



META MARS

white paper



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Project Context



1. Project background

1. Blockchain overview

Blockchain emerged as a stand-alone technology dates back to the Bitcoin system. In 2008, a person (or team) under the pen name Satoshi Nakamoto published an article titled "Bitcoin — a peer-to-peer electronic cash system", and in 2009, it disclosed its early implementation code, and Bitcoin was born. Forget the ups and downs of the price of the currency, only discuss the design of the currency system itself, it can be regarded as a concept and technical experiment in electronic currency: in the traditional electronic payment system (such as bank transfer or third-party payment), etc., by the bank or payment service provider to verify and record the transactions in the system, the books in the central institutions; and currency for the first time in human history decentralized electronic currency issuance and trading, do not need a centralized third-party authentication body or accounting management system to verify and record the transaction, the whole network to maintain and update the same book. The emergence of Bitcoin makes it possible for the electronic currency system to change from the traditional "centralized ledger + intermediary" model to the "public ledger + consensus" model, and this transformation is realized by the blockchain technology.



The concept of "blockchain" (Blockchain) is not directly proposed in the Bitcoin white paper, However, its solution to the transaction records and can be seen as the prototype of the blockchain system: after the client initiates the transaction, it broadcasts to the whole network for confirmation, The nodes in the system pack several transactions to be confirmed and the hash values of the previous block into a block (Block) and review the authenticity of the transactions within the block to form an alternative block; A subsequent attempt to find a random number such that the hash value is smaller than a particular value, Once the number is found, the system determines that the block is legal, The node broadcasts to the entire network, Other nodes verify the block, The block is then added to the chain, Then all the transactions in the block are naturally judged as valid. Thereafter, transactions are followed after the block to form a ledger chain of historical transaction records. Any change to a certain piece of the chain will lead to the change of hash value of the block, which results in the change of hash value of the subsequent block and the original ledger, so it is extremely difficult to tamper with.

1. Project background

If the steam engine breaks the physical boundary and the Internet establishes the network of information transmission, then blockchain is the network of value transmission. Traditional organizations all have centers, and the decentralization of blockchain technology has the characteristics of immutable and traceable, which establishes a good trust mechanism between people, people and organizations, and organizations.

Compared with traditional technologies, blockchain technology has the following prominent change points:

decentration

Decentralization is a relative concept. Blockchain is a typical distributed system that can reach consensus without centralized control. Blockchain technology is based on peer-to-peer networks. Nodes participating in the blockchain system may not belong to the same organization and do not need to trust each other. This is the decentralization of the blockchain architecture. Blockchain data is jointly maintained by all nodes, and each participating maintenance node can copy a complete data. The consensus algorithm makes it difficult for a few people to control the whole system and realize the decentralization of blockchain governance.

Self-discipline and incentive mechanism

In a centralized system, it is very difficult to achieve the self-discipline mechanism. The system controller always has the impulse to modify the system to obtain benefits, and the participants also have the motivation to forge the data. Modifying the system and forging the data are hard to stop and discover.

On the basis of decentralization, blockchain technology has realized that the data record of the upper chain cannot be changed and traced. Any upper chain data of the participants will be truly recorded and have to be self-disciplined. In addition to self-discipline, blockchain also introduces an "incentive mechanism", especially economic incentives, which plays two roles:

Reward disciplined honest participants, such as for each digging up the correct block; and for the DPOS consensus when proxy votes are added to the main chain.

Punishing undisciplined malicious participants, such as malicious bitcoin miners, who must have more than 51% of their online computing power to modify their transaction records, which can make fraud particularly costly and easy to detect and be punished.

Under the DPOS consensus, agents are penalized when voting for blocks on the non-main chain. Self-discipline and incentive mechanism are the basis for the establishment of the application ecology of blockchain technology, and avoid various disadvantages of traditional systems.

1. Project background

Trust mechanism

Blockchain technology has achieved consensus in a distributed system. The traditional distributed system consensus algorithm focuses on solving the problems of unreliable node communication, outage, timing, etc., and they usually assume that there is no subjective evil situation. In the blockchain system, more attention is paid to how to solve the Byzantine fault tolerance problem, that is, how to achieve the final consistency in the non-trusted network environment in the presence of malicious nodes.

The process of reaching consensus in a blockchain is generally: first, some nodes are accounts, and then verified by others, and consensus is reached. The ultimate goal of the consensus is to match the speed of transaction recognition that current centralized systems can provide before maintaining a high degree of decentralization and security. Although many consensus algorithms such as POW, POS, DPOS, BFT and Kafka have been used in these two aspects and have not reached the ideal goal, it is believed that there will be a consensus mechanism that combines security, speed and decentralization.

