# **ID LABS**

**White Paper** 

## Introduction

Web3 (also known as Web 3.0) is an idea for a new iteration of the World Wide Web based on blockchain technology. Some technologists have compared Web3 to Web 2.0, with the difference being whether data and content are concentrated in big tech companies. Some see Web3 as a change from the past when the web was largely in the hands of big tech companies. The term "Web3" was coined by Ethereum co-founder Gavin Wood in 2014. The Web3 idea garnered interest and attention from Crypto enthusiasts, large tech companies, and venture capital firms in 2021.

Web1.0 and Web2.0 refer to eras in the history of the World Wide Web. Web 1.0 refers roughly to the period from 1991 to 2004, when most websites were static pages and the vast majority of users were consumers of content rather than producers. Web 2.0 is based on the concept of "the Web as a platform" and is a social platform centered on user-created content. The most well-known examples of Web2.0 are forums, social media, web services, blogs, and Wikipedia. The Web 2.0 era is generally considered to have begun around 2004 and continues to this day.

When we entered the Web2, the Internet era, a lot of wealth was created. And that wealth can show up in the market capitalization of Internet companies. Apple, for example, has a market cap of about \$2.5 trillion. Google's market cap is \$1.5 trillion. Such wealth would have been unimaginable without the Internet. However, due to the emergence of the Internet, resources are used efficiently, so the liquidity of money is increased, which leads to a large number of wealth creation.

Web3 is to improve the shortcomings of Web2 on the basis of Web2, then Web3 is likely to create more wealth. The most important thing is that users can get more wealth through Web3. For example, create digital collections that can be sold without a middleman and make a 100% profit. Or you can build a game application and put it on the blockchain network without the need to go through the platform of the Internet company (for example, Apple iOS Store takes 30%, developers only get 70%).

Web 3.0 will provide a more user-centric environment, and the Internet giants of the past Web2 era will lose their dominance. Also, Web3 is a new thing. Although the emergence of Web3 may lead to the decline of Web2. However, when new technological things subvert old things, they often create more wealth than old things, for example, the Internet has created more wealth than in the past.

There is currently no accepted definition of Web3. Bloomberg believes that the definition of Web3 is very vague, but Web3 revolves around the concept of decentralization and often incorporates blockchain technology, such as various cryptos and irreplaceable tokens (NFTS). Web3 In addition to the above elements, there are also some people who believe that Web3 also needs to have DAO and DeFi. In general, the characteristics of Web3 show the following forms:

- By disintermediating the industry, reducing third parties (or eventually) and returning this value directly to users and suppliers in the network, society can become more efficient.
- With a new grid of more adaptive peer-to-peer communication and governance relationships between participants, organizations can be inherently more resilient to change.
- People, businesses, and machines can share more data and gain more privacy and security guarantees.

In addition, Web3 brings an extension of the Internet or Web to the blockchain. Developers can connect their applications to the blockchain using development kits provided by blockchain companies or crypto projects. This is achieved through the use of frameworks (i.e. development environments) and apis for interoperability. Users can experience the "Internet of Value" through Web3 based applications or Dapps. Web3 also makes blockchain-based applications more user-friendly, allowing more users to participate in the network and gain more value. For the scenarios involved in these applications, at present, the following schemes have the most potential:

• Decentralized autonomous organizations (DAOs) are organizations built from rules encoded as computer programs. Generally, DAOs are transparent, controlled by the members of the organization, and not influenced by centralized institutions; in other words, DAOs are member-owned communities with no centralized leadership. The DAO's financial transaction records and procedural rules

are maintained on the blockchain.

- Decentralized finance (DeFi) is another key concept in Web3. DeFi offers financial instruments by using smart contracts on the blockchain without relying on intermediaries such as brokers, exchanges or banks. DeFi platforms allow people to borrow or borrow money from others, speculate on price movements of assets using derivatives, trade Crypto, insure against risk, and earn interest in savings-like accounts. As of September 2022, the value of assets used for DeFi reached \$200 billion
- The DeFi application of cryptocurrency financial derivatives based on blockchain and smart contract technology will play a key role in building a mature and sustainable value investment in the growth period of cryptocurrencies. The current cryptocurrency market is still highly volatile, and this tendency leaves investors without any downside protection. This means that much of the risk that investors face is systemic market risk rather than specific risk, so having more diversification of cryptocurrency types does not solve the fundamental problem of extreme downside risk. The only viable strategy for most people seems to be buy, hold and pray; This requires a change in cryptocurrency financial derivatives into a golden age. The life cycle of cryptocurrency derivatives is crucial as they allow the creation of a diversified portfolio of cryptocurrencies that can hedge against market risks and extreme volatility. This is equivalent to investment managers in the financial market, who help users provide financial services and provide users with a variety of asset investment allocation plans. In the cryptocurrency market, users can independently implement investment through DeFi applications, financial services provided by smart contracts can solve trust problems, and settlement through smart contracts. To a large extent, artificial deferred payment is avoided.

In addition, through the data, we can more intuitively see that cryptocurrencies have promoted the development of the entire post-modern financial market, and there are already many institutions holding bitcoin and Ethereum, even altcoins, for investment and hedging, many of which are listed companies and large institutions. These evidences are enough to show that the market pattern of cryptocurrency as an investment tool is being opened, and DeFi is relying on the open, safe and efficient characteristics, as a low threshold entry-level investment platform for cryptocurrency investors to provide reliable trading services.

Based on a deep understanding of DeFi and Web3.0 patterns, the ID LABS project was launched.

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# The first chapter analyzes the background of project birth

In the development process of blockchain, DeFi plays an important role in the landing and promotion of technology. It connects traditional finance and the decentralized crypto world, bridging the inherent defects of financial development and bringing open, inclusive and inclusive financial services. After the prosperity of DeFi Summer in 2020 and the growth of the ecosystem, DeFi's ceiling in the recent period of time is becoming obvious, and the boundary of user expansion is too clear, the speed of product innovation is slow, and the economic model is not rich enough has gradually become a concern of the industry. At the same time, the value potential of Web3.0 is rapidly becoming prominent, and as a representative of the next generation of Internet, it has attracted traditional technology companies and the blockchain industry. The ecological rise and progress of Web3.0 is providing DeFi with soil for development and providing impetus for the upgrading of on-chain financial business models.

### 1.1 The advent of the Web3.0 era

Web3.0 (also known as Web3) is a concept about the development of the World Wide Web, primarily related to blockchain-based decentralization, cryptocurrencies, and non-homogeneous tokens. In Web3.0, users interact to meet their own needs, and use blockchain technology in the interaction, so as to achieve the creation, distribution and circulation of value. In this way, the whole process of user interaction and value circulation forms the Web3.0 ecology. Compared with the platform centralization characteristics of Web2.0, Web3.0 is committed to realizing a "decentralized" network ecology that is owned and co-built by users.

The diversified ecological components of Web3.0 make it possible to realize the immersive interactive network with user-centered participation:

• User identity: Users use wallets, master multiple avatars, and participate in the interaction of the Web3.0 network ecology.

- User interaction: User interaction through blockchain technology to achieve the creation, distribution and circulation of value.
- User organizations: Users form autonomous organizations that collaborate to create applications, tools, protocols, and more for the Web3.0 ecosystem.
- Underlying support: Blockchain from the technology layer, distributed storage from the data layer, together to provide underlying support for Web3.0.

Users participate in the interaction of the online world through virtual social avatars. In Web3.0, the collection of virtual avatars is the user Identity, which is truly owned and controlled by the user, also known as the decentralized identity DID(Decentrliazed Identity). Compared with the user identity in the Web2.0 era, the user identity of Web3.0 is very different in the aspects of identity control, openness, security, privacy and so on. The user identity of the Web3.0 ecosystem is decentralized, and its form of expression and use have the following characteristics:

- Decentralized: DID, as a collection of user identities, is fully controlled by the user and is not fully controlled by any one institution. The authentication of a user's identity by any one organization is only one element in the set.
- Form: The user's identity authentication information issued to him by various agencies is stored on a blockchain address that is fully controlled by the user, and this blockchain address is often the user's wallet address.
- Usage: Login of Web3.0 applications through the wallet. The experience is similar to that of wechat login in the Web2.0 era. The difference is that DID is owned by the user and mastered by the user, while wechat will be limited by the platform.

In addition, the value characteristics of Web3.0: openness, privacy and co-construction of the world, but also value the construction of the Internet, creating a theoretical foundation and practical feasibility.

### 1) Openness

The access of users in a certain Internet application "field" is fully free and the threshold is low; For example, users often use a blockchain account address to log in to the application on the chain, without registration permission, easy to operate;

User behavior is not restricted by third parties, Internet applications break the original so-called boundaries and barriers between the ecology, and under the principle of compound code operation logic, applications have a high degree of combination and compound. The most direct example is the so-called DeFi Lego, which allows any application to call or aggregate underlying protocols (such as DEX), and the synthetic asset platform to map real world assets onto the chain (no delivery relationship), which is equivalent to breaking the so-called online and offline and virtual and real boundaries. In addition, Web3.0 applications based on different infrastructures can be interconnected by "cross-chain" protocols, so users' behavior in multiple applications in the Web3.0 world can produce similar social relationship graphs, further enhancing the potential of data value mining.

To take a game application as an analogy, users can easily enter a game world without being restricted by third parties; Users can freely implant their favorite into the game, and even make the characters/images cross-platform/field action, and in the Web2.0 era, you can not decide the choice of characters, let alone the favorite characters into the World of Warcraft - this aspect of the connected platform is not difficult, just because the control is not in the hands of users. Of course, you can also trade equipment such as character skins (with the help of NFT), or even set up complex derivative markets for game equipment based on other DeFi protocols. In short, complete the living mode of Web3.0 across application platforms, across virtual and reality.

### 2) Privacy

Transfer of ownership and value of data. Data privacy has become the focus of global regulation. The current solution is to strengthen legal protection and make users aware that the theft of user data is illegal. The second is the introduction of privacy computing, through homomorphic encryption, multi-party security computing, trusted execution environment and other technologies, to ensure that the data is invisible in plain text during use. In the Web3.0 era, users will tend to protect personal data privacy in a more thorough way, resulting in a transfer of data ownership and value. With the decentralization of applications, when on-chain data is searchable, user behavior, generated data and even application protocols also need to be protected by privacy. Privacy protection is multi-faceted, including the basic blockchain platform privacy protection, stored data privacy (distributed storage), user private key management, anonymity protocol and other aspects.

