



Last DAO

White paper

LAST DAO - BUILDING WEB 3.0 OPEN FINANCIAL DISTRIBUTED
ORGANIZATIONS

Foreword

In 2022, the continuous explosion of the meta-universe made people see the significance of DAO, and even predicted that DAO will become the "next big trend" in the field of blockchain, and will also become an important cornerstone in the development of the meta-universe.

In 2021, A16z partner AliYahya announced on social media that A16z is planning in the DAO space and has invested in related DAO projects.

In addition, Sequoia Capital, an international venture capital company, changed its twitter profile to "We help courageous people build legendary DAO and turn their ideas into reality", which once triggered a market discussion about DAO.

The appeal of the world's top capital, like a giant like Facebook that changed its name to Meta and announced to enter the yuan universe, will make the subsequent capital more actively layout the DAO track.

DAO (decentralized autonomous organization) is a way to adapt to the meta-universe. The change of production environment has given birth to a new organization mode, from the age of great navigation to the meta-universe, the organization form will constantly change and evolve. In the era of Web2.0, the monopoly of the giants on data has been concerned by the society, while the organization rules of the meta-universe DAO are supervised by the program, and the final guarantee of the organization rules is the code. The prior constraints of the code allow the DAO to form organizations in a lower trust model, and users to be more widely involved in global collaboration in the digital world.

Blockchain technology guarantees the "Code is Law", while DAO ensures the orderly formulation and implementation of the rules, and both are the cornerstones of the metacom system. The Bitcoin network is the simplest DAO, where anyone can join the network at any time, become a node and provide computing power to ensure accounting security. Ethereum further supports smart contracts, making universal computing possible for decentralized execution. On this basis, all kinds of applications derived are realized based on the DAO of code rules. This makes it possible to build a meta-universe with 5G, Internet of Things, AI and cloud computing power, and the world of Web3.0 will be more flat.

Implementation of DAO: on chain + off chain. On-chain governance enables decentralized decision execution through smart contracts, and the voting results of participants will directly affect the smart contracts. Off-chain governance is weakly binding organizational governance through social networks, voting system and multi-signature wallet. Projects often adopt off-chain governance in the development period, and change to comprehensive on-chain governance after the products are mature, and the rules are gradually handed over to the community.

Last DAO Will become the most influential Web3.0 era in the decentralized autonomous organization, let the user to participate in ecological governance, everyone can gain benefits for the development of Last DAO ecology, at the same time will promote governance certificate-LSTD rising, stimulate the interaction between members at the same time to attract more people to join the LastDAO, it will form a virtuous circle, promote the organization continues to form better decisions and more sticky community culture.

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▶ 1. Distributed Autonomous Organization (DAO) Background

1.1 Humans Have Entered The DAO Era

● 1.1.1 What is a DAO

The concept of distributed autonomous organization was first proposed by American writer Ori Braffman in a book called *Starfish and Spiders*. In his book, he compares centralized organization to spiders and distributed organization to starfish. The book says:

A spider is a centralized (cellular) tissue that cannot survive if its head is cut off (the whole tissue). Starfish are made up of a bunch of equal (uncentered) cells, and each tentacle of the starfish can grow into a complete starfish. Starfish and spiders represent two types of decentralized and centralized organizations in the real world, respectively. When frustration and conflict are resolved, the spider group will continue to function after the head is cut off. In contrast, starfish decentralized organizations will have strong vitality.

DAO is an abbreviated decentralized autonomous organization, a decentralized autonomous organization, sometimes known as distributed autonomous companies (DAC); with common goals or consensus and clear core values. Its democratic voting mechanism determines the direction and operation of the organization. All of its rules and transactions are recorded on the blockchain, thus eliminating the need for any central entity.

● 1.1.2 The Significance Of DAO











From the form of organization: ConstitutionDAO brings a group of ordinary people together, subverting the traditional sense of the organization! Through Discord, Twitter and other Internet communities to communicate, no need to get together face to face, quickly and efficiently to complete this seemingly magical thing.

From the organizational consensus: let the constitution back to the people. This group of avant-garde cryptocurrency enthusiasts chose the DAO approach to respect and protect the first constitution in American history, arguing that it should be shared by all.

From the perspective of organizational rights: rights return to the community members. If they are successful, members of the ConstitutionDAO can vote whether to put the precious copy of the constitution on public display and "put it in the hands of the people." If the auction fails, it also allows the community members to discuss and decide where the money will go.

The biggest advantage of the DAO is its global, license-free nature. It solves the problem of trust between people through blockchain technology. Really can do "Code is Law" (code and law), each line of protocol operation strictly follow the code, can not be tampered with.

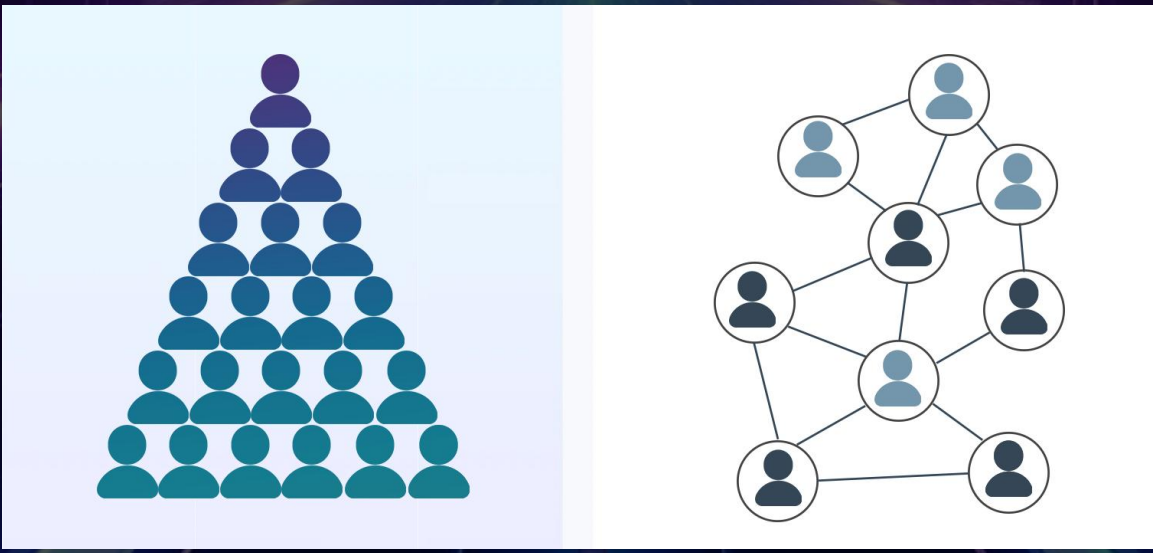


DAO	Company
 Loose	 Tight
 Grassroots	 Hierarchical
 Transparent	 Usually not transparent
 Open	 Invite-only
 Fully global	 Not always global


DAO vs Company Source:Aragon

1.1.3 DAO—The Most Effective Way To Cooperate Online Globally

Under the impact of the epidemic, the transformation of the office form of enterprises has attracted global attention, and the words such as "operation everywhere" and "home office" have appeared frequently. In 2022, the Top Strategic Technology Trend forecast released by Gartner, a leading global information technology research and consulting company, also includes forecasts for enterprise distributed operations. As a self-organization that enables members to operate online without "headquarters", DAO will become a new trend of organizational collaboration in the future.



