of project development needs, the rights and interests of investors and market incentive mechanism etc. After the careful design, specific as follows:

### Does drop reward (5%)

The QYBX project will spend 5% of the total amount of tokens on airdrop rewards. Drop is a common method to promote block chain project, through to the early attention and to participate in the activities of project users free to issue a certain number of tokens, can quickly expand project profile and user base.

These drop tokens can inspire users actively in social media, technology, BBS community project platforms such as propaganda, attract more potential users QYBX project, for the project promotion and create good atmosphere for the ecological construction. At the same time, the reward drop also reflected the project team to early supporters of the feedback, to enhance the user a sense of belonging and loyalty to the project. Drop tokens often gradually over a period of time after the project launched unlock, to ensure the reasonable circulation of tokens and market stability.

### ◎ Public private placement (15%)

Public private equity is the important link in the process of scrip issue, QYBX project will issue 15% of the total for private activities.



- Private placement: The private placement stage is mainly for some professional investment institutions, high net worth individual investors or partners with strategic resources to carry out token sales. These private investors usually have more in-depth knowledge of project and higher risk to bear ability, they are willing to investment in projects with relatively reasonable price in the early stages of scrip, in exchange for a certain share of the tokens. Private investors can provide important startup capital support for the project, at the same time they may also provide technical resources in the process of project development, market channels, and strategic advice and support. Private tokens, unlock and circulation often according to the project development stage and agreement to arrange step by step, to ensure the steady development of project and the interests of investors.

- public offerings: public offering is geared to the needs of a broader group of ordinary investors, through an open platform for the scrip sale or tokens, sales channels and so on the project website. Public offering stage has attracted a large number of interested in the project of ordinary users to participate in investment, investors can use fiat money or currency purchase QYBX tokens price set in accordance with the project. Public offering links to expand the scale of the funding projects, attracting a large number of ordinary users attention and become the early supporters of the project. Public offering tokens, liquidity is relatively strong, can quickly enter the market after the project launched trade links, and liquidity of the market value of the project findings improve play an important role.

#### When operations team (5%)

Project success depends on professional operation team, therefore QYBX tokens scheme in which 5% for incentive operations team. Operations team is responsible for the overall operations of the project management, technology research and development, marketing, community construction and other key work. This part of the token is to reward the contribution of team members hard work and long term, can inspire team members' enthusiasm and creativity, ensure roadmap of the project in accordance with established steady progress. Unlock team tokens, often set certain conditions and the time period, and the project performance targets, development stages, such as to ensure that the interests of the team members and project development is closely linked, can release to avoid premature team tokens, a large number of market impact.

#### When market circulation (60%)



The proportion of tokens in circulation in the market is as high as 60%, which is to ensure that QYBX tokens have sufficient liquidity in the market. Sufficient market circulation can meet the demand of large-scale transactions and attract more users, merchants and investors to participate in QYBX's transactions and application scenarios. The liquidity of tokens is an important basis for their value embodiment and market recognition. Only when they can be freely bought and sold and circulated quickly in the market, tokens can truly play their monetary attributes and economic value. Through reasonable market circulation regulation, the project team can guide the market supply and demand relationship of tokens, smooth the price fluctuation, maintain the stability of token value to a certain extent, and create a good market environment for the long-term development and ecological prosperity of the project.

#### ◎ Marketing and promotion (5%)

In the highly competitive blockchain market, QYBX project needs to enhance its visibility and influence through effective marketing and promotion activities. Therefore, 5% of the tokens are allocated for marketing promotion in the token allocation plan. These tokens are used to hold online and offline events, such as technology summits, industry seminars, product launches, etc., to attract the attention of industry experts, media, and user groups; They are also used for advertising, brand cooperation, market research and other marketing means to expand the coverage of the project in the target market; In addition, it is also used to encourage community members to carry out content creation, user recommendation and other marketing behaviors, through the power of the community to spread the value and advantages of the project. Through the rational use of marketing and promotion tokens, QYBX project can stand out in the market, attract more potential users and partners, and lay a solid foundation for the project's business expansion and ecological construction.

#### ◎ Ecological network Construction (10%)

The ecological network building of QYBX tokens is crucial, so 10% of the tokens are dedicated to this part of the work. Ecological network construction includes supporting the development of various application scenarios in the QYBX ecosystem, attracting third-party developers to participate in platform construction, and building alliance chains or private chains with partners. Through the investment of this part of tokens, developers are encouraged to develop more practical DApps (decentralized applications) for QYBX ecosystem, enrich



application scenarios and enhance the use value of tokens. With financial institutions and other partners to develop private chain or chain alliance, expand the application scope of scrip, realize cross-industry business synergy; Establish a ecological fund to support innovation projects within the ecological and start-ups, cultivate a complete industrial ecology. The success of the ecological network construction will enable QYBX tokens to play the role of the core value exchange medium in it, forming a virtuous cycle and promoting the sustainable development of the entire QYBX ecosystem.

## 4.2 Basic value of the token

As a cryptocurrency with high application value, QYBX will perform functions similar to money. Generally speaking, the currency has four functions: store of value, medium of exchange, the unit of account, deferred payment standard, in order to meet the above function, QYBX specifically designed for the following features:

### 1) Store of value

A store of value is an asset that retains its value and does not lose significant value over time. QYBX is a medium of payment that is designed so that it can guarantee a stable and steady rise in price even in highly volatile markets. For example, QYBX introduces advanced market stabilization mechanisms. For example, the automatic adjustment function of smart contracts can automatically adjust the transaction formalities rate based on the real-time transaction data of the market, so as to curb market speculation to a certain extent and reduce sharp price fluctuations. This mechanism is similar to automatic stabilizers in traditional financial markets, which can play a buffer role in the event of market fluctuations and protect the interests of investors, further strengthening QYBX's function as a store of value.

### 2) Medium of exchange

Medium of exchange refers to anything that can represent a standard of value and is used to facilitate the sale, purchase, or exchange (transaction) of goods or services. In different types of transactions in the world can use QYBX to a deal. The QYBX team is actively expanding its global cooperation network. Some famous financial institutions have, for example, allows users to use QYBX pay for goods and



services, which not only provides users with more payment options, also increased the QYBX usage scenarios and user base.

In addition, QYBX is optimized in the technology, in order to ensure the safety and reliability of the payment process. Advanced security measures such as multi-signature technology and encrypted storage protect users' assets from the threat of hacking and theft. Users can safely use QYBX for various transactions without worrying about the security of their funds. This efficient and secure payment experience makes QYBX stand out among many digital currencies and become an ideal medium of exchange.