3) DAO: A networked world of Co-construction, Co-governance and Shared

The construction of Web3.0 ecology, such as applications, tools, protocols, etc., cannot be separated from collaboration, and the organizational form of orderly collaboration among users is called DAO(Decentralized Autonomous Organization). The DAO is a decentralized organization, in which users are organized by a common goal, using blockchain technology and smart contract procedures to formulate and implement rules, so as to achieve a form of community self-governance that can ensure fairness. The content creation of users in Web2.0 Internet applications is limited in many aspects (limited by platform review and cross-platform restrictions), and the restrictions on community governance are even more severe, thus limiting the value capture of users in the economic sharing of creators. The Web3.0 openness principle will break down these limitations, while the incentives of blockchain effectively feed the value of the content economy back to creators.

Blockchain technology is the core technical basis for the DAO form to be established. Organizational rules are written through blockchain smart contracts and programmed to be enforced. At the same time, the rules are stored on the block and cannot be easily tampered with. In the process of the establishment of DAO, value creation, distribution and circulation will also occur. Daos are built in user interactions and continue to create value in those interactions. DAO distributes the value by issuing project tokens and NFT, and users enjoy the governance and profit rights of DAO. DAO tokens and NFTS can also be circulated in DeFi. DAO, as an organizational form in Web3.0 era, is quite different from the traditional organizational form in organizational structure, organizational rules and rights ownership. DAO has the following advantages: Organizational rights are distributed to all organizational members in the form of organizational tokens, thereby realizing community autonomy and equity distribution, which greatly stimulates the participation and enthusiasm of organizational members, and plays an important role in promoting the construction of Web3.0 social projects.

# 1.2 The rise of Space id

When we talk about Web3.0, we're talking about a generation of the Internet. The main goal of Web 3.0 is to provide users with a more decentralized, secure and privacy-protected online experience.

Web 3.0 emphasizes the application of blockchain technology, which is a distributed database that records all transactions that occur on the network and ensures that the data is transparent and immutable. In this way, Web 3.0 can provide a more secure and reliable way to conduct transactions and store data

Compared to the traditional Web, Web 3.0 also focuses on personal privacy and data control. Users can take better control of their data and decide where to store it and with whom to share it. This enables users to better protect their personal information from misuse by third parties. Web 3.0 also emphasizes decentralization. Whereas the traditional Web was often controlled by a few large platforms, Web3.0 encourages decentralized applications and services. This means that no single authority holds all the power. Instead, functions are implemented through open protocols and smart contracts. This decentralized structure can improve the resilience and sustainability of the Internet.

The benefits of Web 3.0 include increased security and privacy protection, better data control, and a more decentralized network structure. It seeks to break the limitations of the traditional Internet and provide users with a more free and secure online experience.

In Web 3.0, digital currency has become an important application area. By using cryptocurrencies, we can achieve more secure, fast and convenient transactions. The rise of digital currencies such as Bitcoin and Ethereum has opened up entirely new ways of payment and value exchange. We can buy goods and services with digital currency, and we can also participate in decentralized finance (DeFi) projects, enabling operations such as investments and returns. At the same time, the development of super wallets in the field of digital currency is also closely related to Web3.0. A super wallet is a special type of digital currency wallet that is not only used to store and manage digital assets, but also offers many additional features. Super wallet has the characteristics of high security, user friendliness and convenience. We can use the Super Wallet to check account balances, make transactions, participate in DeF projects, etc. They provide us with a more convenient way to manage and use digital currencies.

The potential for Web 3.0 is huge. We can expect more applications based on blockchain technology to emerge and change every aspect of our lives. For example, decentralized social media platforms can give users more control and privacy protection, and decentralized marketplaces can provide a fairer and more transparent trading environment. In addition, Web 3.0 can also play an important

role in supply chain management intellectual property protection, medical records management and other areas.

With the continuous development of Web3.0 and digital currency market, more and more projects have begun to emerge. Among them, the Space ID token was incubated by EuroNext and issued on Binance Exchange law on March 22, a hundredfold increase, becoming one of the most high-profile digital currency projects in the market.

Euronext is a pan-European market infrastructure group that operates regulated and transparent equity and derivatives markets, is one of Europe's leading electronic fixed income trading markets, foreign exchange and power trading markets, and is the world's largest debt and fund listing centre. Euronext also offers advanced market data services, a range of indices and index solutions, post-trade infrastructure and innovative corporate and investor services.

Euronext has been listed in Paris, Amsterdam, Brussels and Lisbon since 2014. More than 1,930 companies are listed on Euronext. Historical volumes in Euronext's cash and derivatives markets. Download, exceeding the spot market volume and derivatives market volume from 2012 to date.

Founded in the third quarter of 2022, Space ID has taken the market by storm with its.bnb domain name service. Since its launch in September, the service has quickly gained more than 447,000 registrations and 257,000 unique holders within six months. With successful integration with more than 100 leading projects and protocols, including Bsccan and Trust Wallet, BNB domain Services has further strengthened its position in the market.

As the world moves towards the Web3 era, decentralized identity has become an increasingly critical basic component of Web3, a large number of domain name service providers have emerged in the market in a short period of time, and it has become commonplace for Web3 users to have multiple identities. However, searching, registering, and managing different domain names is a headache no matter what Web3 domains a user owns, and the existing NFT market doesn't work well for trading domain names - just like ENS users have to set up their primary domain or controller on the ENS app. .bnb owners will need to list the.bnB domain they want to sell on the NFT marketplace on the BNB Chain...... Therefore, Space ID provides a one-stop Web3 domain name and identity platform for discovering, registering, trading, and managing Web3 domain names, it also includes a Web3

domain SDK & API for cross-blockchain developers, and provides a multi-chain domain name service for everyone, making it easy for everyone to create a Web3 identity.

## 1.3 Space ID and Web3.0

Space ID aims to be the gateway between decentralized identity and the physical/digital world in the Web3.0 era and is the key to finding solutions to all the current challenges facing domain name services.

1) One-stop Web3 domain name and identity platform

The Space ID one-stop Web3 domain name and identity platform allows users to manage all aspects of all domain names in one interface, eliminating the need to use multiple products for different domains. It mainly supports the following four aspects:

- Discovery: As a central hub, users can search for the desired domain name in all supported top-level domain names (TLDS), as well as discover popular domain name collections, while also supporting automatic prompts, quick query of domain registration status and other features;
- Registration: Users can register all Web3 domain names on the Space ID mainnet, ".bnb "and".eth "domain names will be the first two top-level domains supported in the first version of the mainnet;
- Trade: A marketplace specifically designed for trading Web3 domain names with aggregated liquidity from other NFT markets such as OpenSea;
- Administration: A single integrated portal for managing the renewal, logging, and ownership of all Web3 domain names for users;

#### 2) Multi-chain name service

Space ID launched the ".bnb "name service on BNB Chain and built a community of 168,000 unique domain name holders within 6 months, followed by the launch of the multi-chain name service.

In addition, supporting more top-level domains and blockchains has always

been one of Space ID's priorities, and Space ID 2.0 will not only continue to focus on the ".bnb "name service, but will also support more top-level domains. This includes, but is not limited to, the new top-level domains that the Space ID team will launch, in addition to the fact that Space ID has already reached out to many industry partners on various blockchains, and we look forward to seeing other domain name providers join in to provide multi-chain domain name service capabilities.

### 3) Web3 Domain SDK & API

Space ID has always supported a unified SDK for all Web3 DApps, and "One SDK for all" is one of its key features. This is designed to achieve architectural unity to simplify the integration of Web3 services, eliminating the need for developers to deal with multiple protocols, saving time and reducing compatibility risks. In Space ID 2.0, the Web3 Name SDK has more power than ever before - projects can leverage custom domain names to enable communities and partners to better engage with users. In addition, Space ID 2.0 adds an all-in-one API on top of the SDK to serve as a more comprehensive platform for project owners to integrate Web3 services into any application, which means that Space ID partners only need to integrate the Web3 Name SDK. You can connect to all the domain data owned by the user.

Digital currency is an area full of potential and opportunity. With the rise of Web3.0, we are moving towards a decentralized, secure and privacy-protected Internet era The development of digital currencies is changing the way we pay, the way we exchange value and the financial ecosystem We are witnessing the emergence of super wallets that provide us with secure, convenient and user-friendly digital asset management tools. The development of superwallets is closely linked to Web 3.0, providing us with more choices and convenience, allowing us to better manage and use digital currencies

In the future, we can expect more innovations and projects to emerge under the framework of Web 3.0. Areas such as decentralized social media, marketplaces, supply chain management and medical records management will benefit from the features of Web 3.0. This will lead to a fairer, more transparent and safer experience, with a positive impact on our lives and work. The future of digital currencies is promising, and each of us can participate and contribute to a more open, free and innovative financial system.

Space ID is one of the representatives of the Web3.0 field.

### 1.4 DeFi market boom

Since the summer of 2020, DeFi has grown at an alarming rate. The total lock pricing (TVL) deposited into the DeFi project is \$1 billion. According to DeFiLlama, today, the total lock-in value (TVL) figure exceeds \$50 billion, peaking at more than \$181 billion in December 2021.

So how does DeFi conform to the principles of Web 3.0?

- Unmanaged: Unmanaged means that the decentralized applications you interact with don't control your data only you do.
- Public: Unlike the traditional financial system, anyone can access it. No gatekeeper will work hard to find reasons to deprive people of their rights or limit the number and location of assets you can send.
- Transparency: Any transaction is traceable and can be checked by anyone, and the application code used to perform financial operations is open source.
- Decentralization: Transactions are verified by a global network of computers (aka nodes) running blockchain software. This ensures that centralized parties do not gain control.

In the DeFi space, decentralized applications are becoming more complex and entering new areas. Here are some popular application types:

- Decentralized Exchange (DEX): DEX is a popular online exchange that directly connects users so they can trade cryptocurrencies with each other without trusting any intermediary's funds, whether it's USD for Bitcoin or ether for Bitcoin.
- Lending platforms: These platforms use smart contracts to replace intermediaries such as banks that manage lending.
- Derivatives: Futures and options exchanges built on top of decentralized exchanges are the next big thing.
  - Prediction Markets: The DeFi version of prediction markets aims to provide

the same functionality, but without intermediaries.