1. Project background

Smart contract

Smart contracts on the blockchain are expressed in the form of program code and are automatically triggered according to specific conditions. Compared with paper contracts, the smart contract reform points of blockchain technology are mainly reflected in the following aspects:

1. In the blockchain ecosystem, no independent party can control the execution process of the smart contract.
2. By storing smart contracts directly on the blockchain, we can ensure that once the contract program is tampered with, it can be found quickly, effectively ensuring the security of the business.
3. Blockchain realizes the digitalization of currency, provides a natural way for a large number of capital transactions in contracts, and can effectively prevent the operation of malicious code.
4. With the emergence of the Ethereum blockchain platform, smart contracts can be calculated arbitrarily to support more complex businesses.

The exploration of blockchain in the financial industry is leading the application of other industries is also being rapidly launched. This blockchain technology revolution is sweeping through finance, Internet of Things, healthcare, intellectual property, charity, education, supply chain, public security, energy and so on.

finance

Internet of things

Medical and health

intellectual
property right

Charity

education

supply chain

public safety

the sources of
energy

1. Project background

1.1.2. Status of the blockchain market

On the future development of blockchain, the latest insight from British multinational bank Standard Chartered Bank is that Bitcoin, the world's top cryptocurrency, is expected to soar and could reach \$100,000 by the end of 2024. By 2025, 10% of the total global GDP will be stored using blockchain technology. The application value of blockchain has attracted wide attention around the world, and countries begin to think about the development path of blockchain at the national level.

According to market research institutions, the total market value of the public chain market increased by about 40% in 2023 compared to 2022, showing strong growth momentum. In terms of market share, Ethereum (Ethereum) continues to maintain a leading position, but other public chain projects such as Solana, Cardano, Polygon and so on are also gradually emerging, and the market share continues to expand.

Ethereum (Ethereum), as a leading public chain project, the market value of Ethereum continues to remain high. In 2024, its peak market value could approach or exceed \$200 billion. As the core public chain of the Binance chain of Binance ecosystem, BNB Chain also increased significantly in 2024, with its market value likely to exceed \$50 billion at its peak.

The total size of the Web3 market grew by about 50% in 2023 from 2021, according to the market research institute, showing strong growth momentum. In 2023, both the number of Web3 app users and the activity have increased significantly. In particular, Web3 games have attracted the attention of large numbers and participation of young users, increasing by about 60 percent from 2022.

In the DeFi sector, the total lock-in value (TVL) continues to grow, breaking the multibillion-dollar mark by the end of 2023, nearly double the increase from 2022.

The NFT market also showed a strong growth trend, with significant growth in NFT transaction volume and circulation in 2023, and the price of some popular NFT projects repeatedly hitting new highs.

In addition, with the popularity and ease of use of Web3 applications, more and more users begin to contact and participate in the Web3 field. According to market data, the number of monthly active users in the Web3 space has surpassed the millions in 2023.

1. Project background

1.1.3.DAO, The tissue-morphological characteristics

DAO, full name Decentralized Autonomous Organization, is a new way of human organization collaboration. It is an organizational form derived based on the core ideas of blockchain (the collaborative behavior of co-creation, co-construction, co-governance and sharing spontaneously produced by the group that reached the same consensus). It is an subsidiary product after blockchain solves the problem of trust between people.



A DAO is an organizational form that encodes organizational management and operational rules on the blockchain in the form of smart contracts, thus operating autonomously without centralized control or third-party intervention. The DAO is expected to be a new type of effective organization for dealing with uncertain, diverse, and complex environments.

Different from the traditional organizational phenomena, DAO is not limited by the space of the real physical world, and has the characteristics of full openness, autonomous interaction, decentralized control, complexity and diversity, and emergence. Its evolution is driven by events or targets, rapidly formed, spreading and highly interactive, and automatically disbanded with the disappearance of targets. Previously, the Internet enabled large-scale human resource coordination; now web3-based DAO tools help us design and manage incentives to maintain "positive" relationships among stakeholders.

As products and communities continue to grow, ensure that stakeholders always share a consistent goal vision. The DAO has obvious advantages, and the core features include:



1) Distributed and decentralized (distributed and decentralized)

There is no central node or hierarchical management architecture in DAO, which achieves organizational goals through the interaction, competition and collaboration between bottom-up network nodes. Therefore, the business exchanges between nodes and between nodes and organizations in DAO are no longer determined by administrative subordination, but follow the principles of equality, voluntariness, reciprocity and mutual benefit, driven by each other's resource endowment, complementary advantages and win-win interests. Each organization node will cooperate effectively under the action of its own resource advantages and qualifications under the incentive mechanism of the token, so as to produce strong synergistic effect.

