GLOBAL
LENDING

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A blockchain movement based on a DAO "unsecured loan"

White Paper V1.0

CATALOGUE

Chapter I Project Background

1.1 Traditional lending

In the traditional financial world, if you urgently need money, the best option is to mortgage your real estate to a bank or financial institution. After an assessment, they will provide you with a loan based on a specific ratio and interest rate. Banks typically offer lower interest rates compared to other financial institutions, which is known as a mortgage loan. This method has been the most popular form of borrowing for a long time.

Of course, not everyone has collateral to back their loans. For instance, a college graduate with a promising future can secure a loan from banks or other financial institutions using their credit. This type of loan operates on a highly credit-based network, and any credit issues can result in severe penalties, such as the China's system for untrustworthy debtors. The consequences of a lack of credit are extremely serious, which is why many credit borrowers must repay their loans on time, even if they need to extend the repayment period. Therefore, credit loans require strong support from legal frameworks and credit networks.

The loan business of traditional finance itself solves the urgent needs of individuals and enterprises for capital and cash flow shortage, and the way to obtain funds by loan is also the main way for many enterprises to survive. It can be seen that the loan business of traditional finance itself is inseparable from the development of society, even the development of economy and industry.

As the industry continues to evolve, DeFi is increasingly competitive with traditional financial sectors. Driven by lending protocols and decentralized exchanges (DEX), the total value locked (TVL) in DeFi reached $82.18 billion by late September 2021. This influx of capital has introduced new financial tools and created new financing opportunities.

The lending sector holds significant potential for DeFi, with a value of $40.28 billion, exemplified by loan platforms such as Aave, Maker DAO, and Compound Finance. Additionally, fintech companies like BlockFi and Nexo offer similar services. Some of these platforms provide competitive lending rates that allow users to convert cryptocurrencies into stablecoins. Users can also deposit funds into interest-bearing accounts for lending purposes.

1.2 DeFi

DeFi, or Decentralized Finance, is a financial transformation that originated in the blockchain industry. Unlike traditional finance, which is centralized (such as central banks of various countries, which have a unified settlement system, currency issuance system, and are subject to the financial policies of their respective governments), DeFi uses smart contracts to set rules and enforce them through code. Essentially, it is a financial model where machine governance replaces human governance. Additionally, all smart contracts are open-source, which enables:

· Transparency: Once the code is deployed, there is no centralized organization or entity that can change the rules without notifying the user;

· Availability: All DeFi applications are deployed on the blockchain, and only a mobile phone or a computer is needed to obtain services. Compared with offline financial services, availability is greatly enhanced;

· High efficiency: A transfer on the blockchain usually takes only a few minutes or even seconds, while traditional financial cross-border transfers often take days or more, and also need the review of centralized institutions;

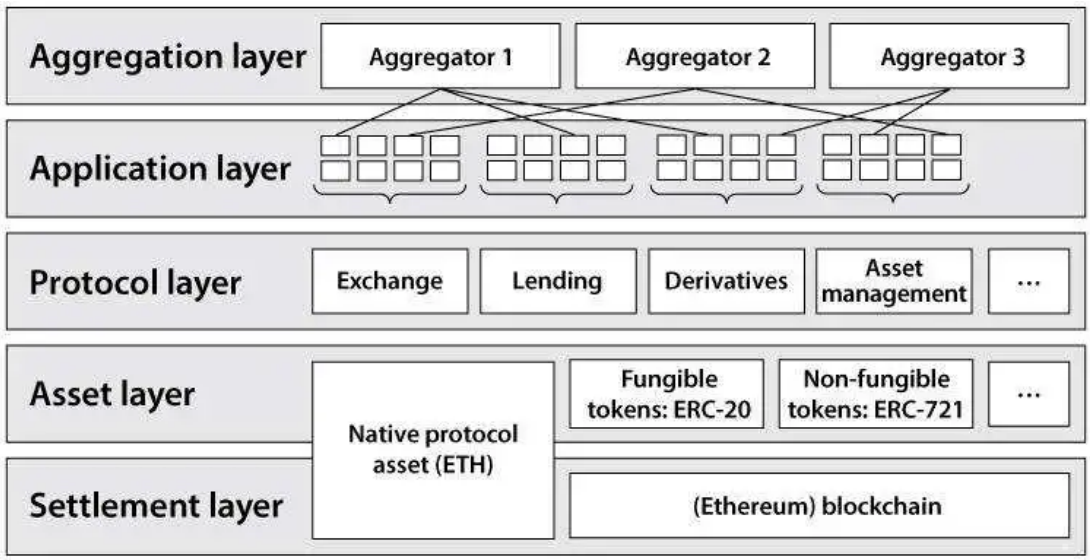
· Privacy protection: Traditional financial services require customers to do KYC (real-name authentication), and traditional financial institutions have all the financial information of customers, but DeFi only requires users to set up a wallet to use, no one knows who is the user of the wallet, users can also set up multiple wallets to manage their assets;

· Fairness: Traditional finance will conduct credit evaluation according to users' multi-dimensional information, so as to artificially distinguish customers, which is reflected in deposit interest rate, loan interest rate and other aspects, while DeFi treats all users equally.

Since 2020, the DeFi market has seen explosive growth. According to data from DeFi Pulse, the total locked value (TVL) of digital assets managed by DeFi services grew from less than $1 billion in 2019 to $15 billion by the end of 2020, and reached a peak of $88 billion by mid-May 2021. However, compared to traditional finance, this growth is still minimal, indicating that DeFi is still in its early stages.

1.2.1 Architecture of DeFi

Any system is like a building, with a foundation and a main body. Just like the traditional financial system, where the central bank handles final settlements and monetary policy, and commercial banks manage investment and financing, DeFi operates similarly. We can abstract the entire DeFi world into five layers, as shown in Figure 1: the settlement layer, the asset layer, the protocol layer, the application layer, and the aggregation layer.



The settlement layer (Layer 1) consists of the blockchain and its native protocol assets, such as BTC on the Bitcoin blockchain and ETH on the Ethereum blockchain. This layer securely stores ownership information and ensures that any state changes comply with its rules. The blockchain serves as a foundation for trustless execution, acting as the settlement and dispute resolution layer.

Asset layer (Layer 2): Composed of all assets issued at the top of the settlement layer. This includes native protocol assets as well as any other assets (typically called tokens) issued on this blockchain.

Protocol layer (Layer 3): It provides standards for specific use cases, such as decentralized exchanges, debt markets, derivatives, and on-chain asset management. These standards are typically implemented as a suite of smart contracts, accessible to any user or DeFi application. As a result, these protocols exhibit high interoperability.

Application layer (Layer 4): Create user-oriented applications that connect to various protocols. Smart contract interactions are typically abstracted by a web browser-based front end, making the protocol easier to use.

The Aggregation Layer (Layer 5): This layer extends the application layer by creating a user-centric platform that connects to multiple applications and protocols. It typically provides tools for comparing and evaluating services, enabling users to perform complex tasks by connecting to multiple protocols simultaneously, and to present relevant information in a clear and concise manner. Now that we have understood the conceptual model, let's delve deeper into tokenization and the protocol layer. After a brief introduction to asset tokenization, we will explore decentralized trading protocols, lending platforms, derivatives, and on-chain asset management protocols. This will provide us with the necessary foundation to analyze the potential risks of DeFi.