Organizations are no longer pyramid shaped but distributed



The DAO's organizational framework is a technology that generates new Internet companies, so it has a significant impact on start-ups and their future business growth. It can be expected that DAO will revolutionized change the business model of the future, that is, no longer a company with headquarters, but a start-up with blockchain and members from all over the world, and exists as DAO. These start-ups will be steered by responsible and proactive members of the DAO, such as setting a low entry threshold when companies need additional resources or join a new member.

In short, the DAO will be an efficient way to build a global large-scale partnership and provide a more effective and safe business management model.

1.2 DAO, The Cornerstone Of The Metacological World

At present, when the global digital transformation is getting faster and faster, metaverse will gradually develop its own economic system and have a unique economic system, which needs to realize asset value certification under the premise of decentralization, all of which cannot be separated from the support of blockchain technology. NFT supported by blockchain technology reasonably and efficiently enables the assets in the metaverse, and the blockchain technology itself brings the possibility for the digitalization of assets.

NFT is Non-FungibleToken, a non-homogenized token, is immutable, inseparable, irreplaceable and unique. and is widely used in images, music and artworks. The irreplaceable and unique shows that the expression of any NFT on the blockchain is traceable, as if no two snowflakes are the same, and no two NFT can replace each other. This feature makes NFT exclusive, can support assets in the metacuniverse, and has very important value.

First, NFT can asset the virtual goods that could not be realized before. In the traditional Internet, the value of virtual assets is often difficult to cash in, and even the gold coins and items in the game can only be traded in a small range of a single game. The virtual goods enabled by NFT have a new ownership confirmation system, and have gained a huge expansion market on the underlying blockchain.

Secondly, the linkage between NFT and offline entities is the means for influential traditional enterprises to easily connect to the universe. What is a very important assumption in the universe is that one day, when a user buys a car offline, there will be the same car for him in the universe.

At the same time, NFT can also separate the right of control and editing while ensuring the scarcity of assets. After a user buys an NFT, the organization or artist that creates the NFT can digitize its assets in the limit of the original smart contract.

In addition, asset digitization is also a topic that the meta-verse cannot bypass. Assets in the meta-verse are recorded on the blockchain, which can complete real-time interaction while ensuring security.

1.3 DAO Will Be The Standard Of The Business Model Within The Metacom

Because Dao's decision-making process is more transparent, secure, and autonomous, the process is expected to respond more quickly than existing legal entities. By voting and recording on the chain, participatory Dao achieves a highly transparent voting process, avoiding controversial decisions, fraud, and reducing low-level errors.

The metacuniverse is a digital space, a parallel virtual augmented reality that extends beyond the physical world. But perhaps the most important is that the meta-universe is not multiple — with only one. This is a shared world where virtual worlds, digital brands, and services collide. In the metacom space, where people use their digital identities to seamlessly interact, communicate, and trade value, your digital role can move freely across multiple virtual worlds.

Traditional metaverse and blockchain-based metaverse. The former may be related to the Web2.0 principle, a hybrid concept in which current gaming and social experiences are integrated in online augmented reality. On the other hand, the blockchain meta-universe follows the Web3.0 principle and will empower individuals through the advantages of the blockchain technology.





▶ 2. Last DAO Introduction

2.1 Last DAO Overview

Last DAO Is by Last DAO team joint Springboard-HarperInvestmentPteLtd (hereinafter referred to as: Springboard-Harper) developed a based on currency intelligent chain, based on DAO highly autonomous universe ecosystem, through large data, privacy, circular signature, intelligent assets, using the mode of DAO high autonomy to create and perfect the existing financial ecology, build Web3.0 development financial infrastructure. To achieve trusted sharing, regulated privacy, open and independent, self-innovation.

2.2 Overview Of The Mission And Vision

Last DAO Is a metacosmic ecosystem built on Binance intelligent chain. It adopts a high degree of community autonomy (DAO) mode to empower developers and users around the world, and truly realize the value circulation of global Internet application ecology and the return of user behavior value. The analysis and screening based on APP data and community rating can more effectively combat malicious software, reduce the use risk of users, and help high-quality applications to acquire users more efficiently; Last DAO The token incentive mechanism of mining in the whole network has brought a large number of users to the settled APP / DAPP, but also brings a new value sharing mechanism and community gathering place for users.

Last DAO Based on Binance intelligent chain, it will build a consensus, co-created and win-win decentralized autonomous behavior value network. With LSTD as the incentive, with the blessing of ring signature and zero knowledge proof, it will realize the rapid deployment of global distributed node equipment, and jointly promote the Last DAO whole network to build a global behavior value consensus. Last DAO The whole network will promote the full implementation of the "behavioral value network", take the whole Last DAO network as the cornerstone, improve the distributed node network in line with the characteristics of the "behavioral value network", and share the huge commercial value created in the future with all participants. Last DAO The composition of the whole network comes from a fairer and more trusting idea, so we will implement it and defend it. Let user data and behavior, based on a "new value return to user allocation mechanism" to give users and developers a new and highly autonomous universe ecology.

