BSGX

A global barrier-free payment system based on blockchain technology

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Chapter 1 Blockchain technology and global payment applications

1.1 Introduction to the Payment Industry

Payment transactions form the cornerstone of socio-economic activities, primarily managed by banks under the supervision of financial regulators including the People's Bank of China and the China Banking and Insurance Regulatory Commission (CBIRC). With continuous technological advancements, mobile-first payment ecosystems, and the proliferation of small-value, high-frequency offline transactions, traditional banking systems are increasingly struggling to meet evolving payment demands. Third-party payment platforms have emerged as a strategic complement to conventional financial institutions' large-value, low-frequency settlement services. By handling these frequent, small-amount transactions, they provide customers with more convenient and personalized payment solutions that align with modern financial needs.

The market size of third-party payment has grown rapidly from 16.9 trillion yuan in 2013 to 200 trillion yuan in 2023, with the transaction scale increasing by more than 10 times and a compound growth rate of over 80% in the past three years. It is expected that the market size will reach 400 trillion yuan in 2025 and will maintain a high growth rate in the next three years.

After more than a decade of industry development, the rise of Internet payment and mobile payment has further promoted the development of the third-party payment industry with a transaction scale of more than one trillion yuan. The rise of third-party payment has greatly improved the traditional bank problems such as high transfer fee and slow arrival time to some extent.

Traditional third-party payment systems encompass online payments, mobile transactions, bank card acquiring services, and cross-border e-commerce. Acting as non-financial institutions, these third-party providers establish payment settlement channels between banks, merchants, and users. By signing agreements with financial institutions to build data exchange and information transmission networks, they simultaneously connect merchants and integrate user resources. This process gradually forms transaction-centric platforms that deliver fast, convenient, and efficient

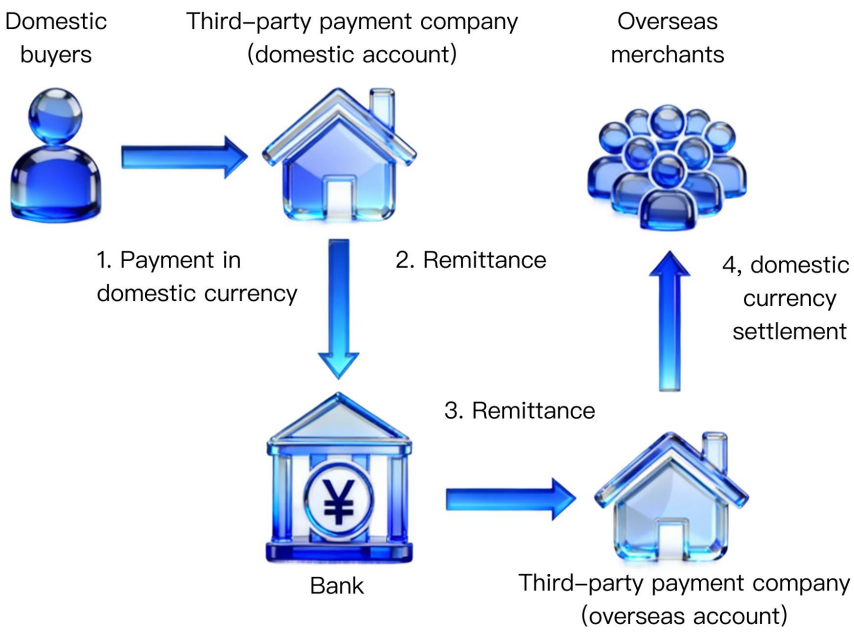
payment settlement services.

The third-party payment market has emerged as the most mature sector in internet finance, serving as a fundamental service widely integrated across various scenarios. As a critical node in information flow and capital movement during transactions, controlling payments essentially means controlling traffic entry points. For internet companies, this traffic represents users, data, and capital flows – the core competitive advantage in the Internet of Everything era. For blockchain enterprises, active traffic generation has revitalized application scenarios for cryptocurrencies. In the early stages of blockchain development, controlling payment terminals meant controlling access channels.

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. The traditional bank clearing and settlement system still has many shortcomings, which need to be solved urgently. Taking cross-border payment as an example, we can clearly see its 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. Usually, a cross-border payment takes at least 24 hours to complete. In addition, in the traditional payment mode, inter-bank reconciliation is required, which also takes some time.

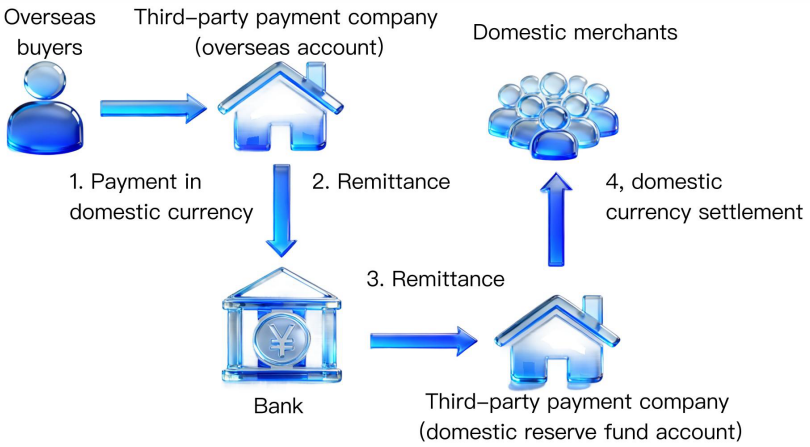


Traditional cross–border payment process

2) Costly

Traditional cross-border payment models involve four key costs: processing fees, transaction charges, financial operational expenses, and reconciliation costs. According to the World Economic Forum's report "The Future of Global Financial Infrastructure", remittance fees typically amount to 7.68% of the total transfer value. The average cost for banks to process a cross-border payment through correspondent banks ranges between $25 and $35. Notably, using

an Automated Clearing House (ACH) system – as exemplified by Japan's ACH – incurs payment costs that exceed ten times this average figure.



Traditional capital inflow process

3) Poor liquidity

In traditional cross-border payment systems, banks maintain foreign currency reserves in "current accounts" to ensure liquidity. This practice stems from the inherent uncertainty surrounding when correspondent banks will process remittance transactions, requiring banks to keep sufficient foreign currency reserves in these accounts.

4) Force majeure

Due to external force reasons such as policy or war changes, the currency of a certain country is likely to lose trust endorsement, resulting in the depreciation and non-circulation of the national currency issued. In addition, not all banks can join SWIFT in the traditional cross-border payment mode, or joining SWIFT is not economical.

The emergence of blockchain technology has profoundly transformed the trillion-dollar payment industry. The development trajectory of online payments, mobile transactions, and M2M (machine-to-machine) payments—characterized by smaller volumes and higher frequency—is shifting focus toward decentralized network solutions. Blockchain-powered payment systems have become a focal point in current research. Meanwhile, cryptocurrencies built upon blockchain technology are driving revolutionary changes in payment models through their innovative mechanisms.

1.2 Blockchain and Token Economy

Over four decades of internet evolution have introduced groundbreaking innovations including email, digital platforms, social media, mobile networks, big data, cloud computing, and the Internet of Things. These advancements have dramatically reduced costs for information search, collaboration, and exchange while lowering entry barriers across industries. They have catalyzed the rise of new media, entertainment, and retail sectors, giving birth to innovative organizational frameworks and unprecedented digital business models. However, mere information sharing cannot sustain economic growth. Without third-party verification mechanisms, transactions lack identity authentication and trust-building processes essential for commercial interactions.

In 2008, Satoshi Nakamoto first unveiled Bitcoin — a peer-to-peer cash system and its foundational protocol. The white paper titled "Bitcoin: Electronic Cash in a Peer-to-Peer Network" marked the birth of Bitcoin. Over the past decade, the blockchain technology behind Bitcoin has gained widespread recognition, driving continuous innovation and development in this revolutionary digital currency.

Leveraging the unique advantages of blockchain technology, this innovative framework combines: a distributed data structure for secure verification and storage; consensus algorithms across nodes enabling data generation and updates; cryptographic protocols ensuring secure transmission and access; and smart contracts using automated scripts to program and manage data. This creates a groundbreaking distributed infrastructure and computational paradigm. Furthermore, blockchain establishes peer-to-peer trust within networks, eliminating intermediaries from value transfer processes. It achieves transparency while protecting privacy, enabling collective decision-making while safeguarding individual rights. This mechanism not only enhances the efficiency of value exchange but also reduces associated costs.

Blockchain's role in trust parallels the internet's role in information. By enhancing transparency and protecting privacy, blockchain bridges humanity's deepest need for trust, paving the way toward a fairer, more efficient, and interconnected global business ecosystem. This technology holds immense potential to revolutionize traditional commerce, finance, government operations, and ultimately transform human society.

With the development of blockchain technology, the token economy based on the underlying technology of blockchain is also booming at a high speed. Blockchain makes the Internet leap from "information" to "value", bringing two unique functional characteristics to the Internet and the digital world:

- The first is the technical blockchain credit layer, which is used for "value transfer" in the digital world;

- The second is the economic token (Token), used as a "value representation" in the digital world.

With the rapid advancement of blockchain technology, particularly in foundational public chains, industries across sectors have actively explored and implemented blockchain applications,

with implementation potential becoming increasingly evident. Currently, major application platforms and top-tier international institutions are leveraging token incentives and governance mechanisms to transform internet platforms. Building upon blockchain's capabilities for value representation and transfer, these initiatives mobilize diverse user groups and partners to establish a decentralized value ecosystem characterized by fairness, transparency, and equitable participation.

However, current internet technology still cannot achieve peer-to-peer value transfer. Unlike the replicable nature of information transmission, value transfer requires ensuring unique ownership rights. Therefore, value transfer currently relies on central institutions to handle accounting functions. If networks themselves could provide reliable accounting capabilities, it would eliminate complete dependence on centralized authorities for value transfer, enabling direct peer-to-peer value transfers.

Supported by the distributed ledger technology (DLT, Distributed Ledger Technology) and token economic model, it enables participants 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, namely the formation of the Internet of Value.

1.3 Value applications of blockchain

Through comparative analysis, research on typical application cases and relevant references in various fields, combined with our own research and application practice, we have gained some experience to promote the application of blockchain in business, and recommend the following application scenarios or problems that should be actively considered to try blockchain technology:

1) Cross-entity collaboration is required for business development

When developing IT systems for cross-organizational business integration, traditional approaches typically follow two distinct paths. The first involves establishing a centralized system to manage operational demands from all stakeholders, with data maintained by a single entity. The second adopts an SOA architecture where participating organizations publish service interfaces for mutual invocation while retaining data ownership. Centralized solutions face significant challenges when dealing with relatively independent stakeholders, as they require complex coordination processes including project approval, cost allocation, and implementation coordination. Conversely, SOA implementations present technical complexities due to their limited adaptability, making them inadequate for handling intricate business scenarios. Moreover, both centralized and SOA architectures struggle to ensure tamper-proof data security from a technical perspective.

In scenarios involving cross-entity business collaboration among relatively independent and equal stakeholders, leveraging blockchain's features of shared data, tamper-proof mechanisms, distributed architecture, and digital contracts enables the resolution of issues that previously required business-level coordination. This approach allows problem-solving processes to become more efficient, flexible, and objective through technical solutions.

2) Business development requires the establishment of low cost trust between participants

Most business operations require establishing a foundation of trust, particularly in scenarios involving multiple stakeholders. For applications where trust-building is challenging and maintenance costs are high, blockchain technology can provide significant assistance. We examine how blockchain enables cost-effective trust establishment through three key dimensions:

- Data Trustworthiness: In traditional systems, data is typically stored in centralized repositories, where business-critical information often remains controlled by dominant stakeholders. This model relies on the commercial/social credibility of data controllers to ensure reliability, but such trust remains subjective. For sensitive domains, additional security measures are still required to prevent malicious tampering. Blockchain technology addresses this through cryptographic hashing and digital signatures. By structuring data modifications into chronological blocks and establishing consensus protocols, all participants collectively own the data. With multiple parties holding identical signed copies and recording digital fingerprints (hash values), cryptographic techniques ensure tamper-proof integrity, thereby achieving true trustworthiness. Blockchain decentralizes data ownership, enabling objectively verifiable trust through technical solutions.

