MDN

Metaverse+DEFI+NFT Ecosystem enabling chain tour new future

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Preface

The advent of the blockchain era gives fintech a chance to leapfrog. For example, Bitcoin is a cryptocurrency issued without any central subject. It has a transparent issuance plan and circulation, and has been recognized by many people in terms of value storage. This is the first distributed cryptocurrency in human history, which brings more choices and possibilities to the future financial world.

Moreover, with the launch of Tronsmart contract, the concept of DEFI, that is, the concept of distributed finance, appeared in 2018. The significance of DEFI is that it has the ability to build financial scenarios through contracts. Through smart contracts, people can complete financial services without the participation of intermediaries, such as lending, stable coins, token trading, derivatives trading, insurance, forecasting, etc. It presents different financial service characteristics from the previous completion. For example, it has contracts that cannot be tampered with and transparent ledgers, and are not artificially controlled. Even developers of contracts and agreements cannot control the operation of contracts. This is a new financial ecology with many possibilities.

With the rise and prosperity of DEFI, NFT and metaverse, the value Internet carried by blockchain is accelerating. According to DappRadar's latest data, in the past 30 days, the overall sales of NFT's top ten trading markets have reached $1.56 billion, and NFT's boom trend is obvious. Although the sales volume of NFT market is rising, compared with the current lock-up volume of $109.26 billion in the DEFI market, the development of NFT is still in its early stages, and there are still considerable opportunities in the NFT market

With the popularity of NFT, the concept of metaverse is also quietly rising. The word "metaverse" comes from the novel Avalanche, a cyberpunk classic. In novels and movies, the metaverse can have the reality of the real world, as well as a virtual world. Compared with the traditional Internet, the metaverse puts forward higher requirements in immersion, participation and sustainability and other aspects, so many independent tools, platforms, infrastructure and protocols are needed to support its operation.

The game is considered to be the most likely entrance to the metaverse. At present, players can play various roles in the game and complete their lives, work and make friends in the virtual world. In March 2021, Roblox, the parent company of the overseas game Roblox, was listed in the United States. The share price rose 54% on the first day of issuance, with a market value of US $38.3 billion. Roblox claims that it connects the world through games, allowing anyone to explore tens of millions of immersive 3D games built by global communitydevelopers.

In April 2021, Epic Games, the parent company of the game Fortnite, obtained a new round of financing of $1 billion with the concept of metaverse. Prior to this, "Fortnite " had held an "immersive" interactive virtual concert. Technology companies are also actively deploying the metaverse. International giants such as Nvidia, Facebook, Tencent and Byte Dance have added code to the metaverse in order to occupy a dominant position in the earlymarket.

Based on this, the MDN project was born, which is a new blockchain protocol that integrates the concepts of metaverse, NFT and DEFI, and creates a multi-person cooperative metaverse game platform, aiming to empower the new future of chain tourism through the integration of metaverse + DEFI + NFT. At the same time, MDN will also be based on the technology of Tron chain and TRX double chain, and supported by metaverse + NFT + DEFI + game mode, strive to drive the implementation of blockchain technology in the fields of finance, physical commerce, entertainment and leisure, payment, mining, asset certification and so on, so as to enable the innovative business ecosystem in the value Internet era.

CONTENT

Chapter I Project development background

1.1 Development of blockchain Technology

Exploring the mechanism and development of blockchain, Bitcoin is always an unavoidable topic. Blockchain appeared as an independent technology, which can be traced back to the Bitcoin system at the earliest. In 2008, a person (or team) pseudonym Satoshi Najamotp Nakamoto published an article entitled Bitcoin - A Peer-to-Peer Electronic Cash System, and disclosed its early implementation code in 2009., and Bitcoin was born.

Leaving aside the ups and downs of Bitcoin price, only to discuss the design of the Bitcoin system itself, It can be regarded as a conceptual and technical experiment of electronic currency: in the traditional electronic payment system (such as bank transfer or third-party payment, etc.), the bank or payment service provider verifies and records transactions in the system, and the account book is in the hands of the central institution; Bitcoin has realized decentralized electronic currency issuance and transactions for the first time in human history, that is, there is no need for a centralized third-party certification institution or accounting management system to verify and record transactions, and the whole network jointly maintains and updates the same ledger. The emergence of Bitcoin makes it possible for the electronic currency system to change from the traditional mode of "centralized ledger + intermediary" to the mode of "public ledger + common knowledge", and this transformation is realized by blockchain technology.

With the emergence and maturity of blockchain technology, smart contract, as an important research direction of blockchain and future Internet contract, has been developing rapidly. Blockchain-based smart contracts include a mechanism for event processing and saving, as well as a complete state machine for accepting and processing various smart contracts, and the state processing of data is completed in contracts. After the event information is transmitted to the smart contract, the smart contract is triggered for state machine judgment. If the trigger conditions of one or more actions in the automatic state machine are met, the state machine selects the automatic execution of the contract action according to the preset information. Therefore, as a computer technology,

smart contract can not only effectively process information, but also ensure that both parties to the contract can enforce the contract forcibly without introducing a third-party authority, so as to avoid the occurrence of breach of contract.

1.2 Integration of blockchain and DEFI mode

With the support of blockchain technology, there are more possibilities for innovation in the form of the financial industry. Among them, DEFI is a typical model. The full name of DEFI is Decentralized Finance - decentralized finance. DEFI refers to financial behaviors and services based on digital currency or Token. For example, token-based lending services, exchanges, payments, insurance, investment and even financial management services. Among them, Tron-based DEFI services and products are the most prosperous at the current stage. In a broad sense, DEFI refers to financial services built around decentralized technology. The broad sense of DEFI includes two meanings: business and services are built entirely based on decentralized technology. For example, mortgages, transactions and loans based on blockchain decentralization technology and smart contracts. The service itself is not a decentralized technology, but the object of the service is digital assets based on decentralized technology. For example, digital currency exchange, etc.

These financial businesses and services can be the upgrading of existing traditional financial businesses and reconstructed with decentralized technology; It could also be entirely new financial services, such as digital currency-based transactions and other financial behaviors.

DEFI is a very important direction for the financial industry. Because the

decentralized operation mode can greatly reduce the cost of financial operation. Moreover, in the process of operation, it can eliminate the information asymmetry in the industry and make the entire financial industry open and transparent. For example, the traditional lending field has some defects, such as mortgage fraud or multiple mortgages. Another example is to urge loan and cut off loan. In fact, there are many opaque links in the traditional lending field. The significance of decentralized finance is that it is transparent and irreversible. When the lender initiates a loan, as long as the mortgage value meets the requirements, it will not suffer from the pressure of loan collection from traditional institutions or the threat of loan interruptions, because decentralized finance is the automatic execution of contracts, thus eliminating the interference of human nature and protecting the rights and interests of the borrowers.

Although at the beginning, the subject of lending assets in the field of DEFI was only digital currency and stable currency, with the development of technology, it is extending to more possible value space.

The differences between DEFI and traditional finance are shown in the following table:

	Traditional finance	DEFI
credibility	Official endorsement	Code is law
Service Charge	High middleman fees	Low contract execution fee
Access time	Business Hours	7*24h
Capital flow information flow	Black box opaque	Open and transparent rules on the chain
currency	Legal tender	Issued by the project party
interest rate	Government influence	Market supply and demand
Debit and credit	bank	Decentralized lending platform

Transaction in assets	Exchange	Dex

2021 is a hot year for decentralized finance (DEFI) At present, there are many application directions of DEFI, including decentralized exchanges, lending platforms, stable coins, etc. At present, hundreds of DEFI projects have emerged in the market around these application directions. DEFI lending leader Compound attracts users to participate in deposits and loans by using COMP tokens, and the amount of capital precipitation has soared 10 times within a month, which is estimated by COMP High value, opening the carnival of DEFI. After that, new DEFI concepts emerged one after another, and lending platforms, decentralized exchanges, decentralized autonomous organizations, stable currencies and Oracle machines continue to emerge. Excellent DEFI projects have used token liquidity mining to realize cold start for users.

This makes DEFI one of the fastest growing areas in the blockchain ecosystem, with an overall lock-up of more than $5 billion. Among the many business areas of DEFI, the three most notable directions are currency stabilization, decentralized exchanges and lending business. Among them, DEFI lending business is particularly rapid.

1.3 General overview of the DEFI market

1) Overall market overview：Market development and change

2018 is the first year of development of the DEFI industry, but until 19 years, The core indicator TMDN (total value locked, which generally refers to the total value of digital assets mortgaged by users in an encryption project) basically had no major trend of change. It was not until 2021 that the DEFI industry has ushered in a huge outbreak, and the rise of "liquidity mining" was indispensable in this background environment.

2021 is a year of explosion in the DEFI market. Since the launch of "liquidity

mining" on Compound platform in June, major DEFI projects have launched similar liquidity mining models. The total lock-up volume (excluding the part of repeated pledges) soared from $1.8 billion on June 20, 2021 to $11.9 billion on October 22, an increase of 6.6 times in four months. Uniswap contributed 23% to the overall DEFI TMDN.

In terms of the number of participants in the market, the development of the DEFII market is also obvious in the number of participating users. From January to June 2021, the number of trading users participating in the DEFII market increased from 100000 to 200000; And after the opening of liquidity mining in June, the number of market participants increased rapidly, and the number of users increased to 650000 in four months. By the end of 2021, the number of global participants had exceeded one million.

In terms of market capitalization performance, after a round of sharp rise in July and August 2021, the market began to calm down again. According to the DEFII Pulse Index established by DEFII Pulse, the index price has fallen by 36.3% since its establishment on September 10; After that, DEFII will go through a round of development period and regain its power.

The reason behind the rise of this wave of DEFII is the innovation of AMM mechanism of automatic market maker, which gave birth to the interests of early seed users. Through liquidity mining and distributed project tokens. Thus, detonating the whole DEFII industry. With the increasing development of DEFII ecology, more innovative cryptocurrency assets have emerged, driving the development of DEFII2.0 and high-quality projects have also improved the pace of the whole DEFII ecology from the perspective of improving the efficiency of capital utilization.

2) Leader project and market quotation, current situation

At present, the DEFI project is mainly divided into four tracks: DEX, lending, prophecy machines and derivatives, among which DEX and lending products account for the highest proportion of locked positions; in the top ten DEFI projects, DEX accounts for 37% of TMDN, while loan products account for 33%.

- **DEX market**

Decentralized exchange (DEX) is a peer-to-peer free trading market. Before 2021, DEX was basically a market with thin orders, poor liquidity and poor user experience, but the automatic market maker algorithm launched around 2021 injected a new soul into DEX and had to attract the attention of the giants of centralized exchange.

At present, the number of liquidity trading pairs on Uniswap has exceeded 16000, there are more than 50000 liquidity providers, and more than 23000 daily active users, with an average daily transaction volume is US $200 million. Objectively speaking, the rise of DEFI in June should basically be attributed to the boom in liquidity mining. It has brought a lot of capital precipitation and built the foundation of financial Lego for the whole DEFI ecology. At present, DEX has solved some problems and obtained some status in the DEFI ecosystem, such as realizing independent currency listing, solving market making problems with AMM, and simplifying transaction processes without KYC. However, DEX still has many problems, such as poor transaction depth and rampant currency. The transaction depth and experience of the traditional order book cannot be solved by the currentDEX.

•Lending market

In principle, the lending market from 2017 to 2019 was benchmarked by Maker, but since June 2020, the market ranking has been rapidly overturned, and Comp and Aave have threatened Maker. By the beginning of 2021, more high-quality projects were scrambling to go on line, and the market competition was also fierce. At present, deposit assets are basically Tron , accounting for 45% of deposit assets, followed by DAI, accounting for 32%. Loan assets are basically DAI-based, accounting for 82%. DAI and USDC became the main lending stable currencies.