• Stablecoins: Stablecoins play an important role in DeFi, acting as a bridge between the Shinseki digital economy and traditional finance. For example, Tether (USDT), Binance USD (BUSD), and USD Coin (USDC). Tether's USDT is the most used stablecoin of all blockchains, controlling approximately 47.16% of the market. Recent data from DeFi Llama shows that USDT is DeFi's leading stablecoin in terms of TVL, daily active accounts, and daily volume in 2022.

DeFi is the first real application in the decentralized world since Bitcoin. Over the past year, the DeFi ecosystem has experienced explosive growth. It is not difficult to find that in the process of investors' pursuit of high returns, aggregate income platforms have become a mainstream direction. However, compared with the traditional financial market, DeFi is still in a very niche stage, which is very important because the user's use threshold is very high. For most users, to use DeFi, it is necessary to face wallet registration, wallet key management, wallet and protocol interaction, and then it involves a variety of more complex interactions such as trading, mining, and synthetic assets, and various arbitrage strategies and mining strategies are too difficult for ordinary users.

These operations are nothing for the core players, but for the large number of ordinary users, it is a very headache. These are all issues that need to be addressed if you want regular users to participate in DeFi. In addition, the DeFi project is growing so fast that even core DeFi users, let alone the average user, can't keep up with the pace. For example, the recent liquidity mining project, there are fresh plays out every day, ordinary users have no way to start, do not know how to choose. In addition, not only the use of the threshold is high, the selection threshold is high, and the cost threshold is also very high, in the peak period of mining, the cost of hundreds of dollars is unbearable for ordinary users. Finally, what is more frightening for ordinary users is that they do not know the potential risks involved, which may lead to significant losses.

Innovative transactions provide a more convenient, secure and low-cost entry point for more users to participate in DeFi. In the Internet age, aggregators capture the vast majority of value. We predict that DeFi will form the aggregation effect of the Internet era through innovation. Using DeFi's composability and permissionless nature, we are constantly looking for better revenue strategies to help users increase revenue. Therefore, DeFi's model innovation will mature and explode in the future for a long time, and create higher value returns for users and investors.

Based on the above background, Space ID has derived the ID LABS ecosystem, providing users with a richer application scenario and a more convenient, efficient and secure digital currency service.

Through innovative consensus algorithms, mainchain-sub-chain multi-chain structure, mainchain-main cross-chain structure, developer-friendly smart contracts and other core technologies, ID LABS builds a digital currency investment system with ubiquitous value circulation. Through the creation of ID LABS protocol and the comprehensive use of cryptography and blockchain technology, ID LABS supports decentralized consultative governance capabilities at the technical level to achieve trusted and efficient custody investment of Token assets, thus solving the core problems faced by multi-transaction mortgages. This innovative asset custody and mortgage investment model To bring disruptive innovation to the market, users' assets can be stronger than bank-level security, so that users can choose more projects to invest in the platform, and obtain high returns.

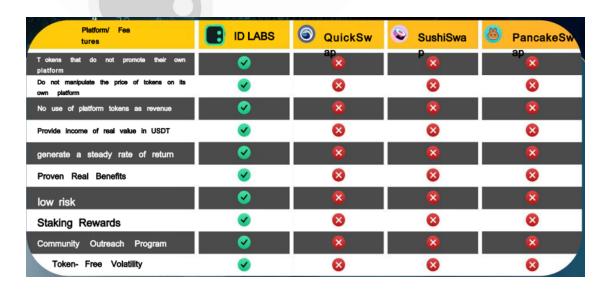
With the technical advantages of the ID LABS protocol, ID LABS can achieve decentralized security and trust when building relevant platforms, and also maintain the high performance of millions of concurrent transactions. At the same time, the underlying blockchain model with super nodes and global custody and transactions has the business, technical and regulatory capabilities of traditional financial levels. The user's assets are fully managed and cleared through decentralized blockchain technology, providing transparency services for individual and institutional cryptocurrency assets.

# **Chapter 2 Overview of ID LABS project**

### 2.1 ID LABS Introduction

The ID LABS ecosystem is a Space ID-based ecosystem that aims to provide users with more comprehensive and diversified services. Through the ID LABS ecosystem, users can conduct digital asset management, trading, investment and other operations, while also participating in various community activities, to get more rewards and benefits

In addition, the ID LABS ecosystem will continue to introduce new application scenarios to provide users with more convenient, efficient and secure digital currency services. We believe that with the continuous development and growth of the ID LABS ecosystem, Space ID will become a shining pearl in the digital currency market and bring users a better digital currency experience.



- ID LABS brings the financial complexity of Al-managed funds to Al income aggregator portfolio management;
- Investing in a pool of high-yield liquidity to invest in financial transactions, such as trading contracts based on quantum algorithms, to maximize returns;
- ID LABS was launched by Decentralized Finance Laboratories Limited in September 2021 and has been fully audited by CertiK and Coinscope.

In the digital currency and DeFi markets, ID LABS focuses on portfolio management with high growth potential:

- Create a one-stop aggregator, reduce the user threshold, to meet the full range of capital investment needs. At present, it is difficult for users to spend a lot of time to study each DeFi project and operate, or spend time to operate in the secondary market, but the financial services of token value-added class are their needs, so ID LABS has launched a one-click aggregator transaction service for them that meets their habits.
- Make full use of community power to find the best strategy in the market. We allow users to participate in community governance by providing policies through digital asset management, trading, and investment, and the selected policy providers can share the benefits of the policy pool, which will effectively encourage users to provide policies. A good strategy will attract more users.
- In the product design more close to the user. The high threshold of DeFi has always blocked the entry of many users. ID LABS reduces the threshold of user participation by simplifying operation and design optimization. For example, in the early stage, we launched on the mainstream public chain, and the second stage realized the aggregation of DeFi, which is further optimization on the basis of laying a good foundation. Help users better participate in the quantitative world based on artificial intelligence. Users can enjoy various DeFi services without hopping across multiple platforms. At the same time, we connect various products through innovation to maximize user benefits in a safer and more efficient way.

ID LABS believes that real asset freedom comes from the privacy and security of information, and only let the asset flow in its own will, and always in a safe place, is the real asset freedom. Blockchain is not meant to be different, in addition to making assets more free, but also to make the experience more human.

In order to realize the ultimate freedom of digital assets, create a truly decentralized distributed future "digital financial services ecosystem", so that blockchain technology and digital asset applications can be popularized in a wider range, according to the research of existing technologies, combined with the characteristics of blockchain decentralization and its application scenarios, therefore, ID LABS will provide anonymous encryption services to all people. Let modern finance no longer be just a tool for the rich to accumulate wealth, but a key for the common people to gain wealth freedom.

### 2.2 Value embodiment

ID LABS has the following core values:

- ID LABS 'unique transaction to obtain computing power, regular zero clearing mechanism, so that the bottom pool of liquidity unlimited cycle.
- By weighting index contracts across multiple major currencies, ID LABS can effectively smooth out market volatility, creating more stable and less risky investment opportunities.
- ID LABS covers digital asset management, trading, investment and other major sector functions, one-stop service artificial intelligence quantitative trading market.

At present, it is difficult for users to spend a lot of time to study and operate each DeFi project, or spend time to operate in the secondary market, but the financial services of token appreciation are their needs, so ID LABS can provide them with one-stop digital asset management, trading and investment services in line with their habits.

ID LABS leverages the power of the community to quickly discover the best strategy in the market. Allowing users to participate in community governance by providing policies through digital asset management, trading, and investment, and the selected policy providers can share the benefits of the policy pool, which will effectively motivate users to provide policies. At the same time, ID LABS continues to innovate in digital asset management, trading, and investment, and studies on-chain unsecured credit protocols based on trusted prophecy machines. The purpose is to obtain user credit scores after desensitizing centralized data through trusted computing, and to connect off-chain credit behaviors with on-chain

financial behaviors. In this way, open a new on-chain digital asset management, trading, and investment market, and drive the improvement of the scale of on-chain digital asset management, trading, and investment.

In addition, we also extend other DeFi ecosystems, including NFT, LP, leverage, contracts and other liquid assets, so that deposit users can obtain more benefits by providing liquidity, it is relatively friendly, this liquidity protocol puts cryptocurrency on the smart contract, so that deposit users can choose freely. The ID LABS protocol will allow all community users to acquire other cryptocurrencies and use a series of decentralized financial instruments that will be launched later in the ID LABS ecosystem, such as: liquidity mining, digital asset management, trading, investment, prophecy machine, aggregate wealth management, machine gun pool and other decentralized financial services, which will be opened and made available to community users.

# 2.3 Single market

ID LABS will provide a unified screening marketplace for digital asset management, trading, and investment, allowing users to quickly and efficiently select the best projects and the best return mix, helping constant investors gain basic value capture capabilities in a complex market.

- 1) Platform data monitoring
- 2) In order to better help constant investors achieve the goal of digital asset management, trading, and investment income, ID LABS provides data monitoring systems and solutions for the entire market to achieve:
  - Discover the most popular project collections, market rankings and more
  - Track cancellations, floor prices and trade analysis
  - Liquid assets inquiry

ID LABS data monitoring system can analyze and disclose the specific information of various digital asset management, trading, and investment project collections, and can also search to understand the specific data and related information of digital asset management, trading, and investment projects that users are concerned about. Users can use some key indicators given on the digital

asset management, trading, investment project data monitoring system to analyze the project.

2) Follow up whale users buy in

ID LABS has a tracker function, which can track the transactions of whale users in the market in real time, and show the data of the more popular projects in the market at different points in time, including the volume of Whale trading, who participates in the transaction and TVL. In this process, users can selectively buy and trade in the market.

3) Second hand level new currency list

ID LABS first monitored the bottom pool of the central exchange (the currency of digital asset management, trading, and investment projects), and sorted out the corresponding information, including name, bottom pool price, coin address, project party and other information, as well as the bottom pool test score, such as the Pixiu test.

# 2.4 Core advantage

The core strength of ID LABS lies in the following basic capabilities:

- · recession proof
- Fight inflation
- · Protection against asset depreciation
- Avoid risk
- · Dollar pegged incentive
- Safe haven asset
- Sustainable return

Security is a top priority for ID LABS, and security audits are especially valuable for DeFi projects that expect to process blockchain transactions worth millions of dollars or large numbers of participants. ID LABS has a smart contract security audit

system, which typically follows a four-step process:

- Submit smart contracts for initial analysis
- The project team makes changes based on the problems found
- The audit team submits their findings to the project
- The audit team issued its final report

In addition, ID LABS is fully audited by Certik and Cyberscope.