1.3 The cornerstone of the DeFi protocol layer--lending

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Traditional finance relies on centralized financial institutions, such as banks. However, the 2008 financial crisis led to the collapse of Washington Mutual, with deposits exceeding $188 billion, and Lehman Brothers, with assets surpassing $639 billion. Since 2008, there has been growing concern about the inefficiencies and structural inequalities in the existing financial system, as well as its potential risks.

According to DeFi Pulse, the total outstanding debt is 1.5 billion US dollars. There are 28 listed lending products, but many more remain unlisted in the market. The top three lending platforms are Compound, Aave, and Maker, with borrowings of 528 million, 510 million, and 479 million US dollars, respectively. Together, these three platforms account for over 99% of the market. However, compared to the traditional lending market, this figure is still a fraction, which is why new players are constantly entering the market to capture a share of the pie.

Currently, most lending platforms in DeFi operate on a collateralized loan model, where one asset is pledged to borrow another. For instance, if you pledge 2000 USD worth of ETH, you can borrow 1800 USD worth of USDT. This model is similar to traditional collateralized loans, which typically use illiquid assets like houses, cars, or land as collateral to borrow highly liquid assets. However, in DeFi, both the pledged and borrowed assets are highly liquid, which might seem counterintuitive. However, the high collateral interest rates and the substantial early returns in the DeFi market have attracted significant investment. For example, Compound's liquidity mining model allows users to earn platform coin rewards even when borrowing, and the net income after deducting the loan interest is still positive, which has attracted many users to participate.

There are several main requirements for the current DeFi lending market:

Meeting the capital needs of trading activities: including arbitrage, leverage, market making and other trading activities, which is the most important demand.

Passive income: Primarily for investors who hold digital assets for the long term and want to generate additional revenue.

Get some liquidity: mainly miners or start-ups in the industry have some short-term liquidity needs.

The third point aligns more closely with the traditional lending business model, but it represents a smaller proportion in the DeFi lending market. The primary demand, however, is the first scenario: for instance, if I own ETH and believe it will continue to rise in value, I can pledge my ETH to borrow USDT to buy more ETH. The newly acquired ETH can then be pledged again to borrow more USDT and buy even more ETH. This way, a single investment can generate multiple returns. Essentially, this demand is driven by the desire to increase leverage, which is why many DeFi products now offer services like leveraged mining and leveraged trading.

The main disadvantage of the over-collateralized loan model of DeFi lending is its low capital utilization rate. Credit loans are obviously more efficient than mortgage loans, but it is difficult to achieve in the current anonymous blockchain environment.

The plight of the DeFi lending industry

According to OKLink data, the total amount of DeFi collateralized lending has reached $25.3 billion. Behind this massive borrowing volume lies a much larger amount of collateral. Over-collateralization has become a common practice in DeFi lending, meaning that if you want to borrow $1,000, you must first provide $1,800 worth of ETH as collateral. Using over-collateralization is often a last resort; on a decentralized platform, insufficient collateral can easily lead to bad debts, making over-collateralization a natural choice.

Over-collateralization also presents two main issues. Firstly, the low utilization rate of assets means that assets are being used at a reduced scale. While this can be mitigated by using pyramid lending to lower the collateral ratio, it also increases the risk of margin calls. Secondly, while digital assets serve as collateral for users in the crypto sector, they struggle to attract broader interest. For non-users, they must first purchase digital assets with fiat currency and then use them as collateral to obtain stablecoins. Various over-collateralized loan protocols, such as Maker, AAVE, and Compound, offer a wide range of collateral services, with the highest collateral ratio reaching up to 800%. However, this raises a question for users: if I already have money, why would I need a loan?

In addition to over-collateralized loans, unsecured loans are a much broader field. In traditional financial markets, we can see that the credit loan market is several times larger than the mortgage loan market. In the DeFi field, this track is a clear line, but for various reasons, it is not easy to solve.

1.3 The cornerstone of the DeFi protocol layer--lending

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1.4 DAO: a new way of human organization and collaboration

DAO is the abbreviation of Decentralized Autonomous Organization. It is an organizational form derived from the core idea of blockchain (co-creation, co-construction, co-governance and sharing of collaborative behaviors spontaneously generated by a group that reaches the same consensus). It is a subsidiary product of blockchain after solving the trust problem between people.

DAO is the evolution of the corporate organization, a revolutionary evolution in the history of human collaboration. Its essence is a form of application of blockchain technology.

DAO is an organizational form in which the management and operation rules of an organization are coded into the blockchain in the form of smart contracts, so that it can operate autonomously without centralized control or third-party intervention. DAO is expected to become a new and effective organization to deal with uncertain, diverse and complex environments.

DAO is characterized by full openness, autonomous interaction, decentralized control, complexity and diversity, and emergence. Different from traditional organizational phenomena, DAO is not limited by the space of the real physical world. Its evolution process is driven by events or goals, which are rapidly formed, spread, and highly interactive, and automatically disband when the goal disappears.

1.4.1 The rise of the encrypted world DAO

In early May 2016, members of the Ethereum community announced the creation of a smart contract known as the DAO, also referred to as the Genesis DAO. This smart contract was built on the Ethereum blockchain, with its coding framework developed by the Slock.It team as open-source code. However, the Ethereum community members named it 'The DAO' for deployment. The DAO had a creation period during which anyone could send Ethereum to a unique wallet address in exchange for DAO tokens at a ratio of 1:100. The initial phase saw unexpected success, raising 12.7 million Ethereum (worth approximately $150 million at the time), making it the largest crowdfunding project in history. At some point in the future, when Ethereum was trading at $20, the total value of the DAO would exceed $250 million.

After the passage of time and historical progress, DAOs have once again come into the public eye. The project as a whole is showing a positive trend of development. Research firm Messari noted in its review of Web3 developments in the first quarter that at the start of the quarter, new NFT protocols were launched, attracting significant attention, particularly in the areas of crypto art and card trading. Although this trend persisted throughout most of the first quarter, market focus has recently shifted towards decentralized autonomous organizations (DAOs).

While DAOs played a supporting role for most of last year, they regained attention in the first quarter of 2021 as crypto protocols accumulated tens of millions of dollars in value on their balance sheets. By the end of the first quarter of 2021, the total assets managed by the DAO ecosystem (as per DeepDAO data) reached $931 million. Although this figure does not include crypto protocols that operate or use independent DAO architectures, it still marks significant progress in the development of the DAO ecosystem.

DAO assets have seen a significant increase over the past quarter, as most DAO projects' native tokens have doubled since the start of the year. Newer DAOs like NFTX, Stacker Ventures, and API3 have dedicated a significant portion of their tokens to their respective DAOs, providing ample capital for their growth.

1.4.2 DAO has unlimited development possibilities

DAO stands for Decentralized Autonomous Corporations, which means decentralized autonomous organizations. To understand DAO, you first need to understand the technology behind it. Most DAOs rely on blockchain technology and smart contracts, which are collections of code that run on the blockchain.

In traditional organizations, a hierarchical structure typically exists: formal boards of directors, executives, or senior management decide on the structure and have the authority to make changes. However, DAOs are decentralized, meaning they are not managed by any individual or entity. The rules and governance of each DAO are encoded in smart contracts on the blockchain, and cannot be altered without a vote from the DAO members. Members of each DAO can collectively vote on decisions, rather than having a few individuals holding the majority of the voice, and voting is usually conducted on an equal basis.