1. Project background



2) Autonomy and Automation (autonomous and automated)

In an ideal DAO, management is coded, programmed, and automated. "Code is law" (code is law), organization is no longer pyramid but distributed, power is no longer centralized but decentralized, management is no longer hierarchical but community autonomy, and organization operation is no longer replaced by highly autonomous communities. In addition, since DAO runs under operational standards and collaboration models determined by stakeholders, consensus and trust within the organization are easier to reach, which can minimize the cost of trust, communication costs and transaction costs of the organization.



3) Organization and order (organized and ordered)

Relying on smart contracts, the operating rules in the DAO, the responsibilities and rights of the participants, and the rewards and punishment mechanisms are all open and transparent. In addition, through a series of efficient autonomy principles, the rights and interests of relevant participants are accurately differentiated and reduced, that is, the corresponding rights and benefits for those individuals who pay the labor, contribution and responsibility, so as to promote the industrial division of labor and equal rights, responsibilities and interests, and make the operation of the organization more coordinated and orderly.



4) Intelligence and certification (intelligence and tokenization)

DAO underlying to encapsulate the support DAO and its derivative application of all infrastructure — Internet protocol, block chain technology, artificial intelligence, big data, Internet of things as technical support, with digital, intelligent, chain chain collaborative governance for governance means, changed the traditional hierarchical and artificial management way, realize the intelligent management of the organization. The token (token), as an important incentive means in the process of DAO governance, digitized and certified all elements of the organization (such as people, organizations, knowledge, events, products, etc.), so as to fully integrate monetary capital, human capital and other factor capital, and better stimulate the efficiency of the organization and realize the value circulation.

1. Project background

Overall, the DAO framework is a set of smart contracts and data interfaces that enable users to start and operate an on-chain organization with just a few clicks of the mouse, and provides a range of "out-of-the-box" core functions, such as money management, membership management, and voting. With these frameworks, DAO creators can configure parameters, such as the length of the voting cycle, the quorum required to pass the proposal, and the number of existing members, and their share. Here are some examples of frames, the DAO using them in parentheses:

DAOStack
(dxDAO 、 dOrg)

Colony
(ShapeShift)

Aragon
(BrightID 、
PieDAO)

Moloch
(LAO 、
MetaCartel)

Because DAO needs and visions vary, there is not a universal governance solution. Due to the limited frame available frame, early DAO had to forcibly adapt to the frame template, rather than flexibly combine various tools to meet its own needs. Despite the new tool kits, their compatibility with the old framework is limited. Therefore, communities can either compromise to tolerate the inconvenience or painstakingly coordinate, overall migration to the new system. Given this current limitation, the goal of the next-generation DAO framework (with an updated version of the earlier framework) is to focus on strengthening the modularity, flexibility, and scalability of the tool.

In the future, we will see more and more people active in multiple DAOs, using their skills to deal with what they care about. For example, a DeFi protocol strategic technician can use her skills to predict the value of the NFT, the collector portfolio in DAO, and provide funding for introductory creators through DAO. It provides new governance models for the universe, porting its virtual identity and reputation to different applications to demonstrate the value created by users in the entire ecosystem.

Based on the above development background, we have built a META MARS!



02

**Project
introduction**



2. Project introduction

2.1.MARS SMART CHAIN Public chain

MARS SMART CHAIN Public chain as a MARS PRO comprehensive exchange platform public chain, later referred to as MSC chain, MSC chain was born from a deep understanding of the limitations of the existing blockchain technology and thinking about the future needs of the future digital society. MSC aims to build a blockchain infrastructure that can support today's complex applications while anticipating and adapting to tomorrow's challenges. By combining cutting-edge technology and innovative thinking, MSC Chain is committed to providing a fairer, more open and innovative network environment for users around the world.

At that time, the exchange will have a more powerful user base, anti-risk ability and stability. Under the background of huge financing and new narrative, it has been recognized by the market. At the underlying design level, the space can accommodate the future 1 billion users of WEB 3.

MARS SMART CHAIN Public chain is a decentralized proof of equity blockchain, with horizontal scalable throughput and storage, allowing high-speed and low-cost application development. From infrastructure services such as wallets and prophecy to functional applications such as DEFI, NFT and games, MARS SMART CHAIN public chain has gradually developed an ecological landscape with a clear structure, rich categories and continuous evolution.

2. Project introduction

2.2.META MARS Introduction

META MARS is the first application of the MARS SMART CHAIN public chain, and the META MARS application initiation team is one of the main members of the MARS SMART CHAIN Foundation. The community DAO project initiated to rapidly improve the popularity of the public chain is fair, fair and open, and cannot be tampered with.

It aims to get more people on the WEB 3.0 Express train, make digital change life, make blockchain technology better serve a wider range of groups, and accelerate the fourth industrial revolution in human history — Digital economy, big data and blockchain revolution. At present, META MARS has completed \$9.5 million financing, COINBASE VENTURES, HASHED and other world famous crypto financial companies participated.