Certik is a pioneer in blockchain security, leveraging best-in-class formal verification and AI technology to secure and police blockchains, smart contracts, and Web3 applications. In March 2022, Certik merged the CB Insigh Blockchain 50 Award (listed as the only blockchain security company) and the Globee Award - the Global Excellence Award for Cybersecurity

- Serving 1,800 customers
- 31,000 vulnerabilities detected in blockchain code
- \$310 billion worth of crypto assets are protected

Cyberscope is one of the leading and recognized auditors in the crypto space, performing contract-only audits across all different networks to deliver cutting-edge security solutions that make Web3.0 a safer place.

- Serving 1050 customers
- KYC has more than 300 teams

# **Chapter 3 ID LABS business network**

# 3.1 DeFi + Artificial Intelligence (AI) = ID LABS

Ai Portfolio Management Portfolio planning. Use on-chain market data and generate forecasts of price trends and volatility to help plan and build long-term investment strategies for ID LABS users within limited volumes and risk levels. It also has a strategy evaluation system that evaluates different competitive strategies and the parameters of those strategies, deployable smart contracts to provide liquidity to portfolio instruments, and executes accordingly.

ID LABS has deployed an artificial intelligence ecosystem to support trading decisions on ID LABS that will help increase value and returns for users by providing liquidity to the DeFi marketplace.

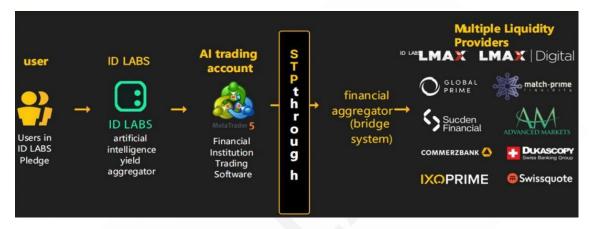
- 1) Artificial Intelligence portfolio Management
- Weighted evaluation: Relying on the same data and forecasts, indicating the short-term weight of the liquidity pool, helping the portfolio balancer adjust the portfolio inventory according to short-term risks.
- Sentiment Watch: Artificial intelligence (AI) monitors news feeds about specific DeFi projects, online media and social media perceptions, and non-DEFI

related general perceptions.

ID LABS has deployed an artificial intelligence ecosystem to support trading decisions on ID LABS that will help increase user value and returns by providing liquidity to the DeFi marketplace.

2) Financial transaction process based on quantum algorithm

ID LABS AI income aggregator based on quantum algorithm financial transaction process:



3) Artificial intelligence is based on quantitative trading

Quanta will build an infinite future, and ID LABS is focused on researching quanta and algorithms that can beat the market.

- High-frequency trading: algorithmic financial trading strategy characterized by high speed, high turnover, and high order to trade ratio.
- Market analysis: Generate more accurate results and ensure that the results are trusted when making data-driven decisions.
- Machine learning: Using advanced algorithms to parse data, learn from it, and use it to discover meaningful patterns of interest.
- Neural Network Artificial Intelligence: Exponentially reduces AI model training and significantly increases the speed of informed decision making.
- The development of complex quantum algorithms: Using behavioral data to increase customer engagement and react faster to market fluctuations Analyze massive amounts of data. Such as financial news, price patterns, fundamental news,

cyclical events.

With ID LABS, you can have the perfect experience of enjoying artificial intelligence (AI) models. Such as one-click finance, faster decision making, 24\*7 availability, improved efficiency, and profit generation based on high-yield liquidity pools and quantum transactions.

### 3.2 ID LABS AMA

From Bancor to Uniswap, AMM technology provides a new foundation for instant liquidity in any digital asset. AMM will not only trigger price action in previously illiquid markets, it will do so in a highly secure, globally accessible and unregulated manner. AMM has achieved significant growth to date, with innovations around improving capital efficiency and reducing volatility losses providing the necessary infrastructure to attract larger liquidity providers from traditional markets.

ID LABS believes that the most basic curve shape of AMM has been finalized, and subsequent innovations should achieve "strategy" on the basis of the basic curve shape of AMM, so we achieve centralized custom mobility on AMM. In order to solve the limitations existing in the traditional AMM model, ID LABS has introduced the concept of virtual reserves. In the following, we will analyze the automatic defined liquidity of ID LABS through an example.

In the traditional AMM model, Alice injected 500,000 DAI and 333.33 ETH into the reserve pool at one time, with a total value of \$1m, providing inter-zone (0,\infty) liquidity, but in reality the price range of ETH is localized over a long period of time. This selfless provision of liquidity across the region is a huge waste of capital efficiency.

The so-called concentrated liquidity is to let LP choose its own volatility range and only provide local liquidity within the range. For example, Bob believes that the price range of ETH in the future is (1000,2250), and if it really fluctuates in this range in the future, Bob hopes that he can get as much income as the millionaire Alice. Bob only needs to invest 91,751 DAI and 61.17ETH for a total of \$183,500, which is much less than Alice's actual investment. Let's look at the graph below to explain why.

$$x_c y_c = (x_b + 61.17)(y_a + 91751) = x_b y_b$$
  
 $y_b = 2250x_b$ 

The

$$D=x_by_b=166678636.343 Imes 166665000=500000 Imes 333.33$$

That is, Bob's virtual curve (D value) is almost the same as Alice's.

The above calculation process is a kind of proof by contradiction, in fact, the user Bob will provide his own demand input to the system algorithm, including the predicted price range, the current price point, and eventually the size of a virtual reserves (that is, the virtual curve D value). With the determination of the virtual curve expression, it is easy to calculate the coordinates of the three definite points a, b and c, and then calculate x\_{real}=61.17 and y\_{real}=91751. At the same time, it can also be seen that once the future price exceeds the range, one of Bob's assets will completely disappear.

$$i_c = \left\lfloor \log_{\sqrt{1.0001}} \sqrt{P} 
ight
floor$$

The global states feeGrowthGlobal0( $f_{g},0$ ) and feeGrowthGlobal1 ( $f_{g},1$ ) - $f_{g}$  are used to calculate the total fee return from a global perspective. For example, when a transaction occurs within a tick, the system calculates the transaction fee:

$$f_a(i) = egin{cases} f_g - f_o(i) & i_c \geq i \ f_o(i) & i_c < i \end{cases} \ f_b(i) = egin{cases} f_o(i) & i_c \geq i \ f_g - f_o(i) & i_c < i \end{cases}$$

The variable  $f_{a}$  is the fee statistics of all the intervals higher than i tick, and  $f_{b}$  is the fee statistics of all the intervals lower than i tick. Therefore, in the above general formula, we subtract all the accumulated fees lower than  $i_{a}$  from the global total accumulated fees  $f_{a}$ . Subtract all the accumulated fees above the upper bound  $i_{a}$ , which is the accumulated fees between  $(i_{a}$ ,  $i_{a}$ ).  $f_{a}$ 0 can be understood as a compute unit that accumulates the handling fee up to i tick.

During its initialization, we agree as follows:

Again, the calculation of  $f_{a}$  is divided into two paragraphs, which can be understood as—

- If the current tick is equal to i or higher than i, subtract the service fee f\_{0}(i) of "accumulated to i tick" from the global total service fee f\_{g}, and the rest is the fee statistics of all the ranges higher than i tick.
- However, if the current tick does not reach i and is defined as 0 according to the initialization of f\_{0}, fee statistics for all ranges higher than i tick have not been generated and are 0.

- If the current tick reaches or exceeds i, f\_{0}(i) represents the fee accumulated to i, that is, the fee of all the ranges lower than i tick;
- If the current tick has not reached i, the fee statistic value for all ranges below i tick is the current global variable f {g} (the current total fee).

Generally speaking, the system algorithm needs to count the accumulated fees within a certain range,

- If the current tick is already inside the range, that is,  $i_{l} \le i_{l} \le i_{l}$ , you only need to subtract the total handling fee from the global handling fee  $f_{l} \le i_{l}$  for all ranges less than  $i_{l} \le i_{l}$ .
- If the current tick is not inside the range and is lower than the lower bound i\_{|}, it indicates that no transaction has been generated within the (i\_{|},i\_{u}) range, and no fee has been generated, so the cumulative amount within the range is 0.
- If the current tick is not inside the range and is higher than the upper limit i\_{u}, you need to remove the accumulations of both ends from the global total, that is, subtract all accumulations below i\_{l} from the global f\_{g}, and then subtract the accumulations from i\_{u} to the current tick range.

The process of processing fee calculation by ID LABS is a kind of idea from micro to macro. It divides the space into discrete Spaces, and each time scale only generates transactions in a discrete space, thus generating commission fees. Each

micro tick records its own total accumulated commission fees in the interval from the lowest tick to itself. These formulas are then invoked repeatedly to calculate various macroscopic results.

ID LABS has changed the traditional AMM setting of LP behavior, and no longer calculates fee income for each LP based on Global Liquidity and Share. For ID LABS, it only pays attention to how much "virtual" liquidity exists in each tick, and how much fee is generated by these virtual liquidity, and calculates the fee value corresponding to the unit virtual liquidity. Under this space-time, we cut the perspective to each LP. For any LP, there will be a "Position" interval setting, which provides virtual liquidity in the interval set by itself, which may be a tick or several consecutive ticks. From the simplest "one tick" perspective, the system will remember the virtual liquidity value injected by each LP in this tick in the same time and space, and determine a proportion for them, so as to share all the fees accumulated in the tick.

In practice, LPS also have complex behaviors, such as the time of injection/exit and the range/tick of selection. But the strength of ID LABS is that it uses global computing to mask out the single LP perspective and only cares about the ticks perspective and Position perspective. After defining the above series of global state variables, the occurrence of each swap transaction in ticks was carefully recorded, and only the size of virtual liquidity in each tick was recorded, so as to provide the swap transaction formula and how to distribute the transaction fee to all LPS participating in the tick after swap. The complex behavior of LP is reflected in the discontinuity of space and the disunity of time. ID LABS also introduces a global variable at the Position level to record for each identity (address) the uncollected fee for range/tick entry/exit (" setPosition ") fee/feeGrowthInside) to ensure that later LPS do not participate in the revenue distribution that previous LPS have accumulated.