The visible future development trend of DEFI mainly lies in the introduction of privacy computing, breaking the current situation of only excess mortgage loans, so as to enhance the growth space of the whole lending field. Privacy computing is the underlying infrastructure for developing credit loans. Our current DEFI loan field is due to lack of relevant authentication of personal identity information and account information. Most of the reason is that it is easy to disclose our identity privacy. After the exploration in the field of privacy computing is gradually improved, it is believed that DEFI will have a

further explosive growth.

In our opinion, compared with the traditional financial market, the market value of cryptocurrency market is still small, capital never sleeps, where there are capital gains, there will be flow. Large funds outside the circle are still investigating cryptocurrency and DEFI ecology with a cautious attitude. With the continuous improvement of infrastructure and the improvement of cognition in the circle, the entry of assets outside the circle is the key development direction in the future.

1.4 Prosperity of NFT market

NFT, the full name of Non-fungible Token in English, is translated into Chinese as "non-homogenous token". It is a cryptocurrency using blockchain technology and can be understood as an advanced version of Bitcoin. In simple terms, NFT is a virtual asset that puts specific information on the blockchain through encryption to prove the uniqueness of copyright and buys and sells it through an online trading platform. Unlike Bitcoin, NFT is indivisible, irreplaceable and unique. Its records on the blockchain cannot be tampered with or copied, and transaction records are publicly visible, so NFT cannot be counterfeited.

For example, if a painting is converted into NFT form, it cannot be changed, and a certain number of tokens will be generated to prove its scarcity. The creator, creation date and other information of this painting will always be recorded in its NFT. Even if someone plagiarizes or copies it later, others can determine authenticity through its NFT. In conclusion, NFT is a technology that uses blockchain to transform the abstract fact of "holding ownership of a certain commodity" into a "token" that can be priced and changed, which is recognized by the world and cannot be changed.

The history of NFT can be traced back to 2017. In that year, Tron launched 10000-pixel avatars of CryptoPunks, each of which was different. People who hold Tron cryptocurrency could get it for free and trade in the second-hand market. Half a year later, Tron launched another blockchain mini-game "Cryptokitties". Each cat has its own number and cannot be copied or stolen. The gameplay is similar to QQ penguin. The difference is that the cat you spend time and money to "contain" will always

belong to you and will not disappear because the game ends.

In 2018, the NFT ecosystem gradually developed. Trading platforms such as OpenSea, MDNrRare, Rarible, Nifty Gateway and other have risen with the rise of NFT, there are also various NFT trading platforms, among which MDNrRare and OpenSea operated by Tron are the largest and attract more customers.

By 2019, Nike, F1 and other brands that smelled business opportunities began to intervene in the NFT market. In 2020, NFT began to be applied to other fields, including identity authentication, fixed asset backup, and even as an encrypted collection to increase the value ofcollections.

In 2021, the NFT market finally ushered in explosive growth. According to CryptoART.io platform, NFT was the most competitive at the beginning of the year, with a trading volume of more than $2 million in March; As of August 1, a total of 8.21 million art works had been sold in the form of NFT, with a total value of about $683 million, or 260,000 Tron coins Tron . Not only are technology giants such as Musk and Jack Dorsey seizing the market, but some well-known artists also entered NFT one after another, and many reports of art works were sold at high prices.

At present, we can clearly see that the main application fields of NFT include games, artworks, domain names, collections, virtual assets, security token offering (STO) and other fields, especially artworks and games, are highly concerned in the market. Some game props and artworks are naturally unique and inseparable, and are coupled with NFT. Therefore, NFT can effectively prevent forgery and fraud of such items.

In the context of global digital transformation, NFT will play an irreplaceable role in the future blockchain ecology, and may even become the key driving force and cornerstone for many industries to achieve transformation of digital economy. For exchanges, how to seize the opportunity under the new outlet and promote the development of digital economy is worth thinking deeply.

The prosperity of NFT has a consistent relationship with DEFI. NFT belongs to the category of DEFI has great growth potential in the field of DEFI. DEFI (decentralized Finance) refers to the financial behaviors running on the underlying blockchain systems such as Tron Tron and Currency Security Intelligent Chain (BSC). DEFI uses smart

contracts to allow digital assets to rebuild the traditional financial order in the blockchain network and create synergies with each other.

Typical applications include quantification, market making, lending, insurance, bonds, funds, auditing, derivatives, ETFs, exchanges, clearing and settlement using digital assets. Corresponding to Centralized Finance, DEFI decentralized finance has the characteristics of code neutrality, open source, decentralized operation, decentralized supervision, decentralized autonomy and so on:

- Code neutral and open source: refers to the DEFI project running on the blockchain running in the blockchain network, and the code is open source. Every smart contract interaction and open-source code can be browsed in the block at any time.
- Open access on the device: the mainstream project code on the chain is audited by the code audit company to avoid back doors, bugs and other malignant events affecting the healthy operation of the system. The code of Most traditional Internet applications is not fully open source.
- Decentralized operation: it means that the DEFI project can run in the miner nodes around the world in the blockchain main network, unlike traditional Internet applications, which need to run in a centralized server owned by the company. Decentralized blockchain nodes have stronger anti-risk ability. As long as there are mining machines around the world mining and accounting for this public chain, the block network can operate normally.
- Decentralized supervision: Blockchain network applications run on countless blockchain nodes, and the main network of the project online does not need to be reviewed by centralized institutions, making innovation freer and development faster. The absence of supervision enables DEFI network to complete the chain reconstruction of the traditional financial system in just half a year, and try all kinds of innovations on the original basis. On the other hand, decentralized supervision also makes investors less protected. DEFI network gradually grows in a decentralized organizational form in accidents such as hackers and leaks.
- Decentralized Autonomy (DAO, Decentralized Autonomous Organization): most head blockchain network applications use decentralized autonomy to manage major

issues and development paths of the project. Any community member can initiate a proposal, and all users with digital assets can vote on the direction based on of their positions. DAO is similar to a 24-hour and 365-day uninterrupted, shareholders' meeting launched at any time.

The concept of DEFI began to rise in 2014-2017, and various decentralized lending and other DEFI projects were gradually launched from 2018 to 2019. In January 2021, it became widely popular after the Bitcoin bull market attracted the attention of the market. DEFI lock-up volume exceeded $80 billion in April 2021. The stock of digital assets in the DEFI network also exceeded $101 billion in early April, accounting for about 5% of the overall volume of digital currency, and there is a trend of further acceleration.

1.5 The origin of the concept of metaverse

The concept of metaverse originated from the 1992 science fiction Avalanche, in which the author constructed a virtual world parallel to the real world. Later, the famous films "MATRIX", "Ready Player One", popular animation Ip "Sword Art Online" and other film and television works continued to use and improve this concept.

Literally, Metaverse is composed of Meta+ universe, that is to build a virtual world on the basis of the real world through technical ability, so that people in the real world can live in the virtual world through digital form. At the same time, there are a series of relatively perfect systems such as social networking and economy in the virtual world.

The metaverse industry is still in its infancy, and there is no unified and complete definition of the core elements of the metaverse in the market. However, by combining the eight necessary elements of the metaverse given by the CEO of Roblox, one of the earliest and most authoritative companies that develops the concepts of the metaverse, and the seven characteristics of the virtual world listed by FACE BOOK Research Institute, we can get the ideal state of the metaverse, that is, an extremely immersive experience, time-out social system, rich and colorful content ecology, An economic system combining virtual reality and a super-large digital community that can map the real human social civilization.

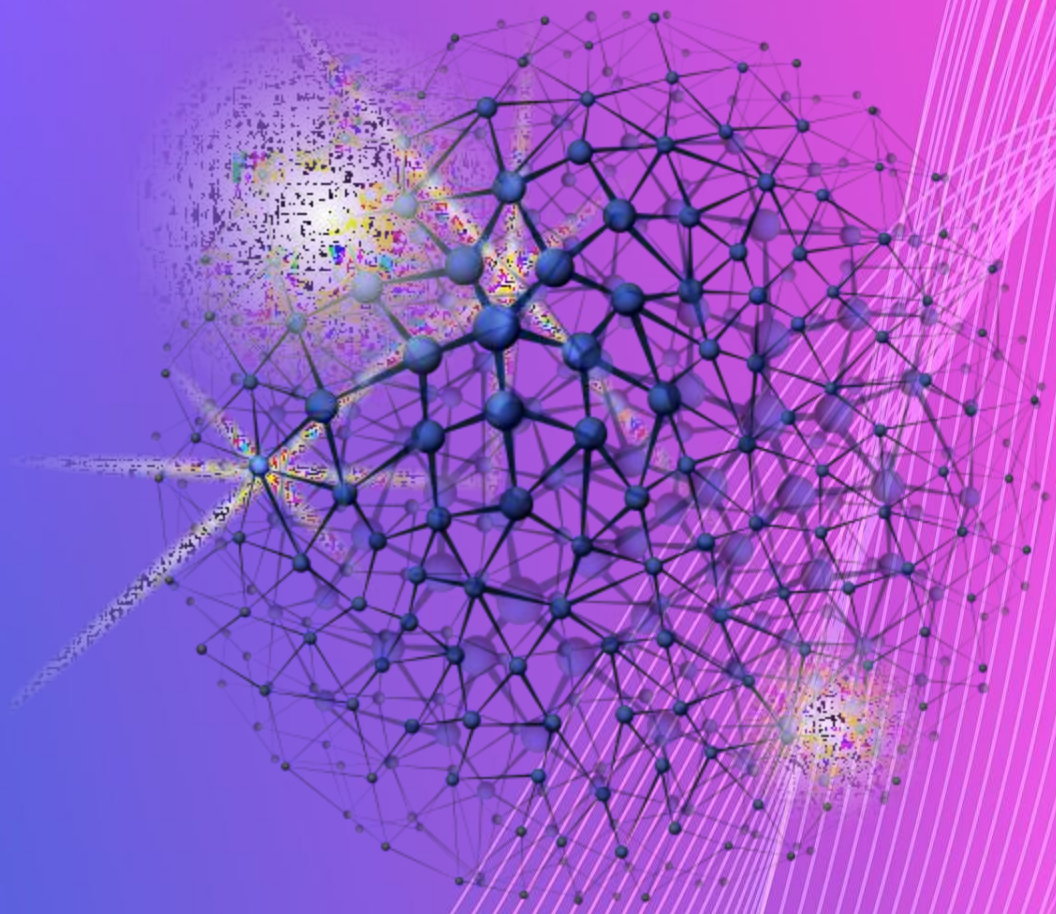
Technically, on the basis of the traditional Internet, metaverse puts forward higher

requirements in many aspects such as immersion, participation and sustainability, so it will be supported by many independent tools, platforms, infrastructure and protocols and so on. With the increasing maturity of AR, VR, 5G, cloud computing and other technologies, metaverse is expected to gradually move from concept to reality.

With the gradual deepening of the market's understanding of the metaverse, it is certain that from the consumer Internet to industrial Internet will meet the metaverse era of online and offline integration in the future. The mainstream view of the market is that the metaverse model will be a new pan-entertainment model, and the unique immersion, real-time and diversified characteristic model of the metaverse will be more welcomed and affirmed by the market. Generally speaking, the metaverse is highly interconnected between virtual and reality, and closed-loop economies attached to open-source platform. Although there is no detailed description of the final form of the metaverse in the industry, we can still determine the four core attributes of the metaverse by refining its characteristics:

- Synchronization and simulation. Virtual space and real society maintain a high degree of synchronization and interoperability, and the interaction effect is close to reality. Synchronous and pseudo real virtual worlds are the basic conditions for the composition of the original universe, which means that all events in the real society will follow the virtual world. At the same time, users can get nearly real feedback information when interacting in the virtualmetaverse.
- Open source and creation. Open-source means open-source technology and platform at the same time. Metaverse encapsulates and modularizes the code to varying degrees by formulating "standards" and "agreements". Users with different needs can create in the metaverse, form a native virtual world and constantly expand the edge of the metaverse.
- Sustainability. Metaverse platform will not "pause" or "end", but run in an open-source manner and continueindefinitely.
- Closed-loop economic system. Users' production and work activities will be recognized in the unified currency of the platform. Players can use currency to consume content on the platform, or replace real currency in a certain proportion. The economic

system is the engine that mobilizes the continuous progress and development of the universe.