- Contract Execution: The fulfillment of standard contracts (including agreements, covenants, and legal documents) is fundamentally governed by legal frameworks. Conventions are voluntarily adhered to when driven by interests, ethical considerations, or legal obligations, influenced by multiple subjective factors. In commercial activities, preventing breaches or pursuing claims often incurs substantial costs—including guarantees, insurance premiums, legal fees, and lengthy judicial proceedings. Blockchain smart contracts essentially represent digitalized contractual agreements enforced through computer systems. Unlike traditional contracts that rely on human discretion for execution, smart contracts ensure objective compliance through automated procedures when predefined conditions are triggered. By digitizing assets onto blockchain or anchoring them with smart contracts that codify asset relationships, while rigorously recording execution processes and outcomes, these mechanisms significantly reduce compliance costs and enhance operational efficiency. Blockchain smart contracts introduce a more precise representation of "contracts" and establish a more objective, enforceable framework. As contracts form the foundation of social interactions, this evolution will have far-reaching societal implications.

- Historical evidence demonstrates that blockchain solidifies transaction records while enabling traceable queries, ensuring transactions are immutable and non-repudiable. When an event occurs, it is recorded along with its timestamp on the blockchain, allowing future verification of its occurrence at that specific time. This mechanism provides all parties involved in transactions with a credible historical record.

3) There are long transactions and long cycle chains in business processes

When business transactions flow between multiple entities, verifying the authenticity and validity of indirect participants becomes challenging. Moreover, operational silos among stakeholders hinder the development of multi-tiered transaction networks. Blockchain technology ensures identity verification and data integrity across extended transaction cycles, enabling multi-level credit transfer while streamlining business processes and boosting efficiency. Bitcoin, a flagship blockchain application, has achieved a market capitalization exceeding $100 billion. Remarkably, this high-value system has operated on public networks through open-source collaboration for years, demonstrating robust security and scalability. Bitcoin's success highlights a fundamental truth——: Blockchain technology can establish trust directly without intermediary endorsement. Extending blockchain applications to broader sectors like industrial production, financial services, and public infrastructure will revolutionize social division of labor through transformative changes including:

- Business transactions are more likely to achieve trust, reduce risk and make transactions more certain

- The intermediate link of business transaction is reduced, and multi-party transaction can be directly concluded

- The centralized service model of traditional intermediaries will change dramatically

This transformative impact is now becoming increasingly evident. As blockchain technology matures and its applications diversify, this influence will amplify like the butterfly effect, permeating all aspects of society. It will drive efficient collaboration and consensus-driven decision-making among decentralized or multi-centralized entities. Just as humanity has advanced civilization through mastering tools, we believe blockchain represents a new tool that will ultimately propel the progress and development of human society.

Blockchain is changing the global payment landscape

1) Defects of traditional payment system

Traditional payment systems rely on clearing centers to facilitate interbank data exchanges for value transfer. With the rise of internet finance, third-party payments (particularly mobile payments) have experienced explosive growth, yet they still depend on centralized solutions for value transfer. Centralized systems anchor all value transfer computations in a single central server (cluster) backed by corporate or governmental credibility. Although computations are automatically processed by algorithms, users must trust these centralized entities. In reality, relying on centralized institutions to resolve credit issues confines trust to specific organizations, regions, or national boundaries.

In the traditional payment system, when Customer A from Bank A initiates a payment to Customer F from Bank C, it requires intermediary endorsement and clearing. If Bank A does not maintain a clearing account with the central bank, it must use Bank B as an agent bank. The transaction between Bank B and Bank C is settled through the central bank's clearing account. Ultimately, Customer F receives the funds transferred by Customer A. Cross-border payments involve even more complex procedures.

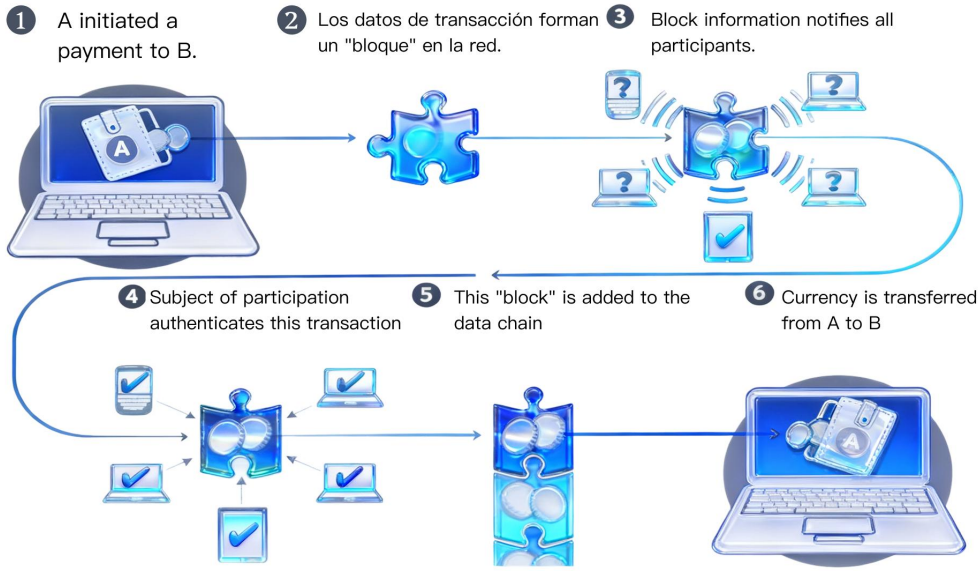
Currently, cross-border trade transactions rely on third-party intermediaries for clearing and payment processing. These involve multiple layers of institutions: the account-holding bank, central bank, and overseas banks (acting as correspondent banks or branches). Each institution maintains isolated accounting systems that require establishing correspondent relationships and maintaining credit limits. Every transaction must be recorded within the bank's own system, followed by settlement and reconciliation with counterparties. This results in slow processing speeds and high costs. For numerous small and medium-sized enterprises (SMEs), particularly those in developing countries, the expenses incurred through cross-border payments are even more prohibitive.

2) Break through the limitations of Internet value transfer

The internet was initially designed to address information creation and transmission, yet it failed to resolve the fundamental challenge of value transfer – specifically, the precise movement of assets (including monetary assets, securities, financial derivatives, etc.) from one address to another through universally recognized protocols. Blockchain technology establishes a trust-based ecosystem that addresses economic activities 'needs in environments of information asymmetry and uncertainty, overcoming the internet's limitations in value transfer. Bitcoin marked the first application of blockchain technology in finance. However, if legal tender were deployed on blockchain instead of Bitcoin, commercial banks could form alliances to create private payment chains. In such systems, currencies would be registered and transferred as digital assets on the

blockchain, free from Bitcoin's 7 transactions per second constraint. This approach would enable rapid payment processing and settlement through blockchain technology.

An example of a payment process under blockchain technology:



3) Blockchain technology to transform the payment system

Unlike traditional payment systems, blockchain technology enables direct data exchange between transaction parties without intermediaries. Even if part of the network fails, the entire system remains operational, significantly reducing systemic risks associated with centralized payment methods. As shown in the diagram, a blockchain-based payment process requires no involvement from centralized institutions. Banks and customers in the market can establish a private chain to complete transactions independently.

Suppose Person A makes a payment exceeding their account balance to Person B. Since every participant in the distributed ledger maintains copies of all historical transactions, the authentication from other participants cannot be obtained in Step 4 of the diagram. Once validated, the transaction block is permanently added to the data chain, which remains immutable. The blockchain's transaction confirmation process—comprising clearing, settlement, and auditing—holds significant importance for optimizing financial institution workflows.

Blockchain-powered payment networks promise to securely, efficiently, and cost-effectively address global payment challenges. Trust remains a fundamental hurdle in information exchange – when no node can reliably verify communication partners across the network, establishing consensus mechanisms becomes crucial for secure data transmission without tamper risks. By eliminating centralized verification authorities, blockchain technology enables market participants to overcome mutual distrust. Through algorithmic proof systems ensuring network integrity, all nodes autonomously exchange data securely in a trustless environment (truBSGXess).

By implementing blockchain technology, real-time peer-to-peer transactions can be realized with enhanced efficiency. This redundancy of central nodes or clearing institutions enables merchants to save 80-90% on transaction fees. The authenticity of transaction data, verified collectively by network nodes, ensures tamper-proof integrity, thereby eliminating the need for intermediaries and reducing transaction costs. Beyond these advantages, blockchain integration allows for more fragmented payment methods. With lower fixed transaction fees, this technology

meets users' growing demand for flexible payment solutions in an increasingly diversified online and offline payment landscape.

The birth of 1.5-byte link

Through analyzing the evolution of internet technologies, we observe that blockchain technology, digital payments themselves, and blockchain-powered payment solutions all remain in their early developmental stages with numerous unexplored frontiers. To address this, we aim to establish a groundbreaking blockchain-based payment ecosystem as an alternative protocol for global value transfer, while advancing user-friendliness across the entire blockchain industry. This vision has driven BSGX to develop both the blockchain-powered global payment system ——BSGX and its accessible payment medium ——BSGX token.

BSGX believes that for blockchain and digital currencies to achieve sustainable development, they must be supported by broader application scenarios. As research in the blockchain field deepens, particularly through exploration of smart contracts, some product solutions are gradually integrating with real-world economic activities to seek win-win cooperation among enterprises. However, truly implemented and large-scale applications remain scarce, while user-oriented services are even rarer. Whether it's Bitcoin, Ethereum, or various new tokens issued on smart contract platforms, only through increased interaction with the physical world can digital currencies enhance their intrinsic value, thereby promoting market prosperity and improving efficiency in the real economy.

To address current pain points and challenges in the payment sector, BSGX has implemented technological and conceptual innovations. The company provides comprehensive blockchain-based payment solutions with multi-scenario applications, positioning itself as a bridge between the blockchain world and real-world commerce. BSGX aims to expand the application boundaries and technical frontiers of blockchain and payment systems, enabling ordinary internet users to experience the value of blockchain technology. This initiative seeks to establish a new ecosystem for developers and users powered by blockchain and payment technologies.

The underlying payment system of "blockchain + digital currency + diversified solutions" constructed by BSGX mainly includes:

- Build the underlying payment platform of BSGX blockchain to provide blockchain support services for the digital economy;

- Provide blockchain + multi-industry application solutions, and third parties can formulate reasonable blockchain application models and token issuance mechanisms based on the actual situation of each industry;

- Build the BSGX ecosystem, integrate payment industry assets, and realize the connection between production and finance services.

Moving forward, BSGX will continue to expand the application and technological boundaries of blockchain and payment systems, enabling ordinary internet users to experience the value of blockchain technology. The company is building a new ecosystem for developers and users based on blockchain + payment technologies. Through a series of innovations in both technical and conceptual approaches, BSGX provides comprehensive payment solutions for blockchain-integrated physical scenarios. This progress positions the company as a bridge connecting the blockchain world with the real-world business landscape.

Chapter II Overview of BSGX

2.1 BSGX Introduction

BSGX is a technology company dedicated to providing comprehensive virtual currency payment solutions for businesses. By leveraging blockchain technology and smart payment systems, we strive to create secure and efficient payment services that drive digital transformation and business growth for enterprises.

The BSGX core team comprises professionals from leading institutions including Citibank, Royal Bank of Scotland, Canadian Imperial Bank, Google, and IBM, boasting exceptional academic credentials and extensive experience in financial product development and digital platform construction. The management team has accumulated a decade of expertise spanning banking, payment systems, financial services, and risk control. Currently, the company operates branches in Hong Kong, Tokyo, Singapore, Jakarta, and London, while subsidiaries in France, the United Arab Emirates, the United States, and Australia are under active establishment. A globally integrated payment service network has been successfully developed, enabling businesses to expand operations across over 130 countries.