For a DAO, the blockchain can act as the backbone, maintaining the structure and rules on each chain. The birth of a DAO must have three basic elements:

· Organizational goals and culture that can reach consensus with strangers;

· There is a rule system that can reach consensus with strangers, including establishment, governance and incentive, and this rule is deployed on the chain through blockchain technology;

· A Token that can form a relationship of interest with participants can be used to motivate all employees.

Thanks to its unique ecological attributes, it is not surprising that most DEFI projects in the market incorporate DAO applications. The use cases of DAOs are endless and continue to evolve, functioning as fully code-controlled autonomous organizations on the blockchain. Naturally, all traditional regulations, management norms, and systems are embedded in smart contracts within these organizations, which are immutable and subject to intelligent constraints. Through smart contracts, individuals and organizations, both global and anonymous, are interconnected. This is the code autonomy in the blockchain ecosystem. It is foreseeable that after the crypto world has experienced two waves of DeFi and NFT, the era of DAOs is about to begin.

DAO is becoming the next big thing

2021 was undoubtedly the inaugural year of the metaverse, a virtual world constructed through digital technology that parallels the real world. Currently, the market value of metaverse companies has reached 1.1 trillion US dollars, and it is expected to see explosive growth in the future, with related revenues projected to reach hundreds of billions of US dollars. The metaverse has vast and immeasurable potential for development, or in other words, it promises to create immense wealth. However, the market is cluttered with projects that lack transparency and are often commercial scams aimed at exploiting wealth. While we can see the promising prospects of these projects, we must also maintain a critical mindset to identify real issues, distinguish and select better projects, and better participate in the era's benefits. The key lies in how to allocate assets more effectively to projects that truly contribute to construction and development.

Chapter II. Global lending

2.1 Origin of global lending

In January 2019, Blake West introduced the concept of a 'community-based unsecured loan movement,' aiming to create a flexible and organic community where participants can self-govern and co-build. By decentralizing the underwriting process, this initiative allows anyone to issue loans in ways that traditional banks cannot. Global Loan offers loans without any collateral. As the project evolves, Global Loan will establish a decentralized network to enable everyone to submit and evaluate loan applications, supporting an increasing number of lenders until everyone can access funds through Global Loan.

At the end of February 2019, Blake West and his supporters formed the early team for Global Loan to support the development of a community platform based on DAO. The core members of the Global Loan team are mostly from Google and blockchain geeks. It is a completely decentralized volunteer team that received early support from the Singapore FFL Foundation.

Blake West

Blake West, the founder of the Global Loan Team, is a key expert in cryptography, consensus mechanisms, and game theory. He played a crucial role in the early development of Ethereum's ecosystem. Since the concept of DAOs emerged, Blake West has firmly believed that DAOs will eventually replace traditional centralized organizations and has consistently supported the growth of decentralized communities, particularly in the realm of non-profit initiatives. In March 2019, Blake West secured a significant investment from the Singapore-based FFL Foundation to expand his early technical team.

2.2 Introduction to Global Loan

Global Loan is a decentralized organization dedicated to developing, managing, and expanding the 'unsecured loan movement.' It supports this movement by adopting a light-asset token economy model centered on DAA through crowdfunding. This model integrates unique DeFi, incentive systems, and DAO governance, forming a dual-track distributed service architecture. The ultimate goal is to create a globally inclusive financial ecosystem with deep scalability and sustainable development.

Global Lend uses the immutable, open and transparent, decentralized characteristics of blockchain technology to solve the potential risks inherent in the traditional crowdfunding model, such as platform violation, project fraud and information leakage, and finally build a fair, open and just platform to promote the development of global open finance and DeFi.

Global Loan originated from a blockchain-based unsecured loan movement. Amid the surge in DAOs, it has evolved into a decentralized platform for managing unsecured loans. Users can participate in these loans by purchasing governance tokens, DAA, and steadily earn long-term returns on their holdings of DAA. DAA holders also have the right to allocate Global Loan's revenue and contribute to the financial system. They are granted access to a suite of services and advanced features in decentralized applications, which will only be implemented after successful proposals and votes. In the final phase, the Global Loan platform will distribute the DAA reward pool based on the number of DAA held.

Before the emergence of global lending, borrowers mainly borrowed from traditional centralized banks. Most borrowers could only borrow in a single way and needed collateral. Without collateral, they could not borrow.

Global Loan identified the pain points in the lending market and built a crowdfunding platform using blockchain technology. By integrating DeFi with crowdfunding, Global Loan recognized the advantages of DeFi and pioneered a platform that combines traditional crowdfunding opportunities with the benefits of token financing. This platform breaks the traditional lending rules and introduces new DeFi lending methods. Global Loan has pioneered the concept of collateral-free loans participating in DAO governance, and currently, there are no competitors in this field.

Since its inception, the Global Loan platform has been dedicated to three core missions: reducing or eliminating information asymmetry; ensuring inclusive financial services are as fair as possible; and promoting the philosophy of blockchain through user-friendly applications. Global Loan aims to create a lightweight digital bank in your pocket, accessible to everyone, enabling more people to participate deeply and easily in DeFi and DAO governance, serving as a gateway to the DeFi world for the masses.

2.3 Vision

Create a decentralized credit platform where anyone in the world can be a lender, not just banks.

2.4 Mission

A node-centered distributed autonomous lending hub has been built to reduce or even eliminate information asymmetry and make inclusive financial services as fair as possible.

2.5 Philosophy

The development philosophy of Global Loan is decentralized, aiming to achieve unsecured loans through smart contract rewards. It advocates a world where everyone can borrow, using decentralized public infrastructure to ensure fair and free access, thereby gaining long-term value benefits. Global Loan's products and governance are permissionless and decentralized, with the goal of establishing a community of value innovation, where participants can self-govern and co-create.

superiority

The blockchain is transparent and open, with all contributions being rewarded through on-chain proposals. It is an internet-native organization that builds for the future of work. Contributors from five continents are developing new processes and products to coordinate global work. For entrepreneurs, Global Loan offers decentralized access to tools and funding, eliminating the costs associated with traditional organizations.

Chapter III Economic Models

3.1 Token information

DAA is the native digital currency on the Global Loan Platform, with a fixed total issuance of 21 million units, and it will never be increased. It measures and reflects the digital economic activities on the Global Loan Platform and serves as a medium for value circulation. DAA represents both the right to use and the ownership of the Global Loan Platform. Using applications on the platform may require paying a certain amount of DAA, which reflects the right to use. Holding DAA means owning a portion of the Global Loan Platform and participating in the community governance.

Name: DAA (Governance Token / Platform Token)
Total issuance: 21 million
Technology type: GL Chian (a self-owned public chain built on global loan)
Business model: Develop DEFI products related to blockchain movement, incubate projects (metaverse/DEFI/NFT) and provide liquidity.
Allocation ratio:
Technology and operations: 2%
Ecological construction: 3%
Crowdfunding: 5%
Piggyback mining: 90%

Crowdfunding 5%: 1.05 million
The A series is 0.2U per piece, a total of 400,000 pieces
B round 0.3U / piece, a total of 650,000 pieces

3.2 Token rights

Collaboration with crypto projects: Global Loan initiates token swaps with existing and emerging DeFi projects, providing them with R&D resources, liquidity, funding, and opportunities for joint development. The goal is to accelerate the growth of Global Loan partners into leaders in their respective verticals and to contribute to the value ecosystem of Global Loan. Global Loan will hold tokens from its partner projects, which will support their success while also providing incentives to Global Loan.