1.6 Fusion of DEFI, NFT and metaverse

The metaverse is not a castle in the air, but a virtual space based on the mapping of the real Internet world in the future, and its scope will also expand from pan-entertainment to every corner of the Internet. However, the development stage of the metaverse is still in the early stage, and it still needs a long time to develop and improve.

DEFI and NFT will become important infrastructure of the metaverse. Their uniqueness and irreplaceability will provide a reliable basis for people to map things in the real world to the metaverse, and have initially demonstrated their value at this stage,

but there is still a lot of room for imagination in the kernel and epitaxy of DEFI and NFT in the future. According to our assumption above, DEFI and NFT will become the important infrastructure of the metaverse, and the metaverse will become the brightest application achievements of DEFI and NFT. From this perspective, the two are interdependent and co-prosperous.

At the end of June 2021, Zuckerberg announced that Facebook will strive to build metaverse in the future, and the metaverse product group will be led by Vishal Shah, vice president of Instagram. At the end of 2020, put forward a concept called "Complete Reality of Internet" in the foreword of Tencent's annual special issue: "now, an exciting opportunity is coming. The ten-year development of mobile Internet is about to usher in the next wave of upgrade, which we call Complete Reality of Internet." From its interpretation of the Complete Reality of Internet, it is similar to the metaverse we are discussing today.

This is a process from quantitative change to qualitative change, which means the integration of online and offline, and the integration of physical and electronic methods. The door of the virtual world and the real world has been opened. Whether from virtual to real, or from real to virtual, they are committed to helping users achieve a more real experience. From consumer Internet to industrial Internet, application scenarios have also been opened. Communication and social networking are going video, video conferencing and live broadcasting are rising, and games are also becoming cloud.

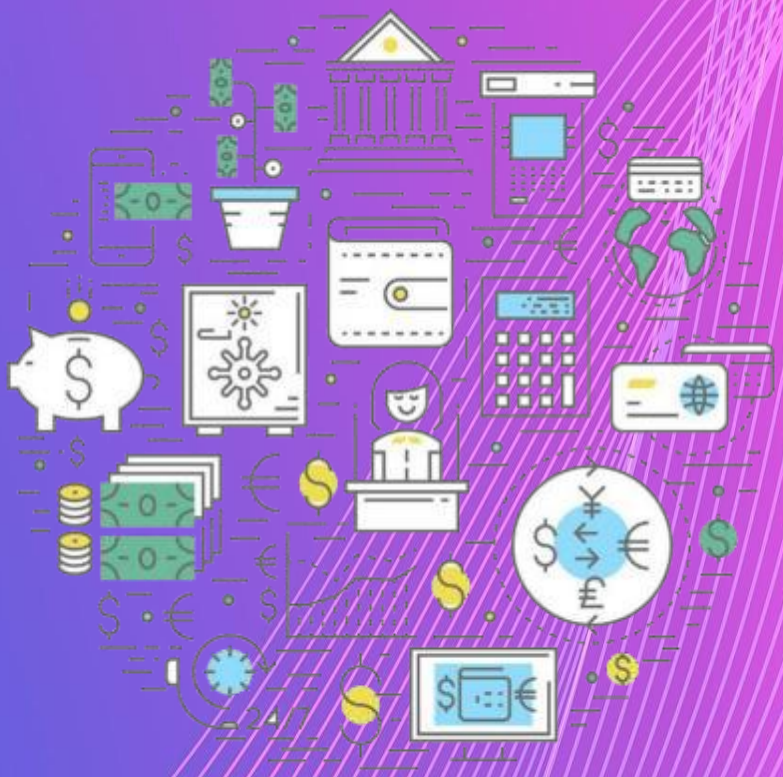
As we all know, the development of the Internet from Web1.0 to Web3.0 indicates that NFT and the metaverse will also go through such a process, that is, the discovery and confirmation of the individual's own value and all the values created by each individual in the Internet.

Overall, Web3 0 will be an important part of the metaverse, so the rediscovery of individual values will also be an important core of the metaverse. Based on the above analysis and the unique advantages of DEFI and NFT, it is not difficult to find that with the development of human society, especially the deepening exploration of the origin of human social development, the "unique" value of each individual and the "unique" recording function of DEFI and NFT will be more and more deeply integrated, which will

undoubtedly continue to strengthen the interdependence between DEFI NFT and metaverse.

Although the development of the metaverse is still in a very early stage, through the window of DEFI and NFT, we have a glimpse of many temptations such as open interconnection and value sharing in this virtual world. With the help of DEFI and NFT, any valuable individuals and things will be found, recorded and treated due respect in the future metaverse.

For the above reasons, the MDN project was born.



Chapter II MDN project overview

2.1 Birth of MDN

NFT game are the primary form of metaverse. In terms of product form, the games

are the rudiment of the metaverse. The game is a virtual world built by people based on the simulation, extension and wild imagination of reality. Its product form is similar to the metaverse.

Based on Web3.0, holographic Internet technology, blockchain and NFT, the value shown by the concept of metaverse is consistent with the core values of the Internet. The MDN team believes that the metaverse may be the ultimate form of the Internet. Therefore, with the game as the starting point and supported by the bottom of Tron chain and TRX dual-chain public chain technology, we have created MDN - a multiplayer cooperation metaverse game based on NFT + metaverse, which makes the connection between reality and virtual more efficient and enriches the circulation of value.

MDN, built by MDN foundation, supported by the foundation's global technology, resources and game network, MDN is supported by the concepts of DEFI and NFT and based on the metaverse system as the standard to achieve the following innovations:

- In terms of synchronization and simulation, MDN games give each player a virtual identity, such as user name and game image, and can form social relationships with this virtual identity and meet new partners in the game community; At the same time, the game forms an environment with high cognitive requirements through rich story lines, frequent interaction with players, realistic pictures and coordinated sound effects, so that players must use a lot of mental resources to focus on what happens in the game, resulting in the so-called"immersion".
- In terms of open source and creation, players have full freedom within the framework and rules set by MDN games. They can not only enjoy the game screen and sound effects, but also pursue the ultimate equipment and operation.
- In terms of economic system, each MDN game has its own game currency, in which players can shop, sell, transfer money, and even withdraw cash. To sum up, MDN integrates several basic requirements of metaverse and NFT into the game, making it the most likely track to build a prototype of metaverse.

2.2 MDN chain tour system

With the support of DEFI, NFT, metaverse theory and concept, we have created a multi-person cooperative metaverse game - MDN chain game based on BSC technology. Players build their own virtual land in the game, interact with neighbors, carry out stimulating daily activities, and get rewards. Anyone can join the world by buying a piece of land and participate in various activities, such as planting fields, developing mines, catching insects and keeping bees. Activities, shared tasks and competitions bring valuable rewards and enhance players' position in the game. Let the game provide an interesting plot for ordinary players who want to enjoy the game experience, as well as an ecosystem for players who want to collect and trade non-fungible tokens (NFT).

MDN chain game integration strategy, collection and cultivation and other gameplay, with strong gameplay. It is also the main embodiment of NFT and metaverse in the MDN blockchain ecology. MDN chain game endows the token in the ecosystem with real circulation value and opens up the transaction channel between users and the platform.

Supported by BSC, MDN chain game system has the characteristics of decentralization, transparency and general incentive. In addition, MDN quickly gathered a large number of international top blockchain talents, aiming to take the online game industry as an opportunity to drive industry reform and create the world's top blockchain game infrastructure and NFT and metaverse ecological application system. MDN integrates third-party resources through blockchain network and token mechanisms to integrate the online virtual environment and physical environment, create a borderless entertainment world and create an unprecedented entertainment experience for users around the world. In addition, based on the value of MDN, we will also issue MDN digital assets. In the MDN chain game ecosystem, MDN allows players to participate in the game and get rewards through blockchain, as well as and distribute game assets.

• Decentralized ownership based on NFT assets: decentralized ownership of assets (such as islands, houses, pets, etc.) in the game.

• Social function: the game has a built-in chat module, which allows players to communicate with players on the same island, and transfer tokens and assets to friends during chatting. Players can visit each other's islands and complete group tasks together.

• Market: an in-game market that allows users to buy and sell assets. It creates a basic ecological environment for game players to buy and use NFT assets, and also provides strong liquidity support for the transaction and circulation of various types of digital assets.

In the future, MDN chain game system will continue to expand multi-dimensional ecology, including storage cloud platform, game distribution platform, game prop trading platform, NFT prop asset exchange, advertising platform, metaverse mining and incubator on the basis of metaverse games, so as to provide complete game solutions for players, miners, R & D and channel providers. Developers can also create blockchain applications through MDN toolset and get comprehensive NFT service support through other platforms.

2.3 The core competitiveness of MDN

Adhering to the concept of in-depth application of the concept of NFT + metaverse + DEFI, MDN will open a new era of value Internet with the support of ecology. Thanks to the advantages of continuous development and innovative technology, extensive commercial application and refined governance, MDN is competitive in the following aspects:

• Technology: with the support of Take-Two Interactive and Rockstar Games, MDN has very mature and powerful technical support. It has accumulated rich industry and technical experience in blockchain, games, artificial intelligence, NFT, metaverse, VR / AR and other domains, and has made industry-leading breakthroughs in the development and application of underlying technologies in blockchain.

• Industry resources: the MDN team perfectly brings together senior people with many years of practical operation experience and profound insight into the development

of the industry. Moreover, with the support of Take-Two Interactive and Rockstar Games, MDN will sign strategic cooperation agreements with the top leaders in the target industry, which will provide strong support for MDN to enter the target industry, in this way, we can truly promote the actual implementation of NFT + metaverse + DEFI aggregate mining application.

- Business Governance: different from general projects, MDN has a clear and clear strategic plan for the target industry, and continues to enable free, fair and high-value ecological prosperity in the model of autonomous community. MDN is more focused and professionally using the characteristics of distributed decentralization, tamper proof and encryption security and peer-to-peer transmission value of blockchain technology, to penetrate the target industry and quickly obtain market share.
- Fund management: under the leadership of MDN Ecological Development Foundation, MDN's fund management will strictly abide by the principles of fairness, impartiality and openness, and take the development of MDN as the primary purpose. MDN Ecological Development Foundation keeps and ensures the safety and sustainability of funds. All use of funds will be regularly disclosed to all investors to ensure the openness of the use of funds.
- Development space: MDN's target industry is a trillion-level market. The development team effectively manages general discussion, code management, financial management, compensation management and privileged operation scope by formulating a comprehensive governance structure to ensure sustainable development.

2.4 Landing logic of MDN chain Tour

With the support of core competitiveness, the commercialization logic of MDN chain game is clear, and each technical link and organization has a strong target and logic gene, and on this basis, many modular and transformed technical schemes or mechanisms are put forward.

1） User ecology

- MDN will create a unique pass for digital encryption for all users - MDN.
- Provide users with low threshold and high security wallets, and become a safe

payment platform for players to participate in the ecology.

• Create digital tokens circulating in multiple scenarios around the world: MDN supports the transaction and settlement of the whole ecology.

• Build a benign and sustainable ecosystem around users, including DEFI mining, NFT casting, collection and trading, Play-to-earn, etc.