BSGX was originally designed to build a multi-dimensional commercial intercommunication payment platform. Through the underlying technology of blockchain, a complete set of solutions will be built on BSGX, and the unified digital currency (BSGX) produced by blockchain technology will be used for rewards:

- BSGX token economic solution
- Multi-industry interoperability solutions
- Digital asset trading and circulation ecosystem
- Global cross-scenario solutions based on blockchain technology

- Global barrier-free cross-chain payment solution

At BSGX, the innovative integration of blockchain and payment technologies delivers groundbreaking applications. By leveraging blockchain for peer-to-peer value transfer and building a decentralized payment ecosystem through underlying communication protocols, this distributed computing and storage solution provides robust protection against cyber attacks and system failures. The decentralized network architecture efficiently handles massive concurrent data access, positioning it as a sustainable infrastructure for future development. These features endow the BSGX payment system with three major growth potential areas:

- Point-to-point merchant payment scheme: The customer normally recharges the merchant platform, transfers money to the merchant through BSGX, and the merchant exchanges currency through the built-in OTC function of the platform. Finally, the amount of recharge will be transferred to the merchant platform.

- Barrier-free payment solution: It supports cross-scenario and cross-chain payment. Customers can buy digital currency (such as BSGX) with legal tender, transfer it to BSGX wallet, and pay the goods payment to merchants through cooperative payment institutions. The payment institutions will quickly convert customers' digital currency into local legal tender in the location of merchants and then pay them to merchants.

- Third-party interface call: Based on the payment interface form, BSGX will provide payment services for global enterprises and commercial functional scenarios.

In the future, across various solutions and scenarios, when participants of BSGX contribute to the ecosystem, the system will provide corresponding reasonable rewards (BSGX) based on the contribution mechanism's calculations. As a commercial application-level blockchain solution, supported by the company's global capital strength, business networks, core talent, and strategic partnerships, BSGX will form a diversified business matrix and token incentive ecosystem. This will establish a solid foundation for value to flow freely without borders or barriers.

2.2 Design principles

BSGX is designed around the core values driving the arrival of the Internet of Value (blockchain encrypted payment) era, and the principles include:

1) Value communication principle

BSGX delivers value-driven outcomes, presenting a comprehensive framework for blockchain payment applications and BSGX token asset incentives through multidimensional perspectives. Within this model, all participants are integrated into the ecosystem rather than operating as isolated entities. Industry applications within specific domains demonstrate multi-dimensional value through diverse strategic combinations.

2) Autonomy principle

We believe decentralization should minimize external interference while maintaining system stability. By distributing power across numerous nodes, we unlock individual productivity. If the internet liberated productivity, decentralization further unleashes it through consensus-building between individuals. This makes node autonomy the essential principle of decentralized systems.

3) The principle of sustainability

The dissemination of information creates value by establishing an intrinsic value chain for crypto assets, enabling sustainable development. This process continuously generates new demands, spawns innovative products and applications, and drives information iteration to form a virtuous cycle. The growth rate of information carriers depends not on their initial level but on the frequency of iterations. As demands evolve, more frequent iterations result in higher system maturity, greater influence, increased value, and stronger sustainability within the intrinsic value chain.

4) High efficiency principle

BSGX, powered by blockchain technology, employs dynamic sharding to partition network nodes based on transaction characteristics and node resource availability. Each shard node exclusively handles transactions matching its specific parameters, significantly boosting transaction processing speed and throughput (TPS). To ensure reliable operation of these shards, the system adopts a dynamic election mechanism where shard nodes are not fixed but elected through participation. Theoretically, this dynamic sharding technology enables payment systems to achieve TPS processing capabilities reaching millions per second.

5) Tokenization principle

BSGX ensures its fairness and credibility in every link, such as node accounting qualification election, data accounting packaging, user service request access, distributed data processing, and distributed computing collaboration, and realizes the real sense of decentralized token incentive in the network ecology from the mechanism.

BSGX aims to build an innovative blockchain payment ecosystem as a future-oriented internet value transfer protocol, advancing the industry's usability and practicality. By seamlessly integrating blockchain with traditional business applications, we strive to bring this technology into everyday life. Through targeted industry penetration, BSGX will first capture market share and secure robust user support. Building on this foundation, we are committed to evolving into a blockchain payment platform that truly combines with real-world commercial applications.

2.3 Application objectives

BSGX will gradually achieve the following goals:

- Building a Convenient and Efficient Payment System: BSGX provides user-friendly, secure virtual currency collection services featuring one-click transactions and real-time settlements. All nodes in BSGX share a shared ledger, enabling peer-to-peer payments through consensus algorithm-verified transactions broadcast to all nodes. This eliminates the need for payment parties to establish hierarchical account relationships, achieving direct value transfer between peers and making payments more convenient and efficient.

- Enhancing Payment Processing Efficiency: BSGX leverages intelligent and blockchain technologies to automate payment processing, accelerating fund turnover. While current internet-era solutions have significantly improved settlement efficiency, they still face limitations in cross-currency operations, international transactions, and multi-contract scenarios due to multi-center and multi-step complexities. BSGX's decentralized and peer-to-peer architecture reduces intermediary steps and lowers costs, substantially boosting transaction efficiency. This innovative approach establishes a new payment framework that enables borderless value circulation.

- Reducing payment processing costs: BSGX optimizes payment processes, reduces labor costs and intermediate links, thereby lowering corporate payment expenses and enhancing profitability. The peer-to-peer direct transactions of BSGX no longer rely on traditional central financial institutions for credit endorsement and accounting services, eliminating payment intermediaries to effectively reduce transaction costs.

- Achieving Data Transparency and Regulatory Compliance: BSGX utilizes blockchain technology to enable real-time recording and traceability of payment data, meeting regulatory requirements while ensuring compliant operations for enterprises. Through distributed ledger technology, every participating node maintains complete backups of on-chain data, making the likelihood of payment data loss extremely low. Even if partial node data is lost or damaged, it will not affect the system's operation, database integrity, or information updates.

- Delivering diversified payment solutions: BSGX supports multiple payment methods including digital currencies and stablecoins, catering to diverse industry-specific needs. The platform features instant payment capabilities that enable users to complete transactions swiftly and efficiently through on-chain processing. Additionally, BSGX incorporates smart contract technology to automate merchant settlement processes, ensuring faster payment settlements for businesses.

- Support enterprises to issue their own tokens: BSGX provides a platform and services for enterprises to issue their own tokens, expand their digital financial business, and enhance brand influence and competitiveness.

2.4 Core strengths

BSGX payment system has obvious advantages:

- Security and reliability: Advanced encryption technology and multiple verification mechanisms are adopted to ensure the security of user assets and transaction reliability.

- Intelligent and efficient: Through intelligent payment system and smart contract technology, the automation and efficiency of payment processing can be realized.

- User-friendly: Provide simple and easy to use user interface and operation process, so that users can quickly get started.

- Global coverage: Support global payment services and provide cross-border payment solutions for enterprises.

- Compliance supervision: Strictly abide by laws and regulations to ensure the compliance of platform operation and protect the rights and interests of users.

In its application offerings, BSGX delivers tailored services and products for both business and individual users. For corporate clients, the platform provides a commercial interface enabling seamless integration with BSGX and payment solutions. For individual users, BSGX offers customized features including mobile DApp wallets, RSA-encrypted communication modules, over-the-counter collateralized trading, and lightning-fast transaction processing designed specifically for cryptocurrency enthusiasts.

In incentive scenarios, when participants contribute to BSGX's development, the system will provide corresponding rewards (in the form of BSGX tokens) based on the contribution mechanism's calculations. As a commercial-grade blockchain payment solution, BSGX also addresses the challenges of ecosystem construction and transformation for third-party businesses through its application.

BSGX seamlessly integrates the strengths of traditional payment systems and blockchain technology, overcoming current technical limitations while authentically merging blockchain with commercial applications. The company has been making sustained investments in blockchain-driven innovations, applying these advancements to enhance value creation across traditional industries and accelerate blockchain implementation across sectors. Through this commitment, BSGX is dedicated to building a future-ready blockchain payment ecosystem that fosters mutual success for all participants.

Chapter III BSGX application function module

3.1 Wallet systems

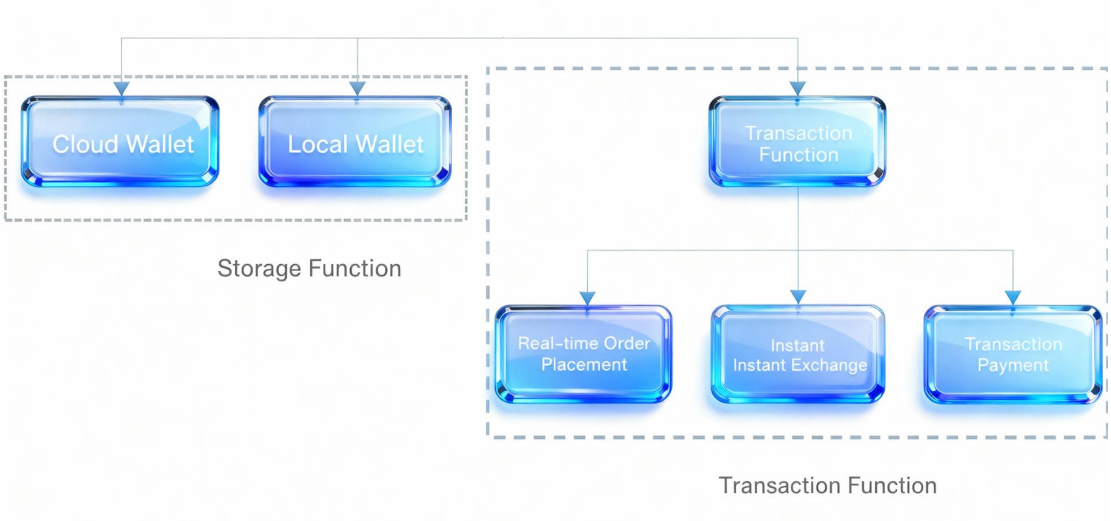
In the BSGX system, wallets will play a pivotal role. These digital assets management tools enable users to store, manage, and trade their crypto holdings with full autonomy. By significantly lowering the entry barrier for cryptocurrency adoption and reducing administrative burdens, they facilitate flexible asset utilization. Looking ahead, BSGX wallets are poised to become the primary payment solution for global users, revolutionizing financial transactions through seamless digital asset handling.

The core value of BSGX Wallet lies in realizing and demonstrating the market authenticity and liquidity of digital assets, enabling personal users to conveniently and efficiently achieve authentic circulation performance in the global cryptocurrency industry. In our planning framework, any cryptocurrency can be paid via QR code scanning within BSGX Wallet, where scanning instantly creates a secure address. This process also facilitates fund deposits, withdrawals, and additional functionalities. The BSGX Wallet features the following key characteristics:

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

1) Asset management

Through BSGX wallet, users can provide unified management of multiple blockchain assets, with local wallet, cloud wallet and transaction functions, realizing integrated asset management.



2) Multicurrency services

The BSGX Wallet System enables centralized management of multiple digital currencies, supporting not only mainstream assets like BTC, ETH, and Ethereum for storage and administration, but also adhering to standard smart contract platform protocols. It supports rapid integration of tokens issued across various platforms, achieving unified digital asset management while reducing user operational costs. The system offers both cloud-based wallets and local wallets with private key support. Cloud wallets feature transaction fee-free processing and instant transaction confirmation, facilitating seamless fund transfers between local and cloud-based wallets.

3) Dual storage on and off the chain

BSGX adheres to the core principles of blockchain technology, offering decentralized digital currency storage solutions. Users retain full control over wallet keys and private address keys for all types of cryptocurrencies, with the platform never accessing user assets. The platform also provides convenient encryption key backup solutions—— Users only need to perform a single backup process by memorizing 12 mnemonic phrases and storing them securely. Even if new cryptocurrency types are added in the future, all existing digital asset categories can be restored using these pre-stored mnemonic phrases.

4) Multiple security verifications

In addition to allowing users to hold their own wallet keys and private keys, it also provides multiple signature technology guarantee and two-step authorization verification for digital asset management of different sizes. In addition, users can carry out mobile phone verification code, fingerprint, face recognition and other verification methods during transfer transactions to ensure the security of digital currency assets in an all-round way.

5) Multilingual support

BSGX wallet will support a variety of languages such as Arabic, Chinese, English, Russian, Japanese, Korean, German and other mainstream digital currency markets, providing more comprehensive global services and creating a world-class wallet application.