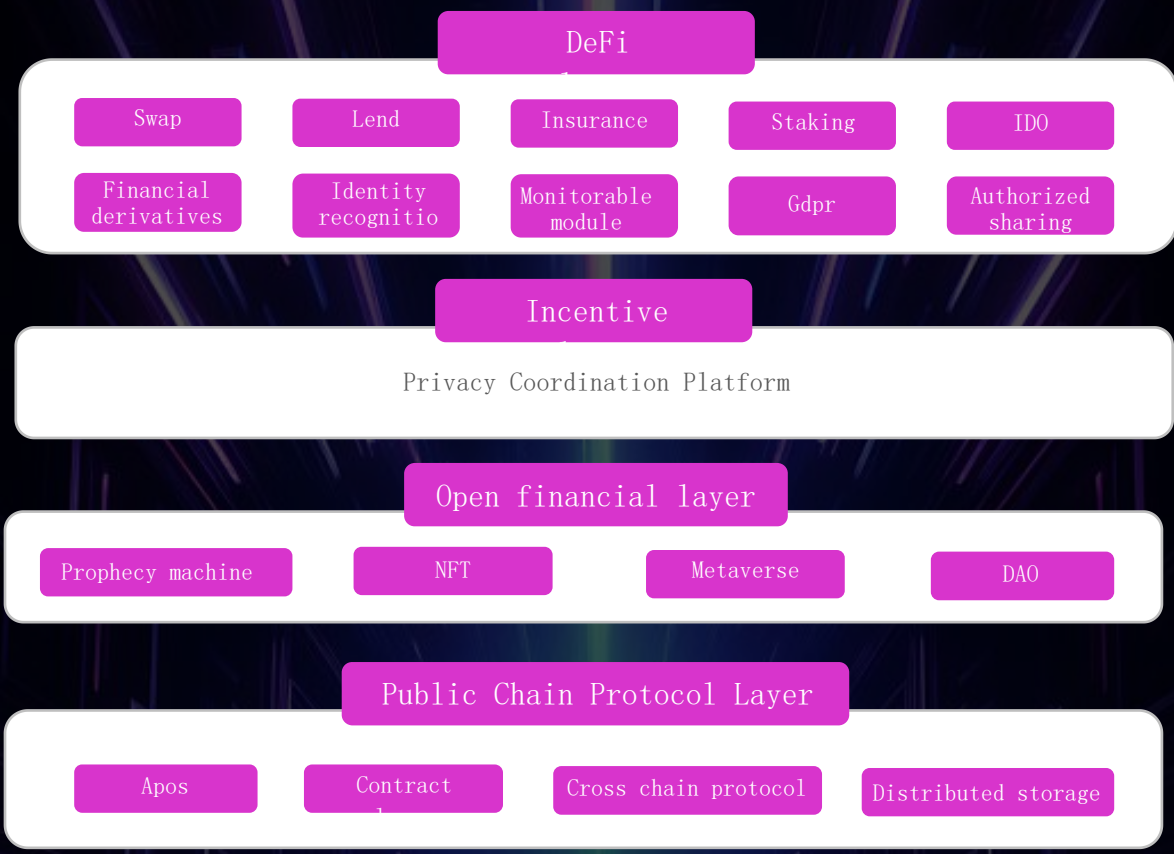


▶ 3. Last DAO The New Architecture

3.1 Last DAO Design Concept

Last DAO Is a blockchain value ecosystem oriented to the metacera era. Its core goal is to establish a blockchain network that can be highly autonomous, secure and positively enhanced exchange and value mining. Last DAO The framework design follows the following basic principles:

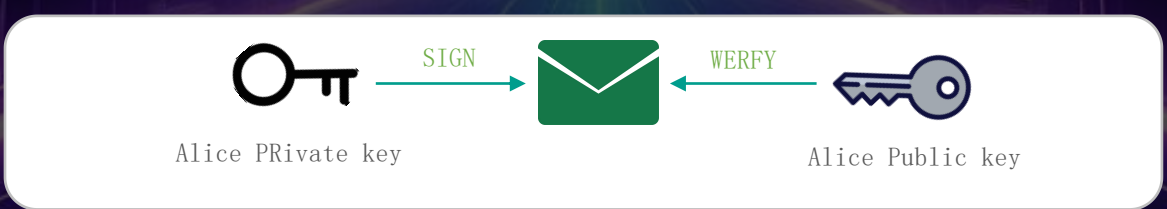
- 1.Transaction credibility: transaction records enter the blockchain and are permanently stored. Both parties trust the transaction network at low cost, which requires the network to have both reliability and privacy, while avoiding intermediary problems such as data precipitation;
- 2.Incentive compatibility: Economic system design promotes the release of data by network nodes, develops the derivative value discovery function based on data development, and participates in the whole ecological development to promote the exploration of data value and the decreasing exchange of costs;
- 3.Fine transaction mode: promote the more refinement of data asset trading through network mechanism design;
- 4.Market-based data pricing: to ensure more detailed market-based data pricing through network mechanism design;
- 5.Support high concurrent transactions: support high concurrent data exchange, and become the future infrastructure for massive artificial intelligence, Internet of Things for large-scale data exchange, exchange of edge computing results and other capabilities;
- 6.Support quality verification: support data sampling, cross-comparison, format comparison, type identification, range identification and other automatic verification means, while ensuring transaction security, preset to provide a variety of quality verification capability setting;
- 7.Support derivative data service: support the function of programmable model calculation of data, support developers to compile more complex data analysis tools in general language and access BNA, and support access to the prediction machine (Oracle) network to improve the function range of smart contract.



Last DAO The New Architecture

3.2 Ring Signature

Last DAO The anonymity of digital assets is realized through the ring signature technology. The ring signature technique is described as follows: an ordinary signature is shown below, with only one participant, allowing one-to-one mapping.



Ordinary Signature

The ring signature blur identity because only someone belongs to a group but does not know who is in the group.



Ring Signature

Circular signatures make virtual currency transactions highly anonymous and can be imagined as a combination of decentralization and distrust.

To maintain anonymity, Last DAO uses the disposable ring signature technique. The ring signature assigns privacy by allowing transaction sponsors to join the group and then treating the transaction as a unit, not from a single private key signature.

This technology allows the transaction sponsors to blend into the crowd. The verification can prove that the output exists and that one of the group is a true signer. However, because each member has equal probability weights, they cannot determine exactly which panel member the signer is. As the group size increases, the probability of each member becoming a true signer decreases.

Circular signatures, involving aggregated users' real hidden address P , and a large number of "dummy" P scattered across the blockchain. The signature is verified by all P , and mathematically, any corresponding private key can sign the transaction, thus confusing the identity of the true sender.

To prevent double flowers (where the same money appears in two or more transactions at the same time), each Last DAO transaction has a unique key mirror (keyimage). Key mirror is created by taking a hash of the hidden address P and multiplying it by the private key that is different for each transaction. This mechanism ensures that each P can only be used once. Last DAO The network maintains a database containing all the unfinished key images, so if the user tries to reuse the key, the network refuses the transaction.

3.3 Homomorphic Encryption

In order to ensure the security of user data in the cloud computing environment, Last DAO uses a homomorphic encryption algorithm based on the integer polynomial ring. To need to share data using homomorphic encryption algorithm, and then the encrypted data output, multiple participants jointly generate collaboration parameters, verify the encrypted amount in the input and output of the transaction equal, can read or write the account response or write operations, reward is used to encourage resource providers to share redundant memory and bandwidth resources as the cache node of transaction flow.

Last DAO Using block chain hierarchical link for various business nodes, ensure the data exchange records reliable tamper-proof, and the data distribution problems, combined with the block chain across the chain and real-time execution contract technology, put forward the data distribution system based on block chain, changed the traditional data distribution mode, and through incentives incentives, promote the maintenance of the system of the system security, stable performance maintenance.