2） Technical level

• Modularized blockchain functions and integrate them into the blockchain engine and its front-end development tools, directly covering DAPP third-party developers, infiltrating MDN tokens into hundreds of thousands of applications and covering more than one billion users worldwide.

• The blockchain technology is integrated into the back-end service logic, and node servers all over the world are used to provide senders on DAPP with fast communication solutions and reliable smart contract server logic.

• Around developers, we will build a complete development tool set, documents and development communities to provide the most complete and convenient developer ecology.

3） Operational level

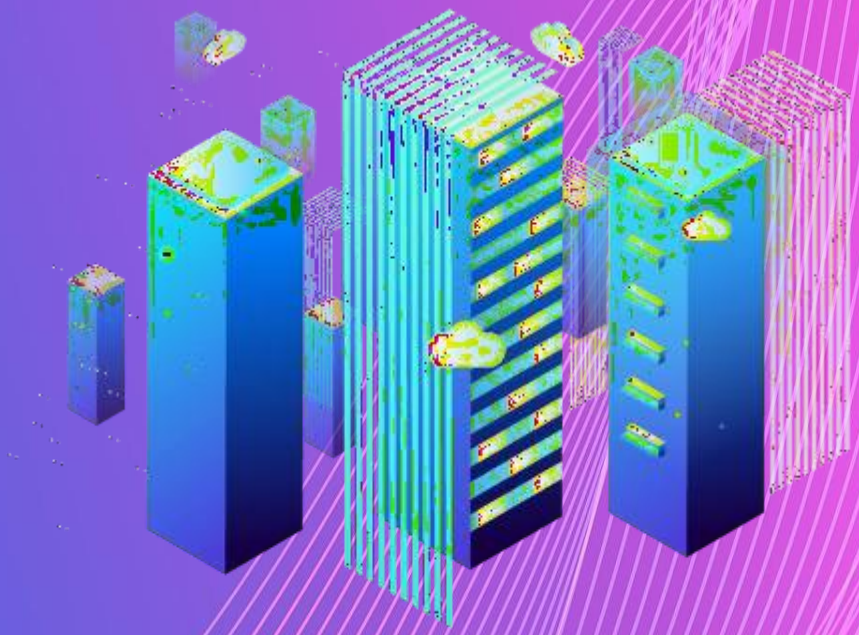
• MDN will cooperate with professional community and application global distribution team to integrate the content of MDN payment system for global operation and ensure the global circulation of MDN.

• We will continue to improve the construction of DAPP platform, reach strategic cooperation with the world's top media giants in the future, and promote products based on MDN technology.

4） Incentive level

At MDN, users can order related services and products through a special interface. For example, in more diversified game scenarios in the future: brand businesses can choose some settings for games and slots. The interface then calculates the cost of the game. Anyone who wants to play the game must pay a certain fee. There are several ways to get MDN tokens and be able to join the game. When registering, users use social

networks to confirm their identity. In order to join, they will receive tokens. First of all, these tokens can only be used to check the game. User can exchange tokens for prizes or cash them. When existing users invite friends to join MDN, they will receive token rewards. Once invited users join at least one game, tokens become available. Another way to get tokens is to buy them from an external exchange. Each user account is connected to the wallet address. Users can add tokens they purchased outside the system to the wallet.



Chapter III MDN architecture

Based on the principles of simplicity, ease of use and convenience, MDN tries its best in architecture design. Therefore, MDN architecture includes blockchain bottom layer, user service layer and blockchain API layer with the support of BSC.

3.1 Blockchain bottom layer

1) distributed system

Distributed computing is a computer science, which studies how to divide a problem that requires great computing power into many small parts, then assign these parts to many computers for processing, and finally synthesize these calculation results to get the final result. Distributed system is a system in which components are distributed on network computers and communicate and coordinate actions through message passing. In short, a distributed system is to connect some computers through the network, and then work together. Two problems need to be solved in collaborative work:

- Task decomposition: decompose a problem into several independent tasks, and each task runs on a node to realize the concurrent execution of multiple tasks.
- Node communication: nodes communicate with each other, which needs to be realized by designing a specific communication protocol. The protocol can be RPC or Message Queue.

One of MDN's engineering problem in the payment scenario: high concurrency transactions and massive data running, all of which can be solved by using distributed systems. According to the hierarchical division and organizational structure of application system, the structure of distributed system can be divided into two-layer C / S structure and multi-layer structure (three-layer C / S structure). The former is a traditional and mature application technology, and the latter is becoming increasingly popular and developing.

MDN adopts a distributed system with a multi-layer structure as required. Multi-layer application architecture is to add an intermediate layer between the traditional two-layer structure of client and database server, and each layer achieves a clear division of labor.

Compared with the traditional two-layer application mode, multi-layer structure has many technical advantages, which is easy to maintain in the following aspects. The distributed application adopts a multi-layer architecture to reasonably distribute the logical structure of the application. The business logic is in the intermediate server. When users need to change the program of the application server, they only need to change the program of the application server. There is basically no need to change the client program.

• Fast execution speed: thin client reduces the workload on the client side. High performance improves the execution speed of applications through load balancing and the data caching capacities of the middle layer.

• High security: the middle layer isolates customers' direct access to the database server and protects the security of the database.

• Strong stability: the middle layer buffers the actual connection between the client and the database, so that the number of database connections is far less than the number of clients, and the database server is more stable. The quack mechanism can transparently transfer client work to other servers in the event of a server failure. Scalability is based on a multi-layer distribution system. When the business increases, more application servers can be deployed in the middle layer to improve the response to the client, and all changes are transparent to the client.

2） Hbase

HBase is a highly reliable, high-performance, column-oriented and scalable distributed database. It is designed to solve the limitations of MDN relational databases in processing massive data. The HBase distributed database system divides a table into several Regions according to rows and columns, and then stores them on different machines. HBase cluster mainly consists of composed of 2 -3 HMasters and a large number of HRegionServers. HMaster avoids single point problems through multiple instances. It is mainly responsible for the management of Table and Region, such as adding, deleting, modifying and querying the metadata of table; Manage the load balancing of HRegionServer and adjust the distribution of region. After a region is split, it is responsible for the allocation of new regions; After a HRegionServer fails, it is responsible for the automatic migration of regions on it. HRegionServer is mainly responsible for responding to user I / O requests.

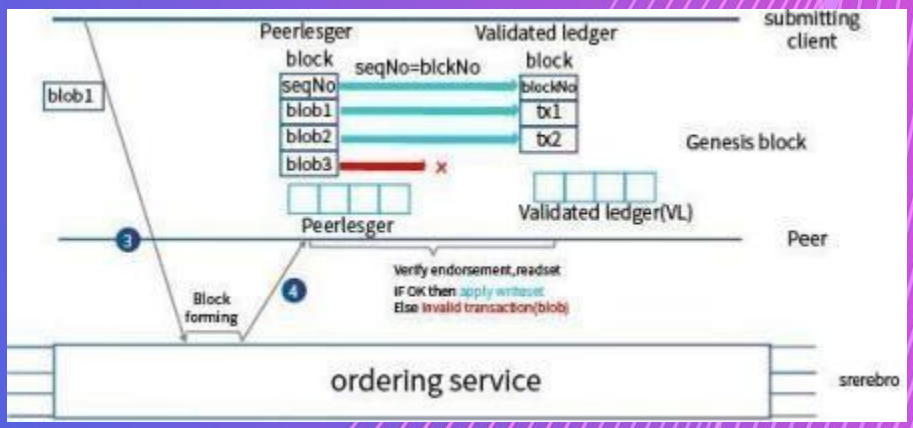
3） Ledger structure

MDN's ledger structure is a distributed ledger, which is a database that shared, replicated and synchronized among network members. Distributed ledger records transactions between network and participants, such as consumer payment transactions of

hotels and tourism. Each record in the distributed ledger has a timestamp and unique password signature, which makes the ledger an auditable history of all transactions in the network. One implementation of distributed ledger technology is the open source Hyperledger Fabric blockchain. In order to keep the ledger abstract and contain only valid and committed transactions, in addition to the status and ledger, the peer-to-peer method can maintain and verify the ledger. This is a hash chain derived from the ledger by filtering out invalid transactions.

The ledger structure of MDN is constructed as follows. Because the Peer Ledger blocks may contain invalid transactions (i.e., invalid recognized transactions or have invalid version correlations), such transactions are filtered out by peers before adding transactions from blocks to the vBlock. Each peer itself (for example, by using the bitmask associated with PeerLedger). VBlocks are defined as having no invalid transaction blocks and have been filtered out. Such vBlock are dynamic in nature and may be empty.

The description of vBlock construction is shown in the following figure：



Each peer connects the vBlock to a hash chain. More specifically, each block of a validated ledger contains the hash + vBlock number of previous vBlock. Calculates the ordered list of all valid transactions submitted by the other party since the last vBlock (that is, the list of valid transactions in the corresponding block), and derives the hash of the corresponding block of the current vBlock (in PeerLedger). All this information is connected and hashed by peers, generating the hash value of vBlock in the validation ledger.

4）Cross-chain communication protocol

The communication protocols between blockchains are similar to those such as TCP / IP and other communication protocols in traditional networks, passing messages by establishing reliable connections. Messages are divided into two parts: Headers and Communication information. The message header records the source, destination, length, category, etc. During the delivery process, the header will be stripped and modified layer by layer, and the information will be transmitted to the destination of the message. In addition, the transmission of the message is stateful, and the sender can understand the current communication state according to the feedback of the receiver and make a correct response.

MDN cross-chain communication protocol mainly includes two parts, communication address and communication packet. The communication address includes the from chain ID and the current chain height of the message source chain. The communication packet consists of a part, a communication packet header and communication information. The communication state corresponds to the communication state mechanism in the network communication protocol.

When a communication packet is sent, the communication status is "reception pending". When the receiver receives a message, it will return a communication packet to the sender, in which the communication status is "sent successfully". If the sender receives a communication packet with "sent successfully" identification, the sender will reply to the other party with a communication packet with "received successfully" identification.

The above is a successful communication. If a communication packet fails to be received during the process, for example, the receiver does not reply "send successfully", the sender will resend the transaction after a certain period of time and try to establish communication again.

3.2 User service layer

1）BBE Smart Wallet

MDN will develop an exclusive MDN Smart Wallet in the ecology. Users can make

more than 100 chain payments and more than 30 traditional payments through the MDN Smart Wallet, open up major exchange ports, conduct payment transactions according to the real-time exchange rate, deduct the same amount of MDN, and achieve second-class transactions and real-time arrival.

• One-stop management: Unified management of various digital currencies through MDN Smart Wallet, which not only supports the storage and management of mainstream assets such as Bitcoin and Tron, but also supports the standard protocols of smart contract platforms such as Tron and BSC, and quickly increases the tokens issued on various platforms. While reducing the burden of user management, it also provides wallet service support for user blockchain projects, so that the project team can focus more on core services.

• Decentralized service: MDN Smart Wallet adheres to the core meaning of blockchain and provides users with a decentralized digital currency storage scheme. Wallet keys and address private key information of all types of currencies are stored in the user's local system. At the same time, MDN Smart Wallet provides a convenient key backup scheme - users only need to make a backup once, write down 12 words and save them to a safe place. Even if the types of digital currency are added later, all types of digital currency assets can be recovered with the 12 words of backup.

• Multiple security guarantees: in addition to allowing users to fully control the wallet key, MDN Smart Wallet also provides multi-signature technical guarantee and two-step authorization verification for digital asset management of different scales. Users can choose to conduct mobile phone verification codes, fingerprints, living devices and other verification methods during transfer transactions to ensure the security of digital currency assets in an all-round way.

• Multilingual support: The MDN Smart Wallet plan will support multiple languages in mainstream digital currency markets such as China, England, Japan and South Korea, clearing language barriers for building world-class wallet applications.