6) Dual wallet apps

For the convenience of users, BSGX will open two forms of wallet, cloud wallet and local wallet, and users can freely choose the wallet they need.

- Cloud Wallet: Transfers between cloud users are credited within seconds with no fees. Private keys are stored in the cloud to store user addresses and transaction records, ensuring the wallet does not access user assets. Users can recover their cloud accounts through username, password, and facial recognition verification methods.

- Local wallet: Users hold their private keys and assets are more secure. Users can derive any number of sub-accounts (i.e., sub-keys) from the master key to add multiple wallet addresses for each digital asset in the local wallet, which facilitates asset separation.

3.2 Global payment and settlement systems

In addition to the transformation of the traditional payment model, BSGX will also build a global payment and clearing system based on blockchain technology through the application of lightning payment network and the integration of high-frequency payments.

1) Transaction channel and lightning payment

BSGX uses multi-signature technology to establish a transaction channel, enabling lightning-fast transactions comparable to the Lightning Network. The core of BSGX technology is to achieve ultra-fast transactions through multi-signature technology, which offers higher security than zero confirmation and better simplicity and implementation compared to the Lightning Network.

2) High frequency payment clearing system

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

- Data Collection: The platform will collect and analyze data from individual node users to establish a trust system. All information will be based on private user data. Furthermore, during trust authentication, broadcasting, and transmission processes, data desensitization and encryption

will be implemented to fully protect personal privacy and data security.

• Private Key DApp: All financial transaction data of BSGX users flows through the private key DApp. The data undergoes blockchain authentication and smart contract verification before being returned to individual wallets, ensuring trust, fairness, and security. Furthermore, BSGX has achieved global cross-chain integration, enabling users to access fast transactions, financial services, and application data worldwide through its platform. It also facilitates efficient conversion of digital assets between different blockchains for long-term storage. This model ensures fair commercialization of financial data while enhancing sustainable storage and long-term value appreciation benefits.

•Data encryption: BSGX's user data encryption is based on decentralized storage technology, ensuring the security of all transaction data processes. The platform will broadcast and desensitize sensitive information. This allows BSGX users to make payments and use financial service data on the authorized platform without any worries.

3.3 Multicurrency management and trading system

Through wallet and payment clearing system, BSGX can provide users with unified management of multiple blockchain assets, forming a complete asset management system. In this system, one-stop, decentralized, multiple security guarantees and multilingual support are realized.

- Rich variety of applications
- Pursue an easy to use and satisfying user experience
- Explore diverse digital asset application scenarios
- Total control allows value to flow faster and better

The BSGX Digital Asset Exchange Network enables risk-free cryptocurrency transactions through smart contracts, cross-chain gateways, and cross-contract technology. Users can exchange digital currencies via the BSGX platform, where smart contracts created by the platform or third parties monitor and execute transactions, effectively preventing default risks among participants. Looking ahead, BSGX will develop a comprehensive digital asset management ecosystem featuring multi-currency accounts, peer-to-peer trading, and corporate-to-corporate transaction capabilities.

1) Multi-currency account and exchange function

- BSGX plans to provide users with an intermediate market exchange rate between fiat and digital currencies
- Free transfers to other users through the most popular social media tools available today
- Cooperation with other licensed financial institutions
- Strive to provide more services for our users

2) Point-to-point transaction function

Global money transfers should be as simple as greeting someone on a chat app. No matter where you live, the fund transfer system on BSGX is completely barrier-free. Through any of our supported channels, users simply need to:

- Specify the transfer amount (e.g., 0.1 ETH)

- Then the BSGX will return a "hash", which is in the form of a unique 18-character hexadecimal string

- The first user to submit this "hash" to BSGX will receive the amount of the transfer

Users can directly specify the recipient's name or phone number in the chat tool to transfer money and complete the transaction in real time.

3) Point-to-company transaction function

Each user who passes KYC verification will receive a virtual debit card provided by BSGX. This virtual debit card allows eligible users to make purchases at any payment-accepting locations, both online and offline.

4) Safety and compliance commitment

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

- BSGX follows the concept of "defense in depth", and a security and compliance mindset is relevant to all aspects of BSGX's business. Everyone plays a role in security, and we will take comprehensive measures on network security.

- As the project progresses, BSGX will complete detailed security assessments in real time, including external penetration testing, threat modeling, and risk control reviews.

- BSGX will engage leading third-party security experts to conduct comprehensive external security audits, ensuring the integrity of its security controls. The company also prioritizes anti-money laundering (AML), counter-terrorism financing (CTF), proliferation of weapons of mass destruction (WMD), and regulatory compliance-related sanctions – collectively known as "anti-money laundering/counter-terrorism financing" initiatives – which are critical to BSGX's operations.

3.4 Cross-border financial services

1) Commercial financial receipts and payments

BSGX delivers integrated financial solutions across the entire cross-border business ecosystem, using BSGX tokens as the medium to facilitate rapid fund settlements, capital flow management, credit services, and wealth management. For instance, it provides SMEs with optimized interest rate credit facilities while supporting flexible financing options including accounts receivable, credit-based, and collateral-backed instruments. With its diverse global payment solutions, BSGX caters to various capital appreciation needs through tailored financial products.

2) BSGX POS service

BSGX will build BSGX POS services based on the BSGX token to enable transactions between the BSGX token and major global credit cards including Visa, MasterCard, American Express, JCB, Diners Club, Discover, etc.

In the future, BSGX POS will enable global merchants to accept cryptocurrency payments by simply transferring coins to card wallets. In addition to launching physical cards across major economic regions worldwide, BSGX will also add stablecoin support (such as USDT) to its crypto debit cards, allowing users to make payments directly with their tokens.

3) Global merchant payment service

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

- Multiple currencies: US dollar, British pound, euro and other mainstream currencies for collection, as well as Indonesian rupiah, Thai baht and other small currencies;

- Multiple scenarios: support B2B trade export, mainstream cross-border platforms and independent sites;

- Enterprise account: You can open an account with the same name for an enterprise, and you can create multiple accounts at the same time;

- Global local collection accounts: covering Asia, Europe, the Americas, Oceania, Africa and other countries and regions.

In the future, BSGX's global cooperative banking network will expand worldwide. By offering more competitive service fees, we effectively reduce corporate costs while establishing local payment capabilities in multiple major countries and regions, enabling faster and more cost-efficient global fund transfers. Our platform supports 24/7 withdrawal operations with instant real-time settlements, allowing flexible customization of currency types, transaction amounts, and account holders according to user needs. Additionally, our self-developed robust technical engine enhances the entire payment process, ensuring secure and timely responses. Direct integration with leading cross-border platforms and a powerful data synchronization mechanism enable one-step access to order data and automatic updates.

After receiving the above payment, merchants/enterprises can exchange the funds into BSGX tokens in the wallet to obtain more services and support.

3.5 Supporting functions

1) Asset registration and right confirmation

BSGX provides end-to-end services for asset registration and blockchain-based rights confirmation, executed through gateways or their proxies. All assets registered via gateways or proxy registrations must obtain trust from both the asset owner and the registrant. Only when mutual trust is established can transactions involving the same asset be conducted. The registered assets are primarily categorized into two types: monetary assets and physical assets.

- Currency-type Assets: These assets primarily facilitate integration between the gateway and other digital currencies or asset platforms. For example, the gateway can register BTC as an asset code, enabling any BTC-holding account to trust the gateway and deposit BTC into its account. The number of currency-type assets is unlimited – the gateway can register as many asset symbols as it actually possesses in real terms.

- Physical type assets: mainly refers to the digitization of assets. Such assets are usually registered by enterprises or institutions and distributed by gateways. These assets generally have a certain quota. After registration, they will be restricted from issuing more assets through operation permission threshold suicide.

2) Blockchain browser

BSGX provides a blockchain browser that allows ordinary users to verify the quantities of assets connected to the platform. To ensure ledger validity, the browser supports linking different blockchain nodes for account verification and enables real-time monitoring of each block and transaction generation. When accessing specific accounts, users can check various asset balances and review all transaction records.

3) Traditional industry chain

The BSGX Asset Chain System addresses the needs and broad application scenarios for large-scale tokenization of fixed assets (issuing tokens), providing enterprises with a platform and services for issuing proprietary tokens. This expands digital financial services while enhancing brand influence and competitiveness. Utilizing blockchain as its underlying technology, BSGX digitizes fixed assets through valuation, rights confirmation, collateralization, and trading

processes centered around core enterprises. This effectively resolves challenges in large-scale fixed asset circulation and boosts financial transaction efficiency.

- Use a third party to register, confirm rights, evaluate, appraise, value and keep valuable assets;

- Blockchain storage and certification to ensure the validity of certificates: use the characteristics of blockchain technology to ensure the imtamability and transparency of information;

- With the help of blockchain token economics, the tokenization of physical assets (issuing tokens) is realized, so that the value segmentation of fixed assets and rapid circulation become a reality;

- Jointly with a number of public trust institutions, copyright information is formed into a unique and effective asset code, and rights and interests are confirmed on the chain;

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

Chapter IV BSGX Technology System

4.1 Technical overview

BSGX blockchain is composed of three levels: participant management layer, blockchain layer and application layer under the core support. The payment system consists of two sub-levels: verification node and voting node.

1) Management of participants

Participants in the BSGX system join the blockchain network as super nodes. Different business parties can join or exit based on their needs. Super nodes share information to jointly ensure the authenticity of the certification carrier and data. By establishing unified transaction standards, STO gateways, smart contracts, and other mechanisms, the system effectively links and transfers the identity functions and contractual elements of nodes across different events.

2) Blockchain layer

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

Blockchain technology: including network structure, data structure, consensus mechanism, signature verification and so on, is the basis of system operation.

cross-correlation technique ：

- Data Storage Module: Content-based address replacement replaces domain-based addresses, enabling users to access stored content rather than specific addresses. This eliminates the need for sender identity verification, requiring only content hash validation. The system achieves faster, more secure, and more robust payment verification with enhanced durability. It provides storage security measures to prevent data theft while offering audit trails for tracking data modifications and circulation history.

- Identity module: Blockchain authentication and registration of users and devices to identify their validity, and management of users' identification, namely private key. This system also includes access security function, which is an important guarantee for system security.

- Timestamp service: Provide unified time service for the system.

- Data encryption and decryption module: provides data encryption and decryption services for the system. This module should support national cryptography algorithms and can support plug-and-play encryption and decryption algorithms.

- Client Module: The client provides users with management and query functions for accounts, blocks, nodes, and wallets, such as creating new accounts, sending transactions, generating random seeds, retrieving block information, and checking wallet status. All payment transactions are processed through the client, signed and encrypted before being sent to the blockchain.

- P2P module: The P2P module connects each node and broadcasts transaction and block information to the whole network.

- Mempool module: A transaction cache pool that stores transactions received from the RPC interface and P2P. The implementation of Mempool primarily addresses the issue where the consensus module's processing speed is slower than that of the RPC module.

3) Application layer

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

The BSGX system blockchain layer application service can be invoked to connect with specific business scenarios through secondary development.

4.2 Technical architecture

The BSGX system is a high-speed, secure, and scalable digital currency payment infrastructure comprising two layers: supernodes and storage access nodes. Supported by blockchain technology, it processes millions of transactions per second while providing Dapps with unlimited storage capacity through a secure decentralized cloud database.

The BSGX architecture system consists of the following parts:

- Chain system of isomorphic multi-chain, providing high TPS access capability, cross-chain payment capability, etc.;

- The P2P network system BSGX P2P provides the addressing capability of the network layer;

- Multi-database cluster system, providing secure encrypted data storage capacity that can be infinitely expanded;

- The underlying structure of the BSGX system support system, including a block storage system and a distributed file system;

- Attribute-based encryption authentication access system composed of multi-node consensus, database access control gateway;

- A data integrity verification organization composed of multiple validator nodes;

- Adaptive probe system, providing memory data storage, performance monitoring, security monitoring and Metrics data upload capabilities.

The BSGX system is built on a chain-storage separation mechanism and functional sub-chain design. Decentralized applications can store data across different trust levels and verification standards, distributing them between blockchain and database systems. BSGX enables collaborative management of multi-tiered data structures. Operating within a permissionless environment for multi-database clusters, the system implements access control mechanisms based on multi-authority attribute-based encryption, along with comprehensive proofs of possession for stored data.