Building various DeFi products: Global Loan intends to launch a variety of DeFi products on its own, including an crypto futures exchange, a community portal, and a programmed implementation for the governance and management of the blockchain movement's treasury.

Growth with Global Loan: Being a holder or participant in the circulation of Global Loan is the earliest supporter of Global Loan. In the future, major mainstream transactions will be launched on DAA. Early ecological participants will receive weighted dividends. Participants will support the R&D work of DAO in the process of entering the entire ecosystem, thus helping Global Loan achieve its mission.

3.3 Deflation mechanism

Only when DAA tokens participate in liquidity behavior can a certain proportion of DAA be black hole. The platform encourages users to actively flow, which will bring premium fluctuations and obtain more tokens. At the same time, because the total amount is reduced, although the coins held by users are less, their value becomes higher.

3.4 Pledge destruction

With the DEFI financial aggregator as the carrier, Global Loan will provide users with high-quality strategic services. Participants will receive value returns in the form of pledge, and the process of liquidity will generate destruction, permanent black hole destruction, until the original quantity is destroyed.

3.5 Technology development

Exchange: automated market maker that supports governance with adjustable fees;
Prediction: a fully decentralized prediction market platform built on a token framework;
Auction: Conduct transparent token auctions and develop fair price scenarios;
Community driven: Users provide unlicensed access to create community-driven programma-

Chapter IV Technical Architecture

Global Loan has been dedicated to building and enhancing its own public chain, and by providing essential technical documentation and tools, it aims to foster the development of an ecosystem community. The Global Loan Chain (hereafter referred to as "GL Chain") is developing a blockchain 4.0 and metaverse ecosystem that is versatile, feature-rich, high-performance, user-friendly, and scalable, based on enhanced Directed Acyclic Graph (DAG). It provides the core algorithms and signature methods for cloud data value transfer applications, introduces a unique two-layer consensus mechanism, and integrates these elements into the Global Loan ecosystem.

The global web goal is to supplement (or even replace) the Hypertext Transfer Protocol (HTTP), which currently governs the Internet, by connecting all computing devices with the same file system. The principle involves replacing domain name-based addresses with content-based addresses, meaning users search for content stored in a specific location rather than a specific address. This approach eliminates the need to verify the sender's identity, focusing instead on verifying the content's hash, thereby making web pages faster, more secure, and more stable.

In view of the low degree of practicality of existing blockchain infrastructure, the global loan research and development team has proposed a feasible solution. It adopts a fair distribution mechanism to support third-party asset issuance, cross-chain communication, multi-chain integration and other functions.

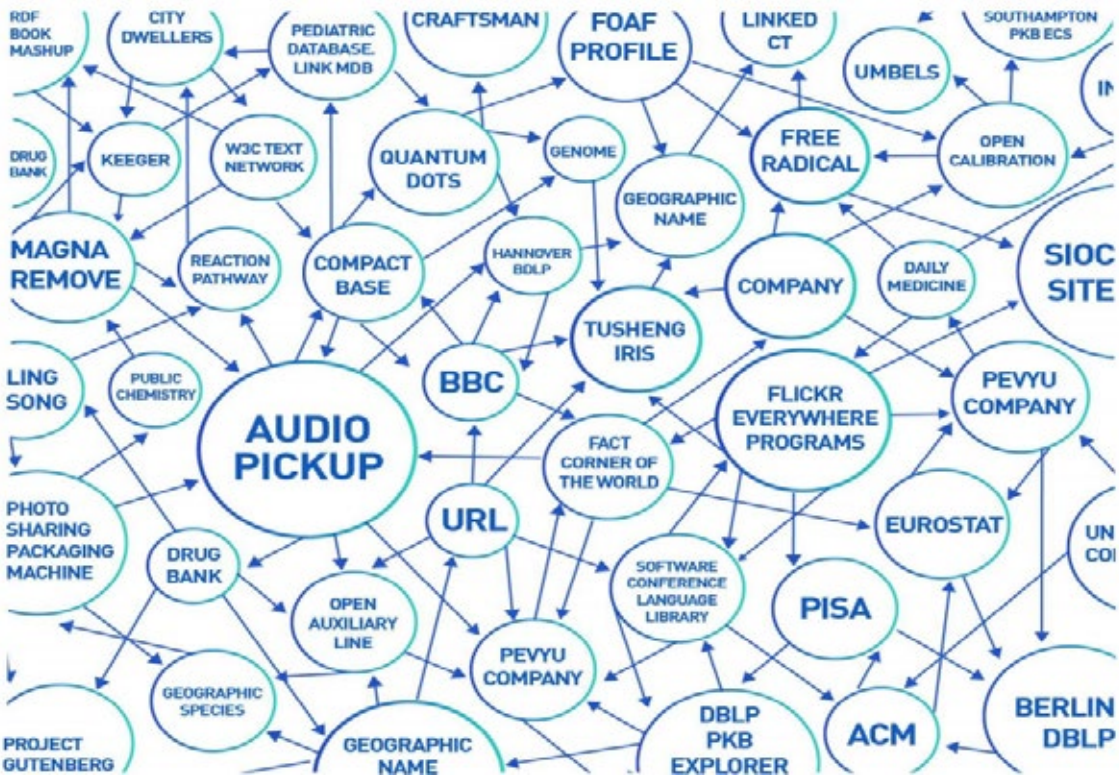
As a comprehensive industry ecosystem built on blockchain, GL Chian provides a robust development framework and technical architecture for the entire blockchain technology ecosystem. The blockchain technology of GL Chian is designed based on concepts that have been widely validated and tested over time, representing a fundamental advancement in blockchain technology. More importantly, the foundational role that GL Chian plays in the blockchain technology ecosystem is of monumental significance.

4.1 Anonymous communication technology —— P2P

The underlying communication network of GL Chian adopts P2P architecture and adds an anonymous access mechanism between nodes to ensure the privacy protection of information services.

P2P is short for peer-to-peer, also known as point-to-point technology. It is a peer-to-peer network without a central server and relies on user group nodes to exchange information.

Different from the traditional C/S central server structure, each user node in P2P network is both client and server, and can serve other nodes as a server at the same time.



The characteristics of P2P networks are as follows:

In P2P networks, scalability allows users to join or leave the network at any time. As more user nodes join the network, the overall service capability of the system increases accordingly. For example, in P2P downloads, the more users join the network, the more resources are provided and the faster the download speed becomes.

Because P2P does not have a centralized server, it is inherently resistant to attacks and fault-tolerant. Even if a node in the network is attacked or offline, the normal operation of the whole system will not be affected. Because each node in the P2P network can act as a server.

The P2P network can effectively utilize a large number of ordinary user nodes scattered in the Internet. The idle CPU, bandwidth and storage resources in these ordinary nodes can be fully utilized to achieve high performance computing and massive storage.
For example, BitTorren makes full use of the advantages of P2P technology to simply and effectively share the download pressure, thus providing a cost-effective service. Similarly, SIA web disk.

In P2P networks, information is transmitted between nodes without the need for a central server, reducing the risk of users' private information being eavesdropped and leaked.

In P2P network, resources are stored in multiple nodes, and each node can act as a server. When a node needs to obtain resources, it only needs to send requests to adjacent nodes, which well realizes the load balancing of the whole network.