Blockchain wallet is a software program that stores cryptocurrencies. Each registered user of MDN has a private key (secret number) to their wallet. This key is the only way to access their digital currency address, so it is also the only way to receive or

send credit.

In the wallet, users retain their application pass in MDN ecosystem, and the change of application pass corresponds to the change of MDN main network ledger information. The essence of managing the wallets is to manage the private key. Once the private key is lost, there is almost no chance to recover.

2） Privacy protection

In order to solve the problems of information asymmetry and evaluation fraud, MDN will encrypt and save the identity information into the system through asymmetric encryption technology. To ensure that the information on the chain is effective, true and secure. The specific application principle is as follows: users in each link of MDN need to register on the system, and registered users have a unique private key to prove identity information. Every user with a private key can record information on the blockchain or view information within his permission.

MDN privacy protection mechanism is as follows:

• Generation of public and private keys: users must first generate a 256-bit private key from the ciphertext through SHA256 (Security Hash) algorithm (yellow key). When the HASH function is used, the data length changes and the hash value length remains unchanged; each data character corresponds to a unique hash value, which can be used as a data fingerprint. Use the elliptic encryption algorithm to generate the public key (light purple key), which can be known to everyone. Everyone can get the user's address through the HASH function through this public key. Because the HASH function is unidirectional, that is, HASH (x) = y, it is difficult to find x through y. It is almost impossible to crack the public key through the address or the user's private key through the public key.

• Encryption and decryption: Encryption - If someone (such as a user) wants to encrypt data, it is encrypted using a public key. Decryption - decryption requires a private key, which only the user knows.

3.3 Blockchain API layer

1） API

API is crucial for blockchain technology. The powerful API infrastructure can enable users to win first and profit from block chains faster. MDN will officially open blockchain technology through the API (Application Programming Interface) released on the developer platform to provide a new application scenario access mode for participants of various formats.

MDN's API allows applications to register users, query blockchain, and publish signals about transactions, allowing developers to quickly test the chain codes or query transaction status. Therefore, MDN will create a pan-commercial vertical application platform for games, which is committed to aggregating game enterprises and game service institutions of various formats around the world and providing high-quality multi-domain services.

2） Collaborative open interface

MDN's pan-game commercial platform is a cross-format service platform, which is integrated and developed based on the actual situation, supports openness and has high selectivity. Therefore, in order to facilitate business system docking with participating institutions, MDN's blockchain system provides an independent API gateway to provide the business functions provided by BSC in the form of REST API to realize the interface of cooperative operation. On the one hand, cooperating third parties can quickly access

BSC and integrate with other systems within them, and obtain real-time user data through the platform. On the other hand, when cooperating third parties own these game data models, due to encrypted identification, this unique user information is more difficult to be stolen or accessed by other operators, so as to better achieve anonymous, secure, reliable and unique.

Chapter IV MDN key technology innovation

4.1 Anonymous communication technology based on P2P

The underlying communication network of MDN adopts P2P architecture, and then an anonymous access mechanism between nodes is added to it to ensure the privacy protection of information services. MDN's P2P network anonymous communication is mainly realized in the following ways:

- Running a proxy server on the local machine, which communicates periodically with other MDN to maintain a TLS link, thus forming a virtual link in the MDN network. Specifically, each user runs its own proxy: get directories, establish paths, and process connections. These agents receive TCP data streams and reuse them on the same line.
- There is a hierarchical structure. All nodes passing through it are packaged in it, so that communication security can be maintained between relay nodes. Specifically, each MDN relay node maintains a long-term authentication key and a short-term session key. A validation key to sign the TLS certificate, a descriptor of the relay node, and is also used by the directory server to sign the directory. The session key is used to decode requests sent by users in order to establish a path and negotiate the temporary keys at the

same time. The TLS protocol also uses short-term connection keys and periodical independent changes between communication relay nodes to reduce the impact of key leakage.

- Packets in MDN network use random paths to cover the footprints, so that observers at a certain point do not know where the data really comes from and where the real destination is. The client incrementally establishes an encrypted line in the MDN network. This line only expands one hop at a time, and each expanded relay node only knows which relay node the data comes from and to which relay node the data will be sent. No relay node knows the whole line. The client negotiates a set of independent keys with each hop to ensure that each hop cannot track the passing relay points. Once a line is established, it can be used for data interaction.

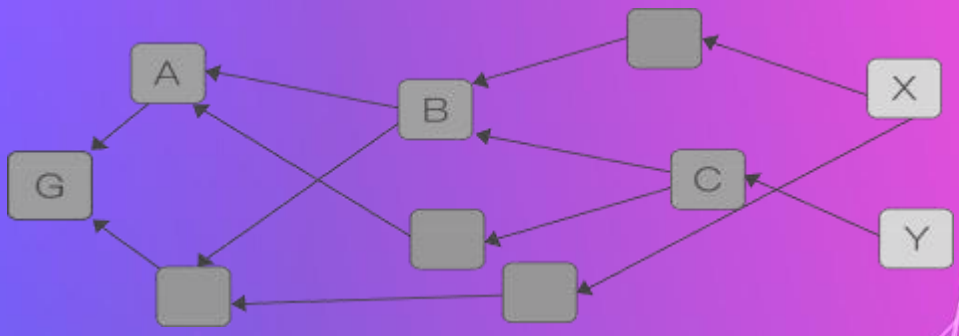
The basic principle of MDN's anonymous communication network is that the directory server is the core of its network, which is responsible for collecting the relay node information in MDN network and publishing it to MDN agent in the form of node snapshot and node description; Relay node is the basis of MDN network, in which anonymous communication traffic is forwarded through anonymous communication link composed of multiple relay nodes; The agent runs on the MDN client. It is responsible for establishing anonymous links and transferring network traffic between the user's network application and MDN anonymous links. A MDN anonymous communication link is composed of three relay nodes, which are the entrance position, the middle position and the exit position according to their positions.

4.2 Hybrid data structure

1） Basic DAG data structure

MDN uses the basic DAG structure to store transaction data in the first stage. At present, IOTA and Byteball and other projects have successfully constructed DAG public chains which can long-term in time, and prove the technological advancement and performance of DAG chain. In MDN, Transaction information is encapsulated into units, and units are connected with each other to form a DAG diagram. Because units can be linked to any one or more previous units, there is no need to pay more calculation cost

and time cost for consensus problems, nor need to wait for strong data synchronization between nodes. Even there is no concept of multiple data units' assembly blocks, it can greatly improve the concurrency of transactions and minimize the confirmation time.



The DAG data structure of MDN is shown in the figure. The directed edge between units indicates that there is a reference relationship between the two units. In the figure, there is a directed edge from B to A, indicating that B references A, A is the parent unit of B, and B is the child unit of A. At the same time, we call unit C indirect reference A, and A is the ancestral unit of C; Unit G does not have any parent unit, which is called the genesis unit, and the genesis unit is unique; units X and Y do not have any subunits, which are called top units.

A unit consists of two parts: a unit header and a unit message. The unit header mainly contains the following fields:

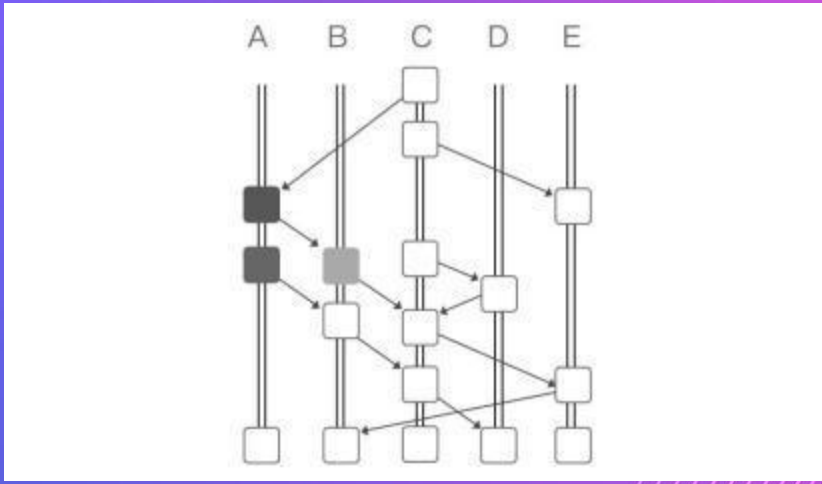
- Unit version;
- Token identifier;
- Signature of unit Creator: single signature or joint signature of multiple creators;
- Parent unit hash: the hash of a single or multiple parent units referenced;
- Witness list: hash of other units (usually parent or ancestor) with the same witness.

The unit message part is used to store transaction information. MDN has many types of transactions, including payment, data storage, voting, etc. Similar to each new block in the blockchain, each new subunit in DAG needs to confirm its parent unit and all parent units of the parent unit. If you try to modify past records in MDN, you need to coordinate with a large number of and more other users, most of whom are anonymous strangers. Therefore, immutability is based on the complexity of coordinating with such a large

number of strangers, who are difficult to reach an agreement, have no interest in cooperation, and everyone can veto the revision. After the unit is published, the confirmation starts immediately, and the confirmation can come from a new unit published by anyone at any time. Users help each other: by adding a new unit, the publisher also confirms all previous units.

2） HashNet data structure based on enhanced DAG

HashNet is a directed acyclic graph (DAG), which consists of countless vertices and directed edges connecting vertices. As shown in the figure.



This figure records what data all nodes in the network send to other nodes at what time and in what order. Each node has such a HashNet copy in memory.

In the figure above, there are five computer nodes A, B, C, D and E. each of which has a column for placing vertex (also known as event). The latest events will be placed at the top of the figure, and HashNet increases over time.

4.3 Transaction anonymity protection

MDN ensures the anonymous protection of transaction information from two aspects of non-relatedness and non-traceability of transactions, and continuously iteratively improves the anonymity protection ability. MDN has standardized definitions of transaction unlinkability and untraceability. Unlinkability means that for any two external transactions, it cannot be proved that they are sent to the same person. Untraceability means that for each internal transaction, all possible senders are equal in probability. Associativity and untraceability are the attributes that must be met by blockchain with

strong privacy protection. MDN supports associativity and untraceability by adopting one-time secret key and ring signature technology. At the same time, MDN designs and implements a strict zero-knowledge proof zero knowledge proof model as an optional function, which can further enhance the anonymity of transactions.

1） Primary key

MDN uses primary key technology to realize the irrelevance of transactions. A primary key means that the sender signs each transaction with a separate key. Unlike the recipient who only uses a pair of public and private keys in the usual blockchain transaction, in a key case, the recipient needs two pairs of public and private keys in each transaction. When the transaction is initiated, the transaction sender uses the two public keys and random numbers of the transaction recipient to generate a temporary public key, and the sender uses the temporary key as the place for the transaction, The receiver performs the Diue- Hellman exchange and combines one of his private key information to obtain a temporary private key. Because the primary key can only be verified by the receiver, the correctness of the transaction is guaranteed. At the same time, different random numbers are used for each transaction. Even if multiple transactions are carried out with the same receiver, it cannot be associated because of its different keys, ensuring that the transaction isunrelated.

2） Ring signature

The primary key mainly ensures the privacy of the transaction recipient. In order to ensure the privacy of the transaction sender at the same time, In-terValue adopts ring signature technology. Ring signature is a multi-user signature technology derived from group signature technology, which gets rid of many disadvantages of group signature, such as no need for group administrator, untraceable and so on.

In ring signature technology, a message is signed by a group of signers, and the verifier cannot know who is the specific signer. Therefore, ring signature can solve the problem of signer's identity privacy protection and realize the untraceable of transactions.

On the other hand, because the general ring signature technology hides the signer in a group of users, it will cause the problem of double spending. Linkable ring signature

technology can be used to solve this problem.