### **3) Unit of account**

In the QYBX payment system, the QYBX acts as the unit of account, providing a standardized measure for transactions and money flows within the system. This enables users and merchants to clearly record the value of each transaction for effective financial management. For example, when merchants sell goods on the QYBX platform, they can use QYBX to set the price of goods, record the amount of sales and calculate profits. This standardized way of accounting not only improves the transparency of transactions, but also facilitates merchants' business analysis and decision-making.

The QYBX payment system also provides users with a wealth of financial tools to support QYBX's unit of account function. For example, users can view their QYBX balances and transaction records in real time through the wallet application within the system, which are recorded in units of QYBX. This intuitive way of accounting enables users to better manage their digital assets, while also enhancing their recognition of the value of QYBX.

In addition to the QYBX payment system, QYBX has established partnerships with decentralized applications (Dapps) where QYBX is also used as a unit of account. In the field of decentralized finance (DeFi), QYBX can be used to record financial transaction information such as the amount of loans and interest income of users. For example, in a QYBX-based lending dApp, users can use QYBX as collateral to make loans, while the loan amount and interest are also calculated and recorded in QYBX units. This application not only expands the use scenarios of QYBX, but also provides a broader development space for its function as a unit of account.



As a cryptocurrency with high application value, QYBX has shown great potential in store of value, medium of exchange and unit of account. Through reasonable control of market supply and demand, application of advanced technology and market stabilization mechanism, QYBX has maintained relative stability in the volatile market, providing investors with a reliable way to store their wealth. In terms of payment function and global applicability, QYBX has become an ideal medium of exchange for global transactions due to its high efficiency and security. Meanwhile, the wide application of QYBX in the QYBX payment system and cooperative dApp makes it play an important role in the unit of account as well.



### 4.3 Cross-chain clearing/settlement

Cross-chain technology is one of the key technologies in the blockchain field, which aims to solve the interoperability problem between different blockchain networks. In the early stage of blockchain development, each blockchain network often operates independently, forming a "information island", which leads to the transfer of assets and information between different chains is difficult. The emergence of cross-chain technology acts as a bridge between these "islands",



allowing assets and information to flow freely between different blockchains.

The cross-chain technology on which QYBX tokens are based enables the connection and interaction of different blockchain networks through a series of complex algorithms and protocols. This technology allows QYBX tokens to be seamlessly transferred across different blockchains while ensuring the integrity and security of transactions. The core of cross-chain technology lies in how to ensure the consistency and security of information transmission between different blockchain networks, which requires solving multiple implementation mechanisms such as hash locking, atomic exchange, relay chain or side chain.

With the advantages of its cross-chain technology, QYBX token can efficiently implement low-cost cross-chain clearing and settlement, providing an innovative solution to the above problems.

- Fast transaction confirmation: The cross-chain clearing mechanism of QYBX token enables a significant reduction in transaction confirmation time. With optimized cross-chain protocols and efficient transaction processing algorithms, QYBX tokens can be quickly transferred between different blockchains, enabling near real-time transaction settlement. This means that customers can complete cross-border payments in a short period of time, greatly improving the efficiency of using funds, especially for scenarios with high timeliness requirements.
- Reduced transaction costs: Cross-chain clearing of QYBX tokens can significantly reduce transaction costs. Cross-chain transactions of QYBX tokens avoid these middlemen and directly transfer assets between different blockchain networks, significantly reducing fee expenses. In addition, since the transactions of QYBX tokens are based on smart contracts on the blockchain, the transactions are automated and transparent, which further reduces the operating costs.
- Increased transaction transparency: Cross-chain clearing transactions of QYBX tokens are highly transparent. Blockchain's distributed ledger technology enables the record of every cross-chain transaction to be permanently stored in the network, allowing all transaction participants to view the status of the transaction and the flow of funds in real time. This transparency not only enhances customer trust, but also makes it easier for regulators to review compliance.



In the decentralized finance (DeFi) space, the cross-chain settlement of QYBX tokens can provide important support to the multi-chain DeFi ecosystem. At present, there are multiple blockchain platforms in the DeFi market, such as Ethereum, Poca, Solana, etc., each of which has its own financial application scenarios and assets. The cross-chain technology of QYBX tokens enables users and developers to freely transfer assets and funds between these different DeFi platforms, enabling cross-chain lending, cross-chain liquidity mining, cross-chain trading and other functions.

For example, users can borrow QYBX tokens in the DeFi protocol on the Ethereum chain, and then transfer it to the Boka chain to participate in the mining activities of the liquidity pool through the cross-chain technology, so as to obtain higher returns. This integration of cross-chain DeFi ecology can not only provide users with more diversified financial products and services, but also promote resource complementization and collaborative development among different blockchain platforms, driving the prosperity and development of the entire DeFi market.

QYBX tokens, relying on advanced technology across the chain, realize the high efficiency and low cost of clearing and settlement functions across the chain, to pay for the global chain and financial settlement provides a strong support. With the continuous development of blockchain technology and the acceleration of the global digital economy, the cross-chain function of QYBX token will play an increasingly important role in the future, becoming an important force to promote global financial innovation and convergence.

## 4.4 Promote borderless circulation of value

In QYBX Clearing Network, we take QYBX token as the center, give full play to the advantages of value transfer protocol in the field of payment, and realize the implementation of a global, faster and low-cost financial system of payment, clearing and exchange. This system supports all types of currencies and will make Internet payment as simple and convenient as Email.

Based on this financial system, QYBX will be introduced into the tripartite industry to build a bridge of "real world - blockchain world - real world" and establish a global QYBX circulation value-added ecology. In the QYBX circulation



value-added ecosystem, the identity information of participants can be managed through smart contracts to provide better financial, transaction payment, clearing and settlement services for organizations and individuals within the system.

For example, in the financial scenario, QYBX token will take finance as the core, based on barrier-free payment, cross-border transaction settlement, and full currency (including digital currency and fiat currency) exchange, and drive application breakthroughs in other industries from financial innovation. With the popularization of QYBX token application and the improvement of social awareness, QYBX token will gradually penetrate into various fields of society, such as blockchain online finance, enterprise option allocation, supply chain finance, DeFi, etc., to achieve unlimited value-added potential.