The traditional dynamic data synchronous encryption method has poor encryption effect. In order to solve this problem, a new dynamic data synchronous encryption method is studied based on the blockchain, the blockchain technology is analyzed, the dynamic data synchronous encryption method is designed, the encrypted data analysis and selection methods are given, and the synchronous encryption algorithm is designed. The experimental results show that the dynamic data synchronization encryption protection method based on blockchain has strong encryption capability and high encryption security.

3.4 Certificate Of Zero Knowledge

Zero knowledge proof (Zero-KnowledgeProof) is given by S.Goldwasser, S. Micali And C. Rackoff Made in the early 1980s; it means the ability to convince the verifier that a judgment is true without providing any useful information to the verifier.

Zero-knowledge proof is an important technology for building trust and an indispensable part of the organism of blockchain. Zero-knowledge proof is a key technology to connect on-chain data and off-chain computing, and also an important way to realize on-chain data privacy protection.

For example: if A wants to prove to B that he has a key to a room, assume that the room can only be locked with A key, and no other way to open it. There are two ways:

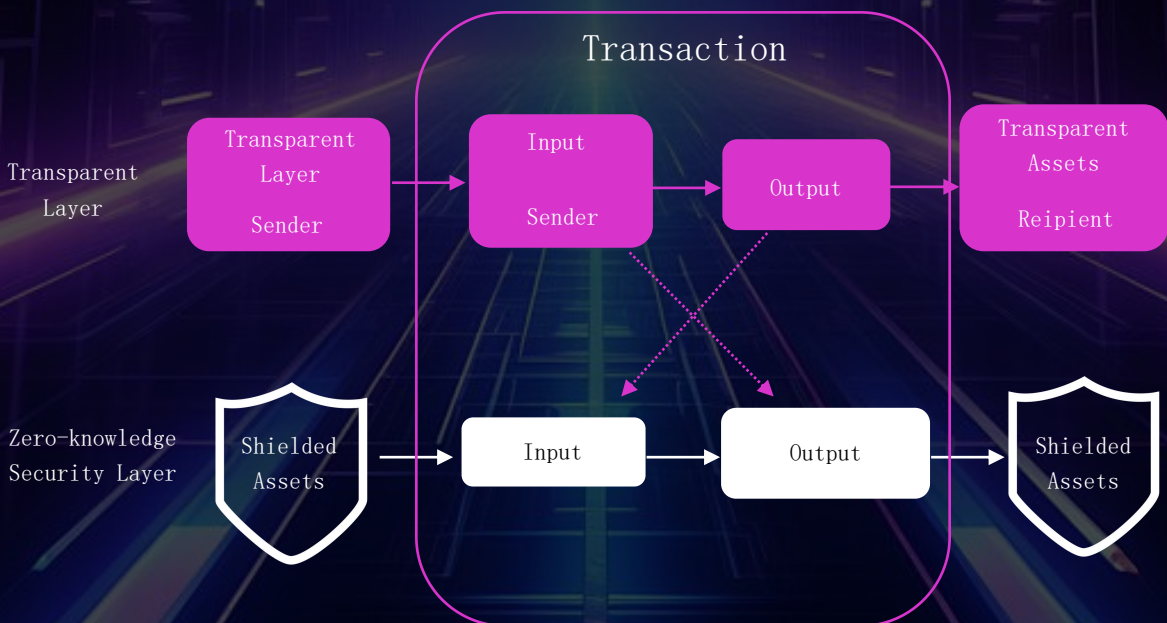
● Method 1:

A shows the key to B, and B uses the key to open the lock in the room, thus proving that A has the correct key to the room.

● Method 2:

B determined that there was an object in the room. A opened the door of the room with the key that he owns, and then took the object out and showed it to B, so as to prove that he really has the key to the room. The principle of Method two is a zero-knowledge proof.

The zero-knowledge proof can prove that I know the secret without revealing the content itself, which can effectively solve many verification problems.



Last DAO Zero Knowledge Proof Running Signal

3.4.1 Characteristics Of The Zero-Knowledge Proof

Completeness completeness: If both the proof party and the verification party are honest and follow every step of the proof process for the correct calculation, then the proof must be successful and the verification party must be able to accept the proof party.

Reasonable soundness: No one can fake the proof party to make the proof successful.

Zero-knowledge zero-knowledge: After the proof process is completed, the verification party only obtains the information that "the proof party has the knowledge", but not any information about the knowledge itself.

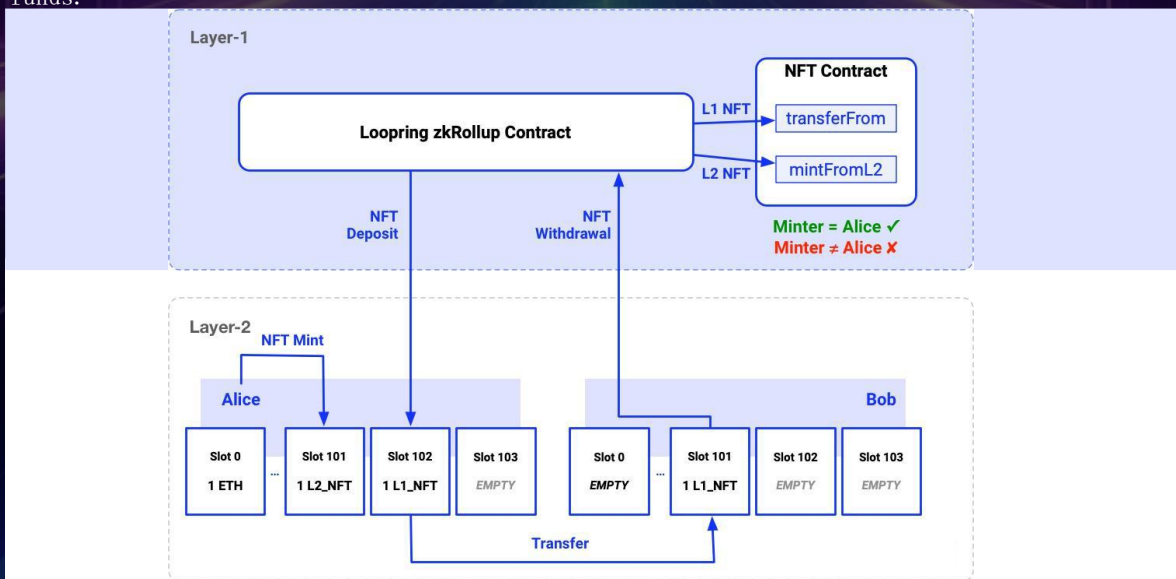
3.4.2 Advantages Of The Zero-Knowledge Proof

With the use of a zero-knowledge proof, security is not degrade because of the zero-knowledge nature. Efficient, the process is less computation, the two sides exchange less information. Security depends on unresolved mathematical problems, such as discrete logarithms, large integer factorization, square root, etc. Many zero-knowledge proof-related technologies avoid the direct use of encryption algorithms with government restrictions, bringing advantages to the export of related products.