ID LABS will be presenting ID LABS at the AMA in collaboration with the crypto and blockchain communities



# 3.3 Flow mining

Liquidity in the DeFi field refers to the process of obtaining income by depositing or lending specified token assets in accordance with the requirements of DeFi products with mining mechanisms to provide liquidity for the fund pool of the product. In the future, ID LABS will build a liquidity mining agreement, in the ID LABS agreement, the revenue is USDT, which represents the governance rights of the platform.

The ID LABS Liquidity Protocol will be based on a protocol on Ethereum to establish pools of funds with algorithmically calculated interest rates based on changes in the supply and demand of assets. Suppliers and borrowers of assets interact directly with the agreement to earn or pay a floating rate. It can also be used as a powerful tool (as opposed to other methods, such as directed airdrops).

### 1) Supply assets

In a peer-to-peer platform, one user's assets are lent to another user, and unlike an exchange peer-to-peer platform, the protocol aggregates each user's supply, providing more liquidity and keeping the funding system balanced. Borrowers and lenders can obtain rewards (interest) when circulating digital currency and complying with the corresponding agreement. At the same time, exchanges can "liquidate" balances to incrementally adjust agreements or reward users, potentially unlocking entirely new business models for the ecosystem.

### 2) Borrowed assets

In the future, the ID LABS protocol will allow users to borrow from the protocol effortlessly with a Token as collateral for use anywhere in the ecosystem. Each currency market has a floating interest rate set by market forces that determines the cost of mining each asset. The assets held in the agreement have a mortgage factor ranging from 0 to 1, and the liquidity and value of the underlying assets determine the size of the mortgage factor. The amount of collateral multiplied by the mortgage factor is equal to the amount available to the user.

#### 3) Interest rate model

Instead of negotiating with suppliers, borrowers, terms, and interest rates, the agreement uses an interest rate model that equalizes interest rates based on supply

and demand. According to economic theory, interest rates (the "price" of money) should increase with demand; When demand is low, interest rates should be low, and vice versa. The utilization rate U for each market a unifies supply and demand into one variable:

$$U_{a} = \frac{Borrows_{a}}{Cash_{a} + Borrows_{a}}$$

The demand curve is encoded by governance and expressed as a function of utilization. For example, the Borrowing Interest rate might look like the following: Borrowing Interest Batea=2.5%+Ua\*20%, the interest rate earned by the supplier is implied, equal to the borrowing rate multiplied by the utilization rate.

### 4) Liquidity incentive structure

The ID LABS protocol is not liquid; instead, it relies on the interest rate model to motivate it. During periods of extreme demand for assets, the liquidity of the protocol (tokens available for withdrawal or lending) will decline; When that happens, interest rates rise, boosting supply and keeping inflation in check.

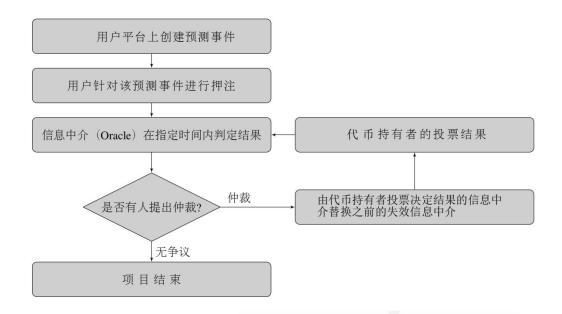
### 3.4 Oracle machine

In the future, ID LABS will build its own prediction system based on the world's top prediction machine model.

The outcome of the predicted event will be automatically determined by a third party Oracle. This ensures the efficiency of the result determination. At the same time, ID LABS borrowed the idea of ID LABS and Gnosis, when Oracle fails or is wrong, token holders can exercise their voting rights to make the final ruling on the relevant prediction events. The Oracle of ID LABS is fungible, and if the user still disputes the outcome of the arbitration request vote, the user can continue to pay the deposit token for the next round of arbitration request. Since there are more and more tokens in each round of arbitration, and the holders will maintain the accuracy of the ID LABS platform to protect their token value, the vast majority of holders will theoretically make a fair ruling. ID LABS will introduce an Oracle abstraction layer to unify a third-party Oracle and a decentralized, vote-based Oracle. This technology allows ID LABS to combine the benefits of existing decentralized prediction markets.

The algorithm mechanism of ID LABS is as follows:

- Users create predicted events on the ID LABS platform
- Users use tokens to predict and price the probability of each outcome
- •When the specified time arrives in the future, Oracle will automatically obtain the result of the event from the outside and determine the outcome of the predicted event
  - Agreement ← F alse
  - while Agreement 6 = T rue do
  - The results will be published in the forecast market for 48 hours
  - if the arbitration result is valid and there is no objection then
  - Agreement ← T rue
- The party that predicted correctly will be able to claim their original tokens and rewards
  - else
  - Agreement ← F alse
- Users who dispute the results file a request for arbitration by paying time-deposit tokens
  - end if
  - end while



In addition, ID LABS is committed to building a free and low-cost prediction marketplace. Oracle, as the referee of the ID LABS platform event, in order to encourage more Oracle to provide reliable and stable services for ID LABS, Oracle on the platform will receive a small portion of the predicted event tokens it determines as an incentive (service fee). At the same time, the holders are the maintainers of the ID LABS platform, and in order to motivate the holders, the platform will deduct a token fee from each predicted event. These token fees will be distributed to the holders as rewards. For the specific rate, we will set an initial value when ID LABS is launched. Assuming that the token service fee paid to Oracle is Ff (percentage), the token transaction fee paid to the platform is Fs (percentage), and the total loss of the failed party is Sloss, then the Swin of the predicted correct party will be:

Swin = Sloss 
$$\times$$
 (1 - Ff - Fs)

In the future, this rate will be dynamic, and we will create predictive events for this token rate on ID LABS, allowing all holders to vote together to determine the best rate.

# 3.5 Aggregate finance

In the future, ID LABS will build an aggregate financial management system to provide strong liquidity support for the market.

Public Chain underlying system: completely based on blockchain technology,

based on public chain in the early stage, and will create its own public chain underlying system in the later stage.

- Capital control: Assets are controlled by individuals. Through the application of aggregate financial management model, users can freely shuttle through the DeFi world.
- Efficient settlement: Settlement is completed in real time through smart contracts to achieve more efficient, convenient and secure settlement.
- Reduce the cost of trust: Reduce the cost of trust between individuals by minimizing reliance on trust.

### 2) Financial management system

- Effective use: The introduction of hourly compound interest rules, effective use of funds, to ensure that within the scope of risk control, to maximize the return on investment.
- Fund freedom: For funds and earnings, users can redeem at any time, and truly control their own funds.
- Flexible adjustment: Increase user's income through real-time switching, select high-yield DeFi projects, and adjust investment in real time.

The DeFi LP pool will switch funds to DeFi projects with higher returns for liquidity mining according to the level of real-time mining returns, providing investors with higher mining returns, which is essentially a strategic mining pool that achieves optimal returns through intelligent scheduling.

### 3) Financial advantage

- Low cost: The mining cost of traditional users participating in DeFi is very high, and the GAS fee will fluctuate according to the congestion on the chain. ID LABS financial mining effectively reduces the cost of individual users through overall integration.
- Low threshold: liquidity mining operation is cumbersome, participants need to be proficient in English (or the language limited by the project side), and familiar with many professional words in the field of DeFi, ID LABS financial management

restore the simplest way for users to choose income financial products.

• Aggregate mining: Different projects use the same computing power to mine the same type of algorithm benefits are different, ID LABS finance through the way of aggregate mining, greatly improve the user's income.

# Chapter four is the technical elements of ID LABS

The technical architecture system of ID LABS is based on the ID LABS protocol. The panoramic architecture is composed of three parts: the basic network layer, the intermediate protocol layer and the application service layer. Through an efficient multi-chain and cross-chain system, the end-to-end data transparency is realized,

while the cost and risk are effectively reduced, and the global circulation of data value is realized.

## 4.1 Distributed ledger structure

Ledger structure is an important form of data storage of blockchain, and as blockchain application scenarios become more and more complex, the design of ledger structure is becoming more and more important. The ID LABS distributed ledger structure mainly considers the following factors:

- Scalability: With the support of the ID LABS protocol, the hierarchical structure of the ID LABS distributed ledger improves the scalability and pluggability of the architecture, which is convenient for developers to develop by module and provide more data support capabilities for applications.
- Stable and easy to use: convenient and efficient ledger operation reduces the threshold to a certain extent; Many key operational functions are built in at the ledger level, and many business models are integrated to provide convenience for multi-industry users.
- Security and compatibility: Digital assets and their operations are the most typical application of blockchain ledger. Through the compatibility of multi-assets, it supports a variety of mainstream digital assets on the market, while ensuring the atomicity of account asset operations, enhancing the practical application and control functions of the ledger.

In the account design, the operation threshold control attribute of multi-weight is considered, and different operation weights can be set for different member accounts, but no operation execution threshold is set. Through the above methods, multi-user joint control of the account can be achieved, and the goal of accurate operation according to the operation threshold can meet the needs of diversified cooperation, fine operation mode, and rich business model. Through systematic design, module collaboration and rich operation types, ID LABS has built a scalable ledger structure of multi-asset atomic operation, providing powerful data support for various types of business operations, meeting the needs of users in complex application scenarios, and taking into account the needs of users for high performance and low consumption as much as possible.

## 4.2 Differentiated storage of massive data

For on-chain data storage requirements, ID LABS built a dedicated distributed storage engine database ChainDB based on TiDB technology on the basis of ID LABS protocol. TiDB is an open source distributed HATP (Hybrid Transactional and Analytical Processing) database inspired by the Google Spanner/F1 paper. ChainDB has the following capabilities:

- Horizontal elastic expansion: New nodes can be added through simple configuration and storage nodes can be dynamically added without stopping terminal services to improve the overall data storage capability.
- High availability: The data storage engine can automatically recover from faults without losing most copies.
- Distributed tasks: The optimized Percolator model is adopted to support distributed tasks, and the optimistic lock technology is used to detect no write conflict during task execution, but only during submission. The party that completes the submission earlier in the conflict will write successfully first, and the other party will try to re-execute the entire task, which has efficient task processing capability.

Combined with existing distributed storage technologies such as IPFS, it can effectively meet the needs of off-chain storage. Different from the relatively traditional data storage scheme of on-chain data, IPFS and other storage systems are permanent and decentralized file storage and sharing technologies, and are distributed storage protocols with content addressable, versioned, and point-to-point hypermedia. The off-chain data storage engine built based on this technology has the following capabilities:

- Reduce storage space: By generating a unique hash value of the file to identify the file, instead of the traditional file location to identify the file, effectively reduce the storage space;
- Improve storage diversity: Support more business data types and storage of large amounts of data;
- Reduced hardware costs: Supports horizontal expansion, reducing the hardware requirements on storage nodes.