### **1) A new hybrid digital currency system will be formed**

QYBX station has verified the feasibility of cross-border application of digital currency on the basis of facts, and also proved that blockchain technology can achieve information sharing and transparency. It is issued by influential banks, so that no matter its issuance scale and exchange rate are uniformly controlled by the state, thus forming a diversified monetary system based on legal currency and supplemented by digital currency. This has given rise to a virtual financial trading rules of procedure, to the prosperity of the real economy play a huge role. Of course, those financial/corporate/commercial entities with credibility can launch their own digital currency and create virtual transaction scenes based on QYBX, so that users can experience better innovative services.

### **2) Create a new credit formation mechanism**

The credit system has always been central to the development of financial entities. In the traditional model, commercial entities maintain credit and manage risk control through relevant management agencies. Credit rating technology is classified according to the different nature of users, such as the credit granting technology of small credit loans. In the era of big data, enterprises often adopt multi-dimensional perspective to mine and analyze customer behavior characteristics, and then analyze customer credit rating. Although big data can grant credit to consumers and small loans in batches, which can improve work efficiency to a certain extent and make data information reliable and timely, it only realizes the electronization of traditional finance, but does not make a fundamental change in the way of credit creation.



QYBX global payment network system itself carries out credit creation through decentralized credit creation, which has the characteristics of strong information reliability, low cost of credit establishment, and open and transparent information.

### **(3) Form a new scene value chain**

With the rapid development of the Internet and the great impact on the market, the traditional sales model is no longer suitable for the operation needs of the modern economy. QYBX technology itself has a flexible architecture, which can create a relatively independent scene value chain according to different application scenarios, different customer needs, different customer structures and different value operation processes, which can further strengthen the integration of finance and real economy. It is specifically manifested in the following aspects:

- Increase customer stickiness and stability, making transactions more scene-dependent;
- all customer transactions in the application are recorded on the blockchain, which is more secure;
- Based on the "trust machine" of blockchain, the needs of scene customers are no longer dependent on third-party institutions as before, or even on the support of centralized big data, and there is more trust between the platform and customers than before.

### **4) Form a new payment and settlement method**

Although the efficiency of payment and settlement has been improved to a large extent in the current Internet era, it is still limited in multi-center and multi-link under cross-currency, cross-border and multi-economic contracts, thus making the efficiency of payment and settlement often seem inadequate.

QYBX tokens, characteristics of decentralization and point to point to the decrease of the intermediate links, to reduce the transaction costs, improve transaction efficiency to a great extent, and form a new way of payment and settlement, to drive the value circulation without borders.



# Chapter 5 QYBX technology system

## 5.1 Overview of Technology

Under the core support, the bottom layer of QYBX blockchain consists of three layers: the management layer of the participant, the blockchain layer and the application layer. The payment system consists of two sub-layers: verification node and voting node.

### 1) Participant's management layer

QYBX system participants join the blockchain network in the form of super nodes. Different business parties can join and exit according to their needs. Super nodes communicate with each other to ensure the authenticity of storage carriers and data. Through effective legislation applicable transaction standard, unified STO gateway, intelligent contracts, etc., thus effectively link status of each node in different events in functions and elements of the contract.

### 2) block chain layer

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

Block chain technology: including network structure, data structure, the mechanism of consensus, signature attestation and so on, is the foundation of the system is running.

Related technologies:

- Data storage modules: content-based addresses replace domain-based addresses, meaning that instead of an address, users are looking for content stored somewhere, and do not need to verify the identity of the sender, but only the hash of the content, making payment verification faster, more secure, more robust, and more durable. At the same time, it provides storage security measures to prevent data from being forcibly stolen; And the data access audit to facilitate traceability data changes and flow situation.



- Identity module: it authenticates users and devices on blockchain, registers and identifies their validity, and manages the identification of users, namely private keys. The system also contains access security functions as an important guarantee of system security.
- timestamp service: provide unified time service system.
- Data encryption and decryption module: it provides data encryption and decryption services for the system. The module should support national encryption algorithm and pluggable encryption and decryption algorithm.
- Client module: The client provides users with account, block, node and wallet management and query functions, such as creating an account, sending transactions, generating random seeds, obtaining block information, obtaining wallet status, etc. All payment transactions pass through the client, signed and encrypted, and then sent to the blockchain.

P2P module: P2P module, connect the nodes in the entire network broadcasting deal, block information.

- Mempool modules: trading buffer pool, in the Mempool storage from the RPC interface to deal, and the deal from P2P. The implementation of Mempool is mainly to solve the problem that the consensus module processing speed is slower than the RPC module.

### 3) Application layer

Application services are implemented and encapsulated for various service modules based on the support provided by key technologies of QYBX system. Each service is composed of a set of related specifications, processes and supporting interaction interfaces.

By calling the application service of the blockchain layer of QYBX system, the service can be connected to specific business scenarios through secondary development.



## 5.2 Overall technical architecture

QYBX system is a high-speed, secure and extensible "clearing engine", which consists of two layers: super node and storage interface node. And through the block chain technology support, processing millions of transactions per second service, through the security of decentralized cloud database, provide Dapp unlimited extension of storage capacity.

The QYBX architecture system consists of the following parts, which are:

- , more homogeneous chain chain system, provide high TPS access ability, the chain across the ability to pay, etc.;
- P2P network system QYBX P2P, which provides addressing capability at the network layer;
- multi-database cluster system, which provides infinitely scalable secure and encrypted data storage capabilities;
- the underlying architecture of the QYBX system, including a block storage system and a distributed file system;
- Attribute-based cryptographic authenticated access system consisting of multi-node consensus, database access control gateway;
- by multiple validation data integrity verification organization comprised of nodes;

Adaptive probe system, provide the memory data storage, performance monitoring, security monitoring, and the Metrics data upload.

QYBX system core is chain library substring separation mechanism and function design. Decentralized applications can store data in on-chain and database systems according to different levels of trust and public verification. QYBX system provides different types and levels of data collaborative management. Moreover, the multi-database cluster system is a Permissionless environment. QYBX system also implements access control mechanism based on multi-authority



attribute-based encryption and complete proof of ownership of stored data.

The main reason for the separation design of the chain library is to consider the future upgrade and update of the system. Since the update of the blockchain system will lead to the bifurcation of the system, which will cause irreversible impact on the whole economic system, we put the main data processing ability on the database system, and the access control system of the database system is completed through the functional sub-chain. The function sub-chain is designed for the future scalability, and more to complete the two core functions of the decentralized storage system: privacy protection and data possession proof. We implement the access control and encryption functions of cloud storage data through an efficient multi-authority attribute-based encryption scheme.