Last DAO By using the zero-knowledge proof mechanism, the addresses and transaction details of the two parties can be hidden. So the miners have no knowledge of the details of these deals, but they can still verify them.

3.5 Loopring Agreement

Last DAO The Loopring protocol adopted is an open-source distributed trading agreement. Order generation, distribution and matching are off-chain, and clearing and settlement are on-chain to address the problem of on-chain trading congestion and ensure an open and transparent capital flow. No need to recharge, withdraw cash, and no need to contact user funds.



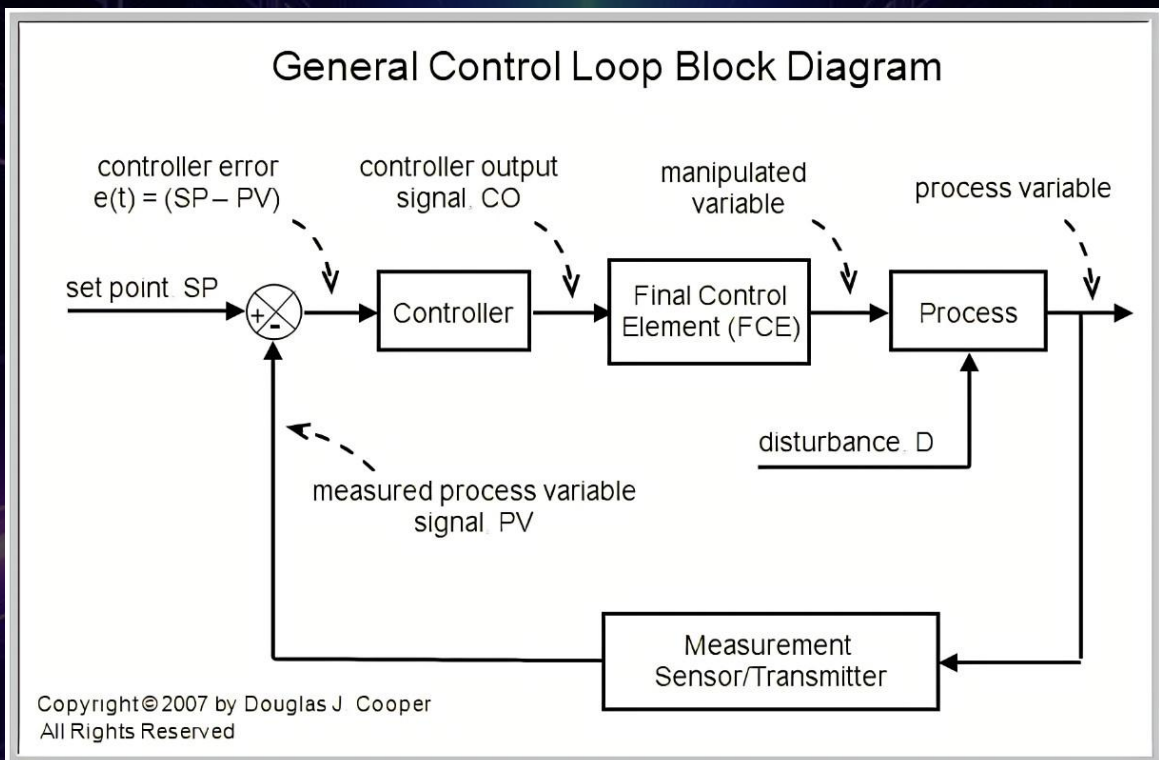
Last DAO Loopring Protocol

Last DAO The adopted Loopring protocol, when the user is ready to trade, it is completed through the online wallet, and use the user's private key for signature. The order is then sent to the Loopring network smart contract and the off-link relay node.

To better illustrate how it works, a group of traders place orders on the Loopring network. Bob, Sarah and Earl all want to make a deal. Bob wants to trade 2 OMG for 10 ARK, Sarah wants to trade 1.5 OMG for 21 OOS, and Earl wants to trade 40 EOS for 20 ARK. The oop matching technology forms the three orders into an order ring and fills in each order. Once the smart contract on the Loopring approves the order, everyone receives the tokens they want.

Bob gets his 10 ARK, but still has 0.5 OMG, and Earl has yet to fill out his 20 ARK order for a 40 EOS. Sarah was the only trader to fill out the order completely. The remaining tokens will again be processed by the order sharing system and added to another order matching until some orders are fully filled.

Loopring's loop matching technology can handle multiple orders including multiple tokens at one time, and Loopring forms a huge pool of orders for all the participating transactions in the market. This also ensures that the price of digital currency is relatively stable when a large amount of capital flows into and out of the market. Loopring's loop matching technology can not only improve transaction returns, but also improve liquidity and transaction success rate.



Loopring Under The Protocol, A Successful Order Cycle

3.6 Cross-Fragmentation Technology

The unavoidable difficulty of a shard blockchain architecture is how to find a balance between data consistency and performance when dealing with data interactions across shards. A design with strong consistency is often accompanied by complex transaction processes and data locking, usually a significant drag on performance; lower data consistency requirements for development and blockchain performance often increase smart contract development difficulty and potential trust and security crisis.



▶ 4. Advantages And Characteristics

4.1 Advantages Of DAO Mining

The development of DAO depends on blockchain technology. The blockchain smart contract platform guarantees the trusted operation of the code, enabling the organizational rules to be programmed, and then giving the right to make rules to the community through programming design. The development of token economy is mainly reflected in the exploration of decentralized financial facilities, token governance tools and token mechanisms (such as liquidity mining). These ecological applications provide financial tools for DAO.

● Advantage 1:

DAO organizational rules are run by programs, and the ultimate guarantee of organizational rules is code rather than law.

Blockchain technology guarantees the decentralized operation of programs, which limit the members. This pre-event constraint allows the DAO to form an organization in a lower trust model, allowing users to participate anonymously and internationally.

● Advantage 2:

The identity boundary between the participant and the owner disappears, and the participants of DAO are generally token holders.

In addition to the remuneration for participating in the project, participants can share the economic benefits of organizational development; this unity of benefits further strengthens the organizational consensus.

● Advantage 3:

DAO information is transparent, most of the project code is open source, any user can get all the information of the organization.

It can be said that compared with companies, DAO does not set the information threshold, which maximizes the competition within the organization. Strong, community-supported either participant will soon reach a significant position to dominate the development of the business, ability and reputation utility will be maximized.

● Advantage 4:

DAO is free and open, and users can work for multiple DAO or quit at any time.

Of course, there are a few DAO that set entry thresholds, but often very early projects. This feature brings two main benefits, the DAO is more efficient than frequent companies, the information communication between the industry is particularly deep, greatly accelerate the innovation and resource allocation, making blockchain one of the fastest growing industries; the second is that users enter and exit, the participants with the same goal into the organization, the organization route dissatisfied with exit at any time, let the organization reach a consensus faster.