META MARS We are committed to creating a community effect through the DAO model, bringing common sustainable development to node holders, asset holders, and new blockchain project parties. At the same time, the multiple ecological application scenarios are aggregated, with the Pass function as the core, the economic incentive model is implemented, and CaaS is used as the information integration and interaction bearing mode to drive the maximization of the return value of the participating community.

META MARS Community DAO

DAO is an organizational form derived based on the core ideas of blockchain (the collaborative behavior of co-creation, co-construction, co-governance and sharing spontaneously generated by the group that reaches the same consensus). It is a subsidiary product after blockchain solves the problem of trust between people. DAO is characterized by full openness, autonomous interaction, decentralized control, complex and diverse, and emergence.

META MARS Community DAO is dedicated to bringing together users with a common passion, skills, or values, who are cultural Schelling points (or focus points). Tokens holding a community DAO represent loyalty to the digital tribe, and the attendant status. Some information about holding community tokens on behalf of their online holders. META MARS Members of the community can contribute real value to the ecosystem, providing stronger support for community tokens.

2. Project introduction

2.3.META MARS Form of governance

Under the leadership of DAO, META MARS achieved full decentralization and a high degree of community consensus. META MARS The new decentralized self-governing organization initiated belongs to the category of dedicated DAO, with a strong consensus of the community, and 100% of the community manages itself. Once the project launches, the community will vote to develop their own decentralized application and DAAPP.

META MARS Global community construction follows a high degree of decentralization, through the combination of on-chain and off-chain models. META MARS After all the programs are successful, it can start to operate according to the original rules. In the process of operation, it can also continuously maintain and upgrade according to the actual situation. Through the continuous self-improvement mechanism, it not only eliminates the trust problem, but also realizes an unprecedented level of collective coordination, thus forming the technical basis of META MARS.

Smart contracts enable META MARS rules;

MSC token economic model, let the META MARS benefit distribution has a realistic incentive basis;

Blockchain itself is connecting individuals or organizations around the world, allowing META MARS to expand beyond geographical constraints.

MSCA tokens are used as value circulation proof and incentives, and then smart contracts are used to determine the member collaboration relationship and benefit distribution model. There is no clear identity among members, such as investors, developers, partners, operators, consumers, etc., who all become part of the community because they hold tokens. Members can constantly seek the shortest path through the continuous optimization of the contract structure, and maintain the efficient coordination ability and a better development direction.

MSCA tokens are the core driving force for the ecological governance and development of META MARS. META MARS We hope to stimulate the subjective initiative of the community, mobilize the high-quality community resources in a democratic, collaborative and transparent way, and promote the construction of a decentralized and positively driven DAO autonomy system. At the same time, the META MARS Management Committee was established to be responsible for the promotion of various META MARS affairs.

META MARS Members of the management committee can not only contribute to the development of META MARS, but also gain additional profits through the landing of the proposal. META MARS The Management committee has no hierarchical structure, all members are equal, and the interest objectives are consistent. Only by jointly promoting the value growth of META MARS ecology, can it serve the interests of all members and form a virtuous cycle of META MARS governance ecology.

2. Project introduction

2.4.MSCA Value creation

META MARS As a decentralized autonomous organization, it is a technical tool that writes code and runs on the blockchain. It is also a new type of governance organization that can realize open, fair, no intervention and independent operation, and has no legal entity.

1 Maximize the use of resources

META MARS Store all content in a decentralized storage network, open, transparent and cannot be tampered with. Anyone can review the rule changes of the project, etc., and dispatch resources in time without consuming time due to the review.

2 We will achieve innovative development

People in META MARS can put forward their own opinions on the blockchain at any time and be seen by others. Users can participate in META MARS development matters more conveniently, timely and deeply, and promote the innovation and development of projects.

3 Improve the credibility of the results

META MARS The use of MSC chain using distributed ledger will make every vote of the voter truly and publicly recorded on the blockchain, without manual counting to produce election results, timely and credible.

4 Transparency and easy to access

Transparency is one of the most important components of good governance, because transparency helps to build trust in META MARS. If it loses real transparency to open discussion, voting and funding, the platform could face in oligarchy or systemic fraud. In META MARS's governance, it includes binding and tracking discussion statements to an individual's specific wallet address. In addition, it includes a thorough discussion and communication of all the activities carried out by the META MARS community and its leaders.

As META MARS grows, so will the demand for transparency. In the early days, core META MARS community members could act without excluding anyone, and while the forum was public, not every address can be traced. When the members increase to 50-100, establishing transparent forums and communication channels becomes very important for the development of the project. In addition, one of the biggest advantages in META MARS is the ease of access. Many people don't know how to buy cryptocurrency or set up wallets, let alone browsing governance forums, snapshot voting, and on-chain governance. More importantly, many communities have set up token requirements for creating proposals. In addition, the gas cost of voting on the MSC chain is also very low.