The primary rationale behind the chain-separation design lies in future system upgrades and updates. Since blockchain system modifications may cause forks, which could irreversibly impact the entire economic ecosystem, we concentrate core data processing capabilities within the database system while implementing access control through functional sub-chains. This architecture serves dual purposes: enhancing scalability for future expansion and fulfilling the two fundamental requirements of decentralized storage systems — privacy protection and data possession proofs. We achieved both cloud storage access control and encryption functionalities through an efficient multi-authority attribute-based encryption solution.

1) Accounts

BSGX employs a state-based system to manage accounts, where each account contains authentication credentials and unique data. When an accepting account requires executing code, the transaction triggers that code. This may alter the account's internal storage or generate additional information for transmission to other accounts, potentially leading to new transactions.

2) The Merkel-Patricia tree

Bitcoin employs a data structure called the Merkle tree. Similarly, IPFS utilizes a directed acyclic graph (DAG) within the Merkle tree framework to store its data. To put it simply: When dealing with large files — whether 1MB, 2MB, 3MB, or even larger — the IPFS system automatically splits them into smaller chunks during upload. Each fragment is then assigned a unique hash value as its filename. These fragments are organized in a digital tree structure, where the total number of nodes can be visualized as a leaf-like network. The branches connecting two leaves represent hash values computed from their parent-child relationships, forming a hierarchical structure that extends from leaf nodes through multiple bifurcations all the way to the root node.

This mechanism ensures that any data change on a leaf node directly reflects in the root's

hash value. Essentially, it mirrors Bitcoin's data preservation approach. The core objective is to enable the entire network to verify data integrity at lightning speed. Instead of comparing entire files, we simply check if the root hash remains consistent. If it does, different nodes can collectively confirm the data hasn't been tampered with.

The Merkle Patricia Tree (MPT), proposed by Alan Reiner and implemented in the Ripple protocol, serves as the primary data structure in the BSGX system. It stores all account states along with transaction and receipt data within each block. MPT stands for "Merkle Patricia Tree" -a hybrid structure combining elements of both Merkle and Patricia trees, which exhibits the following characteristics:

- Each unique key-value pair uniquely maps to a hash value in the root; in MPT, it is impossible to trick members with just one key-value pair (unless the attacker has ~2A128 computing power);

- The time complexity of adding, deleting and modifying key value pairs is logarithmic.

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

3) RLP encoding

RLP aims to be a highly simplified serialization format designed solely for storing nested byte arrays. Unlike existing solutions like Protobuf and BSON, RLP does not define specific data types such as Boolean, 2^32, double, or integer. Instead, it stores structures using nested arrays, leaving the interpretation of array meanings to the protocol. RLP also lacks explicit support for map collections. A semi-official recommendation suggests using nested arrays like [[kl, vl], [k2, v2],...] to represent key-value pairs, where keys (kl) and values (v2) are sorted according to standard string conventions.

The equivalent to RLP are protocols such asprotobuf or BSON, which have been used for a long time. However, we prefer to use RLP because:

- It is easy to implement;

- Absolute guarantee of byte consistency.

4.3 Consensus mechanisms

As a cornerstone of blockchain technology, consensus algorithms must prioritize speed and immutability. To build a robust ecosystem, fairness remains equally vital. If major capital players could easily dominate consensus mechanisms, it would jeopardize the interests of developers and users. An ecosystem failing to protect developers 'rights would struggle to accumulate value depth, contradicting BSGX's core design principles. Therefore, while ensuring rapid and irreversible operations, we strive to maintain fairness and safeguard developer interests. BSGX employs a Proof-of-Activity (POD) consensus algorithm mechanism.

1) New blocks are created

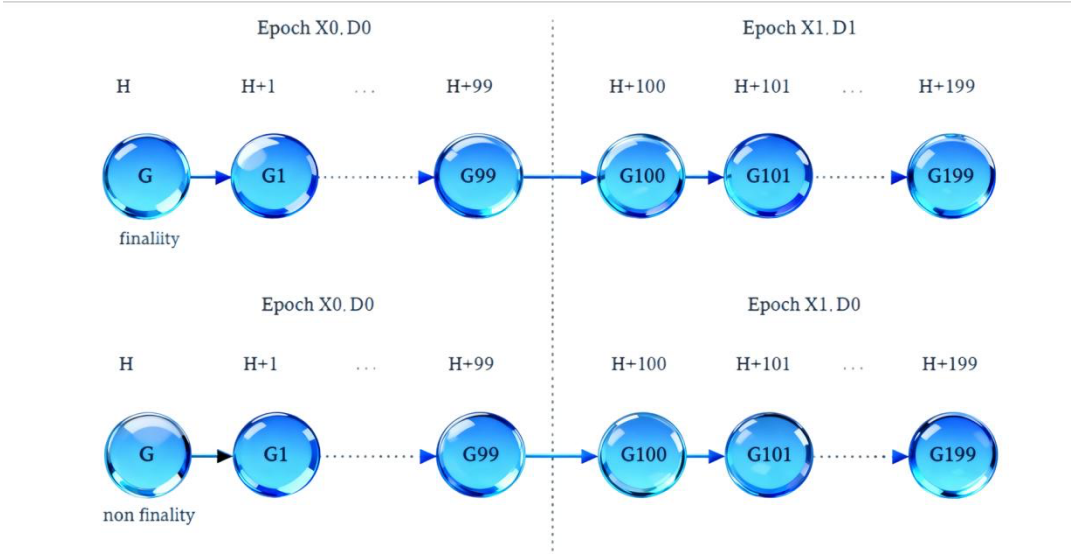
Similar to the PoI consensus algorithm that selects accounts with high importance, PoD will select accounts with high contribution in the ecosystem. The difference lies in that PoD gives the

selected accounts equal probability of accounting rights to participate in the generation of new blocks (block), so as to prevent monopoly derived from probability bias.

When selecting high-contributing accounts, we employ the BSGX native universal value scale evaluation. In algorithm design, particular emphasis is placed on account liquidity and propagation capabilities (we believe accounts meeting these criteria make greater contributions to ecosystem development). Under Proof of Stake (PoD) protocol, certain accounts voluntarily deposit a specified number of BSGX tokens as deposits to become validators for new block validation. After establishing the validator set, the PoD algorithm uses pseudorandom numbers to determine which validators will propose new blocks. The validator set is not static – eligible accounts may join or leave it, with membership changes reflecting periodic fluctuations in BSGX's incubation foundation holdings. To ensure dynamic evolution, we implement a dynamic validator set mechanism within the PoD framework.

2) The set of validators changes

The evolution of the validator set mirrors dynastic transitions. We categorize validators into distinct dynasties, with each maintaining stable configurations. To prevent abrupt dynastic shifts, we establish epochs as intervals where no dynastic changes occur. During epoch transitions, validators reassign their positions based on the first block from the preceding epoch. If this block achieves finality status, the current epoch advances to Dynasty D1; otherwise, it remains unchanged as Dynasty D0, as illustrated in the diagram below.



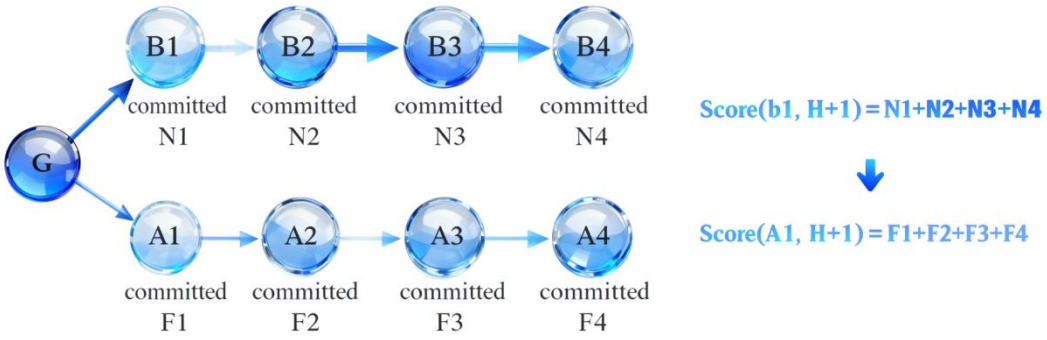
Due to network latency, nodes may observe inconsistent finality states of block G during epoch transitions. To address this, Casper's dynamic validation set strategy requires each epoch's consensus process to be jointly conducted by validators from both the current and previous epochs. Consequently, eligible accounts can only join or leave the D+2 epoch's validator set during any given epoch. The new epoch can only participate in the consensus process for newly created blocks when transitioning to the D+2 epoch.

3) Forking choice

The PoD algorithm selects the authoritative chain based on the score of the block at each height, always choosing the block with the highest score to join the authoritative chain. The score of the block b at height h is as follows,

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

That is, the total deposit corresponding to the commit votes received by the block and all its descendant blocks



4) Voting rules

In order to avoid the malicious destruction of the consensus process, which leads to the failure of the consensus process and hinders the development of the ecosystem, PoD refers to Casper's minimum penalty rule to restrict the consensus activities of validators.

Assume the Prepare and Commit voting structure in the consensus process: Prepare (H; v; vs), where H is the hash of the current block, v represents the height of the current block, and vs represents the height of an ancestor block of v. Commit (H; v), where H is the hash of the current block and v represents the height of the current block.

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

- There is a strict order of the two-stage consensus process in a single block. Only after the total weight of votes in the first stage Prepare (H; v; vs) reaches 2/3 can validators cast the votes in the second stage Commit (H; v),

- The system allows interwovenconsensus across multiple blocks without requiring sequential block consensus. However, complete order is mandatory: Only after the first phase process has been fully completed with 2/3 of the Hanc votes (H; vs; vs') can the system cast Hanc votes (H; v; vs) for subsequent blocks based on vs. This ensures orderly progression through the interwoven consensus mechanism.

- In order to prevent nodes from maliciously voting across multiple blocks using the interleaved consensus, it is required that after a height of u votes for Prepare (H; w; u), no Commit (H; v) vote can be cast for any block with a height between u and w, ensuring an efficient and orderly consensus process.

- To prevent nodes from simultaneously placing bets on multiple branches using the same deposit, which could lead to the "nothing at stake" issue, the protocol requires that after a validator

has staked a Prepare (H1; v; vs1) vote, they cannot place another different Prepare (H2; v; vs2) vote violating these rules. Once verified, the violator will have all deposits revoked. The whistleblower will receive 4% of the penalty as a reward, while the remaining portion of the penalty will be burned.

4.4 Security encryption algorithms

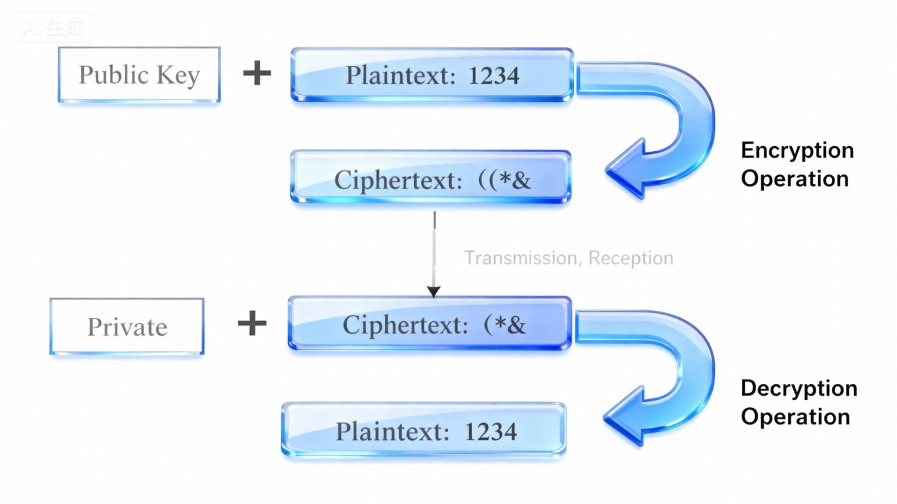
BSGX selects encryption mechanisms that meet domestic and international standards to encrypt all data, and payment data and transaction information between users can only be viewed by the two parties and users with corresponding permissions.