● Advantage 5:

DAO does not require a tight organizational structure, but makes decentralized decisions.

Unlike companies, DAO's decisions are made collectively, not by the CEO or senior executives, and the rule changes and enforcement are made in one step. In fact, members with one or a predetermined number of DAO native tokens can propose changes to smart contracts, initiatives, investment ideas, etc., and vote on them, depending on the specific DAO to drive the DAO.

In the future, "labor" in the meta-universe will be organized in innovative forms, such as digital content creation, game gold making, 3D modeling, IP circulation and other activities that can be realized for acceptance and delivery online. Last DAO The team believes that the so-called meta-cosmic immersion is not only a virtual world that you can see with VR and AR glasses, but also a digital world that can freely create, socialize, engage in labor and economic activities.

4.2 DAO Brings New Solutions To The Current DeFi Problem

● The Current Problem With DeFi

Crypto developers replicate the traditional financial mechanisms and systems that have been formed, and within days or months, adapt the characteristics of these systems or mechanisms to a structure that fits the needs of the cryptocurrency market. These changes are concurrent with the process of creating new solutions that are not available in traditional market systems.

Despite DeFi, users still face a number of different problems, which means the cryptocurrency market is far from perfect. So far, the lack of risk management and the poor user experience have prevented new users from joining the DeFi field and maximizing their profits. At present, DeFi has five main problems:

● Problem 1: At Present, DeFi Is Easy To Be Controlled By Large Households And Become Centralized

At present, some characteristics of DeFi tend to concentrate the decision-making power in the hands of the big currency holders, but still form a centralized game, and DeFi has become a big game. In addition, DeFi is not mature, often hacker attacks, stolen funds and even money run away.

DeFi has room for improvement in terms of decentralization. And DAO (decentralized autonomous organizations) may be the best tool to further improve the degree of decentralization of DeFi products. DAO allows DeFi users to make decisions on major decision aspects, such as adding features to the DeFi protocol, or deploying a new version of the DeFi protocol, etc.

The concept of DAO is the cornerstone of the DeFi project for decentralization. These features of DAO are crucial to truly effective decentralization, and make DAO an excellent governance mechanism for DeFi products.

1. Membership of DAO is open and not limited to a specific group / individual;
2. DAO members / investors can propose decisions / vote on the decision, and no decision can be prevented or modified by a central authority;
3. DAO members directly or indirectly obtain economic incentives by participating, so as to ensure the consistency of the incentive mechanism.

● Problem 2: Low Performance

Most of the DeFi activities on the market are built on the Ethereum network, and the performance bottleneck of Ethereum has always been a prominent problem.

Up to now, except for a few star projects such as MakerDAO and Compound, the flow and capital precipitation of most projects are still very small, and mortgage lending projects account for more than 70%, so few people criticize the problems related to DeFi efficiency. But 3.12 black swan event is still vivid, after the etheric fang prices collapse, which caused many DeFi lending agreement in the collateral prices fell rapidly, hit the line, and facing a massive liquidation, the resulting volume surge, network congestion, caused a well-known project like Last DAO appeared serious insolvency problem, network throughput is crucial to the influence of DeFi project.

Last DAO By making the attempt to solve the performance of DeFi using zero-knowledge cryptography, the zk-spark proof for verifying the state transitions executed outside the chain. Last DAO Solutions not only have significant scalability advantages, but also improve the user experience through real-time transactions. Last DAO The team believes that the future of DEX will be as fast as lightning, no gas costs.

● Problem 3: High Volatility

At present, a large number of DeFi are deployed on Ethereum, which is linked to the price of ETH. When ETH collapses, a systemic crisis will occur, damaging DeFi itself, forming a positive feedback of death spiral.

When the market is very volatile, the average platform will immediately clear the users' transactions, and this method, while reasonable, is not the best strategy for the users. Last DAO By designing the final reserve pool, the user a buffer time, which will not be liquidated immediately when the market is shaken. During this period, the reserve pool will be injected with temporary funds into the user's account for the user to respond.

Last DAO The team believes that this design can also increase the token function of the platform, users can use the tokens in the reserve pool to obtain low fees and additional revenue, the platform reserve pool also has funds, and with the larger the size of the capital pool, the platform can provide users with better temporary protection, which will be safer for the platform protocol.

● Problem 4: High Pledge Rate

At present, many DeFi platforms require users to overpledge, accounting for more than 180%, most of which are around 160% and 170%. Last DAO The team believes that the proportion is focused on how to set the interest on the use of funds. Last DAO has reduced the proportion to 130%, 120%, or even lower.

Another decision on the DeFi pledge ratio is the loan value ratio. CompoundAave Platform, user loan value in about 60% to 70%, the ideal loan value ratio is 95%, the proportion adjustment is mainly see the interest rate curve, Compound is to a value after suddenly interest rates increased, have a turning point, our platform the interest rate curve set more flat, users can get more money from the same value of pledged assets, Last DAO team through DAO autonomy model, reduce the excess mortgage margin to improve capital efficiency, so in the Last DAO platform can get 80% to 85%.

● Problem 5: Low Security

With the rapid development of DeFi has been all kinds of security incidents. In the world of code and rules, especially in the financial field involving funds, a careless or unrigorous will attract a large number of hackers, tokens stolen and abuse vulnerabilities have become a problem that DeFi must face.

In the first half of 2020 alone, a number of DeFi projects had serious accidents or attacks by hackers.

In February 2020, hackers use Aave lightning loans and Uniswap exchange, with very low fees as the cost of the attack, in just a block (about 15 seconds) time, using lightning loans borrowed large sums of money, then store a WBTC, using leveraged trading up WBTC price after selling, after a series of operations, hackers took the high net profit.

In April 2020, Lendf. The me was attacked, and the hacker stole \$25 million of user funds through the known ERC-777 vulnerability. Fortunately, the hacker accidentally leaked the identity information and returned the money in full on April 22.

There are numerous similar cases, and there are several security issues with DeFi projects almost every month. As a decentralized project, each smart contract of DeFi may carry a large number of users' assets, and the project code is open source. How the project party can ensure that their products do not appear BUG and let users safely use it is a very important issue.

Last DAO Through Boka's cross-chain technology, ring signature and other technologies, the team can realize the cross-chain without encapsulated assets, which not only reduces the service fee, but also improves the transaction speed, and improves the user self-configuration efficiency. In terms of user experience, Last DAO gives users a clear explanation, understands the operation of the platform, and sees the detailed data, including the platform fee calculation method, fee flow, asset direction, liquidation process, etc., to solve the users.