2. Project introduction

5

Continued earnings and value creation

META MARS As a community with the layout of the blockchain track determined to decentralized autonomy for many years, leading the continuous innovation and development of the blockchain industry. The DAO participants will be the owners and managers of the entire META MARS network ecosystem. The DAO will calculate the ownership of the entire DAO based on the participant's ownership of the MSAC token, and then distribute the decision power proportionally. Token ownership is the voting right in the DAO.

META MARS Innovate the deflation mechanism alone. Users participating in the project can continuously and rapidly expand their resources and improve from others, to achieve breakthroughs in all the network economy models in the existing market, everyone is the beginning, and everyone is the source. At the same time, the innovative fission mechanism, according to the mechanism set up, can bring a large number of users and high Token turnover rate, while each user in META MARS can accumulate Token through the platform to gain revenue.

META MARS The management and operation rules are coded on the blockchain in the form of smart contracts. Through the contract consensus, it is fair and just to everyone, and it can quickly become popular and build consensus. All fans can vote on how META MARS works and use community incentives to empower the platform projects.

META MARS Gather all the power of the users, build a cover force mining machine mining, liquidity, pledge lending, DO governance structure, model support token incentive multiple DAPP ecosystem, relying on META MARS this huge ecosystem, community can produce strong economic centripetal force, truly realize the intrinsic value of ecological, for MSCA tokens for comprehensive can assign, power community economic take-off.



03

**Technical
architecture**



3. Technical architecture

3.1. The underlying technical architecture of the system

META MARS With the support of MSC chain technology, the infrastructure has six layers: data layer, network layer, consensus layer, incentive layer, contract layer and application layer.

1) Data layer

Based on the highly redundant storage mechanism of blockchain, blockchain storage has a certain impact on the scalability and performance of blockchain. The META MARS framework has a multi-level node system design, and different storage strategies are selected according to different node applications.

2) Network layer

P2P protocol (P2P Protocol) supports the data transmission and signaling exchange of each node in the blockchain network, which is an important communication guarantee for data distribution or consensus mechanism. The META MARS system design supports the configuration of various P2P protocols, communication mechanism and serialization mechanism, and makes flexible protocol use according to different scenarios. In terms of communication security, it flexibly supports HTTPS, TLS, WSS (SecureWebsockets) and other protocols. In the external service interface of platform application, it can support OAuth authentication integration, and be compatible with EVM protocol to facilitate the development of Depin.

3) Consensus layer

META MARS With the support of MSC chain technology, the consensus algorithm realizes the integration of the advantages of various mechanisms and creates a new consensus system. With rich application scenarios and application versions as the support, the global community has a large user group and a highly unified value consensus on MSCA tokens.

4) Motivation layer

META MARS There are not only air drops for creation consensus rewards, but also liquidity mining pool for long-term network value maintenance. Because of its unique consensus mechanism, performance is not affected by the number of nodes, there is no upper limit on the consensus node of META MARS and occurs dynamically, and anyone can join the consensus at any time to earn rewards.

3. Technical architecture

5) Contract layer

META MARS Conduct a complete and controllable process management of the submission, deployment, use and cancellation of smart contract, and integrate the authority management mechanism to carry out comprehensive security management of various mechanisms of smart contract operation.

6) Application layer

The MSC chain application layer provides universal transaction protocol, supports multi-language integration and function expansion, with support for Java, JavaScript, Python and other multi-languages, and has been fully applicable to META MARS network expansion.

3.2. Cross-chain communication

Blockchain is a decentralized database, which means it is not kept in a single location or managed by a single entity, but rather a public chain of public transaction records that anyone can participate in. Each "block" in the blockchain contains a list of transactions, and each new block is connected to the previous block, thus forming a "chain".

Cross-chain communication plays a huge role in this context, providing a "universal language" that various blockchains can be understood, enabling them to share data and communicate with each other. To support these interactions, cross-chain communication systems employ different techniques, such as relay, hash locking, and atomic exchange, etc. The flow of transactions across the entire system between the main chain, the data side chain (DSC), and the computing side chain (CSC), let us examine the communication protocol at a high level.

3.3. Consensus Agreement

Since the spatiotemporal proof evolved from many of its ancestors, we will start with the data holding proof (Provable DataPossession, PDP) and then move to the spatiotemporal proof.