## 1) Account

QYBX uses the concept of state to store a series of accounts, each with its own identity information and unique data. In some cases, accepting a code that needs to be executed in an account will trigger the execution of that code, the internal memory of the account may change, and additional information may even be created to be sent to other accounts, resulting in new transactions.

## 2) Angela merkel Patricia natsuki

Bitcoin is done through something called Merkle trees. IPFS also holds this data via a Merkle tree, a directed acyclic graph data structure. Merkle Patricia natsuki is simply, when we when the file is too big, let alone have YiLiangZhaoLiangSanZhao, even greater, IPFS system will be when you upload the file to IPFS node, it will split the file, and then split after each file is to use a hash value as its file name. Then these files are a few ways to save, and the total number, for example, the number is just like there are a lot of leaves, and then two leaf connected branches is these two pieces of leaves a hash value of the operation, then from the leaves to the branches, and then from the branches of the fork to the roots.

In this way can ensure that, when one leaves the above data changes, directly reflected in the hash value of the roots have also changed. In fact, this way is consistent with the data storage method of Bitcoin. Its purpose is to make the entire network with the fastest speed to verify the integrity of a data. Because we don't need to compare the whole file, we just need to see if the root value is the same. If it is consistent, different nodes can prove that the data has not been



tampered with.

Merkel Patricia natsuki (Merkle Patricia tree/trie), by Alan Reiner is presented, and implemented in the Rayleigh wave agreement, is the main data structures of QYBX system, all accounts are used to store the state, as well as transaction and receipt of data in each block. MPT is a combination of Angela merkel trees and Patricia natsuki, abbreviation, combination of the two trees to create structure has the following properties:

- each unique key value hash value of the only mapping to the root; In MPT, it is impossible to fool members with only one key-value pair (unless the attacker has ~2A128 computing power);

Increased, the time complexity of the censored key/value pair is logarithmic level.

MPT as QYBX provides a highly efficient, easy to update and represents the entire state of fingerprints of the tree.

### 3) RLP encoding

RLP designed to be highly simplify serialization format, its only purpose is to store the nested byte array. Unlike protobuf BSON existing solutions, such as RLP does not define any specified data type, such as Boolean, 20 floa, double, or an integer. It is stored in the form of a nested array structure, and to deal it to determine the meaning of an array. RLP and no clear support map collections, semi-official advice is to use [[kl, vl], [k2, v2],... Nested array to represent the key value of collection - kl, k2... Sort by the criteria of a string.

With RLP strategies protobuf or BSON has the same function, they are always used algorithm. However, we prefer to use RLP, because:

- It is easy to implement;
- absolute guarantee consistency of bytes.

## 5.3 consensus mechanism



As one of the cornerstones of blockchain, consensus algorithm is fast and irreversible, which is our focus. In addition, in order to better the ecological construction of system, fairness is just as important as we think, if big capital can easily block consensus on power system, so there will be a lot of irrational damaged the interests of developers and users on the system, a system cannot guarantee the interests of the builders of ecological, depth, it is difficult to precipitate out value and QYBX runs counter to the design principles. Therefore, when designing the consensus algorithm, we will pursue fairness as much as possible and safeguard the interests of system builders under the condition of giving priority to ensuring the speed and irreversibility. The consensus of QYBX mechanism for PoD consensus algorithm.

### **1) New blocks are generated**

Similar to the PoI consensus algorithm, which selects the accounts with high importance, PoD will select the accounts with high contribution in the ecology. The difference is that PoD gives the selected accounts equal probability of accounting right to participate in the generation of new blocks, preventing the probability tilt derivative monopoly.

In the choice of the higher contribution account, we use the original universal QYBX value scale assessment. In algorithm design, focusing on the account of the liquidity and transmitted (we think that satisfy these properties account for ecological construction contribution is higher.

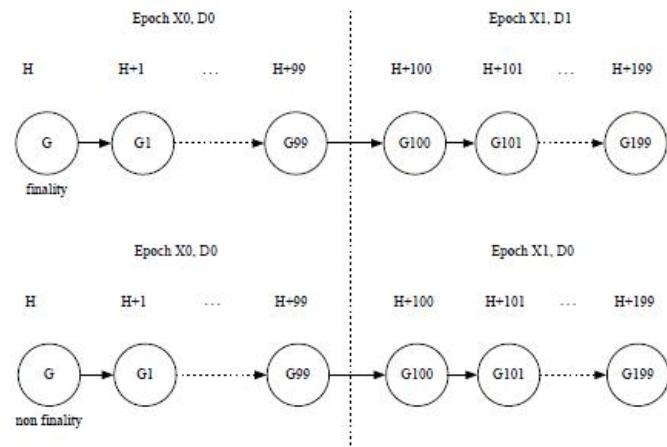
Therefore, in PoD, after some accounts voluntarily pay a certain amount of QYBX tokens as a deposit, they are eligible to become the validator of the new block and participate in the bookkeeping. After given the validatorsset, the PoD algorithm determines who in the validator set is the proposer of the new block through the pseudo-random number, and the proposer generates the new block. Verifier collection is not fixed, qualified accounts can choose to join or exit validation set, and with the cyclical QYBX hatch cornerstone holdings, a qualified account will also be different. So we in the PoD design verifier sets dynamic mechanism, to realize the verifier set change.

### **2) The verifier set changes**

Verifier sets change as dynasty changes, so we will verify that set according to



the dynasty do division, a dynasty in validation set didn't change. A dynasty not change too fast, at least to maintain a period of time don't do change, so we will every X block is defined as an Epoch, in the same Epoch dynasty didn't change. So the dynastic change will only occur in the Epoch transition, at this time will examine an Epoch of the first block, if the block reached finality state, then the current Epoch to the next dynasty D1, or continue on a dynasty do the same, as shown in the figure below.



Due to network delay, each node may see inconsistent finality status of block G when the dynasty changes. Therefore, referring to Casper's dynamic verification set strategy, it is required that the consensus process of each dynasty will be completed jointly by the verifier set of the current dynasty and the previous dynasty. So in any dynasty, qualified accounts can only apply to join or exit  $D + 2$  dynasties verifier sets, when the dynasty changes to  $D + 2$ , can add new blocks the consensus of the process.