• Multiple deployment formation: While providing shared service capabilities, the technology can also be used for private deployment.

## 4.3 Blockchain structure and liquidity support

In the existing infrastructure architecture, a large application or product consists of a large number of modules, which are almost always developed by different teams, and, even if the teams work within the same bank, it still requires a large amount of cash flow between different participants in the system; Lots of protocols and checks. This is expensive and time consuming, and the risk of introducing operations makes it likely to produce errors, including system errors.

Blockchain helps to automate the transaction chain, improve reliability, transaction transparency, and remove inefficiencies and bureaucratic obstacles. Blockchain reduces the risk of human error, and many operations eliminate the need for human intervention altogether. This will make your business faster, reduce costs and increase the market's trust in users. Finally, the blockchain service architecture will allow users to optimally build product lines that conform to personalized trends and provide unique solutions for global investors when truly needed.

Blockchain technologies are well suited to this task because they provide an infrastructure of open registers with immutable operations. The first version of the ID LABS protocol relied on technology built on an open blockchain. Most important is the BNB network, where the technologies that create the DeFi ecosystem are currently on their way to being identified and accepted by the industry. Therefore, the first release focuses on tokenization techniques for open assets. In the future, the algorithm will be suitable for all blockchains, in line with their readiness to revolutionize financial applications.

We see the current problems with financial instruments from the inside; We see how much inefficiency there is among market participants. Our mission is to provide technology that market participants will love, which will improve the current market structure, which will allow the same people, the same market participants to interact more effectively and, above all, more profitably.

#### 1) Liquidity theory

The essence of investing is the liquidity of an asset, and the liquidity of an asset

is the ability to sell or buy an asset quickly without major price changes. Higher liquidity eases the trade-off between the price at which an asset can be sold/bought and the speed at which it can be sold.

The idea that people prefer liquidity, first put forward by JohnMaynardKeynes, is that making these assets more liquid would help to unlock value, and liquidity is the reference for the value of the agreement we're talking about. We say this because it is quite difficult today to sell an asset for cash unless it has a description of some characteristic, even if at first glance it appears liquid. For example, a new consumer product, as an asset, is fully liquid, you simply add it to the catalog of an online store and the end customer can buy it. But not all types of assets, not even all the simplest consumer goods, have purposefully authentic features and digital capabilities.

The most common example, a used consumer product, requires at least a description of the variation in its basic characteristics, and then the buyer needs to be confident that the description of the item is true. The buyer is therefore required to check the characteristics described in order to make a purchase decision. This happens because this "asset" is not digitized from the starting point, so its selling mechanism becomes more complex than selling a similar new asset.

In order to solve this problem, various technical services have emerged to help make assets more liquid, while also promoting trust between parties to a transaction. Services do this in different ways, from simple bulletin boards to complex Internet services that include risk insurance. These services make an asset on the market "understandable," after which the asset is significantly more liquid than it was before. This is an example of how the ID LABS protocol enhances asset liquidity.

#### 2) Liquidity trading model

The first step to study the trading protocol is to establish the liquidity trading model. As an innovative blockchain fintech development team, Crypto LABS is well aware of how many different existing banking systems there are, many with architectures that were established decades ago. To build protocol technology, we started from scratch, rather than phasing out any existing IT infrastructure at any particular bank. This may come as a surprise to IT experts from the banking sector, but we have decided to divide all the information we are involved in during the initialization of crypto assets into two parts: asset attributes and asset prices.

According to liquidity, assets can be divided into current assets, long-term investment, fixed assets, intangible assets and other assets. Of course, in the cryptocurrency system, it also has these attributes, but most of the current ecology does not have this level. However, with the maturity of DeFi, we can find that cryptocurrencies are becoming more and more of the attributes of financial instruments, that is, with liquidity, security, profitability, in the traditional asset model, these three belong to the "impossible triangle" relationship, liquidity and security are proportional to inversely proportional to profitability. However, in the DeFi protocol, the architecture of the smart contract largely removes security concerns, so that liquidity is proportional to profitability. On the other hand, because the asset price adopts the TWAP model, high liquidity is resistant to the possibility of malicious market making, which will make malicious market makers punished by market regulation.

## 4.4 System security

ID LABS will adopt the central bank level security system design, including the design and management of the system. The technical requirements include five dimensions: physical security, network security, host security, application security, and data security. The ID LABS technology system takes multiple protection as the core concept, through the establishment of a multi-level information system, the division of computing environment, regional boundaries, communication networks and management centers, combined with the operation system and business status quo, sub-regional protection.

- Private key access: In order to facilitate users to use ID LABS products and services, in addition to the traditional client generation and saving mechanism, ID LABS also provides network managed access and private key hardware access (U-key) two solutions. Network managed access, that is, the user name and password are mapped to a private key through a specific algorithm and stored on the server side. The private key stored on the server is encrypted data, and the private key can only be decrypted on the client. The hardware private key is designed to meet the needs of the financial industry and the Internet of Things industry.
- Multiple privacy protection scheme: Provides multiple privacy protection functions. First of all, ID LABS provides homomorphic encryption at the bottom, and all user data is encrypted and stored, visible only to the user himself. Second, ID

LABS Adaptors provides cryptographic middleware services that users can choose according to their business needs. Finally, the upper layer application can encrypt the data during entry, and the ID LABS platform is responsible for writing and reading the encrypted data generated by the user.

## 4.5 Transaction engine

In order to achieve the top processing capacity of information flow, ensure accurate information arrival and error-free processing results, ID LABS protocol adopts the top engine system, the engine system will achieve the ultimate peak transaction processing speed of 5 million TPS after testing, and the transaction matching efficiency is 35%-40% higher than that of the same industry. It provides the basic technical support for the stable and efficient operation of the platform. At the same time, the ID LABS protocol will integrate and optimize the configuration of cloud computing for each node, making the system operation efficiency comparable to the processing speed of the international top stock futures trading platform.

## 4.6 Performance expansion

The ID LABS protocol is a redundant expansion system based on Ethereum load balancing technology, which is the process of distributing received requests to different servers according to a certain algorithm. Common load balancing algorithms include random method, polling, random with weights, ratio, priority, minimum connection number, fastest response speed, observation method, prediction method, dynamic performance allocation and so on. The load not only needs to be balanced between user requests and servers, but also needs to be balanced at various other stages in order to achieve better scalability and redundancy.

The blockchain structure of ID LABS can meet the needs of different business areas and improve the scalability and maintenance efficiency of the system. It can be used to mark assets and asset transfers, provide immutable multi-dimensional event records, and can also be used for supply chain finance traceability to track the circulation process of funds.

## 4.7 The technical advantages of ID LABS

ID LABS has always been focused on delivering real, real-time and sustainable data value to users, in order to solve the pain points of the development of the digital economy, and expand the ecological boundary of the trusted and shared digital economy alliance.

#### 1) Speed up transactions

Through the optimization of the signature algorithm, ledger structure, data manipulation, serialization, consensus mechanism, message diffusion and other key links, ID LABS will achieve fast transaction verification at the second level. Meet the user experience of most blockchain application scenarios.

#### 2) Add data store

The multiple ledger mode of blockchain has accumulated a large amount of data in the continuous application of the system, resulting in a decrease in the running speed, and ID LABS will implement separate storage and sub-table storage mechanisms to achieve mass data storage.

#### 3) High throughput

The essence of blockchain is a distributed shared accounting technology, and its distributed characteristics are mainly reflected in distributed consistency rather than distributed concurrent processing. In order to ensure the consistency of the data and prevent the Byzantine general problem, some specific links can only be executed serial, but not parallel. Through long-term testing and optimization practices, ID LABS 'processing will further significantly improve transaction throughput.

#### 4) 权限控制

Provides two types of permission control policies for writing and reading data information. The write permission of data information can be set for multiple users under the same account, and corresponding permissions can be set for different operations, meeting the application scenario of multi-signature control. The user can grant or revoke the data operation permission of a single user or user group. The user group can be flexibly configured by the user. Data includes user account information, transaction information, etc. The granularity can be refined to various attribute fields of transactions or accounts.

#### 5) Visual operation and maintenance

Provides visual tools for operation and maintenance management. System monitoring services deployed on ID LABS nodes: support business (block, transaction, contract, consensus, etc.), network (networking, delay, throughput, etc.), system-level (CPU, memory, disk, etc.) data information monitoring; At the same time, it provides a complete log, alarm and notification mechanism to facilitate the maintenance of commercial systems.

## **Chapter 5 Global Team**

## **5.1 DigetalFuture Foundation Singapore**

DigetalFuture Foundation Singapore, registered at the International Finance Centre of Singapore, is a non-profit organisation working with all institutions, businesses and crypto users to advance the development and availability of decentralized finance. And work with developers and community members to build a decentralized financial application ecosystem. The DigetalFuture Foundation will jointly hold the multi-signature wallet with the ID LABS development team and jointly manage the DL Treasury.

DigetalFuture team members are from early digital currency investors and researchers, members have rich experience in the field of digital currency research and development and operation. A deep understanding of the design, architecture and implementation of concepts and tools such as DeFi, trading, WEB3, blockchain underlayers, and how to build and trade derivatives.

DigetalFuture has built a cross-disciplinary core technology team for ID LABS, most of whom have experience working on blockchain projects and well-known Internet companies. It brings together the industry's best technical experts in various fields such as computing, information security, communications, mathematics, finance, web development and high-frequency algorithmic trading. At the same time, team members have market and practical experience in DAPP development, DeFi, Staking, etc., strong technical capabilities as well as excellent

scientific research capabilities, and outstanding achievements have already been made in several fields.

- 1) ID LABS founder VALENTINO CREMONA
- Co- Founder AMDAX
- Co-Founder Space ID
- Co- Founder ID Labs
- Co- Founder Euronext
- 2) ID LABS founder

He first encountered Bitcoin during his Economic studies and soon became hooked. He is an early Bitcoin as well as Ethereum adopter and has started actively investing in projects the likes of Ethereum in 2014. In the past year he has been busy building out AMDAX - the first Digital Asset OTC Desk in the Netherlands.