3. Technical architecture

3.4. Distributed storage

News reports of data breaches over the past few years have shown us that the frequency of such breaches has increased by as much as 10 times between 2005 and 2017. The process of distributed storage protecting data makes data leakage more complex than the current methods used in data centers, and the concept of decentralized storage network (DSN) is introduced into the MSC platform. Data network aggregate storage served by multiple independent storage providers and self-coordinates to provide data storage and data retrieval to clients. Based on blockchain technology, all data is sliced before being sent to the tenant of the hard drive space (or user), and each slice is sent to a separate node. Even if someone has the key, it's hard to find all the pieces. Redundant fragments are created by a process called Reed-Solomon erasure coding, and even if several fragments disappear, new fragments can still be retrieved and redistributed. Storj Trying to ensure data security, even if many nodes are threatened. Assuming sooner or later, the developers are now holding the system around. This also allows the MSC chain to have users at least 10 times faster than normal speeds.

3.5. System performance

META MARS The underlying system supports dynamic adjustment of network topology to realize dynamic join and active exit of nodes. At the same time, users can also choose the non-Byzantine consensus protocol with better performance according to their own needs to improve the operation efficiency of the entire blockchain. In order to cope with diversified business scenarios, meet the needs of information security, and improve business throughput, the META MARS underlying system supports a multi-chain architecture. Unrelated businesses run on multiple parallel blockchains, which provides META MARS with linear expansion capabilities to the business. For the interoperable META MARS between multiple chains, we adopt the mode of relay chain for the submission of proposals by participating in the relay chain nodes, and the results are confirmed after consensus.

META MARS Adopt micro-service processing architecture, support horizontal scaling, dynamic capacity expansion, and realize massive transaction processing and data storage. Through testing and analysis, it is found that the password module and contract module have performance bottlenecks when the system handles massive transactions. In order to reduce the impact of this problem, the password module and contract module are separated into separate stateless micro services, so as to target the horizontal expansion of password and contract micro services when processing massive transactions.

With the increase of the processing data, the performance of K-V database will gradually decrease, and the trend is more obvious. In order to solve this problem, the K-V memory module in the consensus node is abstracted into a microservice, and the synchronization function of storing dynamic routing and new node data based on the consistency HASH algorithm is realized in the API gateway.

Adopt flexible data storage structure, support the separation of cold, hot and cold data;
Support dynamic joining and exit of nodes to achieve high availability of the system and ensure uninterrupted business operation.



04

MSCA

economic model



4. MSCA, the economic model

4.1. The Release of the MSCA

The MSCA is a network currency based on peer-to-peer technology, the MSCA currency: an exclusive economic token for the META MARS community. It helps users make instant payments to anyone in the world. MSCA is an upgraded version of Litecoin, inspired by Bitcoin, and has the same technical implementation principle. The creation and transfer of MSCA is based on an open source encryption protocol and is not managed by any central organization. At the same time, MSCA has the asset standard support, and it is a blockchain + securities model, which is equivalent to STO.

Circulation 84 million, the currency only rose before the exchange.

No appointment, the whole network fair distribution.

The technical operation team and the foundation total account for only 15%.

All open and fair into the market through the classic matrix model, and there is no other purchase low price channel.

objective

It aims to build an ecosystem based on blockchain technology to provide users with safe, efficient and convenient digital asset services.

Through innovative token models and reward mechanisms, we will attract global crypto users to participate and jointly build an ecosystem.

In the ecosystem, the efficient circulation and value transfer of digital assets will be realized, and the application and development of blockchain technology will be promoted.

4. MSCA, the economic model

4.2.MSCA Value circulation

The circulation value of MSCA is reflected in the following aspects:

organism's habits circulate

On the basis of the MSC chain, many physical applications will be derived. It can realize the exchange with all digital currencies mainly from BTC, ETH, USDT, EOS, etc., and support the circulation and payment of all links in the ecology, such as receipt and payment, transfer, fiat currency trading, coin charging, coin withdrawal, coin voting, STO gateway, crowdfunding, financial management, public welfare, games, mall and other transactions, as well as legal currency settlement with various countries around the world. In addition to the circulation of MSCA ecology, it will also be circulated within third-party applications developed based on public chain technology and will exist as the sole value token. This will accelerate the circulation of MSCA digital assets, add more circulation value attributes to the scarce MSCA, and increase the overall value and price.

consume pay

Ordinary consumers can use MSCA for consumer shopping, including online shopping and offline physical store shopping. It can also be used as a basic means of transnational payment. Thus to bring more tangible benefits to oneself. When MSCA is integrated with the global mainstream e-commerce platforms, consumers can enjoy the wider range of global commodity shopping convenience brought by MSCA. In the future, it will support stablecoin or local fiat services on digital currency ATMs.

trade financing

Establish alliances among suppliers, purchasing suppliers, banks and other trade financing participants, and record the qualification of trade subjects, multi-frequency transaction information and commodity circulation information through blockchain, so that the trading parties and banks can share authentic and credible information in an open, transparent and safe way. For large enterprises in the supply chain, banks can enrich the financing risk control model, reduce the workload of offline manual collection and confirmation of the authenticity of information, and carry out financing services under the movable property evaluation. For the upstream and downstream small and medium-sized enterprises in the supply chain with financing difficulties, the credit endorsement can be obtained based on the subject qualification certification provided by the blockchain and the multi-frequency transaction information certification with large enterprises, so as to alleviate the financing difficulties. MSCA can serve as the main digital currency of trade financing to realize barrier-free exchange with the global mainstream fiat currency, and realize a more convenient trade financing function.