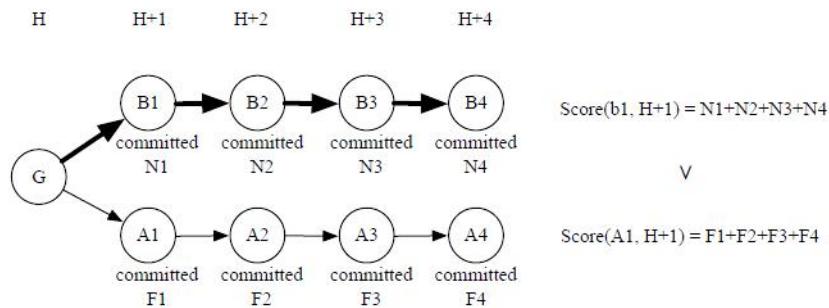
### 3) Fork selection

PoD algorithm with blocks on each high score to choose authority chain, always choose the highest score blocks to join the chain of authority, in block b h score as follows,

$$Score(b, h) = \sum_{(b', h') \in \text{children}(b)} Score(b', h') + \sum \text{committed deposit in } b$$



Is the sum of the deposit corresponding to the commit tickets received by the block and all its descendant blocks



#### 4) Voting rules

In order to avoid the consensus process is malicious damage, leading to a consensus process can not complete, hinder the ecological development of PoD reference and Casper the minimum punishment rules governing the consensus of the verifier.

Assuming a consensus in the process of Prepare and Commit ticket structure: Prepare (H, v, v), which is suitable for the current block hash H, v block height, current vs Commit some ancestors said v block height (H, v), which is suitable for the current block hash H, v said the current block level.

PoD algorithm for the entire voting process made the following four basic rules:

, a single block of two-phase consensus process has strict order, only Prepare in the first stage (H, v, v) ticket total weight after reaching 2/3, the verifier can throw out the second phase of the Commit (H, v),

, not force a between the block after the consensus can begin after the consensus of a block, allowing interweave consensus (interwovenconsensus), but not completely no order, only highly vs process completed the first phase, with two-thirds of Prepare (Hanc; v; After vs'), you can vote Prepare(H;v;vs) for its descendant blocks based on vs to ensure the steady progress of interwovenconsensus

- In order to avoid nodes using interwoven consensus to maliciously vote across multiple blocks, it is required that after Prepare(H;w;u) vote is cast



based on height  $u$ ,  $\text{Commit}(H; v)$  vote cannot be cast for all blocks with height between span  $u$  and  $w$ , so as to ensure the efficient and orderly consensus process

, in order to stop the node with the same pen on multiple branch bet at the same time, the deposit, the issues that led to the nothingatstake requirements in a highly threw  $\text{Prepare}(H1; v; vs1)$  ticket, can no longer cast different  $\text{Prepare}(H2; v; Vs2)$  ticket in violation of the rules of the verifier once report verification, will be sent out all the deposit, the whistleblowers will share the fine of 4% as a bonus, the rest of the fine will be destroyed.

## 5.4 Secure Encryption Algorithm

QYBX chooses the encryption mechanism conforming to international standards to encrypt all data, and the payment data and transaction information between users can only be viewed by both parties and users with corresponding permissions.

### 1) privatekey

Non-public, is a 256-bit random number, kept by the user and not open to the public. The private key is usually randomly generated by the system. It is the only proof of the user's right to use the account and the ownership of the assets in the account. Its valid bit length is large enough to be impossible to be breached and there is no security risk.

### 2) Public Key (publickey)

Publickey: Every private key has a public key that matches it. ECC public key can be generated from private key through one-way, deterministic algorithm, the current common schemes include: secp256r1 (international general standard) and secp256k1 (Bitcoin standard). secp256r1 is selected as the key scheme for QYBX control chain and initial data chain.



### 3) Encryption

QYBX through the use of asymmetric encryption of digital signature technology, did business requests not been tampered with in the process of transmission, and through consensus mechanism to ensure data of each node. The stored data records are verified by the self-verification system and the quasi-real-time multi-node system to ensure that the stored data records cannot be tampered with either.

Self checking of node refers to QYBX structure of block chain store data records, which manipulate data will destroy the integrity of the chain structure, system can quickly check and data recovery from the other nodes. Another QYBX each node has its own private key to charge to an account, each block in the record by the nodes of the private key signature, data change within the block can be checked out by signature.

The data verification of on-time multi-node is that when the private key of the node is stolen, malicious users have the possibility to modify all the data on the ledger chain. QYBX provides the data comparison mechanism of on-time multi-node, which can find the situation that the data of a node is tampered with in time.

## 5.5 the P2P protocol

On QYBX, each node (client) uses P2P protocol for message broadcast interaction. For the data block of QYBX, the P2P protocol used is the standard cryptocurrency protocol, and the core feature of this protocol is the introduction of the "ghost" protocol. The control block of QYBX uses the standard P2P protocol and does not support the "ghost" protocol. Clients usually work in a daemon state. In this state, the client performs work such as:

- invoking network daemons to maintain connections and send periodic messages;
- Get current block information and associated block information;

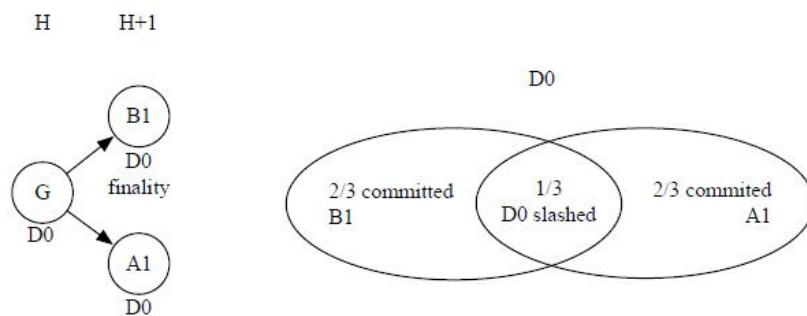


- Obtain the industrial manufacturing parameters and analyze the industrial manufacturing parameters according to the standard model to determine whether to submit the updated parameters.

## 5.6 Malicious attack prevention and punishment mechanism

PoD blocks have consensus on each of the high validity, if a certain height from the latest height more than 100, the height of all blocks in the consensus process will be regarded as overdue, then the blocks all the new consensus on the activities will be ignored. Thus, to finish long-range strikes in the PoD (long - rangeattack) several almost impossible, but in the period of validity is still exists the possibility of short-range attack. The short-range Attacker tries to forge chain A to replace chain B as the authoritative chain when the block of height  $H+1$  has not expired yet. The Attacker needs to make the score of block  $A1$  higher than that of  $B1$ . Because of more would be punished severely, so the Attacker will inevitably bribery verifier, otherwise unable to complete the short-range attack. In order to show the safety of the PoD consensus algorithm, the following analysis to different number of block fails, the Attacker needs to price.