With its unique advantages, DAO has brought new solutions to the current problems of low performance, high volatility, high pledge rate and low security. DAO offers a unique solution, like the ball of line in the DeFi maze, ultimately allowing the DeFi problem to be solved.

4.3 Last DAO Features

Last DAO Block chain since the organization management platform with the help of block chain, algorithm, consensus mechanism, intelligent contract technology, on the basis of trust, help enterprises to improve the internal management system, improve operation efficiency, build a decentralized, free collaboration, self management of the new production relations, makes the organization in the process of governance and business from negative and zero-sum game to positive game, help enterprises form automatic, independent and efficient management mode.

● Feature 1: Distributed And Decentralized

Last DAO There is no center node and hierarchical management architecture, it through the bottom-up the interaction between network nodes, competition and collaboration, let each team or individual nodes in the platform, everyone is equal, not because of different job treatment, weaken the center of personal interests, to achieve the enterprise internal harmonious competition and common development. In the platform, the design concept of information sharing allows everyone to have the right to know, can pool wisdom, make a problem have a variety of solutions, and make the organization's development strategy and plan perfect.



- Feature 2: Autonomy And Automation

"Code is law" (codeislaw), organization is no longer pyramid but distributed, power is no longer centralized but decentralized, management is no longer hierarchical but community autonomy, and organization operation is no longer replaced by highly autonomous communities.

- Feature 3: Organization And Order

Relying on smart contracts, the operating rules in DAO, the responsibilities and rights of participants, and the reward and punishment mechanisms are open and transparent, which will save the organization a lot of human resources costs. By integrating scattered resources and information, pooling and using them, the whole organization can develop in an orderly manner.

- Feature 4: Intelligent And Token

Certificate (token) LSTD, as an important incentive means in the Last DAO governance process, documents all elements of the organization (such as people, organizations, knowledge, events, products, etc.), so as to fully integrate monetary capital, human capital and other factor capital, and better stimulate the efficiency of the organization and realize the value of circulation. For example, through token incentives, the platform can make the members of the organization establish a full sense of competition, let the organization find more excellent talents, stimulate the energy growth and function realization of the organization, and ensure the rapid development of the organization.



► 5. Ecological Application

5.1 Last DAO The Benign Prosperity Of The Ecology

Last DAO The team's innovative use of DAO features provides a new solution to the current problems in DeFi mining. Last DAO The DAO agreement promises to allocate a part of the token supply to governance contributors over a period of time, and all LSTD holders can become community nodes / partners through effective preaching.

5.2 Last DAO Innovative Mining New Gameplay- -DAO Mine Pool Model

Last DAO The new way of DeFi liquidity mining in Last DAO is the management of community DAO and DAO mining allocation, so that the participating whitelist and IDO users build the DAO mining pool together. In the DAO mining pool, the DAO mechanism is used to realize the participating users take turns to be the dealer, so as to avoid the problem of the traditional DeFi initiator control panel.

In terms of governance, different DAO will adopt different solutions to solve it. There are some deficiencies of DEX, such as governance indifference, vote manipulation and so on.

Finally, Last DAO also establishes community nodes and DAO partners to pay dividends, which will be distributed in a positive proportion, so that the more the team contributes to the community, the higher the ranking and the more dividends.

Last DAO Team innovative with DAO solved the problems of the DeFi, establish a new "decentralized" governance structure, and a fair and just decentralized financial environment, provide more users with a better experience, for currency chain empowerment, create a better DAO Metaverseecology, for greater trading activity to create more value for the user, and bring the user's clustering effect and ecological prosperity.

5.3 Metaverse Chain Tour

Traditional online games are all centralized operation mode, and different games are often highly closed and independent, without too much connection.

The combination of blockchain and games shows a possibility: the emergence of ecological clusters of themed games. If a game is successful, dig deep into the internal elements of the game and quickly expand the game, you can constantly generate new games.

At present, the main defect of the business model of the game industry is that it excessively highlights the entertainment value of games and ignores the commercial value of games as a whole. There are mainly the following three problems, including:

1. If the game does not exist, the assets do not exist, and the users' game assets are not guaranteed;
2. The transaction scale of game assets is limited, so cross-game and scene transaction and use cannot be realized;
3. The property right relationship of game assets is not clear, and there is the behavior of "unilateral harvesting".

Therefore, the chain game created by Last DAO based on the meta-universe will realize the real and virtual voice interaction, giving people a better sense of introduction and immersion without more hard devices.

5.4 Virtual And Real Interaction

Last DAO The meta-cosmic chain tour created uses the combination of virtual and real scenes. On the basis of the current common blockchain games, a variety of new scenes are added, giving more humanized game rules, making the game more interactive and entertaining, and more in line with the ultimate purpose of the game.

Last DAO Meta-universe chain game will be equipped with voice and visual command system. The panoramic site position information status dynamic display is from the map transmission module of the equipment participating in the game. It is a set of mechanical intelligent motion design, data communication protocol formulation, control algorithm, image recognition and other comprehensive interactive games.

Last DAO Immersive virtual and real chain travel experience system is very interactive, strong interesting, high personnel participation games can be applied to large and medium-sized amusement projects.

Last DAO It will build a virtual space based on the real world, and build social networking, living and even economic systems in the virtual world, so as to realize the integration of the real world and the virtual world.

Last DAO A "distributed" virtual platform built up. Consumption, education, meetings, work, and other behaviors will be transferred to the virtual world, where players can operate cross-platforms, and can interact in the virtual world as long as they have the Last DAO ecological governance token LSTD.

Last DAO Will achieve real connectivity, and build into a real Metaverse.

In Last DAO 2.0, we will make virtual interactions possible, which of course requires the joint efforts of players within the DAO community.

▶ 6. Release Instructions

6.1 Last DAO Introduction

Last DAO Is a star project in the web3.0 era, which is favored by many capital. By creating the underlying technology of blockchain and using the new model of DAO, build the basic financial facilities in the web3.0 era, truly realize the value circulation of global web3.0 application ecology and the return of user behavior value.