Generality

MSCA can adapt to diversified business needs and meet data sharing in the business chain across enterprises, which means that MSCA has enough general and standard standards for data recording, can represent a variety of structured and unstructured information, and can meet the cross-chain requirements as the scope of business expands. This provides a value basis for the versatility of MSCA's digital assets. MSCA digital assets can be more easily circulated in various industries and scenarios around the world.



05

**Team and
governance**



5. Team and governance

Currently, META MARS has about 200 members, has many years of experience in technology development, and has an authoritative influence in the development of the underlying blockchain technology, distributed in Singapore and the United States.

Founder BAEK TOM, focusing on distributed ledger research, is an early team member of ETH, on July 20, ETC was born, working with Jeffrey Wilcke and promoting the application development of ETC. Later, he worked in blockchain in Singapore. In August 2020, he participated in MARS SMART CHAIN, research and development, and started META MARS project research and development in 10,2023.

In order to ensure the openness and transparency of the MSCA eco-coin project, the DBS VICKERS Foundation establishes the highest decision-making body, the — decision-making committee, and the decision-makers are elected by the voting mechanism of community personnel.

5.1. Core team

Algernon

From Johns Hopkins University with a master's degree in economics. Algernon Is a successful leader who has served in multiple executive positions at JPMorgan Chase. The financial derivatives he conceived are popular with investors, and he strongly advocates and appropriate blockchain solutions. With over 20 years of extensive experience. His and his team include META MRAS sustainability, ecological building, derivatives and strategic planning for the company. He has achieved well-recognized excellence in handling complex operational issues, developing and implementing sustainable improvements in operational costs and supply chain flexibility.

Cleveland

Responsible for venture capital investment and new business investment. He graduated from the University of Michigan Law School with a Juris Doctor and a BA in finance from the Goizueta Business School of Emory University. Prior to joining META MARS, Benedict was Skadden Arps. Currently involved in the design of more than 100 digital currencies and discovering several security vulnerabilities, it is a trusted member of the digital currency community. And is involved in the development of multiple cryptocurrency projects.

Gordon

Responsible for the daily functions of the financial accounting and reporting aspects. With degrees from New York University and Pace University. SS & C Technologies, Lightfoot Capital Partners and Ernst & Young, LLP.

5. Team and governance

5.2. Community governance

Community system is a decentralized governance mechanism based on META MARS blockchain technology, aiming to realize META MARS community members to participate in ecological construction and development, and jointly promote the innovation and application of META MAR.

1. Governance of the token holders

META MARS The project will adopt the token holder governance model, in which users of MSCA tokens will have the right to participate in community governance decisions. Token holders can vote to decide on important matters, such as the selection of ecological partners, the adjustment of the token economy, the planning of the technology roadmap, etc.

2. Multi-stakeholder participation

In addition to token holders, the META MARS community will also invite developers, partners, investors and other parties to participate in community governance. These stakeholders can influence community decision-making and promote ecological co-construction and development by submitting proposals, participating in discussions and voting.

3. Decentralized Autonomous Organization (DAO)

META MARS The community will establish a decentralized autonomous organization (DAO), as the core body of community governance. The DAO will be automatically executed by smart contracts, ensuring the fairness and transparency of community governance. DAO will be responsible for reviewing and executing community governance decisions as well as managing and allocating resources and funding to the community.

4. Proposals and voting mechanisms

META MARS The community will establish a proposal and voting mechanism that allows community members to submit proposals and vote. Proposals can involve technology development, ecological cooperation, marketing, etc. Any community member can initiate a proposal and invite other members to discuss and vote. Voting results will be calculated based on the weight of the token holders to ensure that the decision results are representative.

5. Community contribution reward mechanism

META MARS The community will establish a contribution incentive mechanism to encourage users to actively participate in community governance and ecological co-construction. Users can receive rewards by participating in discussions, submitting proposals, and contributing codes, such as MSCA tokens, physical prizes, or other forms of rewards. This will help to increase the activity and participation in the community and promote a virtuous cycle and development of the community.