If the Attacker wants to disable  $B1$ , minimum cost of the following figure, is quite a double pay for attack, the Attacker in the fortunate position of being  $H + 1$  the height of the blocks are proposed, then at least need more than a third of the verifier in bribery dynasty  $D0$  cast to  $A1$  finality,  $1/3$  of the minimum price for all the deposit.



If the Attacker wants to disable  $B1$ ,  $B2$ ,  $B1$  and  $B2$  have reached finality that block transactions have been take effect, in order to make the deal fails, here to

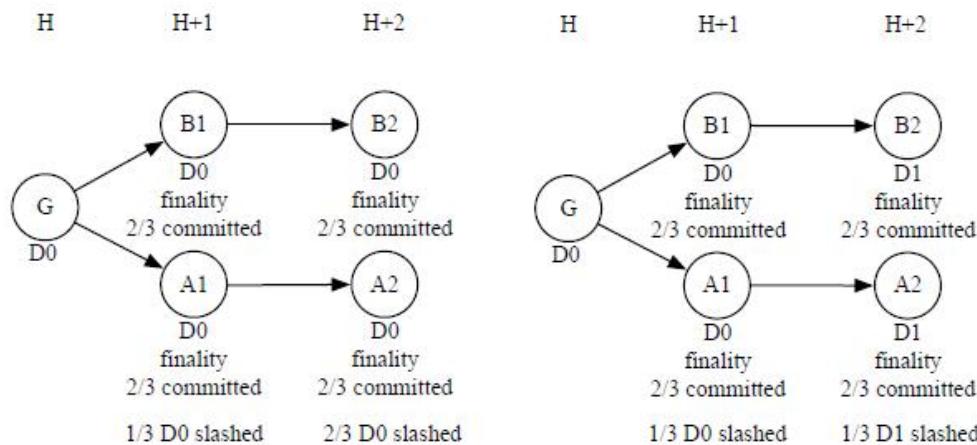


consider two cases.

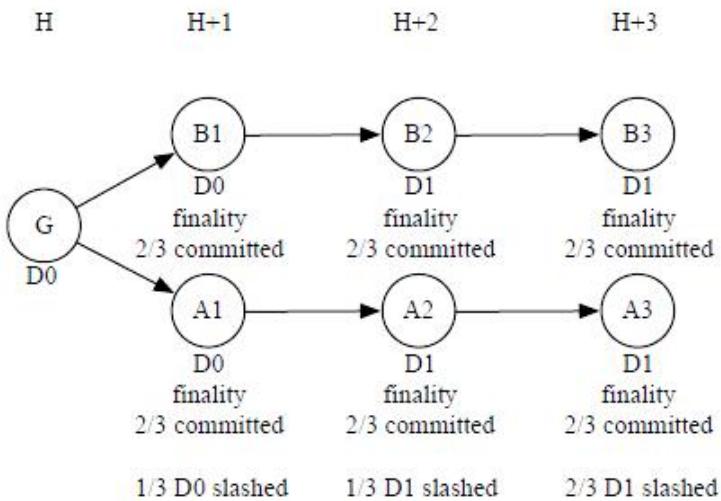
The first as shown in the figure below, H + 1 and H + 2 in the same Epoch, the same dynasty, the Attacker first need to bribe D0 in a third of the verifier to A1 finality, at this time that a third of the validation will be punished, the deposit was sent out.

In A2 in the validation of the whole sum of the deposit is only two-thirds of A1, the Attacker to arrive A2 and B2 with value of committ ticket, all need to bribe the rest without cheating verifier, combined losses will need at least 3/3 of the total deposit, even so there is no guarantee that A1 score higher than B1, attack high risk of failure.

The second case as shown in the figure below, highly H + 1 + 2 and H in different Epoch, and different dynasties, so the Attacker needs to bribe D0 of 1/3 to A1 reached finality, and bribery 1/3 to A2 reached finality in D1, Complete a such attacks need at least two-thirds of the total deposit loss. In summary, to launch a short-range attack that causes two finality blocks to fail, it costs at least 2/3 of the total deposit.



If the Attacker wants to disable B1, B3, as shown in the figure below, the Attacker first need to bribe D0 complete A1 finality, a third of people in D1 and bribery in a third of people finish A2 finality, Finally need to bribe D1 in two-thirds of all the people left to finish A3 finality, loss in at least four thirds of the total deposit. To complete these attacks will be extremely difficult, and even had the opportunity to do it, can guarantee the A1 is judged scores higher than B1, attack is likely to fail.



## 5.7 systematic risk control

Both the blockchain and the circulation and payment of cryptocurrency are at a very early stage, therefore, in order to achieve the safe development of the project, QYBX provides a complete risk control solution.

### 1) System risk control

- Database read-write separation mechanism: In the initial stage, system risk control generally ensures the synchronization and read-write separation of data between the payment system database and the risk control system by establishing the database master/slave replication, read-write separation, Sharding and other mechanisms. System of risk control for the required customer/account data and transaction data is generally only read permissions, safe and reliable to ensure the account data.
- cache/memory database mechanism: efficient caching system is an effective measure to improve performance, the frequent use of this mechanism will normally data stored in the cache system such as to Redis. For example, risk control rules, risk control case base, intermediate result set, black and white list, pre-processing results, transaction parameters, billing template, clearing rules, distribution rules and other data. For some high-frequency trading, based on performance considerations, will use memory database for storage (usually) combined with SSD hard disk.



- RPC/SOA architecture: reducing transaction system and coupling system of risk control. In under the circumstances of less initial system services, such as general directly using the RabbitMQ/ActiveMQ message middleware or RPC way to realize the system between service invocation. When the system service, service governance problems, will adopt Dubbo SOA middleware to implement such system service call.
- Composite Event processing (CEP) : real-time/quasi-real-time payment risk control. Compared with pure rule-based processing, the composite event processing (CEP) mode has better performance and scalability.

## 2) the product risk control

The first stage of the product risk control are mainly concentrated in the products listed in front of the due diligence, including the historical data in the database and the rationality of the test parameters, using the historical payment data or standardized derivatives and its market value through the QYBX model test, determine the design rationality.