3） Zero-knowledge proof

Zero-knowledge proof technology was proposed by S. Goldwasser, S. Micali and C. Rackou in 1985. It was originally designed to enable the verifier to correctly authenticate the verifier without providing any useful information to the verifier. In essence, zero-knowledge proof is an interactive proof system that introduces randomness and interactive elements into the traditional mathematical proof and proves by question and answer. Later, it developed a non-interactive method, which has a far-reaching impact in the field of computer science and cryptography. In practical application, zero-knowledge proof requires the verifier not to obtain new knowledge in the verification process, that is, malicious verifier, which makes the verification error and prevents the verification error caused by technology.

Zcash, an encrypted digital currency, uses-zero knowledge proof for the first time to prove the privacy of its transaction, which is different from the way of deleting the sender's transaction block. Zcash uses an invalid list to identify the block sent by the trader, and the miner only verifies the hash value of the transaction block and realizes the complete anonymity of the transaction

4） Anonymous transactions and privacy protection

As an innovative blockchain technology, MDN through confidential transactions realizes anonymous transaction and privacy protection. MDN1.0 to 3.0 versions learn from the privacy protection methods of various cryptocurrencies and use primary key and ring signature technology to realize confidential transactions. The latest version of MDN draws lessons from the current Zcash anonymous protection method and adds strictly designed non-interactive zero-knowledge proof on the basis of the previous version. As an optional function, knowledge proof supports complete anonymity of transactions, effectively resists malicious verifiers, and meets the privacy protection requirements of different application scenarios.

4.4 Smart contract

Blockchain technology provides a safe and reliable execution environment for smart contracts and facilitates the realization of the concept of smart contracts. Smart contracts are an event-driven, stateful programs that run on a replicable, shareable ledger and can keep the assets on the ledger. Its purpose is to enable a complex set of digital commitments with trigger conditions to be executed correctly according to the aspirations of participants. Smart contracts can not only receive and store value, but also send out information and value. The whole process can be automated and intelligently executed without center and trust.

Smart contracts need to be designed to strike a balance between security and functionality. Existing blockchain projects mainly focus on the design of a single type of smart contract, and seek a balance between security and functionality under the condition of limited types of smart contracts, which often fails to achieve the ideal effect of meeting the user experience of diversified user groups and the diversified transaction needs of users. The easy script of Bitcoin blockchain is the prototype of smart contracts. It is a non-Turing complete smart contracts, with the advantages of low complexity and lightweight. There have been no security problems in the operation of Bitcoin blockchain network for nearly ten years. However, the functions supported by Bitcoin transaction verification script are very limited and are only used for payment verification. Tron blockchain supports Turing complete smart contract written in solid high-level language, which greatly enriches the functions of smart contract and expands the application field of blockchain technology. However, writing Tron smart contract is prone to security

vulnerabilities. The DAO event is precisely because the security vulnerabilities of the written Tron smart contract led to the division of Tron community.

MDN adopts a hierarchical idea similar to computer storage architecture in the implementation of smart contracts. Moses Virtual Machine supports declarative non-Turing complete smart contracts and advanced Turing complete smart contracts. Users choose to use these two types of contracts according to their user experience and transaction needs, balancing computing security and computing functions, as well as computing costs and complexity to meet transaction diversification needs. Declarative smart contracts are simple to deploy, security and closer legal contracts language. Advanced Turing Complete Smart Contracts are relatively difficult to deploy and are mainly used to develop DApp with more complex program logic. The fee mechanism for deployment of two types of smart contract is different. The fee for declarative smart contract is calculated based on the bytes occupied by the contract, while MDN Token consumed by the program runtime is used as the fee for advanced Turing complete smart contract.

4.5 NFT digital asset data structure

Non-Fungible Token is a type of digital assets applied in Distributed Accounting network. Asset instances are unique and can be more flexible to serve blockchain network games by optimizing the structure of Non-Fungible Token.

MDN redesigns the data structure and adds a custom data store to accommodate possible game data and extensions. At the same time, key processes such as consensus, witness and blocking are adjusted accordingly to match the new data structure. Projects data in MDN is only fully recorded in block data when generated and property changes, while hash pointers are only recorded for ordinary transactions and transitions to ensure that the volume of block data does not grow too fast for long-term transactions.

Data separation of assets and contracts: Homogeneous, Non-Fungible Token and smart contract data are stored separately on the chain. There will be a large number of ongoing transactions in the network of MDN, it is necessary to reduce the operation cost of asset resolution and circulation as much as possible. Separation of assets from

contracts can realize the separate analysis of contracts and operations on the chain of necessary results.

Under the design of separation of asset and contract data storage, the owner of the asset has full authority over the asset, and the operation of the asset can only be performed with the authorization of the owner. Separation of assets and contracts is a safer design because it avoids the occurrence of damage to asset attributes or calls to other people's assets due to non-separation of asset contracts, and cross-chain acceptance of Non-Fungible Token is easier to achieve without regard to contractual constraints.

4.6 Super scale game virtual machine support

MDN has sufficient high concurrency processing capability. Most of the current online games, when the scale of users reaches a certain level, their servers need to do a lot of data processing in a short time, which is not possible in the existing Tron network. MDN uses an innovative consensus mechanism with a theoretical throughput of about millions of TPS. Its high concurrent processing performance is enough to support the development and normal operation of existing games under a reasonable data management mode design. It basically meets the operational needs of large online games on the platform and ensures that the users 'game experience is almost the same as that of existing central games.

Due to the high frequency of data interaction in large-scale online games, DNF has set a record of 600,000 simultaneous online users, and Steam has amazing data of 14.2

million simultaneous online users. If the row of data by each online user is deemed to have initiated a consensus request, MDN's maximum throughput is not sufficient to support processing requests at this level. The development team has designed different Delegation Templates according to the requirements of witness speed. So that the single witness client does not have to focus on witnessing and entering multiple games of the same type instead of all running games at the same time. In this mode, data submission/witnessing for different games is a relatively asynchronous process, and each game will choose the appropriate delegation mode, while asynchronous Data validation in mode can be accomplished through on-chain database services, where users validate and access data on the chain. This process is efficient enough to support player data operations in large-scale game scenarios.

A contract is a program that can be executed automatically and as a system participant. Performs preset tasks according to the basic rules of the environment (compiler rules), contracts can define inputs and outputs, receive and store value, and send information and value outward. Smart contracts are based on the principle of distrust. Designed as a precondition, each node considers itself untrustworthy of the other. Due to the distributed preservation of block chains, each node in the chain has the same contract execution code. The results of the contract are witnessed by the network-wide computing power and determined by a vote of all whether the results of the operation are approved or not. The contract for MDN supports the definition of witness delegation.

Chapter V MDN pass economic model

5.1 Issuance and distribution of MDN

The MDN token is a functional token used on the MDN platform. This is an interesting and practical virtual currency designed for widespread use in entertainment

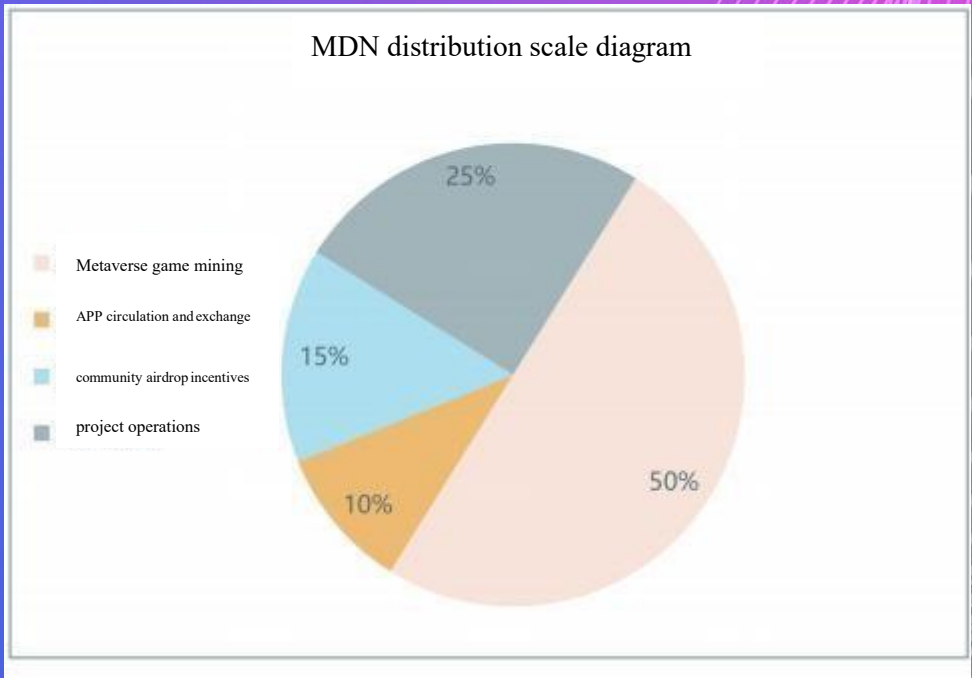
games. It can be used for such things as ticket fees for participating in a competition, incentives for winners, exchange of NFT cards, game credits, etc.

Players can receive or be rewarded with MDN tokens while playing the game. Players will be rewarded with MDN tokens whenever they play games in competitive games that support MDN tokens. MDN can also serve as an incentive for participants to use the MDN platform and maintain the ecosystems. For each redemption service on the MDN platform, the cost will be quantified in MDN and paid to the MDN platform and/or the other party providing the service.

Total MDN token issue: 100 million currencies

MDN allocation scheme:

50% for Metaverse game mining, 10% for APP circulation and exchange, 15% for community airdrop incentives, and 25% for project operations (foundations, founding and technical teams, business collaboration, marketing operations, etc.)



MDN token will provide value carriers for NFT, metaverse games, competitive game chain incentives, etc., drive the interconnection of virtual and real competitive games, and making the network connectivity more relevant and valuable by combining players, processes, data and competition.

In the future, after the MDN token is launched on the world's major mainstream

exchanges, the value and price will increase, and the user income will continue to increase. Overall, the value, incentive, governance, security and MDN ecology of MDN tokens have profound logic:

- In terms of value, MDN condenses the carrier of "trust value" and "consensus value";
- In terms of incentive, MDN is an economic reward to encourage the participation of "bookkeepers" in thenetwork;
- From the perspective of governance, MDN is the equity certificate of participating in the network;
- From the perspective of governance, MDN is the equity certificate of participating in the network;
- In terms of income, MDN is the embodiment of value income in NFT and metaverse game mechanism.

5.2 Acquisition and use of MDN

MDN can be obtained from official task reward and resource reward, from the exchange of secondary assets, or mining. MDN is mainly used to purchase competitive

game props, gold coins, acceleration services, training services, etc., and can also be converted into other secondary assets.

1） Acquisition method

The methods of obtaining MDN include but are not limited to:

- Value creation: including (A) the contribution of creating digital assets, that is, developing games and making props. For a single digital asset (including games, applications, games / in-app props), the amount of incentive issued by the platform is directly proportional to the value of the asset created by the participants, inversely proportional to the duration of the MDN platform and the total asset value of the system, and there is an upper limit on the total amount of incentive; (B) The contribution to creating the value of digital assets, that is, MDN can be obtained when the created assets reach a certain charge and asset circulation scale. For a single digital asset (including games, applications, games / in-app props), the incentive distribution is directly proportional to the total asset circulation of the asset created by the developer;
- Platform contribution reward: users who contribute to the MDN community can get MDN. At the beginning, we released MDN based on the historical contribution of the developer community (code contribution points to the MDN engine, online community interaction points, etc.). Later, the platform will adopt bounty tasks and free assets (for example, free game characters for developers) and other forms to encourage developers to carry out community behaviors such as new function development, upgrading, error modification and testing of the platform. This part will be allocated from the asset reservation and platform share of the Platform Foundation;
- Asset circulation: transfer the prop assets obtained in the game to obtain MDN. The incentive of this part is related to the gameplay and economic system, which is determined by the game developers and market rules. In principle, the platform does not make rules and quantity restrictions;
- Behavior incentive: various effective behaviors in MDN platform, community and platform game will be converted into MDN according to a certain degree of contribution. For example, users register platform accounts and participate in various community

interactions to obtain MDN. By analyzing the dimensions of access effectiveness, information integrity and behavior rationality, the platform confirms whether the user's behavior is effective, and gives incentives to MDN. The number of incentives in this part is directly proportional to the interactive content (such as posts, likes, replies, etc.), inversely proportional to the total number of users of the platform and the duration of the platform, and there is an upper limit on the total amount of incentives;

- MDN consensus work contributionaward.