4.2 Consensus mechanism

GL Chian employs the Proof of Authority (PoA) consensus algorithm, which grants the right to record transactions based on the number of historical records. The more records a node has, the higher its chance of being granted the right to record in the next block. Within a certain time frame, the node that first calculates a Hash that meets the target value will be the first to gain the right to record, and this will affect the difficulty of the next block's recording rights. If no next block is calculated within a future time frame, and a node with greater authority calculates a block of the same height,

It is assumed that the block of a node with large rights is the longest chain. However, this mechanism does not always allow nodes with large rights to continuously acquire records

Rights: Other nodes (with smaller rights) only need to improve the computing power to obtain the right to record data, so as to increase the calculation speed and reduce the difficulty of obtaining the right to record the current data; nodes with larger rights may not be able to obtain the right to record before other nodes that have improved the computing power.

4.3 GL Chian protocol

Decentralized on-chain protocols achieve self-governance through smart contracts. Essentially, these are applications or programs running on a publicly accessible blockchain. When specific conditions are met, a command can be triggered with a single click, eliminating the need for human intervention and achieving machine trust. Power is vested in the protocol, which is controlled by community collective voting, rather than by institutions or individuals.

4.4 Hash and signature algorithms against quantum attacks

4.4.1 Hash function

A hash function (Hash Function) is a widely used function in cryptographic algorithms, also known as a hash function or a hash algorithm. As a public function, a hash function can map any length of message M to a shorter, fixed-length value H(M), known as the hash value or message digest (Message Digest). Hashing is a one-way cryptographic system, meaning it is an irreversible mapping from plaintext to ciphertext, with only encryption and no decryption processes.
Its function expression is: y= H (x). At the same time, the hash function has three characteristics: collision resistance, secrecy and puzzle friendliness. They have their own emphasis, but they are interconnected.

The hash function H takes a variable-length data block M as input and produces a fixed-length hash value h = H(M). M is referred to as the original image of H. Since H is a many-to-one mapping, for any given hash value H, there are multiple original images. A collision occurs when x = y and H(x) = H(y), meaning that two different inputs x and y produce the same output H(x) = H(y). If no one can find a collision for the hash function H(x), it is said that the function has collision resistance.

The concept of secrecy refers to the impossibility of determining the input x when r is drawn from a high-order minimum probability distribution, given the condition H(r|x). In simpler terms, it means that the output cannot be used to deduce the input. If we know y = H(x), it is very difficult to quickly find the corresponding x that satisfies the condition. This is referred to as the secrecy of the hash function H(x). The secrecy implies that it is almost impossible to find its inverse function x '= H' (y),

In fact, there should be more than one x that meets the conditions. Here, the hidden requirement is that not even one can be found. This is because of the unidirectional nature of the hash function mentioned above, which is not feasible for a given Hash value with 2^128 hash calculations.

If for any n-bit output value y, assuming k is drawn from a high-order minimum distribution, and if there is no feasible method to find x within a time much shorter than 2 to the power of n, ensuring that H(k||x) = y holds true, then we say the hash function H is puzzle-friendly. In the context of solving puzzles, we will create a search puzzle that involves searching through a vast space to find a solution. Simply put, it requires randomness, where any input can produce a fixed number of outputs, making it extremely difficult to discern any relationship between the input and the output, even with slight adjustments to the input, the output remains random. Apart from brute force trial and error, there is no better approach.

4.4.2 Digital signature algorithm

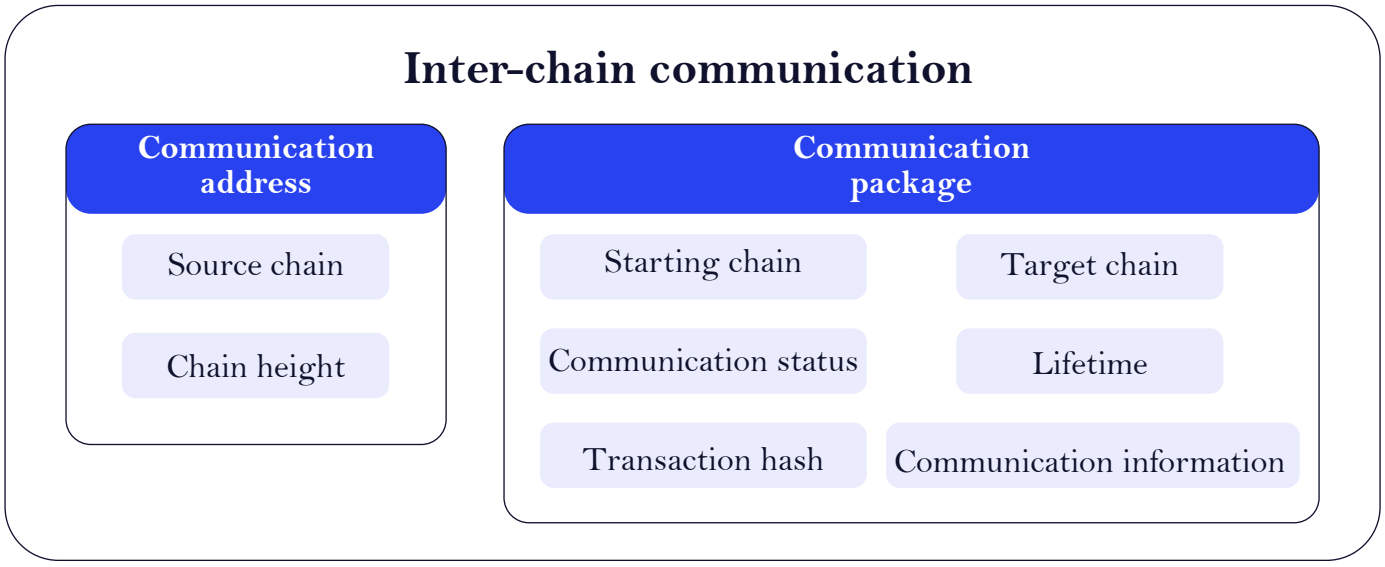
Hash algorithm can ensure that the transaction data is not tampered with, but it cannot guarantee the simultaneous substitution attack on the data and the digest, nor can it guarantee the non-repudiation of the transaction data. Digital signature algorithm involves public key, private key and wallet and other tools, which has two functions:
1. To prove that the message is indeed signed and sent by the sender of the message, to ensure non-repudiation.

Second, ensure the integrity of the message. Digital signature technology involves encrypting the digest information with the sender's private key and sending it along with the original text to the recipient. The recipient can only decrypt the encrypted digest using the sender's public key. They then use a hash algorithm to generate a digest of the received original text and compare it with the decrypted digest. If they match, it confirms that the received information is intact and has not been altered during transmission. Otherwise, it indicates that the information has been modified. Thus, digital signatures verify the integrity of the information and ensure its non-repudiation.

4.5 Cross-chain communication protocol

The communication protocols between blockchain systems are similar to those in traditional networks, such as TCP/IP, which ensure reliable connections for message transmission. Messages consist of a header and data. The header includes details such as the source, destination, length, and type of the message. During transmission, the header is stripped and modified layer by layer, while the data is delivered to its intended destination. Additionally, messages are stateful, allowing the sender to monitor the current communication status based on the receiver's feedback, enabling them to respond appropriately.