- Platform name: LastDAO
- Token name: LSTD
- Total issuance: 300 million pieces
- Specific Allocation:

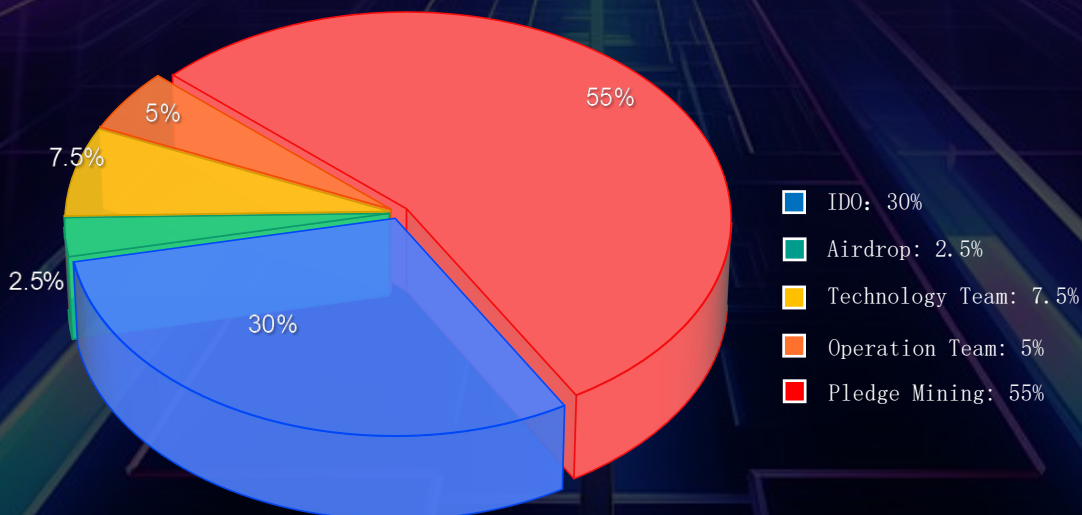
IDO: 30%, subscribed by the global consensus user, until the end of the subscription, no lock warehouse, all released before the launch.

Airdrop: 2.5%, according to the development of the project.

Technology Team: 7.5%, locked for 3 years, and release 1.5% every year until the release is completed.

Operation Team: 5%, lock up for one year, and then release 0.5% every quarter, mainly for daily operations and community rewards.

Pledge Mining: 55%, 25% is mined by global consensus users.





6.2 DAO Ecological Autonomy

The foundation or technical team of Last DAO does not participate in the governance of LastDAO, but conducts on-chain governance with DAO autonomous organization. DAO (i. e., decentralized autonomous organization), in which on-chain governance is decentralized, rather than divided by node level. We believe that the autonomous organization form of DAO has great potential, which is the inevitable development route of decentralized collaboration in the future. The organization has the following advantages:

- **High Transparency:**

Anyone can view on the chain voting, development strategies and other operations;

- **Stimulate Consensus:**

Members from all over the world can join the DAO autonomous organizations to contribute, compared with the fixed model of the organization or team, the DAO participation threshold is lower;

- **Strong Collaboration:**

DAO autonomy gives everyone a say, collects a lot of information from the proposal, and enables the technical team to have a clear direction to build the ecosystem in the future.

6.3 Acquisition And Circulation Of LSTD

The LSTD acquisition methods include, but are not limited to, the following methods:

1. Get the LSTD reward for using LastDAO's meta-universe platform function;
2. Complete the daily tasks of the Last DAO yuan-universe autonomous platform, including but not limited to watching advertisements, browsing pictures, likes, social networking, etc.;
3. Invite new users of Last DAO yuan-universe autonomous platform;
4. Selling NFT cards or other game items;

The LSTD will be used in the Last DAO metaspaces market. Last DAO Hosting all the NFT and assets needed in the game, and once these NFT are purchased, they interact with the game in the universe or the universe in various ways.

The market enables participants to manage and exchange satellite NFT, virtual real estate, and other assets such as in-game wearables and tools. It will also sell custom modules, satellites, vehicles, and roles. In addition, the market will offer modular skin, clothing, furniture, and various other upgrades. Other in-game assets will also be sold in our markets such as weapons, health upgrades, ship upgrades, etc.



6.4 Core Team

The core team of Last DAO has created an innovative ecosystem that combines advanced blockchain and artificial intelligence technologies by bringing together world-class technology experts, business strategists, and regulatory experts, aiming to provide users worldwide with a more efficient, secure, and intelligent service experience.



Bram Kornfeld/CEO

Master of Science from Cornell University and MBA from the University of Chicago. Previously held senior management positions at Wall Street, JPMorgan, Citigroup, and others, with over three years of technical and business experience in commercial transactions and risk and security control.



Harold Hababou/COO

PhD in Operations Research and Economics from the University of Chicago Business School, Master of Business Administration, with extensive experience in project development and management. He is a senior researcher at the North American Blockchain Association and has been focusing on and researching blockchain technology since 2013. With over 10 years of software development experience, he is an expert in distributed network security.



Chilworth/CTO

Having studied engineering at Arizona State University and collaborated with large multinational corporations including Qualcomm, Chilworth has 19 years of experience and achievements in development and product management, network engineering, and information security construction. Established a global blockchain laboratory.



Eric Benz/CFO

Professor of Big Data Research at Catalonia Institute of Technology and a serial entrepreneur. We have accumulated over ten years of experience in the global data services field and successfully established secure SaaS systems within the data industry infrastructure. Familiar with cryptography, skilled in algorithm and protocol design, previously employed at Sandbox, and also an active member of the global developer community.

▶ 7. Disclaimer

This document is only used to describe the assumptions and plans of the business model, business composition and development route of the Last DAO system, and no description should be considered or interpreted as a guarantee or commitment to the specific business of the Last DAO team. The document is for the purposes of information only and does not constitute any sale proposal, solicitation or offer of Token in Last DAO and its related companies. This document is not formed or understood as providing any sale, nor is it any contract or commitment in any form. The objectives listed in this white paper may change given the unpredictable circumstances. While the team will try to achieve all the objectives of this white paper, all individuals and groups will buy at their own risk.

The content of the document may be adjusted in the new white paper as the project progresses, and the team will make the update public through an announcement or a new white paper on the website. This document is used only for information from specific objects who actively request the project information and does not constitute any future investment guidance, nor is it any contract or commitment.

● Note:

A. Because there are many uncertainties in the digital currency itself (including but not limited to: the overall environment of countries treat the regulation of digital currency, industry incentive competition, and the technical loopholes of digital currency itself), the project will have certain risks.

B. Although the team will work hard to solve the problems that may be encountered in the process of advancing the project, there is still policy uncertainty in the future. We must understand all aspects of blockchain before supporting and participate rationally participate on the premise of fully understanding the risks. The team will strive to achieve the goals mentioned in the document, but based on the presence of force majeure, the team cannot make full commitment. Blockchain assets have large market price fluctuations, and the platform (including LastDAO) is not responsible for the market price fluctuations of any blockchain assets. Platform users should fully assess the risks of trading blockchain assets and carry out transaction behavior within an affordable range.

Both parties participating in the transaction are users of the platform, and the platform itself does not participate in the transaction behavior. The blockchain assets that generate transactions on the platform are owned by users and have no ownership relationship with the platform itself. The platform has no responsibility to provide the other party's account information to one party involved in the transaction.

Last DAO Clearly indicate that relevant intended users clearly understand the risks of Last DAO platform, and once investors participate in the investment

Understand and accept the risk of the project, and be willing to personally bear all the corresponding results or consequences.

Last DAO The team has the right to amend and change the contents of this white paper at any time.