2） Usage scenario

In the process of game operators providing economic game services, MDN can also be used to measure the consumption of hardware resources, such as bandwidth and log storage resources, computing resources and state storage. Cloud service providers provide these resources to obtain MDN, and game operators use these resources by spending MDN.

When game manufacturers carry out game promotion, release, asset distribution and other activities, as well as players' prop consumption, player transaction and other behaviors in the game, a certain handling fee will be generated. Part of the game asset transaction fee will be recovered and precipitated into MDN digital asset network, some of which will be fed back to the game manufacturers issuing these assets, and some additional reward node maintainers. The assets in MDN digital asset network will regularly provide rewards to the community, so as to improve the activity of the community and maintain the long-term activity of MDN trading system and the community.

In addition, some MDN is used as collateral during the issuance of secondary assets and is locked in the disk with the issuance of secondary assets. According to the economic model of MDN, once there are more and more game assets such as MDN based distribution, the subsequent demand for MDN will be more and more. Whether it is game equipment or game services, there will be consumption demand in real games. In addition, the demands of MDN for the issuance of game assets and the payment demands for resource consumption will increase the scarcity of MDN, thus increasing the value of

MDN. In addition, through the contribution of game equipment and services, users can also exchange value in the digital currency exchanges through MDN, which can also promote its liquidity.

Finally, part of the token consumed by the business in MDN will be used to reward the continuous maintainers of the transaction node, the active maintainers of the community, the developers with great contributions and the maintainers of MDN, so as to maintain a sustainable development trend of the whole system ecology, so as to ensure the long-term activity of the system and the community.

In the future, after MDN continues to go online in major global exchanges, it can realize the exchange with all digital currencies and support the circulation and payment of all links in the ecology, such as receipt and payment, transfer, legal currency transaction, currency charging, currency withdrawal, mortgage, public welfare, mall, etc. MDN and global legal currency settlement. In addition to the circulation within the MDN ecosystem, it will also circulate in the third-party game application developed based on Tron and currency security chain technology, and exist as the only value certificate. This will accelerate the circulation rate of MDN, add more circulation value attributes to scarce MDN, and raise the overall value and price.

For game players, MDN can be used for competitive game consumption (such as recharge, point card purchase, prop purchase, game payment, etc.). At the same time, it can also be used as the basic means of cross-border payment, thus bring more benefits to itself. When MDN is connected with the global mainstream platform, game players can enjoy the broader global entertainment and leisure convenience brought by MDN.

The usage scenarios of MDN include but are not limited to:

- Exchange development resources from third-party developers (such as competitive game character image, etc.);
- Exchange value-added services such as development function components from the platform;
- Purchase game gold coins and prop assets from in-game or asset circulation platforms. Based on the platform-based asset rights management mechanism, each circulation of props in its full life cycle will pay a certain fee to the developer.

- Post reward tasks in the community, initiate and participate in voting on community affairs.

In terms of versatility, MDN adapts to more diversified business needs through continuous improving and exploring business models to meet data sharing across the business chain of games. This means that MDN has sufficient versatility and standards for data recording, can represent a variety of structured and unstructured information, and can meet cross-chain requirements as business scope expands. This provides a value basis for the universality of MDN. Enable MDN to flow more leisurely across industries and scenarios around the world to achieve sustained appreciation.

5.3 Project operation planning

The MDN development plan is clear and it is divided into three phases:

• Initial planning: Open competitive game up-chain services, create NFT blind box, auctions, access to metaverse gameapplications;

• Medium-term planning: Open the connection channel with Tron and coin security chain, after the realization of competitive game chain, it can quickly access to MDN ecology and MDN token incentive system to drive the outbreak of platform ecology.

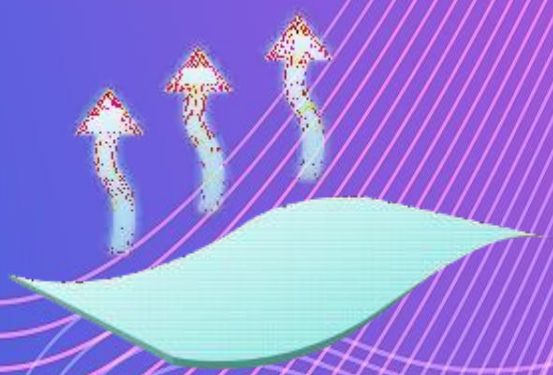
• Post-planning: MDN has become the basic platform of competitive game services in the field of block chains, MDN has become the benchmark asset in the field of competitive games, and has become the mainstream token of Tron, BNB, etc.

Adhering to the principles of openness, justice, fairness and transparency, MDN will strive to realize the uplink of competitive games in the future. Therefore, we will support the whole industry through continuous iteration of products:

MDN version 1.0, online access to Texas poker, chess, bridge, blind box lottery and other competitive games.

MDN version 2.0, online access to Hearthstone Legend, Thunder Fighter, National Aircraft War, Time and Space Hunter, Sword of King, Temple Escape, rhythm Master, wild Racing and other set exchange cards and light competitive games.

MDN 3.0 version, online access to FPS, fighting, MOBA-type competitive games such as National Gunfight, Call of Duty, Modern Warfare 5: Stun Storm, League of Legends, DotA2, Marvel Fighting Champion, Heroes of Chaos and Order, Vanity.



Chapter VI Global team and MDN DAO

6.1 Global team

MDN's core technology R & D team members are mostly from international top blockchain projects and well-known Internet enterprises. It gathers the industry's best technical experts in various fields such as computer, information security, communication, mathematics, finance, web development and high-frequency algorithm trading. At the same time, team members have market and practical experience in DAPP development, DEFI, NFT, metaverse, chain game, auction, etc. they not only have strong technical ability, but also have excellent scientific research ability, and have made outstanding achievements in many fields.

Arvin——A world-renowned blockchain game application expert and global leader in blockchain technology business application leader. He once served as a member of the European Business Council, a doctor of Sociology from Columbia University and a researcher of the financial research center. He is a global authority in the application field of intelligent games and entertainment technology.

Barton——Internationally renowned Data Engineer, who has held key positions in many world-famous Internet big data research centers, is responsible for the application research and development of Internet basic technology, participates in many internationally renowned projects, and is a pioneer in the field of blockchain technology.

Robin Teo — — Doctor of computer and big data, architect, database expert, exchange construction technical expert, has long been engaged in database application, data warehouse, big data and blockchain development in the trading industry, and has rich experience in blockchain project development.

Agnes Neo — — He has authoritative influence in the development of blockchain underlying technology. His career covers both academic and business fields. He is a research scholar, engineer and leader. He has held various engineering management positions at Google and Amazon.

Ken Lin — — Ken Lin's research focuses on big data parallel computing and distributed algorithm optimization, and has rich research experience in blockchain, cryptography and data mining. Ken Lin will provide in-depth algorithm support for the project at the level of blockchain core mathematical model, artificial intelligence core algorithm and big data parallel computing.

Tony Zeng — — Be proficient in the principle and implementation of mainstream blockchain technologies such as Bitcoin, Tron and HyperLedger, and have a deep understanding and rich practice of blockchain consensus mechanism, smart contract, cross-chain technology, side chain technology and privacy protection.

Koene — — Technical consultant, a world-renowned computer technology application development expert, has worked for many companies such as Apple, SGI, Microsoft and Google, and has more than 15 years of global IT development and operation experience.

6.2 MDN DAO construction

From the perspective of the development process of DEFI, we can see that the rise of DEFI has given greater support to the industry. In addition, the popularity of NFT has also makes DAO, which has been silently contributing core values to the industry, popular with users.

With the development of information technology and the increasing complexity of the organization itself, it is difficult for traditional organizations to adapt to the complex and changing environment and the requirements of the new generation of individuals for the organization. Decentralized autonomous organization (DAO) combines decentralized, autonomy, autonomy and general economic incentives, and uses various elements in the system as assets to make money Capital, human capital and other factor capital are fully integrated, so as to better stimulate the efficiency of the organization and realize the transfer of value, providing a good idea for solving existing organizational management problems.

The full name of DAO in blockchain is "Distributed Autonomous Organization" is a form of organizational structure based on blockchain. It can operate autonomously without interference and management through some open and fair rules. These rules often appear in the form of open-source software, and anyone can become a member of the organization by purchasing shares and interests of the organization or providing services participant. In a way, DAO is like a fully automatic robot. When all its programs are set successfully, it can start running according to the original rules. In the process of

operation, it can also continuously maintain and upgrade itself according to the actual situation, and adapt to its surrounding environment through continuous self-improvement mechanism.

There are many changes in the form of DAO, which can be a digital currency, a system or institution, or even a driverless car. They provide valuable services for customers, including money transmission (such as Bitcoin), application platform (such as Tron) and domain name management system (such as domain name currency), or any other business model, which is obviously more like the stocks of a specific institution than a single currency. Each DAO has its own terms and conditions. The user will always have the right to view the shares of DAO in the form of digital currency and may receive rewards from them.

MDN community has a strong consensus and will build DAO autonomous community, which is 100% self-managed. After the project goes online, the community will vote to develop its own decentralized application and DAPP. MDN DAO's global community construction follows a high degree of decentralization through the combination of on-chain and off-chain. After all programs of MDN DAO are set successfully, it can start running according to the original rules. In the process of operation, it can continuously maintain and upgrade itself according to the actual situation. Through the continuous self-improvement mechanism, it not only eliminates the problem of trust, but also achieves an unprecedented level of collective coordination, thus forming the technical foundation of MDN DAO.

- Smart contract enables the technical implementation of MDN DAO rules;
- The general certificate economic model provides a realistic incentive basis for the benefit distribution of MDN DAO;
- Blockchain itself is to connect individuals or organizations around the world, so that the expansion of MDN DAO breaks through geographical restrictions.

MDN token is used as value circulation proof and incentive means, and then smart contract is used to determine member cooperation relationship and benefit distribution mode. There is no clear identity division among members. For example, investors, developers, partners, operators, consumers, etc. who will become a member of the

community by holding MDN tokens. Members can continuously seek the shortest path through the continuous optimization of contract structure, so as to maintain efficient coordination ability and better development direction.

2 billion community promotion and publisher operating expenses:

Total number of nodes: 193

Organization : X% USDT +X%MDN

Settlement: real time allocation

Airdrop: MDN will conduct airdrop for Tron blockchain active account

Chapter VII MDN Foundation governance

7.1 Foundation structure

In order to realize the rapid development of MDN project, we will take MDN Ecological Development Foundation as the project management organization, and devote ourselves to the advocacy and promotion of the development, construction and governance transparency of MDN project, so as to promote the safe and harmonious

development of open-source ecological community.

The foundation entrusts a credible third-party organization to assist the team in setting up the operation center entity and maintain the daily operation and reporting of the entity structure on its behalf. Through the foundation, select appropriate community participation members, join the functional Committee of foundation, and jointly participate in the actual management and decision-making. With reference to the operation of traditional entities, the foundation will establish various functional committees, including strategic decision-making committee, technical review committee, remuneration and Nomination Committee and Public Relations Committee.