06

**Development
roadmap**



6. Development roadmap





07 Risk Warning



7. Risk warning

Systemic risk: refers to the possible changes in earnings due to global common factors, which affect the returns of all securities in the same way. In the market risk, if the overall value of the digital asset market is overvalued, then the investment risk will increase, and participants may expect the Token public offering project to grow too high, but these high expectations may not be met. At the same time, systemic risk also includes a number of force majeure factors, including but not limited to natural disasters, global computer network failures, and political unrest.

Regulatory shortage risk: digital assets, including MSCA, trading has a certain uncertainty, due to the digital asset trading is still lack of strong regulation, so part of the tokens have plunged, by the banker manipulation, and so on and so forth, individual participants into the market if the lack of experience, may be difficult to resist the market instability brought by the asset impact and psychological pressure. Although academic experts and official media have sometimes given suggestions for prudent participation, there are no written regulatory methods and provisions, so it is difficult to effectively avoid such risks at present. **Regulatory risks:** It is undeniable that for the foreseeable future, there will be regulations around the world

The bundle regulates the blockchain and tokens. If the regulatory body regulates the field, the tokens purchased during the Token public offering period may be affected, including but not limited to price and resale volatility or restrictions.

Within-team risk: META MARS The team brings together a team of talents with both vitality and strength, attracting senior practitioners and experienced technology developers in the blockchain field. As a leading role in the blockchain technology field, the stability and cohesion within the team are crucial to the overall development of MEAT MARS. In the future development, the possibility that the whole project will be negatively affected due to the departure of core personnel and the conflict of the team.

Technical risk of the project: firstly, the project is constructed based on cryptography algorithm, and the rapid development of cryptography is bound to bring potential risk of being cracked; secondly, the blockchain, distributed ledger, decentralization, and tampering and other technologies support the core business development, the MSC team cannot fully guarantee the implementation of the technology; again, during the process of project update and adjustment, loopholes may be found through the patch release, but the impact of the vulnerability cannot be guaranteed.

Hacking and criminal risk: In terms of security, the amount of a single supporter is small, but the total number is large, which also puts forward high requirements for the security of the project. Electronic tokens are characterized by anonymity and difficult traceability, which are easy to be used by criminals, or attacked by hackers, or may involve illegal asset transfer and other criminal acts.

Other unknown risks: As blockchain technology and the overall situation of the industry continue to evolve, META MARS may face some unanticipated risks. Participants are requested to fully understand the team background, know the overall project framework and ideas, adjust the vision reasonably, and participate rationally before making the participation decision.



08

Disclaimer



8. Disclaimer

This document is only for information purposes and the content is for reference only and does not constitute any investment advice, solicitation or solicitation in META MARS. The contents of this document shall not be construed as forced participation in Token public offering. No action related to this white paper shall be deemed a participate in the Token public offering, including requests to obtain a copy of this white paper or share this white paper to others.

Participation in the Token public offering means that the participants have reached the age standard, have full civil capacity, and the contract signed with MSCA is true and effective. All the participants signed the contract voluntarily and had a clear and necessary understanding of the MSCA before signing the contract.

META MARS The team will continue to try to ensure that the information in this white paper is true and accurate. During the development process, the platform may be updated, including but not limited to the platform mechanism, tokens and their mechanisms, and token allocation. Some parts of the document may be adjusted in the new version of the white paper as the project progresses, and the team will make the update public by publishing an announcement or the new white paper on the website. Participants are requested to obtain the latest version of the white paper and adjust their decisions according to the updated content. META MARS It is clear that the participants are not liable for any losses due to (a) reliance on the content of this document, (b) inaccuracies of the information presented in this paper, and any actions resulting from this article. The team will spare no effort to achieve the goals mentioned in the document, but based on the presence of force majeure, the team cannot fully commit itself.

As the official token of META MARS, MSCA is an important tool for platform efficiency, not an investment product. Having the MSCA does not mean granting the ownership, control and decision-making rights to the platform, but may have the voting rights and voting rights of the MSCA in the future development. MSCA as a cryptographic token used in the META MARS ecosystem.

Whether the value added of MSCA depends on the market rules and the demand after the application. Its future value lies in the joint efforts of all participants. The team does not commit to the value added and is not responsible for the consequences caused by the increase or decrease of the value. To the maximum extent permitted by applicable law, the team shall not be liable for damages and risks arising from its participation in the Token public offering, including but not limited to direct or indirect personal damage, loss of business profits, loss of business information or any other economic loss.

META MARS Abide by any regulatory regulations conducive to the healthy development of the industry and industry self-discipline statements, etc. Participants' participation means that the representative will fully accept and comply with such examinations. At the same time, all the information used to complete such examinations must be complete and accurate. The platform clearly conveys the possible risks to the participants. Once the participants participate in the public offering of Token, they will confirm the understanding and approval of the provisions in the detailed rules, and accept the potential risks of the platform with their own consequences.