## **5.2 Development team**

Eric Jobin has worked as a system architect, technical team leader, and consultant at startups such as Captaris, OpenText, and DGIG. More than 20 years of work experience has made him proficient in a variety of technologies, and has in-depth research in cloud solution architecture, virtualization, complex system orchestration, AAVE, COMP, etc. Be familiar with machine language and be able to communicate well with other team members; Work closely with the project side and product manager to communicate with each other, so that the project requirements can be matched to the actual situation.

Tdam Yanni: Senior system integration engineer, former Director of infrastructure at Google, engaged in the research and development of Distributed computing platform, was responsible for the architecture of Google blockchain system, evolved MR Into DAG engine, was responsible for DCE(Distributed ComputingEngine) project, and promoted several internal SQL platforms to upgrade to use DAG. Now, I participate in the distributed computing unified API-bigflow project, unify multiple streaming and batch computing platform apis, and cooperate with multiple project teams to promote business upgrades.

Win Fred: Co-founder and CTO of Kyligence, co-founder of ApacheKylin and member of the Project Management Committee (PMC), Architect and Technical Lead of the Principal team. Focus on big data analysis, parallel computing, data indexing, relational mathematics, approximation algorithms, compression algorithms and other cutting-edge technologies. Former Big Data Senior Architect at eBay's Global Analytics Infrastructure division, Technical lead at IBM FosphereBig Insights, responsible for Hadoop open source product architecture, and former vice president at Morgan Stanley, responsible for global regulatory reporting infrastructure.

Matus Lestan was previously an engineering manager at Facebook Infrastructure Core Systems in the United States, where he was responsible for the development of large distributed systems across data centers at Facebook. Prior to that, MatusLestan was Director of Research and Development at Alibaba Cloud, where he was responsible for the development of the PP video Cloud platform and Alibaba Cloud's "Flying" distributed system. During his tenure as Senior Development Executive at Microsoft, he was responsible for the development of several core server systems.

Jon Matonis: Master of Science in Computer Science from Yale University, Master of Mathematics in Finance from the University of Chicago. He has been engaged in quantitative analysis modeling, financial instrument design, risk assessment, hedging and other business of derivatives such as options, futures and fixed income derivatives in Chicago for a long time. He has experience as a quantitative analyst and financial engineer in large institutions, as well as day trading in proprietary trading firms, and has extensive experience in the fields of trading, market making, hedging, risk control, high frequency and derivatives. At present, he works at the OCC, the only option clearing institution in the United States, and has regulatory functions in close cooperation with the SEC.

Mortiz Note: Formerly the founder and CEO of Sourcerers, an explorer of decentralized business models and token-driven governance structures. In October 2017, he officially joined the development and operation of CipherBlock, and previously worked as an operations manager at Coinbase and a derivatives trader at Three Arrows Capital.

Daniel Bar: PhD in quantum computing at the Israel Institute of Technology, co-founder of Bitfwd, a well-known Australian blockchain community, APAC entrepreneur at Stanford, Bitcoin early investor, blockchain serial entrepreneur, and

senior expert in cryptography.

Helen Wong: VP of Investment banking at JP Morgan in London, formerly of Deutsche Bank. In charge of credit derivatives derivatives, he has rich financial industry experience in the financial derivatives valuation department of Merrill Lynch, and has 10 years of global mainstream investment banking experience in financial risk control, valuation models, etc.

Alan Barrell: Tenured Professor at the Judge Business School, University of Cambridge, where he holds a Master of Science in Finance, Barrell has gained experience in research and analysis at various Russian investment firms and has insight into the financial system. Extensive experience in price income/insurance capital and a background in corporate finance, keen to launch new products or advise other founders on strategy, business modeling, value and fundraising.

Dr Blank: Head of Risk Management Consulting at KPMG in the United States, Head of Financial Consulting at Deloitte in Hong Kong, Head of Energy Trading at TXU, Best Scientific Contribution Award 2013, Best Scientific Contribution Award from the US-Asia Chamber of Commerce, and the 1988 Queensland, Australia, Youngest Scientist Award.

Angelo Karageorgiou: Experience leading high-tech teams. Decades of experience in Linux-based solutions, including scripting. Hackers of edge devices like apu2 and bare metal servers. Competent C, Perl, Python programmer. Familiar with SaltStack, Ansible and other automation tool sets. Familiar with cloud orchestration systems such as Kubernetes and Terraforn. AWS expert, familiar with Azure and GCP. Proficient in private cloud systems such as ProxMox. Developers eager to develop sre/devops tools.

## 5.3 Advisory team

Larry Rosenberger - Mr. Rosenberger holds a master's degree in physics from MIT and a master's degree in engineering from UC Berkeley. He was President and Chief Executive Officer of FICO Corporation from 1991 to 1999. During that time, FICO experienced consecutive years of record growth, with annual revenue rapidly increasing from \$31 million to \$276 million. From 1999 to 2007, he led FICO's research group, focusing on early-stage innovation prediction and decision analysis, with a focus on helping enterprise clients in the consumer market make better decisions.以上翻译结果来自有道神经网络翻译(YNMT)·通用场景

Jimmy Clinton - Dr. Jimmy is a well-known computer scientist, the inventor of the rule optimization algorithm Rete and the decision engine software. In 2002, Dr. Jimmy founded Rules Power, Inc. in Boston, where he served as Chief Scientist. During this time, he further refined the Rete2 algorithm, integrating it with relational logic techniques, and thus developed the Rete3 algorithm.

Alston Reed - Graduated from the University of Frankfurt with a Master's degree in economics. He has in-depth research in macroeconomics and new institutional economics. He has worked in economics at the Thomas Watson Research Center of IBM, and served as a visiting professor of economics at Princeton University, an advisor to the Securities and Exchange Supervision Commission of the Financial Services Agency of Japan, and a consultant on business innovation for Bitcoin exchanges in Japan.

Edward Adam Davis - Studied at New York University and Columbia Law School. He is the author of "The Legal Practice of movable securities Interest Guarantee", "Private equity project financing legal risk Disposal" and other works; He specializes in M&A financing, mezzanine financing, securitization, various fund transactions, and related business centered on financial Commodity Exchange law. He is the legal counsel of Nasdaq Stock Exchange and financial lawyer of Deloitte & Touche LLP.

# Chapter VI Resource support and development planning

### 6.1 Global resources

The encryption network supported by ID LABS is not only a technology, but also provides a service model and solution, which has played an extremely important role in promoting the further development of DeFi. Thanks to the advantages of sustainable development and innovative technology, extensive commercial applications, and refined governance, ID LABS is competitive in the following aspects:

- Technology: ID LABS has a very mature and strong technical support, has accumulated rich industry and technical experience in many fields such as blockchain, artificial intelligence, DeFi, and has made industry-leading breakthroughs in the development and application of blockchain underlying technology. The ID LABS team is the perfect combination of senior people from multiple industries, many years of practical operational experience, and deep insights into industry development.
- Industry resources: ID LABS signed a strategic cooperation agreement with the top leading enterprises in the target industry, which will provide strong support for ID LABS to cut into the target industry, so as to truly promote the actual landing of ID LABS applications.
- Business Governance: Unlike ordinary projects, ID LABS has a clear and defined strategic plan for the target industry and continues to enable free, fair and high-value ecological prosperity in the model of an autonomous community. ID LABS is more focused and professional with the distributed decentralization, immutable and cryptographic security of blockchain technology and the characteristics of peer-to-peer value transmission, to penetrate the target industry

and quickly gain market share.

- Fund management: The fund management of ID LABS will be guided by the DAO, strictly abide by the principles of fairness, justice and openness, and take the development of ID LABS as the primary purpose. And set up an investor protection fund, special storage and ensure the safety and sustainability of funds. All of ID LABS 'use of funds will be disclosed to all investors on a regular basis to ensure that the use of funds is public.
- Space for growth: ID LABS 'target industry is the trillion-level crypto investment market. The development team has developed a sound governance structure to effectively manage matters such as general procedures, code management, financial management, compensation management and privileged operating areas to ensure sustainable development.

In summary, with the support of core competitiveness, ID LABS 'commercialization logic is clear, each technical link and organization has a strong target and logic gene, and on this basis, many modular and transformed technical solutions or mechanisms are proposed.

## **6.2 Global Cooperation**

In order to drive the development of the users of the ID LABS project, we will achieve a full range of communication through the community, media and exchanges in real time.

#### 1) community

As a community-driven project, ID LABS has decentralized values in its genes, and at present, our partners all over the world, especially in the community field, are extremely influential, and we will publicize through community channels.

In addition, ID LABS will autonomically create a transparent, intuitive, and intelligent governance framework that ensures that no single individual or group can control the DAO network and that actions in the best interests of the larger community will be rewarded. ID LABS is working tirelessly to find the right rules and mechanisms necessary to create such an unprecedented but vital governance system.

Under the DAO, ID LABS will achieve full decentralization and a high degree of consensus in the Web3.0 community. The new decentralized autonomous organization launched by ID LABS falls into the category of dedicated DAOs, where there is a strong community consensus and 100% community self-management. After the project goes live, the community will vote to develop their own decentralized apps and DApps.

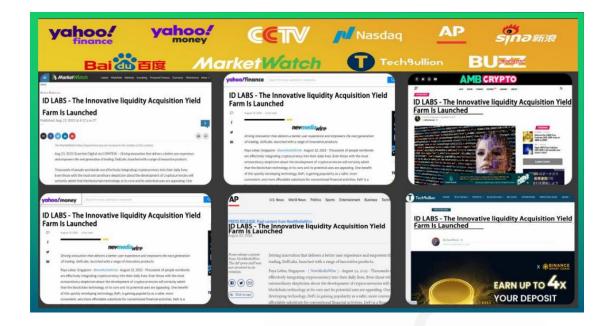
Community users can participate in the following discussions about what will benefit ID LABS:

- Community development matters
- · Proposals on the economics of investment
- Important model parameters for ID LABS
- Cooperation and development of ID LABS
- Marketing activity
- Exchange and cooperation
- Other matters related to marketing strategy

Use parliamentary votes to protect DAO members and community nodes. Any community member can be a proposer. As a voluntary, self-organizing, self-governing blockchain community, ID LABS is not a company or entity owned by a handful of founders and investors, but rather a borderless organization owned by the people who contribute to it. Ownership, power and control are in the hands of all community members. Everyone can make a difference, regardless of their abilities and experience. Every community member committed to development and a shared mission is equal. Community members are invited to submit proposals, participate in discussions and vote on the following platforms.