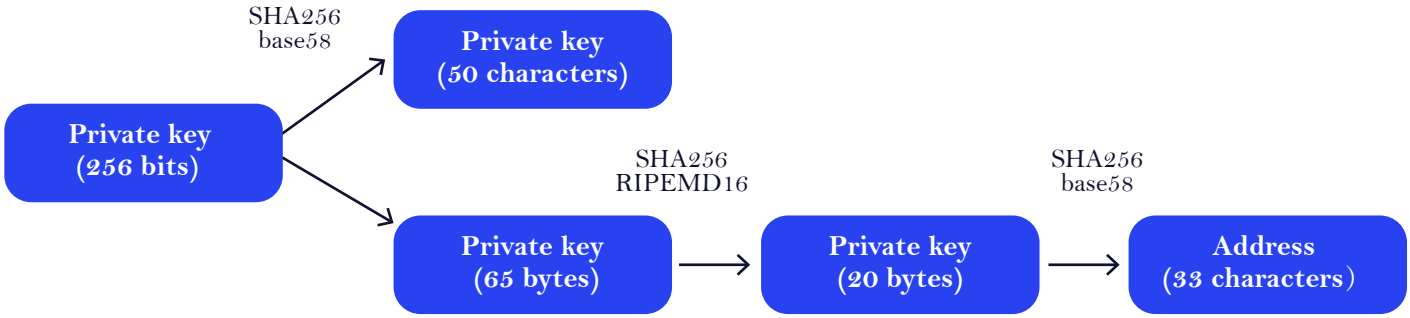
The GL Chian Cross-Chain Communication Protocol (Cross Block Platform Token in Communication Protocol) primarily consists of two components: communication addresses and communication packets. Communication addresses consist of the source chain identifier (from platform token ID) and the current chain height (Height). Communication packets are made up of a header and data. The communication status mechanism mirrors that of network communication protocols. When a communication packet is sent, its status is 'pending receipt.' Upon receiving the message, the recipient sends a packet back to the sender with the status 'success.' If the sender receives a packet with the 'success' status, they will respond with a packet indicating 'received successfully.' This completes a successful communication. If a communication packet fails to be received, such as when the recipient does not respond with 'success,' the sender will retransmit the transaction after a certain period to attempt to establish communication again.



4.6 Security mechanism

The GL Chian platform employs a hybrid model that combines asymmetric encryption (RSA) and symmetric encryption (AES), ensuring data security and privacy while maintaining overall performance. Asymmetric encryption, which is also a form of digital signature technology, is based on the public-private key system of elliptic curve encryption, involving a hash function, the sender's public key, and the sender's private key. The public and private keys are both distinct and interrelated, with the public key being generated from the private key. Content encrypted with the public key can only be decrypted by the corresponding private key, and content encrypted with the private key can only be decrypted by the corresponding public key. While transaction information stored on the blockchain is publicly available, user identities and asset details, which involve personal privacy, are protected. To safeguard privacy, the GL Chian platform applies secondary encryption and authorization to these private pieces of information, ensuring that only those who possess the query key can access the data, thus guaranteeing data security and personal privacy.

By adopting the isomorphic encryption technology, GL Chian platform can effectively solve the privacy problem of public blockchain. This technology can balance the transaction information and private information of the data storage subject in the blockchain, so that the public blockchain has the privacy effect of private blockchain without changing the attributes of the shared blockchain.



Chapter V Ecological Architecture

5.1 Global Loan Multi-chain Wallet

The Global Loan Multi-Chain Wallet is designed to provide ordinary users with a secure, reliable, user-friendly, and professional one-stop digital asset wallet application. Additionally, it serves as a comprehensive digital asset financial service platform that integrates decentralized multi-chain wallets, decentralized exchanges, decentralized social platforms, and DAPP ecosystems. To achieve this, the Global Loan Multi-Chain Wallet will first establish a universal infrastructure based on metaverse theory, which is robust, easy to use, user-friendly, scalable, and supports a wide range of on-chain applications.

Relying on the blockchain's safe, convenient and decentralized one-stop management solution, Global Loan Multi-chain Wallet is solving the historical problems of users' management of multiple digital assets circulation, complicated exchange and transaction process, value transmission and digital asset application, providing strong infrastructure for the digital currency field, and promoting the application and development of digital currency.

The Global Loan Multi-Chain Wallet has established a diverse ecosystem service system, including cross-chain multi-currency transactions, payments, mining, lending, and DeFi distributed finance. On one hand, the main chain of the Global Loan Multi-Chain Wallet is a non-Turing-complete smart contract, designed to provide secure financial services for digital assets, thereby avoiding the significant security risks associated with Turing-complete smart contracts. Additionally, it features a customizable side chain that supports Turing-complete smart contracts and proprietary cross-chain and cross-contract technologies, connecting the main and side chains. Whether the assets are on the digital ecosystem wallet or the non-digital ecosystem wallet, they can be freely transferred and exchanged through the Global Loan Multi-Chain Wallet's cross-chain and cross-smart contract technologies.

On the other hand, users can easily manage mainstream digital assets, including BTC, ETH, and EOS, using the Global Loan Multi-Chain Wallet. This wallet allows for unified storage, management, and exchange of these assets, with one-click login password settings to protect user privacy. It also supports fingerprint and facial recognition, making operations more convenient and enhancing data security. The private key is stored locally, physically isolating

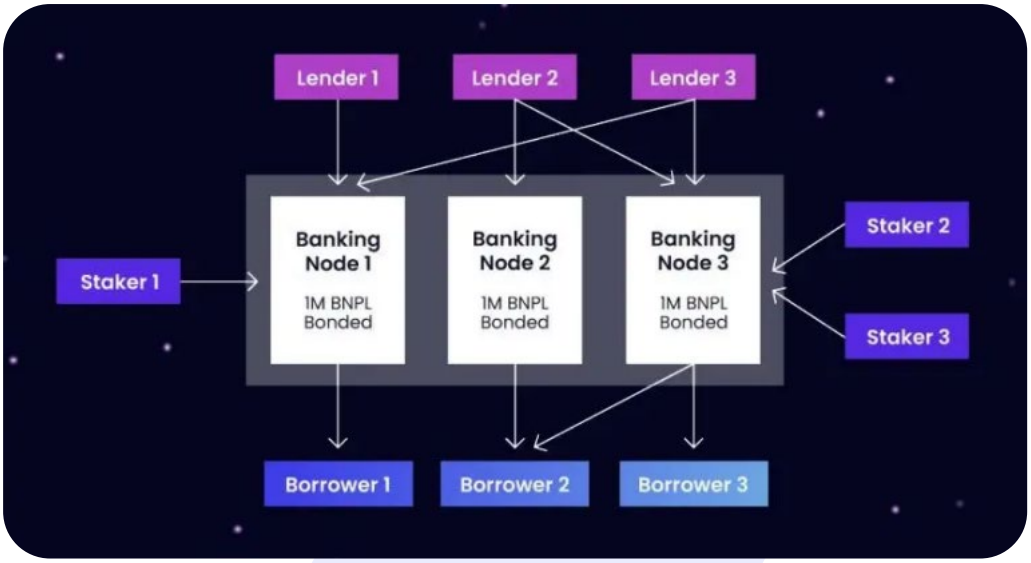
important data and ensuring that sensitive information remains secure. Users not only have full control over their digital assets but also significantly reduce the barriers to using and managing digital currencies, effectively promoting the flexible use of digital assets.

The global multi-chain wallet-supported blockchain network is not just a technology but also a service model and solution that significantly propels the further development of the Internet industry. The future of blockchain will be characterized by 'the interconnection of all things + the interconnection of all chains.' With robust support in technology, resources, governance, and community, the global multi-chain wallet is driving the arrival of the era of interconnected everything.