The Strategic Decision-Making Committee is the highest decision-making body of the foundation. Its main objective is to discuss and solve important decision-making issues faced in the process of community development, including but not limited to:

- Modify the governance structure of the foundation;
- Decision-making committee formation and rotation resolution ;
- Resolution on the appointment and rotation of the Secretary General of the foundation;
- Appointment and removal of executive directors and heads of functional committees;
- Review and amendment of the constitution of the foundation;
- Development strategy decision of MDN;
- Change and upgrade of MDN core technology;
- Emergency decision-making and crisis management agenda, etc.

The term of office of the members of the Strategic Decision Committee and the chairman of the Foundation is two years, and the chairman of the Foundation cannot be re-elected for more than two terms. After the term of office of the decision-making committee expires, the community will vote to elect the community representatives according to the consensus mechanism of the next generation MDN, and then select the core members of the decision-making committee. The elected core personnel will make important and urgent decisions on behalf of MDN, accept credit investigation during their tenure, and disclose their remuneration.

The above important matters need to be voted by the decision-making committee by secret ballot. Each member of the decision-making committee has one vote and the chairman of the foundation has two votes. Decisions made by the decision-making committee must be adopted by more than half of all the members of the current Committee. In addition, in case of any of the following circumstances, the executive director shall convene the decision-making committee to hold an interim meeting within 5 working days:

- When the Secretary General of the Foundation deems it necessary;
- When more than one-third of the members of the decision-making committee jointly propose;

Decision making committee meetings shall be attended by members of the Committee. If it is unable to attend for any reason, it may entrust other members of the Committee in writing to attend. Failure to entrust a representative, shall be deemed to have been waived the right to vote at the meeting.

Secretary General: elected by the Strategic Decision-Making Committee, responsible for the regular operation and management of the Foundation, the work coordination of all subordinate committees, and chairing the meetings of the decision-making committee, etc. The secretary general is the top person in charge of MDN's administrative affairs, providing unified guidance and coordination for the Foundation's daily operation, technology development, community maintenance and public relations, and connecting each business unit with the functional committee of the governance structure. The Secretary General regularly reports to the Decision-Making Committee on his work.

Technical Audit Committee: Composed of core developers in MDN development team, it is responsible for making decisions on blockchain technology R & D direction, underlying technology development, open port development and audit, technology patent development and audit, etc. In addition, members of the Technical Audit Committee regularly learn about the trends and hot spots of the community and industry, communicate with participants in the community, and hold technical exchange meetings from time to time. For example, enterprise customers, suppliers, regulators and

third-party service institutions.

Remuneration and Nomination Committee: responsible for determining the selection and appointment of important management personnel of the foundation. The committee sets up rules of procedure to evaluate the competence of managers and authorize appointment. At the same time, the committee sets up a salary system to encourage personnel who have made important contributions to the foundation. The remuneration and Nomination Committee regularly evaluates the performance of all members of the foundation. Put forward suggestions on the adjustment of human resource structure, put forward different incentive measures, and absorb and retain talented experts.

Public Relations Committee: the goal is to serve the community, responsible for MDN technology promotion, the establishment and maintenance of MDN and business alliance, MDN's participation in the cooperation and resource exchange of various alliance parties, MDN's business promotion and advocacy, community crisis public relations and social responsibility, etc. The committee is responsible for regular press conferences, announcements of important matters and answers to inquiries. In case of any event affecting the reputation of the foundation, the Public Relations Committee will act as a unified communication channel and issue an authorized response.

Supervision and Management Committee: as a highly independent and autonomous form, it is set inside the foundation as an independent supervision and risk control management of the overall operation of the foundation. The Supervision and Management Committee shall provide daily guidance to the legal and compliance department of the foundation.

At the same time, the Foundation has set up a transparent and open reporting mechanism, and the Supervision and Administration Committee directly accepts internal and external reporting matters, and takes corresponding investigation and improvement to ensure that the operation of the whole foundation is in perfect compliance and legality, and continues to move forward within an acceptable risk level. The Supervision and Management Committee reports directly to the Strategic Decision-Making committee, and there is no conflict or overlap with other functions of the Foundation.

Other functional departments: with reference to the company's institutional

framework, the foundation establishes daily operation departments, such as human resources, administration, finance, marketing, R & D units, etc. The establishment of functional departments is to maintain the normal operation of MDN and directly deal with relevant parties in the commercial society.

7.2 Foundation governance system

The design objectives of the foundation's governance structure mainly consider the sustainability of project development, the effectiveness of strategy formulation, management effectiveness, risk control and efficient operation of the project. The foundation proposes the following principles in terms of governance structure:

1） Convergence of centralized governance and distributed architecture

Although it has been advocated that blockchain is an autonomous community

system with "decentralization" or "distribution" as its core, we believe that complete decentralization may bring either absolute "fairness" or more "inefficiency". Therefore, the foundation will still incorporate some core ideas of centralized governance in its management structure, including the highest decision-making authority of the strategic decision-making committee and the centralized deliberation power of major issues, so as to improve the operation efficiency of the entire community.

2） Functional committees coexist with functional modules

Under its daily affairs, the foundation will set up permanent functional units, such as R&D department, market development department, operation department, finance and human resources department, etc., to handle current affairs. At the same time, a professional functional committee is set up to make decisions on important functional matters of the foundation. Unlike functional modules, functional committees exist in a virtual structure, and the members of the committees can come from all over the world without working full-time. However, it must meet the requirements of the expert qualification of the committee and be able to undertake to attend and express opinions when the committee needs to conduct deliberations. Functional committees will also set up a regular meeting system to ensure the effective advancement of major decision-making matters.

3） Risk oriented governance principles

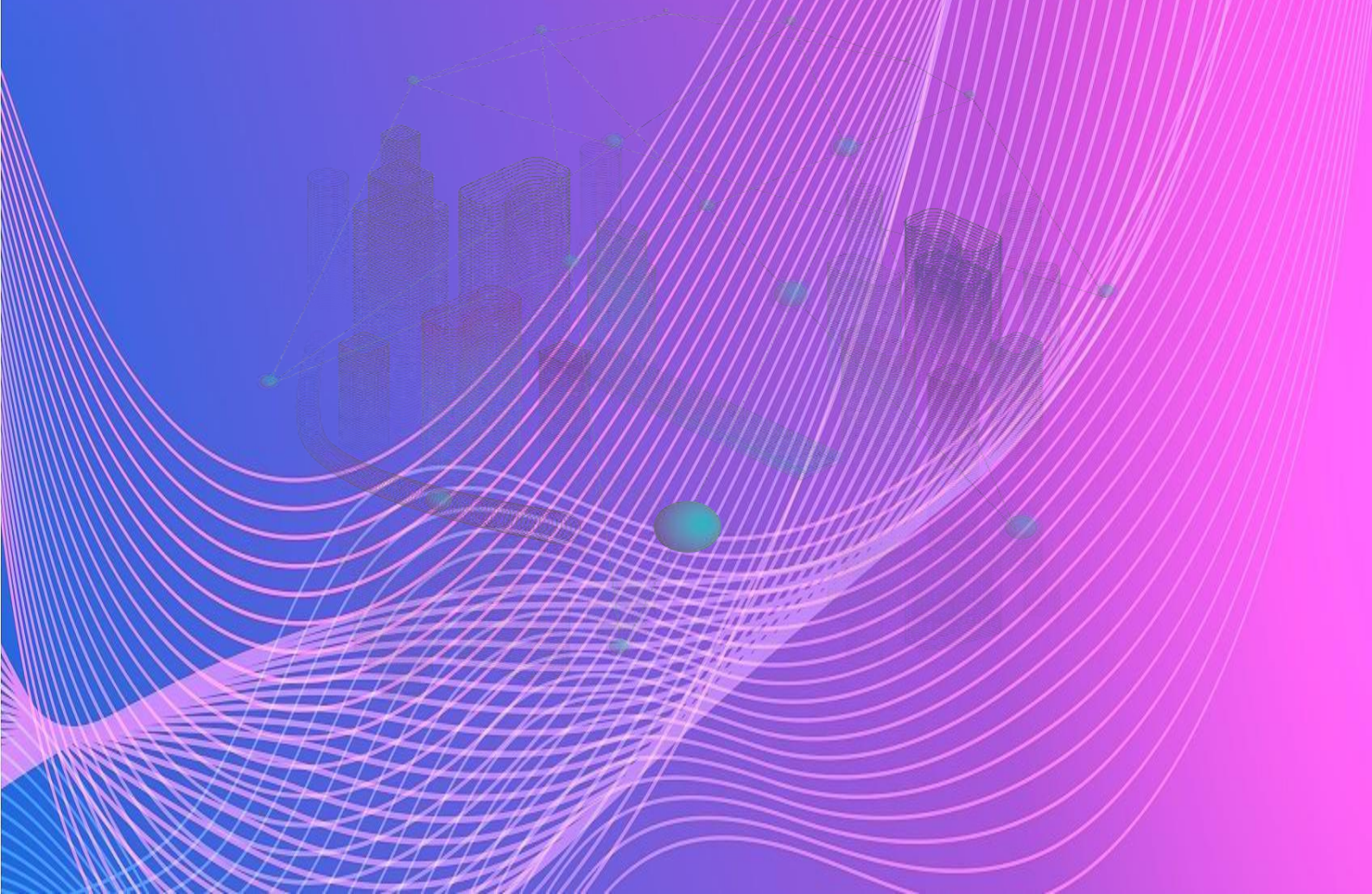
In the process of studying and determining the strategic development and decision-making of the foundation and the project, risk management will be set as the first important element. As a computer technology with great revolutionary significance, the development of blockchain is still in its infancy, so it is particularly important to grasp its development trend. The principle of risk management is to ensure that when the foundation makes important decisions, it fully considers the risk factors, risk events, the possibility and impact of their occurrence, and formulates corresponding countermeasures through decisions. So as to ensure that the development and iteration of MDN project are on the right path.

4） Technology and commerce coexist

The MDN project adheres to the close integration of technology and business to promote the transformation and upgrading of blockchain games. The establishment of the fund also follows this purpose. Even if the foundation exists as a non-profit organization, the foundation hopes to obtain the recognition of the business world to the greatest extent, win the benefits of business applications, and feed it back to the foundation and the community to further promote the development and upgrading of the foundation and MDN projects.

5） Transparency and Supervision

Referring to the governance experience of the traditional business world, the Foundation also plans to set up a dedicated monitoring and reporting channel. Designated members of the strategic decision-making committee serve as Windows, welcoming community participants to participate in the management and supervision of operations, and to report "discovered matters" quickly and confidentially. These include, but are not limited to: new breakthroughs or suggestions that have a significant impact on the Foundation or blockchain technology, questions about community operations, information on crises, reports of fraud or fraud, etc.



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1) In any decision to purchase token, you do not rely on any statement in this white paper;

2) You will voluntarily bear the cost and ensure compliance with all legal, regulatory requirements and restrictions applicable to you, as the case may be;

3) You acknowledge, understand and agree that token may not have any value, does not guarantee or represent any value and circulation attribute, and cannot be used for speculation related investment;

4) The foundation, its subsidiaries and team members are not responsible or liable for the value, transferability, liquidity of token and any market that provides MDN through third parties orother means;

5) You acknowledge, understand and agree that you will not be eligible to purchase any token if you are a citizen, national, resident (tax or other related), residence or country green card holder of a geographical region or country that meets the following conditions:

I. The sale of tokens may be defined or interpreted as the sale of securities (however named) or investment products;

ii. Countries and regions where access to and participation in the sale of Tokens is prohibited by law or where tokens are prohibited by law, policy, regulation, treaty or administrative law.

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