1) Private key (privatekey)

The private key 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, which is the only proof of the user's right to use the account and the ownership of assets in the account. Its valid bit length is large enough that it cannot be breached and there is no security risk.

2) Public key (publickey)

Each private key corresponds to a unique public key. ECC public keys can be generated from private keys through one-way, deterministic algorithms. Commonly used schemes include secp256r1 (the international standard) and secp256k1 (Bitcoin standard). The BSGX control chain and initial data chain have adopted secp256r1 as their key scheme.



3) Encryption

BSGX employs asymmetric encryption and digital signature technology to ensure business requests remain tamper-proof during transmission, while maintaining data consistency across nodes through a consensus mechanism. For stored data records, the system verifies their integrity using self-checking mechanisms within nodes and a near-real-time multi-node architecture, guaranteeing that even stored data cannot be altered.

The self-validation capability of BSGX nodes refers to its use of blockchain architecture for storing data records. Any tampering with the data would compromise the integrity of the blockchain structure, allowing the system to quickly detect such anomalies and restore the data from other nodes. Additionally, each BSGX accounting node maintains its own private key. Every

block contains a signature of this private key, enabling verification of modifications within the block through signature validation.

Timely multi-node data verification is that when a node's private key is stolen, malicious users may have the possibility to modify all the data on the ledger chain. BSGX provides a timely multi-node data comparison mechanism to detect tampering of the ledger data of a node in time.

4.5 P2P protocols

In BSGX, each node (client) communicates via P2P protocol for message broadcasting. For BSGX's data blocks, the underlying P2P protocol is a standard cryptocurrency protocol, which features the core characteristic of introducing the "Ghost" protocol. However, BSGX's control blocks utilize standard P2P protocols that do not support the "Ghost" protocol. Clients typically operate in a daemon state. During this state, clients perform the following tasks:

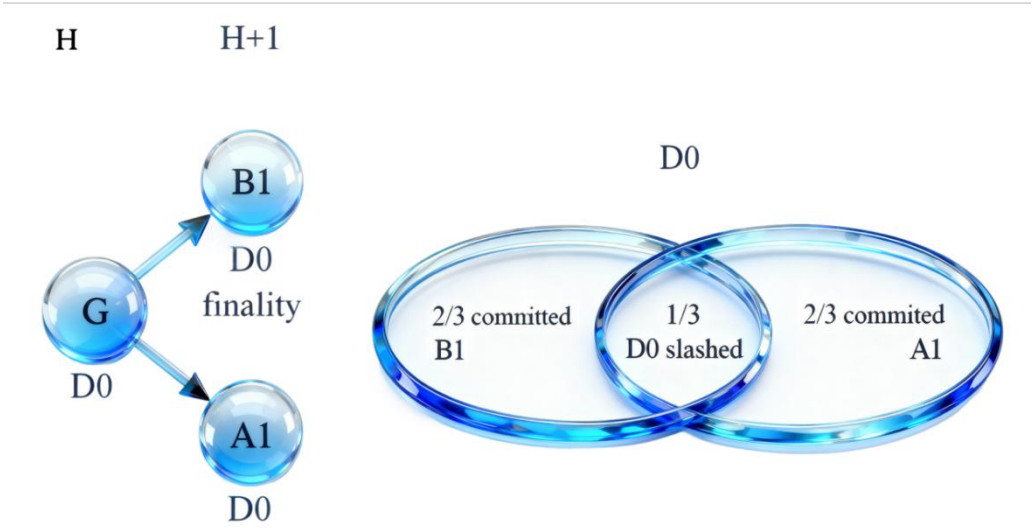
- Calls the network daemon to maintain connections and send messages regularly;
- Get the information of the current block and the associated block;
- Obtain the industrial manufacturing parameters, analyze the industrial manufacturing parameters according to the standard model, and determine whether to submit updated parameters.

4.6 Prevention and punishment mechanism of malicious attack

In Proof of Stake (PoD) systems, each block at every height has a consensus validity period. If a block's height exceeds 100 blocks from the latest valid block, all transactions on that block will be deemed invalid during consensus validation, and subsequent consensus attempts on these blocks will be automatically rejected. This mechanism makes long-range attacks virtually impossible in PoD systems, but short-range attacks remain feasible within valid periods. In such scenarios, an attacker (Attacker) attempts to forge Chain A as the authoritative chain by replacing Chain B with Chain A1, provided Chain A1's score surpasses Chain B1's. Given the severe

penalties for multi-signing, the attacker must inevitably bribe validators to execute the attack. To demonstrate the security of PoD consensus algorithms, we analyze the costs attackers incur when invalidating different numbers of blocks.

If the attacker wants to disable B1, the minimum cost is as follows. It is equivalent to a double payment attack. If the attacker is lucky enough to become the block proposer at H+1 height, then at least one-third of the validators in dynasty D0 need to be bribed to vote more to make A1 reach finality, and the minimum cost is 1/3 of all deposits.

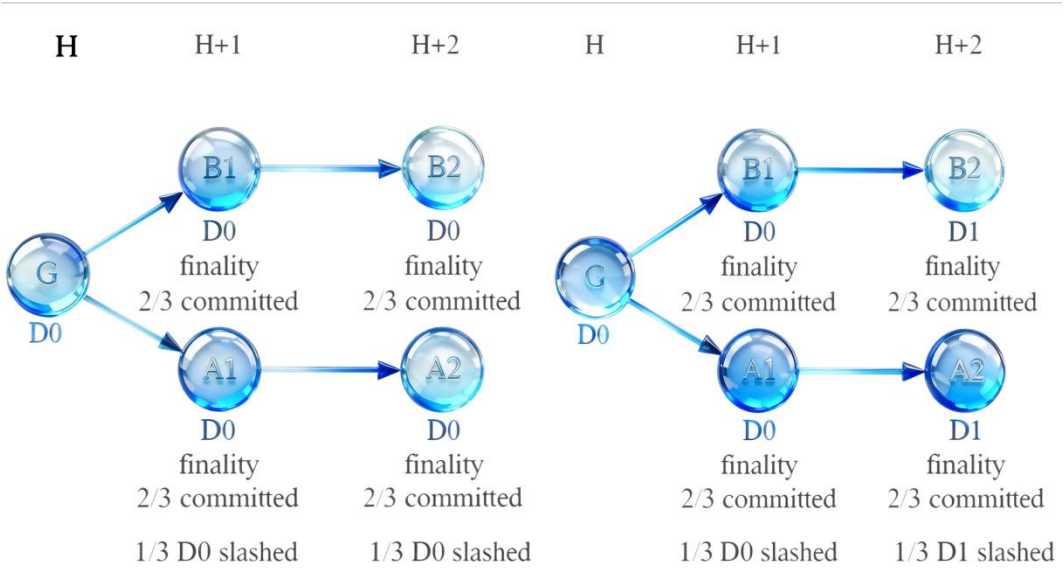


If the attacker wants to disable B1-B2, assuming that both B1 and B2 have reached finality and all transactions in the block have been validated, there are two scenarios to consider for disabling these transactions.

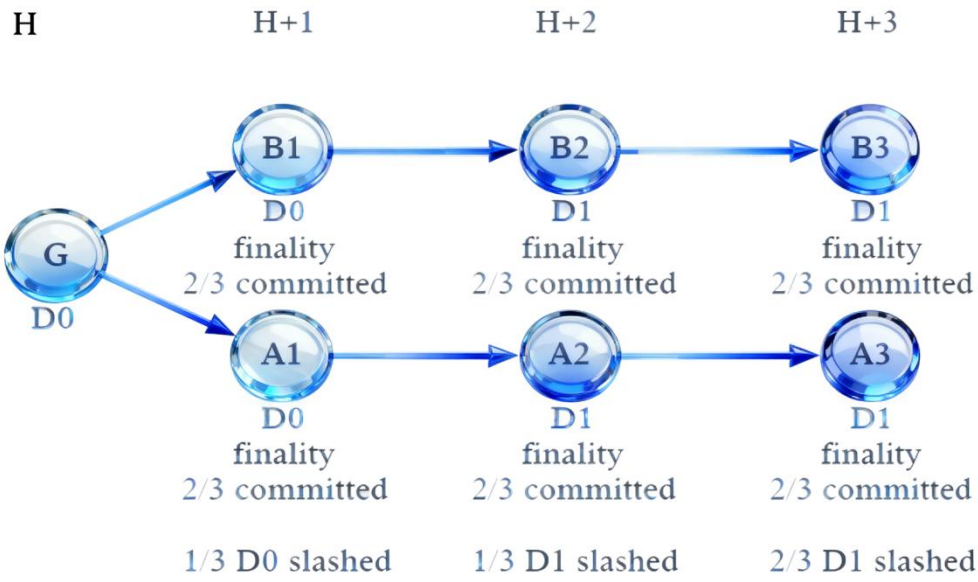
The first is as shown in the figure below. If H+1 and H+2 are in the same Epoch and belong to the same dynasty, then the attacker needs to bribe 1/3 of the validators in D0 to make A1 reach finality. At this time, these 1/3 of the validators will be punished and their deposits will be deducted.

In the verification of A2, the total deposit is only two-thirds of that in A1. At this point, if the attacker wants to make A2 issue a committ ticket with the same value as B2, they need to bribe all remaining non-cheating validators. This would require a combined loss of at least three-thirds of the total deposit. Even so, there's no guarantee that A1's score will be higher than B1's, making the attack highly risky.

The second scenario is illustrated below: When the heights H+1 and H+2 reside in different epochs and belong to distinct epochs, the attacker must bribe one-third of the D0 nodes to achieve finality for A1, then bribe another third of the D1 nodes to achieve finality for A2. Completing such an attack requires losing at least two-thirds of the total deposit. Therefore, launching a short-range attack to invalidate two finality blocks would cost at least two-thirds of the total deposit.



To disable B1-B3, the attacker must first bribe one-third of D0 to finalize A1, then bribe another third of D1 to finalize A2, and finally bribe the remaining two-thirds of D1 to finalize A3. This process requires bribing at least three-quarters of the total deposit. Preparing for such attacks is extremely challenging, and even if successfully executed, there's no guarantee that A1's score will surpass B1's. The attack may ultimately fail.



4.7 Risk control of payment systems

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

1) System risk control

- Database Read-Write Splitting Mechanism: In the initial phase, system risk control

typically employs mechanisms such as database master-slave replication, read-write separation, and Sharding to ensure synchronization and separation of data access between the payment system's database and risk control systems. The system risk control mechanism generally only grants read permissions for required customer/account data and transaction payment data, thereby ensuring the security and reliability of account information.

- Cache/In-memory Database Mechanism: An efficient caching system serves as a critical performance enhancement measure. Typically, this mechanism stores frequently accessed data in cache systems like Redis, including risk control rules, case libraries, intermediate result sets, blacklists and whitelists, preprocessing results, transaction parameters, billing templates, clearing settlement rules, and profit-sharing mechanisms. For high-frequency trading operations, in-memory databases are employed for storage (often integrated with SSDs) to optimize performance.

- RPC/SOA Architecture: Reduces coupling between transaction systems and risk control mechanisms. In the early stages with limited system services, message middleware like RabbitMQ/ActiveMQ or RPC is typically used to enable cross-system service calls. As the system grows and service governance challenges emerge, SOA middleware such as Dubbo is adopted to facilitate seamless service coordination.

- Composite Event Processing (CEP): Real-time/semi-real-time payment risk control. Compared to pure rule-based processing mode, composite event processing (CEP) mode has better performance and scalability.

2) Product risk control

The product risk control in the first stage mainly focuses on the due diligence before the product is launched, including the rationality test of historical data and parameters in the database, the walkthrough test of BSGX model by using historical payment data or standardized derivatives and their market value, and the judgment of its design rationality.

The second phase of product risk control focuses on ensuring stable operation. By establishing standardized access clauses for various payment and financial products, we implement tiered lock mechanisms through smart contracts. After all approved products go live, they are listed and sold via decentralized blockchain data, forming a wealth management product repository. During this stage, investors can freely select products without being misled by human biases. All listed products' descriptions are supported by rigorously audited smart verification data, which remains permanently unalterable or deletable.