5.2 DeFi

Traditional DeFi lending is based on smart contracts, with borrowing and lending primarily relying on these contracts as the central hub. This means that it can only handle simple lending activities like over-collateralized loans. Global Loan has developed a distributed lending ecosystem where users can build 'bank nodes' by staking DAA tokens, which serve as lending hubs within the ecosystem, rather than relying solely on smart contracts as in other DeFi lending platforms. By staking DAA tokens, it further ensures that bank nodes do not engage in malicious activities. Since node behavior is built on the blockchain, it is easy to assess each node's creditworthiness through behavioral analysis. Additionally, the status of the lending business of the bank nodes directly influences their income.

Through the bank nodes in Global Loan, both borrowers and lenders can conduct transactions similar to traditional P2P networks. For example, User A can entrust their funds to Bank Node 1 and Bank Node 2. These nodes will then match the funds received to User C and User D for lending purposes according to the requirements set in smart contracts. User A will receive interest matching (set by the nodes) as a lender and earn DAA tokens as a reward. By becoming a lender in Global Loan, one can enjoy higher interest rates compared to other lending platforms. Similarly, User A can also act as a Staker by pledging their assets to Bank Nodes to provide liquidity, earning Staking rewards. In the event of a default, the DAA pledged by the node will compensate investors for their losses and further update the node's credit rating.



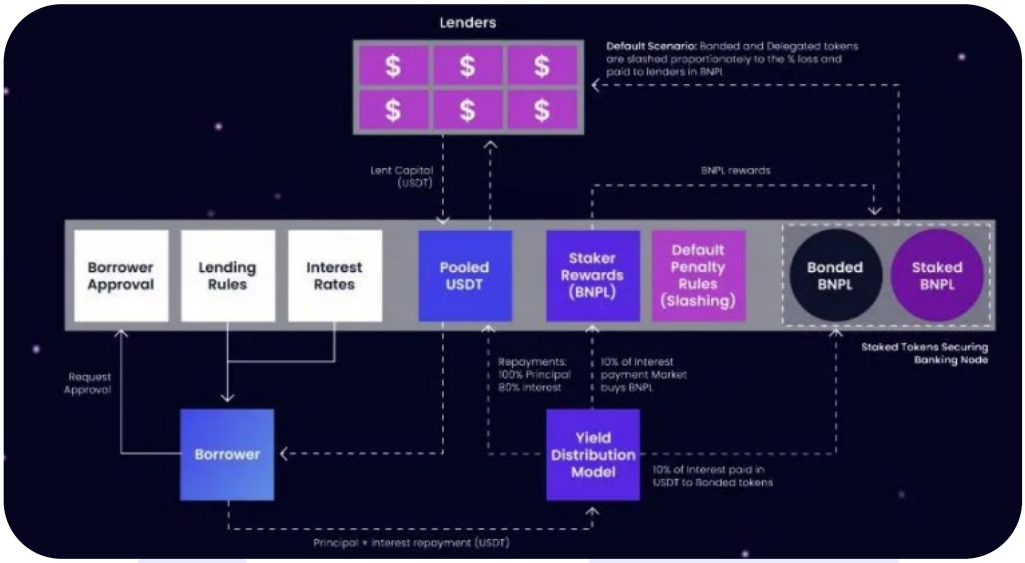
As a borrower, one can borrow and lend in the system without needing to provide collateral. The interest rate is set based on the user's past borrowing and repayment behavior. However, compared to many traditional institutions, Global Loan typically offers lower interest rates. Borrowers may face legal oversight. Additionally, due to the transparency and openness of blockchain technology, the borrower's borrowing and repayment records form a transparent credit profile, reducing the need for frequent reviews as in traditional finance.

GameFi builds a complete and coherent economic system where players and game developers can share the benefits of this ecosystem.

SocialFi can gain more revenue through the financialization and tokenization of its own social influence. Similar to GameFi, because there is a strong foundation of DeFi, everyone can also demonstrate their personal value or profit through social interaction through SocialFi.
Through end-to-end encryption transmission technology, Global Loan makes users' social information completely encrypted:

Encryption of communications
All user information transmitted through the application is encrypted and encoded, and can only be accessed with the correct decryption private key. All social information will be stored on the blockchain for 24 hours, after which it will be automatically destroyed by the blockchain's burn mechanism, ensuring the security of users' social interactions and protecting their privacy from being compromised.

Traditional social software provides centralized service architecture, and data is stored in the company's computer room. There are widespread problems such as hacker attacks, information leakage and abuse of data. The serious lack of privacy and indiscriminate sharing of personal data is also increasingly prominent.



In the global lending ecosystem, DAA tokens are used as the governance tokens of the ecosystem and as the guaranteed assets for users' capital losses. Holders will enjoy dividends generated by the system and serve as the governance tokens of the ecosystem.

5.3 Global lending Socialfi

Defi for

Global Loan returns control of user data and information to individuals, ensuring the security of personal data.

· Burn After Reading

Users can read messages that will self-destruct after 10 seconds. When initiating a private chat within the app, users can set a 'read and delete' timer, which will automatically remove the message after the set time. In this mode of private chat, if screenshots are detected, the system will prompt to disable the feature.

[Read and burn] This feature not only enriches the fun of chatting, but also greatly reduces the social pressure. Let's no longer have to judge the category of messages, and no longer have to worry about whether what we say will be recorded.

Global Lago users have ownership and governance rights on this platform. Participants can earn native tokens by following, liking, commenting, and showcasing NFTs. DAA—— This is a Write to Earn (WtE) model token that serves as a reward system for users. Here, you can enjoy a feed similar to Twitter and integrate chat and channel features like Telegram. In essence, this is a new platform that combines traditional social tools with social media.

5.4 Integration of DAO governance

Blockchain technology integrates a Turing-complete programming language and smart contracts to facilitate community self-governance. Within this organization, participants can directly control donation funds in real-time, and governance rules are formalized, automated, and enforced through the application software. Standard smart contract code has been developed, enabling the creation of a decentralized autonomous organization (DAO) on the blockchain.

The DAO code is written in the Solidity programming language. The DAO is deployed on a blockchain. The DAO selects 'contract parties' by accepting their proposals (Proposals). Any DAO token holder can submit a proposal to become a 'contract party' through the DAO, marked as transfer. If the proposal is approved, the DAO transfers Ether to a smart contract that represents the proposal. This smart contract can be parameterized, enabling the DAO to interact with and influence the projects it supports.

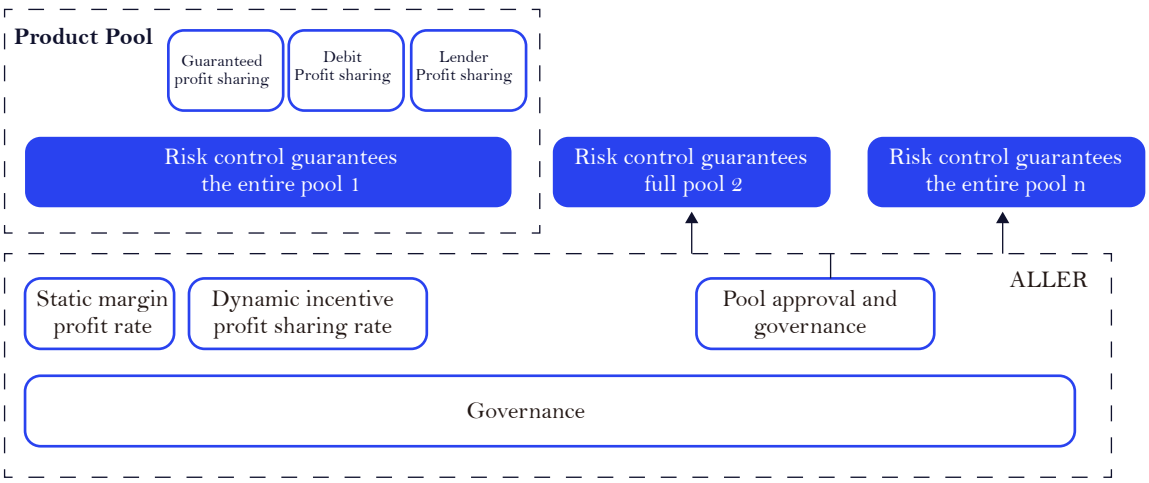
The core value of DAO is to be decentralized and autonomous. The application scope of this new organizational form formed by contract and smart contract is constantly expanding. Global Loan innovates with the times and puts forward DAO governance.