The second stage of the product risk control has focused on the products and stable operation of the stage, by making all kinds of payment and the terms of the standardization of financial products access, intelligent contract established sequence through the lock parts, after all approved products online, in the form of a decentralized data block chain stores distribution, forming a financial product library. This stage investors are free to choose products, each product will not mislead investors, because human background, of all the listed products are produced by following strict intelligent audit data to support, and the data cannot be changed or deleted permanently.



# Chapter 6 The development of compliance

## 6.1 KYC/AML

QYBX strictly follows KYC/AML processes to ensure the authenticity of user identities and the legality of transactions. Users are required to submit identification documents when registering, and the system effectively identifies high-risk users through dual verification through automated tools and manual review. In addition, the platform regularly updates the risk database, monitors abnormal transaction behaviors in real time, and takes timely measures to prevent money laundering and other illegal behaviors, so as to ensure the security and compliance of the transaction environment.

### 1) client identification (KYC)

#### ◎ Identity verification:

- identification documents: the user at the time of registration will need to provide a valid proof of identity, such as passport, identity card, driver's license, etc. QYBX verifies the authenticity of these documents in a variety of ways, including comparison with official databases and manual review.
- Proof of address: Users are also required to provide proof of residential address, and these documents are required to show the user's name and address to ensure the accuracy of the user's information.
- Video verification: QYBX may require video verification for high risk users or users with large transactions. Through a video call, the user's appearance is verified to be consistent with his/her identification documents.

#### ◎ Proof of source of funds:

- Statement of source of funds: The user needs to declare that the source of funds is legitimate. For the big deals or high-risk users, QYBX documents may be required to provide additional funding sources, such as bank deposit



certificates, payroll, etc.

- Transaction record review: QYBX will review the user's transaction record to ensure that the fund flow is consistent with its stated source of funds.

◎ **Risk assessment:**

- Risk score: QYBX will make a risk assessment based on the user's identity information, trading behavior and source of funds. The risk scoring system takes into account several factors, such as the user's location, transaction frequency and amount.
- Identification of high-risk users: QYBX will conduct more rigorous due diligence on users with higher risk scores. This may include additional identity verification steps, source of funds review and transaction monitoring.

## **2) Anti-money laundering (AML) measures**

◎ **Transaction monitoring:**

- Real-time monitoring: QYBX uses an advanced trading monitoring system to track users' trading behavior in real time. The system will identify abnormal trading patterns, such as large transactions, frequent transfers, and trading with high-risk areas.
- Behavioural analytics: Using artificial intelligence and machine learning techniques, QYBX's monitoring system can analyse the behavioural patterns of users. This helps identify potential money laundering practices such as layering techniques (quickly moving funds across multiple addresses) and the use of coin mixing tools.

◎ **Suspicious activity report:**

- Reporting mechanism: QYBX generates a Suspicious Activity Report (SAR) as soon as suspicious activity is detected. The report details a detailed record of suspicious transactions, and submitted to relevant regulatory agencies.
- Internal review: QYBX's compliance team conducts an internal review of suspicious activity before submitting the report. This ensures the accuracy and completeness of the report.



### ◎ Customer Due diligence (CDD) :

- Continuous monitoring: QYBX's due diligence on customers is not limited to account opening, but also continuously monitors customers' trading behavior. This helps to find any in time can lead to abnormal behavior of money laundering or fraud.
- Regular review: QYBX reviews clients' accounts on a regular basis to update their risk assessment and trading preferences. This ensures that the accuracy of customer information and compliance.

QYBX's KYC/AML process ensures platform security and compliance through rigorous identity verification, risk assessment, transaction monitoring, and suspicious activity reporting. This process not only in line with international rules and regulations, and also provides users with a safe and transparent trading environment. Through continuous compliance measures and staff training, QYBX committed to prevent money laundering and terrorist financing, to maintain the integrity of the digital asset trading industry.

## 6.2 compliance license

QYBX attaches great importance to compliance operations and has obtained a number of important financial licenses, including MSB, MTL, BitLicense and others. These plates not only proves the QYBX in compliance efforts, also provides users with safe and reliable trading environment.

The MSB (Money Services Business licence: financial crime enforcement by the US Treasury has (FinCEN) regulation and issue. MSB licence is one of the important block chain project exchange certificates of compliance, the main object of the regulated is money service related business with the company, including foreign currency exchange, international remittance, currency trading/transfer (including encryption/virtual currency), ICO distribution, provide project in advance, issuing traveler's checks, etc. Companies holding MSB licenses are required to comply with anti-money laundering regulations (AML), customer identification (KYC) and other requirements, which help QYBX establish a good compliance image globally and attract more users and institutional investors.

- Money Transmitter License (MTL) : It is issued by the financial regulators of



each state in the US. MTL licence is the currency of the states of the transfer and related financial services business main body of a legal requirement, designed to ensure the stability of financial markets and the rights and interests of consumer protection. It includes payment of bills, transportation of currency, etc. After obtaining the MTL license, QYBX can legally conduct transactions between fiat currency and digital currency in multiple states of the United States, further expanding its business scope in the American market and enhancing its market competitiveness.

- BitLicense: issued by New York state financial services (NYDFS). BitLicense is for encryption of monetary business licence, allowing licensed institutions engaged in encryption currency trading in New York, storage and transmission, etc. BitLicense application process strict, require the applicant organisation has the powerful technical safety measures, anti-money laundering policy and consumer protection mechanism. Get the licence shows that QYBX achieved high standards in safety compliance and technical aspects, help users of the platform's trust.

In addition to the above license in the United States, QYBX also won the relevant license in other countries and regions, such as the eu's electronic currency service licences, Singapore's main pay agency license, etc. The licence enables QYBX legal operations on a global scale, expanding international business. Obtained licence not only proved QYBX compliance, also shows that the professional ability and reputation in the field of digital assets transactions received international recognition.

## 6.3 Third-party audit

QYBX has entered into a partnership with CertiK, a world-renowned blockchain security audit company, to achieve independent third-party audit. CertiK is a pioneer in blockchain security, using the most advanced formal verification technology, AI audit technology and human audit by security experts to scan and monitor blockchain protocols and smart contracts to ensure their security. CertiK is SOC 2 Type I certified and meets stringent data security and privacy protection standards.

- Security Controls: CertiK conducted a comprehensive audit of QYBX's security controls to ensure the security of the platform's transaction systems, user



data, and asset storage.

- Processes and Policies: The audit covers QYBX's internal processes and policies to ensure compliance with industry best practices and regulatory requirements.
- Vulnerability detection: Through advanced technology, CertiK is able to detect and fix potential code vulnerabilities and protect users from security threats.