#### 2) Medium

We will continue to promote in the global media. For example, Golden Finance, non-trumpet, Coin, Coin World, Mars Finance, Babbitt, Wall Street Journal, Tiger Finance, Google News, Meta, Bloomberg and so on.



#### 3) Wallet cooperation

ID LABS has entered into a strategic partnership with the world's top decentralized wallet. Such as MetaMask, TokenPocket, imToken, Bitkeep and so on. The benefits of using a decentralized wallet are numerous: unmanaged, anonymity, open source software, control of private keys, support for multiple networks, accessibility of decentralized applications, etc.

- MetaMask: More than 30 million users enjoy its digital wallet service.
- TokenPocket: The world's leading multi-chain self-hosting wallet for more than 20 million users.
- imToken: Billions of dollars in transactions and exchanges in more than 150 countries around the world.
  - Bitkeep: A reliable choice for 8,000,000 users worldwide.

In the future, ID LABS is determined to develop more DEFI-based derivative ecology and multiple value models with the support of the community, media, wallets, exchanges, and investment partners, join hands with global users to create brilliance, and continue to improve the decentralized ID LABS platform and DAO community consensus owned by global users.

## 6.3 Development roadmap

© 2022

In November, I developed technology, built the underlying system and planned the ecological framework

In December, Space id ecological construction

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In February, we built communities in Singapore, Malaysia, Indonesia, Vietnam, South Korea, Japan, the Philippines and other communities

In April, it will gradually expand to the Middle East, the United Arab Emirates, Qatar, Turkey, Europe and North America in the second half of the year

On June 17, ID LABS was officially launched

Phase I node 6 months

- Improve the global layout and form a community network covering the world
- Increase global membership through community rewards and incentives
- Layout of super wallet development, to create a global universal wallet ecosystem
  - The technical team developed space id 2.0

Around late August and early September

• ID wallet Super wallet released

In October, digital asset management, trading, investment and other business modules continued to enrich

In December, open artificial intelligence (AI), AMA, prophecy machine, and aggregate financial management

© Early 2024

In February, the GameFi game application was launched, screening the world's

top games on the chain

In April, the DAO network aggregated global users, reaching 12 million users

The second phase is 6 months

- ID swap is developed to build the most secure, stable and efficient digital currency value network for users around the world
- Decentralized exchange construction, to create an epoch-making decentralized exchange
- White Paper 2.0 is online, the ID LABS ecosystem is perfect, and the development of various applications goes hand in hand

The third phase will last for 6 months in 2024

In October, we developed ID chain, committed to realizing various key technologies of value transmission network, building a global value Internet, and providing basic network and complete ecosystem support for various value transmission applications

In December, ID chain was released, becoming a strong infrastructure in the blockchain field

# **Chapter 7 Risk Warning and Disclaimer**

## 7.1 Risk warning

The ID LABS protocol is a fully decentralized community governance protocol that is deployed on the BNB blockchain network and systems and provides information protocols about the broader ID LABS ecosystem, governance, community, and various interfaces and integrations. All information relating to your access to and use of DApps and Services is for informational purposes only. You should not take or withhold any action based on any information contained on the Site or any other information we make available from time to time, including blog posts, data, articles, links to third-party content, blog content, news feeds, tutorials, tweets and videos. Before you make any financial, legal, technical or other decisions involving the Services, you should seek independent professional advice from licensed and qualified individuals in areas where such advice is appropriate.

Services provided by DApps or third parties may provide links to other sites, applications, or resources. You acknowledge and agree that we are not responsible for the availability of such external sites, applications or resources, and do not endorse and are not responsible or liable for any content, advertising, products or

other materials on or available from such sites or resources. You further acknowledge and agree that we shall not be responsible or liable, directly or indirectly, for any damage or loss caused or alleged to be caused by or in connection with the use of or reliance on any such Content, goods or services. Through any such website or resource.

It is important to understand that neither we nor any affiliated entity is a party to any transaction on the blockchain network underlying the ID LABS protocol; We do not own, maintain or control any crypto assets that appear on the Services; We do not own, keep or control any user's funds. In addition, we do not store, send or receive any crypto assets. You understand that when you interact with any ID LABS protocol smart contract, you always maintain control over your crypto assets. The private key associated with the wallet address where you transfer the crypto asset or the associated private key is the only private key that can control the crypto asset you transfer into a smart contract. You are solely responsible for protecting your private key. You are solely responsible for protecting your private key. We do not have access to your private key. Due to the unmanaged and decentralized nature of the technology, we are not an intermediary, agent, advisor or custodian, and we have no fiduciary relationship or obligation to you for any other decisions or activities that you influence while using our Services.

You acknowledge that, for the avoidance of doubt, we do not have any information about any user, user identity or Service beyond what is publicly available or accessible through the blockchain. We are not responsible for any activities you engage in while using the Services and you should be aware of the risks associated with crypto assets, blockchain technology and our services. We have no fiduciary relationship or obligation to you with respect to any other decisions or activities that you influence while using our Services. You acknowledge that, for the avoidance of doubt, we do not have any information about any user, user identity or Service beyond what is publicly available or accessible through the blockchain. We are not responsible for any activities you engage in while using the Services and you should be aware of the risks associated with crypto assets, blockchain technology and our services. We have no fiduciary relationship or obligation to you with respect to any other decisions or activities that you influence while using our Services. You acknowledge that, for the avoidance of doubt, we do not have any information about any user, user identity or Service beyond what is publicly available or accessible through the blockchain. We are not responsible for any activities you engage in while using the Services and you should be aware of the risks associated with crypto assets, blockchain technology and our services.

#### 1) Unpredictable risk

DEFI Crypto LABS and the DigetalFuture Foundation have always believed that there are numerous risks involved in the development, maintenance and operation of the ID LABS protocol, many of which are beyond the control of the technical team and the Foundation. In addition to everything else described in this white paper, every user and ID LABS owner should read, understand, and carefully consider the risks outlined below before deciding whether to participate in or use the Platform.

Every user should pay special attention to the fact that although DEFI Crypto Lab is established in California, USA, the DigetalFuture Foundation is registered in Singapore. However, the platforms on the ID LABS chain all exist only in the blockchain space, do not have any physical presence, and therefore do not belong to or involve any specific country.

As a new industry, the imperfect development of cryptocurrency and the instability of the market have led to huge risks. All users who invest in cryptocurrencies and hold ID LABS should do a good job of risk prediction and risk planning. Due to policy reasons, technical reasons, market reasons, personal reasons and other problems caused by property losses, are irreparable. Therefore, investing in cryptocurrencies or holding ID LABS needs to do a good job of risk analysis and prediction, and financial investment, leveraged investment and other risk investments are strictly prohibited.

#### 2) Risk of private key loss

Users registering crypto wallets and using cryptocurrencies should keep the private key properly, and after the user extracts the crypto asset to his digital wallet address, the only way to manipulate the contents contained in the address is the purchaser-related key (i.e. the private key or wallet password). The user is personally responsible for protecting the relevant key, which is used to sign transactions that prove ownership of the asset. The user understands and accepts that the loss or destruction of the private key necessary to access the cryptocurrency may be irreversible. Cryptocurrencies can only be manipulated by owning the associated unique public and private keys through a local or online wallet. Each purchaser should keep the private key of his/her blockchain wallet safe. If the token purchaser's private keys are lost, lost, leaked, damaged or compromised, neither the Platform nor any other person will be able to help the Purchaser access or

retrieve the relevant ID LABS tokens.

#### 3) National laws and normal risks

The development of blockchain is still in the early stage, including most countries and regions in the world have no relevant regulatory documents on the pre-requirement, transaction requirements, information disclosure requirements, locking requirements, etc. At present, it is not clear how the national policies will be implemented, and these factors may have an uncertain impact on the investment and liquidity of the project. The blockchain technology has become the main object of supervision in various major countries in the world, and the existing regulatory permission or tolerance for the platform on the ID LABS chain or decentralized finance in any country may only be temporary, and the platform on the ID LABS chain may face the possibility of stopping services to an address.

## 7.2 Disclaimer and Limitation of Liability

We make no representations or warranties. DEFI Crypto LABS in the United States and DigetalFuture Foundation in Singapore (officers, directors, employees, agents, representatives, partners and licensors) make no warranties of any kind regarding on-chain financial services (ID LABS Agreement). To the fullest extent permitted by applicable law, we disclaim ALL warranTIES and CONDITIONS OF merchANTABILITY, FITNESS for a particular purpose, or non-INFRINGEMENT, express or implied, AND disclaim ALL liability and LIABILITY FOR:

- The service is accurate, complete, up-to-date, reliable, uninterrupted, timely, secure or error-free. The information provided through the Services (including but not limited to the value or outcome of any transaction) is provided as general information only and should not be relied upon or used as the sole basis for making decisions. Any reliance on the Services is at your own risk.
- Injury or damage caused by the service. For example, you expressly acknowledge, understand and agree that the Services may contain audio-visual effects, strobe lights or other materials that may affect your physical senses and/or physical condition. Further, you acknowledge that we are not responsible for loss or damage caused by the actions of other users, unauthorized actors, or any unauthorized access to or use of the Services.
  - Viruses, worms, Trojans, time bombs, cancellation bots, spiders, malware, or

other types of malicious code that may be used in any way to affect the functionality or operation of the service.

To the fullest extent permitted by law, under no circumstances shall we be liable to you for any other loss, damage or injury, including any direct, indirect, special, incidental, exemplary, consequential or punitive loss or damage, or damage caused by a system failure or malfunction, or loss of profits, data, use, business or goodwill, or other intangible loss. Caused by or related to (A) the Service or your inability to use or access the Service; (B) Misuse of the Services (including but not limited to unauthorized access to the Services); (C) the conduct of any User on the Services; Or (D) terminate, suspend or restrict access to any Service.

Except as set out above, we shall not be liable for any damages caused in whole or in part by: (A) user errors, such as forgotten passwords or incorrectly constructed smart contracts or other transactions; (B) Server failure or data loss; (C) failure, unexpected functionality, or unexpected functionality of the blockchain, any computer or crypto asset network (including any wallet provider), including but not limited to losses related to network forks, replay attacks, double-spend attacks, SYBIL attacks, 51% attacks, governance disputes, mining difficulties, changes in cryptography or consensus rules, hacking, or cybersecurity breaches; (D) any change in the value of any crypto asset; (E) any changes in laws, regulations or policies; (VI) Force majeure events; Or (F) any third party.