Chapter V Design of BSGX Token Economic Model

5.1 BSGX Token Economics

BSGX will issue high-value tokens ——BSGX. These tokens are primarily designed for ecosystem circulation, cross-border payments, global finance, and value transfer in various real-world scenarios. For example, in the future, BSGX could be used across commercial applications worldwide.

Name of token: BSGX

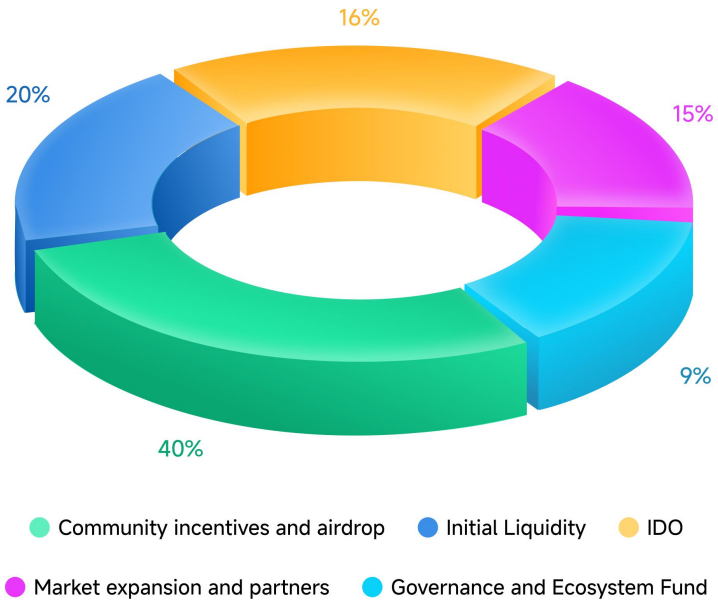
Total supply: 100,000,000

Number of public allotments: 16,000,000

Single order price: 1.56 USDT

Minimum number of lots: 500

Maximum number of subscriptions: 500,000



The specific allocation plan is as follows：

Community incentives and airdrop: 40% (40,000,000 tokens)

These tokens will be used to incentivize the active participation and contributions of community members, including but not limited to participating in platform construction, content

creation, and community promotion. Through the airdrop method, the tokens will be distributed to early supporters and actively participating members, enhancing the community's.Cohesion and vitality

Initial liquidity pool: 20% (20,000,000 tokens)

To ensure the liquidity and trading depth of the BSGX Token in the trading market, a portion of these tokens will be invested into the initial liquidity pool. This helps to provide sufficient liquidity in the early stages of the token's launch, reduce trading slippage, and attract more traders and investors.

IDO: 16% (16 million tokens)

These tokens will be initially issued to the public through a decentralized exchange (DEX), mainly for raising initial operating capital for the project, supporting subsequent technological development, ecosystem construction, and community operations. The issuance process will follow decentralized rules, be open to qualified investors worldwide, inject seed capital into the project, and also help establish initial market consensus for the BSGX Token, attracting early user attention.

Market Expansion and Partnerships: 14% (14,000,000 pieces)

These tokens will be used for market expansion and the establishment of partnerships. Through cooperation with various institutions, project parties, and communities, BSGX Token can expand its market influence and introduce more resources and users.

Governance and Ecosystem Fund: 10% (10,000,000 tokens)

To support the governance and ecosystem construction of the platform, including but not limited to voting mechanisms, community governance, new feature development, project incubation, etc. This part of the token will provide financial support for the long-term development of the platform, promoting the sustainable development of the ecosystem.

As the BSGX payment ecosystem matures, universal payments and cross-chain transactions have become frequent occurrences, driving growing demand for BSGX tokens across various sectors. BSGX token holders hold original allocation rights to the platform's development direction. Following the token's launch on exchanges, while continuously enhancing the innovation in BSGX's incentive model, the platform will persistently roll out new on-chain technologies and applications. This comprehensive approach aims to expand BSGX's ecosystem architecture and sustainably enhance the token's vitality.

5.2 Value attributes of BSGX

Through the circulation of BSGX tokens within the BSGX payment system, we aim to establish a healthy and sustainable ecosystem model. By distributing the majority of profits to project investors/community members, we encourage greater support for network enhancement. Community members can contribute value creation through active usage, widespread adoption, and effective marketing efforts.

We want to maximize the values of the BSGX token in the design of the financial payment

economy:

- Independent survival: it has a clear business model and can continue to exist steadily, creating a circulation foundation for BSGX;

- Autonomy and consensus: Communities and sub-communities gradually establish a common decision-making mechanism, and finally operate according to the principle of consensus, and establish a development decision-making system based on the participation of BSGX holders in voting;

- Sharing: a part of the value generated by the community as a common wealth for the survival and competitiveness of the community;

- Self-evolution: Establish a BSGX reward mechanism to encourage members to continuously propose suggestions on the community's technical and economic mechanisms.

The basic value attributes of BSGX include the following dimensions:

1) Property right attribute

In the clear BSGX market circulation scenario, users who own BSGX enjoy the ownership and disposal rights of the proxy, that is, they have the property rights of the token and can dispose of the proxy at will within the scope prescribed by law.

2) Monetary nature

The asset tokenization (AT) system centered on crypto tokens enables seamless data circulation and token liquidity. In the blockchain-based transaction ecosystem of BSGX, user behavior data, digital asset tokens, and consumption records are all documented on-chain, with valid transactions being converted into tradable tokens. Each member operates through independent nodes that share ledger data, significantly enhancing transparency in token usage. Essentially, these tokens serve as a bridge for value exchange within the ecosystem.

3) Equity attributes

BSGX is a digital token that operates through the BSGX Global Payment Network, where users hold equity in specific projects. By accumulating a certain number of BSGX tokens, holders receive dividend rewards. It should be noted that these tokens are not considered a specific investment product.

4) Governance attributes

In decentralized governance systems, all decisions require voting within a fixed timeframe that varies depending on the proposal's nature. A proposal is executed only when sufficient votes from a majority stake are collected; otherwise, it gets closed. Within decentralized autonomous systems, decisions aren't made by the majority alone—those with lower stakes can collectively form a counterbalance. Governance mechanisms include but aren't limited to user registration, statistical functions, and collateral threshold settings, all of which can be decided through collective voting by system participants. Holding BSGX tokens serves as the fundamental requirement for accessing governance assets.

5.3 Market incentives

In the initial phase, we will distribute BSGX through airdrops and rewards to boost fan engagement with the BSGX Global Payment Network. Within this network, holders enjoy multiple benefits including token appreciation, fee deductions, asset growth, profit rebates, real-time oversight, voting rights, coin value enhancement, and NFT rewards. The BSGX Global Payment Network incentivizes users who contribute to system liquidity through various reward programs. By holding BSGX, community members can access exclusive benefits within the BSGX ecosystem.

At the launch of the BSGX token on exchanges, the platform will execute multi-channel campaigns including influencer partnerships, media coverage, and community leader promotions. These initiatives feature registration bonuses, partner recruitment drives, and transaction fee reductions to build a robust community ecosystem. Through strategic leadership in community governance, comprehensive outreach programs, prize draws, and Q&A-based rewards, BSGX aims to demonstrate its global evangelists and new users the platform's unwavering commitment to innovation and growth.

5.4 Application value of BSGX

1) Basic application value

BSGX, as a cryptocurrency with high application value, will achieve functions similar to currency. Generally speaking, currency has four major functions: store of value, medium of exchange, unit of account, and standard of deferred payment. In order to meet the above functions, BSGX is specially designed with the following features:

- Value store: A value store is an asset that can maintain its value over time and does not depreciate significantly over time. BSGX is a medium of payment designed to ensure price stability and steady growth in a volatile market.

- Medium of exchange: The medium of exchange refers to all things that represent a standard of value and are used to facilitate the sale, purchase, or exchange (transaction) of goods

or services. In different types of transactions around the world, BSGX can be used to complete the transaction.

- Accounting Unit: An accounting unit is a standardized value measurement used for pricing goods and services. While BSGX has not yet become the standard value measurement outside of blockchain, it will serve as an accounting unit within the BSGX global payment network and some partner dApps.

2) Value of multi-payment applications

Based on the basic function design of BSGX global payment network, we can clearly see that BSGX will play a big role in the field of transaction, payment and investment, and will also enter into every aspect of all social members in the future:

(Trading areas

- Users can use BSGX instead of legal tender for transactions, truly realizing P2P cash;
- Users can use BSGX instead of fiat currency to trade with other digital currencies;
- Users can trade other digital currencies as BSGX to avoid the risk of price decline.

(Payment areas

- Greatly save payment time, especially in cross-border payments;
- Transaction records are stored on the blockchain for better tracking;
- Effectively reduce the cost of payment in cryptocurrency payment scenarios.

(Investment areas

- Mortgage other crypto assets to BSGX for investment and financial management, and enjoy the double appreciation of assets;
- Transaction records are stored on the blockchain, which is not tampered with, eliminating accounting disputes;
- Combine BSGX with IDO and IEO to reduce ICO risks;
- Develop blockchain-based loans, derivatives, prediction markets and other long-term smart contracts that require price stability using BSGX features.

5.5 BSGX Circulation scenario example

The circulation scenarios of BSGX include but are not limited to the following:

- Ecosystem Integration: Building upon the BSGX ecosystem, this initiative will generate diverse practical applications. Upon the exchange's launch, it will enable seamless conversion with all digital currencies while supporting comprehensive financial services including payments, transfers, fiat currency transactions, deposits, withdrawals, token voting, STO gateways, token allocations, lending, public welfare initiatives, gaming platforms, e-commerce stores, and global fiat currency settlements.

- Third-party Ecosystem: Beyond circulation within the BSGX ecosystem, the token will also be circulated through third-party applications built on the BSGX global payment network and serve as the sole value token. This mechanism will accelerate BSGX's circulation, enhance its scarcity-driven liquidity value attributes, and ultimately elevate its overall value and market price.

- Cross-border payments: Users can use BSGX for international shopping, including online purchases and offline store transactions. It also serves as a foundation for cross-border payments, bringing you greater savings. Once BSGX integrates with major global platforms, users will enjoy expanded access to a wide range of products across all categories worldwide.

- Global Trade Financing: By establishing consortium chains among trade participants including suppliers, purchasers, and banks, blockchain technology enables transparent sharing of authentic information such as entity credentials, frequent transaction records, and commodity flow data between trading parties and financial institutions. For large enterprises in supply chains, this innovation allows banks to enhance risk control models, reduce manual verification efforts, and provide financing services based on movable asset valuations. SMEs facing financing challenges in supply chains can obtain credit endorsements through blockchain-verified entity credentials and transaction records with major corporations, effectively alleviating funding difficulties. The Blockchain-based Digital Currency (BSGX) serves as a seamless digital currency for trade financing, enabling seamless exchange with global fiat currencies to facilitate more efficient financing operations.

- Universal Compatibility: BSGX delivers adaptable solutions for diverse business needs, enabling seamless data sharing across enterprise ecosystems. Its standardized data recording framework supports both structured and unstructured information formats, while maintaining cross-chain compatibility as business domains expand. This foundational universality empowers BSGX to operate with confidence in global industries and operational environments worldwide.

5.6 Promoting the borderless flow of values

In the BSGX Global Payment Network, we center around the BSGX token to fully leverage the advantages of value transfer protocols in the payment sector, enabling the implementation of a globalized, faster, and more cost-effective financial system for payments, settlements, and currency exchange. This system supports various currencies, making online payments as simple and convenient as email.

Building upon this financial framework, BSGX will be deployed across three-tiered physical industries to create a bridge between the real world —— blockchain ecosystem —— the physical world, establishing a global BSGX circulation and value-added ecosystem. Within this ecosystem, smart contracts will manage participant identity information, enabling enhanced financial services, transactional payments, and clearing settlements for organizations and individuals within the system.

In consumer scenarios, BSGX tightly integrates "blockchain + finance + physical entities +

consumption" through innovative approaches, creating an unprecedented digital ecosystem. This vertical integration forms a closed-loop ecological chain, while blockchain, finance, physical entities, and consumption each develop horizontally expanding open ecosystems. These interconnected chains and ecosystems form a matrix structure, collectively constituting BSGX's complete value cycle loop.