In the global loan-DAO governance environment, all user behaviors are generated by users through voting, and the listing behavior smart contract is automatically executed. Under the global loan system, all information will be put on the chain in an orderly manner, making all information imtamable and completely decentralized management. Users and associations will obtain a unique hash address to manage their own relevant information.

In the commercial distribution, global loans will be operated by consuming GAS. Voting, elections, transactions, and evidence storage all require the support of GAS. The allocation of GAS is automatically executed by smart contracts, and GAS serves as the operational foundation of the entire ecosystem. GAS can be obtained through mining or by engaging in specific activities, making it the economic foundation for the operation of the entire ecosystem.

In terms of technology, Global Loan integrates smart contract, oracle, IP locking on the chain and other technologies for the first time, and combines the characteristics of the public chain to create a completely different and traditional new model.

The initial governance rights of the Global Loan DAO include:
• Vote on whether to open the new product pool
• Vote on the application of global lending tokens in product pool rules (e.g. set global lending as a margin pool
One of the default asset classes)
Vote on the allocation of the Global Loan DAO community fund token (see "Token Model" section for details)
• Vote on new governance mechanisms



Chapter VI Team and Development

6.1 Intervention of international foundations and VC venture capital

Based on the current development trends and operational speed of Global Loan, it has quickly gained prominence in the industry and attracted the attention of venture capital firms and foundations in the financial sector. With the goal of creating more digital value for global users and enabling long-time loyal users to realize greater commercial value, the founding team of Global Loan, after thorough consideration, decided to have the FFL Foundation, a leading player in the global VC and venture capital industry, lead the investment. Subsequently, GBV Capital, Hanquan Capital (Sino Global Capital), and other venture capital firms and foundations followed as co-investors. Currently, these three capital firms have successfully joined the Global Loan Value System Platform.

The lead investor is the FFL Foundation

The FFL Foundation, registered in Singapore, is jointly established by the Technology Finance Lab, multiple capital and top blockchain developers. It is committed to becoming a leading research institution in the blockchain industry. Its customers include mainstream financial institutions, venture capital companies, blockchain entrepreneurs, etc. At present, it has established a complete blockchain industry database and investment research system.

The FFL Foundation was established to promote the development, construction, and governance of the FFL Public Chain ecosystem. FFL Public Chain is an open-source project with open technology, encouraging more developers to join in the ecosystem's development and construction. Currently, Global Loan has formed a deep strategic partnership with FFL Public Chain. In the future, Global Loan will become the first self-governing community on the FFL chain, working together to contribute to the development of the blockchain world.

6.2 Technical team

The Global Loan team, supported by leading blockchain technology development institutions, has assembled top experts from projects such as Ethereum, Binance, Huobi, OKex, IBM, Microsoft, and Google. The team has extensive experience in blockchain infrastructure, distributed databases, cryptographic algorithms, and commercial ecosystem applications, providing robust talent support for the rapid growth of the Global Loan project.

Williams

Co-founder of Global Lend

Graduated from Harvard University, he has 20 years of internet experience and 8 years of experience in blockchain business applications. He has advised cryptographic companies, startups, venture capital funds, and international policymakers on blockchain solutions. Williams Bada is also a director at the Private Investment Fund Institute (PIFI) and has collaborated with Cravath, Swain & Moore LLP (New York) and Goldman Sachs (London) on multiple occasions.

EM.gim - CTO

Graduated from Virginia Tech in 2002 with a Ph.D. in Computer Science. Worked at IBM's Computer Research Center. Engaged with digital cryptography through his thesis' New Directions in Cryptography,' and validated the feasibility of distributed ledgers using asymmetric encryption and elliptic curve algorithms. Has been involved in the design of over 10 digital currencies, identified several security vulnerabilities, and is a trusted and well-known member of the digital currency community. To promote the application of blockchain in the real economy, he has integrated resources to develop the Global Loan project.

Jimmy - COO

Bachelor of Finance from University of Toronto, Canada. He has worked in Hongshang Asset Management Co., Ltd. and Microsoft Blockchain Research Institute. He specializes in industry research and business analysis. He has in-depth research and unique insights into business operation models. He has professional financial knowledge and complete experience.

Lyndon - Blockchain engineer

He is proficient in the principles and implementation of mainstream blockchain technologies such as Bitcoin, Ethereum and HyperLedger, and has a deep understanding and rich practice on blockchain consensus mechanism, smart contract, cross-chain technology, side chain technology and privacy protection. The blockchain network he built has been operating stably for many years

6.3 Community layout

Global Loans will be launched globally, and 120 communities will be set up in Malaysia, Australia, Singapore, Cambodia, Philippines, Hong Kong, China, Thailand, Japan, France, South Korea and other countries at the same time.

Global Loan, guided by the decentralized principles of blockchain technology, is built on community strength and prioritizes user interests. It is gradually evolving into a fully autonomous, community-based digital asset financing ecosystem. The Global Loan community employs a globally distributed collaborative office model, bringing together parties with significant advantages and shared values. This approach embodies the principles of decentralization, enabling the community and users to share, co-own, and co-govern.
The advantage of global lending is that autonomy allows the community to be fully prepared and discussed, and the whole process is transparent. After extensive discussion by the community, it can be put to a vote anytime and anywhere, without waiting for a specific meeting time. The governance results are the maximum consensus of the community and are implemented by the community.

6.4 Timeline

January 2019

The concept of "unsecured lending" was first proposed.
In December of that year, it received a major backing from venture capital firm Capstone Partners.

December 2019

The strategic cooperation with Singapore FFL Foundation was reached and the blockchain network system was officially connected to complete the perfect fit between the capital side and the technology side.

February 2022

The Global White Paper 1.0 was released, completing the first technical support and token development donation.

May 2022

The global lending platform was officially established, and the project team was convened to develop the work and establish the global station.

6.5 Future Planning

2022-Butterfly Period

The global lending platform was officially approved
The white paper was released
The global lender network was deployed and launched

2023-Outbreak period

Fully launch the market
Create a technology community
Open the DAA token system autonomous system
Connect to the NFT asset trading platform to achieve technical connection

2024-sedimentation period

The repurchase program was implemented
DAO product technology polishing
Launch the platform token automation replacement function
Set milestones for global lending
More than 1000 global mainstream projects have been cooperated
Establish a global loan expert cooperation development group

2025-qualitative change period

CEX listing plan promoted
To become one of the largest DAO organizations with global user carriers
Become the entry platform of mainstream project channels in the industry

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