By partnering with CertiK, QYBX provides customers with comprehensive financial security. CertiK's third-party independent audit ensures the security and transparency of QYBX.

## 6.4 Marketing Strategy

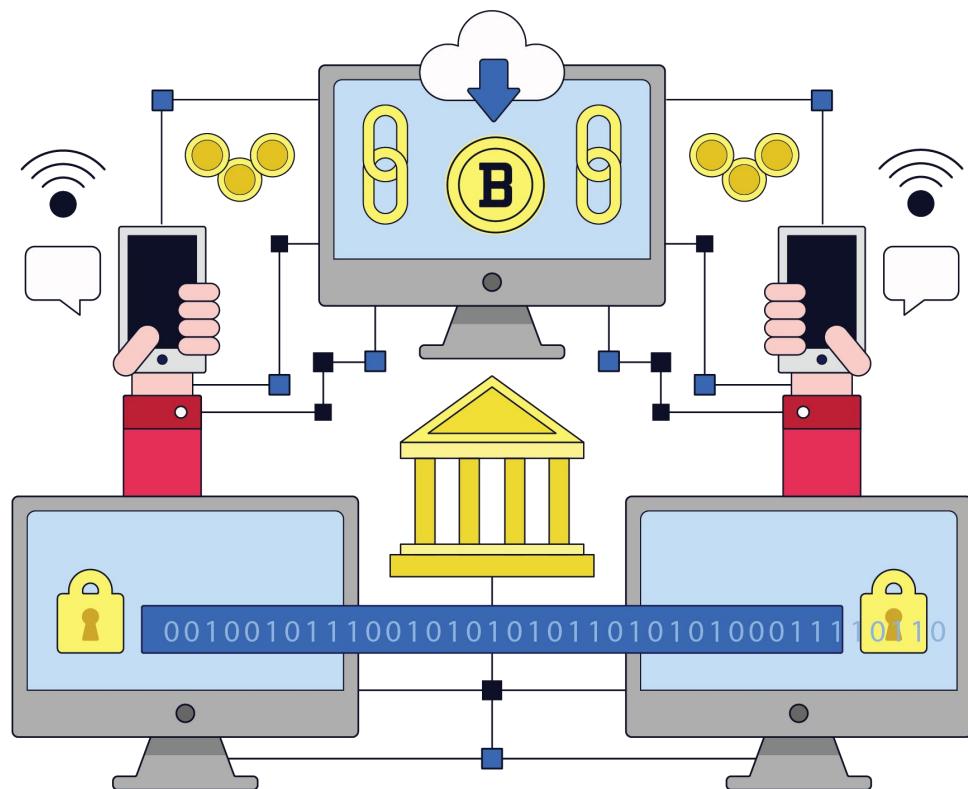
QYBX will continue to optimize user experience and provide personalized services to ensure user engagement. Through data analysis, we will accurately target users' needs and launch customized products and services to enhance users' sense of belonging. At the same time, we regularly hold online and offline activities to strengthen community interaction and enhance user engagement, so as to ensure the continuous growth and retention of users. QYBX will also introduce more interactive elements, such as points system and leaderboard, to increase the fun of user interaction.

QYBX will continue to optimize the interface design, simplify the operation process, and improve the efficiency of trading. Through continuous technological innovation and user feedback, QYBX will continue to improve functions to meet the diverse needs of users and ensure the stability and efficiency of the platform. Regularly launch innovative activities to stimulate user activity, build a virtuous ecological cycle, and achieve continuous user growth and deep binding.



By establishing a user feedback mechanism, QYBX responds to and solves user problems in a timely manner to improve user satisfaction and enhance trust. It conducts regular user satisfaction surveys and optimizes service processes to ensure that users' rights and interests are protected. Collect user suggestions through multiple channels, continuously improve platform functions, and build a high-quality ecosystem trusted by users. QYBX will launch a user loyalty program to reward long-term active users and enhance their loyalty. By regularly releasing reports on the development of the platform, it will operate transparently and enhance users' trust. Combined with big data analysis, we can accurately push personalized content to improve user experience and ensure that users remain active.

QYBX will continue to optimize the user incentive mechanism and introduce more rights and interests, such as exclusive customer service and priority to experience new functions, to further consolidate user loyalty. Through the community co-construction program, users are encouraged to participate in the decision-making of the platform and enhance their sense of belonging. Regular user meetings are held to get closer to users and create a warm community atmosphere to ensure long-term retention of users.





# Chapter 7 Risk Warning and Disclaimer

## 7.1 Risk Warnings

- Market volatility risk: The virtual currency market is highly volatile, and investors should be cautious about investment risks.
- Policy risk: Changes in policies and regulations may have an impact on project operations. Investors are advised to pay attention to the changes in relevant policies and regulations.

QYBX is committed to providing enterprises with more efficient and convenient virtual coin collection services, as well as providing investors with robust investment returns and opportunities to participate in project governance.

## 7.2 Disclaimer of Liability

This document is for informational purposes only, the contents of this document are for informational purposes only and do not constitute any investment advice, solicitation or solicitation to sell shares or securities in QYBX and its related companies. Such offers must be made in the form of confidential memoranda and are subject to compliance with relevant securities and other laws.

The contents of this document shall not be construed as forcing participation in the Token public offering. Any action related to this white paper shall not be deemed as participation in the public offering of Tokens, including requesting a copy of this white paper or sharing this White paper with others. Participation in the Token public offering means that the participant has reached the age standard, has full civil capacity, and the contract entered into with QYBX is true and valid. All participants enter into the contract voluntarily and have made clear and necessary understanding of QYBX before signing the contract.

The QYBX team will continuously make reasonable attempts to ensure that the information in this white paper is true and accurate. During the development process, the platform may be updated, including but not limited to the mechanism,



tokens and their mechanisms, and the distribution of tokens. Some parts of the document may be adjusted in the new white paper as the project progresses, and the team will make the updated content public by Posting an announcement on the website or the new white paper. Participants are requested to obtain the latest version of the white paper in a timely manner and adjust their decisions based on the updated content.

QYBX complies with any regulatory regulations that are conducive to the healthy development of the industry and the self-discipline statement of the industry. By participating, participants will fully accept and comply with such inspections. At the same time, all information disclosed by the Participant to complete such inspection must be complete and accurate. QYBX has clearly communicated to the Participant that the possible risks are carried out. By participating in the Token public offering, the Participant has confirmed that he/she understands and agrees with the terms and conditions in the Token public offering and accepts the potential risks at his/her own risk.