In the financial ecosystem, the BSGX token will be anchored in financial innovation, leveraging barrier-free payments, cross-border transaction settlements, and comprehensive currency exchange (including digital currencies and fiat currencies) to drive breakthroughs across industries. As BSGX gains wider adoption and public recognition, it will gradually permeate various sectors such as blockchain-based online finance, corporate equity allocation, supply chain finance, and DeFi, unlocking limitless value creation potential.

1) Form a new hybrid digital currency system

BSGX has validated the feasibility of cross-border digital currency applications through factual verification, while demonstrating that blockchain technology enables information sharing and transparency. Issued by influential banks, these currencies maintain state-controlled issuance scales and exchange rates, establishing a diversified monetary system with legal tender as the foundation and digital currencies as supplements. This evolution has catalyzed transaction rule processes in virtual finance, significantly boosting real economic prosperity. Furthermore, credible financial institutions, enterprises, and commercial entities developing their own digital currencies via BSGX and creating virtual transaction scenarios can provide users with enhanced innovative services.

2) Create a new credit formation mechanism

The credit system has always been the cornerstone of financial institution development. Under traditional models, commercial entities relied on regulatory bodies to maintain creditworthiness and manage risk control. Credit rating technologies were categorized based on user characteristics, such as small-amount credit loan assessment methods. In the big data era, enterprises now employ multi-dimensional perspectives to analyze customer behavior patterns and evaluate credit ratings. While big data enables batch credit approvals for consumer loans and microcredit programs, improving operational efficiency with reliable and timely data, this merely digitizes traditional finance rather than fundamentally transforming how credit is created.

BSGX global payment network system itself is a decentralized credit creation method, which has the characteristics of strong information reliability, low credit establishment cost and open information.

3) Create a new value chain of scenarios

The rapid advancement of the internet and its profound impact on markets have rendered traditional sales models inadequate for modern economic demands. BSGX technology's flexible architecture enables the creation of independent scenario value chains that enhance integration between finance and the real economy. These solutions adapt to diverse application scenarios, customer needs, client demographics, and value operation processes. This is specifically demonstrated through the following aspects:

- Increase customer stickiness and stability, so that transactions are more attached to the scene;

- All transaction information of customers in the application is recorded on the blockchain

for greater security;

- Based on the "trust machine" of blockchain, the needs of scenario customers no longer rely on third-party organizations as before, or even on the support of centralized big data. There is more trust between the platform and customers than before.

4) Form new payment and settlement methods

Although the current Internet era has greatly improved the efficiency of payment and settlement, it is still limited by multi-center and multi-link aspects under cross-currency, cross-border and multiple economic contracts, which makes the efficiency of payment and settlement often seem inadequate.

The decentralized and peer-to-peer features of BSGX tokens can reduce intermediate links, reduce transaction costs, greatly improve transaction efficiency, and form a new payment and settlement method to drive the borderless circulation of value.

Chapter VI Project implementation and development

6.1 Global Team

The core R&D team of BSGX comprises most members from Silicon Valley's elite technical teams, top-tier blockchain projects, and renowned internet enterprises. It brings together the industry's finest experts across multiple domains including computer science, cybersecurity, payment systems, telecommunications, mathematics, finance, web development, and high-frequency algorithmic trading. Team members also possess market insights and practical experience in DApp development, payments, big data, and wallet technologies, combining robust technical expertise with exceptional scientific research capabilities.

Rick, a computer scientist Fishbune——Singapore, previously worked at IBM's Computer Research Center. He has mastered the core principles and implementations of mainstream blockchain technologies including Bitcoin, Ethereum, and Hyperledger, demonstrating profound expertise and extensive practical experience in blockchain consensus mechanisms, smart contracts, cross-chain technologies, sidechain solutions, and privacy protection.

Richard is a renowned blockchain software engineer in Dobrow —— Silicon Valley, specializing in cross-platform porting of mining algorithms for cryptocurrencies like Bitcoin and ETH, as well as managing the development of mining hardware software. He has accumulated extensive industry experience in technical architecture design for virtual currency wallets and digital exchange platforms.

Justin Drake —— specializes in big data parallel computing and distributed algorithm optimization, with extensive research experience in blockchain, cryptography, and data mining. He provides deep algorithmic support for projects at three key levels: core mathematical models of blockchain, fundamental AI algorithms, and big data parallel computing.

Jimmy Lee —— holds a Master's and Doctoral degree in Electronic Engineering and

Computer Science from the National University of Singapore. His research focuses on data mining, e-commerce data analysis, and algorithm optimization. He is responsible for developing and optimizing artificial intelligence algorithms for various projects.

Tony Wong—— holds a Ph.D. in Computer Science from Yale University and completed his postdoctoral research. With over a decade of experience in data storage R&D, he has served as Chief Scientist at multiple leading big data companies. A renowned expert in business intelligence systems and a prominent authority in data mining, he founded his own big data research company where he spearheaded project architecture and solution design.

Maaghul is a Clinton—— technical developer with a Master's degree in Computer Science from Harvard University. As a Python expert and blockchain engineer, he specializes in data mining, artificial intelligence, and algorithm optimization. His responsibilities include developing and refining AI algorithms for projects.

Matthew is a Walther —— developer and senior engineer specializing in blockchain technology applications, with extensive experience in private social networking systems. Having 15 years of internet industry expertise, he masters multiple programming languages and excels in designing high-concurrency architectures for massive data processing. His portfolio includes rich hands-on experience in R&D management.

6.2 Project implementation support

Thanks to the advantages of sustainable development and innovation of blockchain technology, extensive commercial applications and refined governance, the implementation of BSGX project has the following support:

- Strong Team: BSGX boasts a highly sophisticated technical infrastructure, having accumulated extensive industry expertise and technological capabilities across multiple domains including supply chain finance, cross-border payments, IoT, information technology, and Web3.0. The company has achieved groundbreaking advancements in blockchain technology development and applications. Its team comprises seasoned professionals with cross-industry experience, years of practical operational expertise, and profound insights into sector evolution.

- Rich resources: BSGX platform will sign strategic cooperation agreements with top enterprises, banks and financial institutions in the target industry, which will provide strong support for BSGX to enter the target industry, so as to truly promote the practical implementation of payment applications.

- Project Governance: Unlike conventional platforms, BSGX possesses a clear and well-defined strategic blueprint for its target industry. By leveraging blockchain's distributed decentralization, tamper-proof security, encryption capabilities, and peer-to-peer transmission advantages with focused expertise, the company is strategically penetrating the payment sector to rapidly capture market share.

- Fund Management: BSGX's fund management will strictly adhere to the principles of fairness, impartiality, and transparency, with the primary goal of supporting BSGX's development. We will establish a dedicated BSGX Ecosystem Development Fund for secure custody, ensuring both safety and sustainability. All fund usage details from the BSGX project and foundation will be regularly disclosed to all investors, guaranteeing full transparency in financial operations.

- Future Vision: BSGX targets trillion-dollar payment markets. The development team has established a robust governance framework to effectively manage daily operations, including decision-making processes, code management, financial oversight, compensation systems, and privileged access controls – all designed to ensure sustainable growth.

- Compliance-Driven Development: BSGX is built on technology-driven absolute security, eliminating the risk of network shutdowns or operators fleeing. As a truly decentralized on-chain open platform with open-source architecture and no central server, BSGX outperforms traditional banking systems in security. The platform operates without capital pools and relies entirely on off-chain consensus transactions. Rooted in and thriving within the internet ecosystem, BSGX's rapid growth is poised to usher in a new era of cryptocurrency innovation.

6.3 Market cooperation

In order to drive the development of BSGX token users and BSGX market, we will achieve all-round publicity through channels such as community, media and exchanges.

1) Communities

As a community-driven payment initiative, BSGX inherently embodies decentralized values. Currently, our global network of partners, particularly in the community sector, has become highly influential. We will leverage community channels for promotion and outreach. Our program will be implemented simultaneously across 120 communities in multiple countries including the United States, Australia, Singapore, Japan, France, South Korea, and the Republic of Seychelles.

2) Media

As BSGX launches more application features and the BSGX token goes live on exchanges, we will also conduct global media outreach. This includes major outlets such as Deutsche Welle, Lianhe Zaobao, Mainichi Shimbun, BBC, Wall Street Journal, Yahoo Finance, Google News, Meta, CNN, Bloomberg, Voice of America, and Le Monde.

3) Star partners

To protect the security of BSGX, we have recruited a group of all-star partners from the fields of mathematics, computer science, artificial intelligence, payments, finance, wallets, and Web3 to serve as validators for the BSGX token network.

4) Application collaboration

BSGX tokens will enter into strategic partnerships with top apps: BlueMove, PancakeSwap, PONTEM, APTOS, BINANCE, CoinMarketCap, crypto.com, coinbase, CoinGecko, nomics.

5) Launch an exchange

In the future, BSGX is committed to developing more high-quality applications with the support of communities, media and exchanges, creating glory together with global users, and continuously improving the decentralized payment infrastructure for global users and the value consensus of BSGX tokens.

6.4 BSGX Ecological Development Fund

In order to realize the rapid global implementation of BSGX, we will jointly establish BSGX Ecological Development Fund with the world's top investors to continuously optimize the platform ecology.

The Foundation is dedicated to advancing the development and governance transparency of BSGX, while fostering a secure and harmonious ecosystem within the open-source community. It will collaborate with trusted third-party organizations to establish an operational center, which will oversee daily operations and reporting processes for the entity's structure. The Foundation will also select qualified community representatives to join its functional committees, enabling collective participation in practical management and decision-making processes.

1) Foundation organizational structure

The foundation's organizational structure combines specialized committees with functional departments to handle daily operations and special matters. Drawing inspiration from traditional entity management models, the foundation will establish various functional committees, including a Strategic Decision Committee, Technical Review Committee, Compensation and Nomination Committee, and Public Relations Committee.

2) Risk assessment and decision making

Blockchain, as an innovative technology, is not only a disruptive breakthrough in the core technology of computer, but also a revolution in individual industries. Therefore, the importance of risk management system is self-evident.

The Foundation is committed to building a risk-driven blockchain community for sustainable operations. It will implement continuous risk management measures, including establishing risk frameworks, conducting assessments, and executing countermeasures. Critical risks require deliberation and approval by the Foundation's Strategic Decision-Making Committee. Risks are classified based on their impact scale, scope, token exposure, and probability of occurrence, with high-priority cases requiring expedited decision-making through committee coordination.

Chapter VII Risk Notice and Disclaimer

7.1 Risk Warning

- Market volatility risk: The virtual currency market fluctuates greatly, and investors should be cautious about investment risks.

- Policy risks: Changes in policies and regulations may have an impact on project operations. Investors should pay attention to changes in relevant policies and regulations.

BSGX is committed to providing enterprises with more efficient and convenient virtual currency collection services, and providing investors with a solid return on investment and the opportunity to participate in project governance.

7.2 Disclaimer

This document is for informational purposes only. The content is provided for reference only and does not constitute any investment advice, solicitation or offer to sell shares or securities in BSGX or its affiliates. Such offers must be made in the form of confidential memoranda and shall comply with applicable securities laws and other applicable laws.

The content of this document shall not be construed as an obligation to participate in the Token Public Offering. Any actions related to this white paper shall not be considered participation in the offering, including requesting copies of this white paper or sharing it with others. Participation in the offering indicates that participants have reached the required age threshold, possess full legal capacity, and have entered into valid contracts with BSGX. All participants voluntarily executed the contracts and provided clear, necessary understanding of BSGX prior to signing.

The BSGX team will continue to make reasonable efforts to ensure the accuracy and authenticity of information in this white paper. During development, the platform may undergo

updates covering mechanisms, token systems, and distribution processes. Certain sections of the document may be revised in subsequent versions as project progress evolves. The team will communicate updates through official website announcements or new white papers. Participants are advised to promptly access the latest version and adjust their decisions accordingly based on these revisions.

BSGX complies with all regulatory requirements and industry self-regulatory statements that promote the healthy development of the sector. By participating, participants expressly agree to fully accept and comply with such inspections. All information disclosed by participants for inspection purposes must be complete and accurate. BSGX has clearly communicated potential risks to participants. Participation in the Token Public Offering constitutes confirmation of understanding and acceptance of all terms outlined in the guidelines, including acknowledgment of associated risks and assumption of corresponding liabilities.