Ethereum X White Paper

E T X

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Contents

1、Background

Centralized society has greatly promoted the rapid development of human civilization for thousands of years, but with the progress of human beings, the economy has developed day by day, and class conflicts caused by the gap between the rich and the poor have intensified, thereby limiting the human group's The increase in overall productivity directly affected the further development of civilization. The main reason is the lack of transparency in a centralized society, and the lack of trust leads to a lack of consensus.

The emergence of the blockchain has allowed us to find a way to solve the problem. The consensus system generates passive trust through technical means and forms an immutable consensus mechanism, thus achieving the highest level of trust so far. With this new technology, it is realized that most of the current social conflicts are caused by centralization. Blockchain perfectly solves this global crisis of trust, and cryptocurrencies have found a way out for our asset security.

1.1 Market

Blockchain technology is the core technology that has the most potential to trigger the fifth wave of disruptive revolution after steam engine, electricity, information and Internet technology. The concept of cryptocurrency Bitcoin was originally proposed by Satoshi Nakamoto in 2009. It is an electronic cash system implemented through peer-to-peer technology. The core of Bitcoin is embodied in the underlying blockchain technology. The blockchain can establish decentralized trust from the technical level, which has a disruptive effect on the institutional foundation of existing financial systems and the relationship between participants. With the gradual acceptance of bitcoin and the exploration and practice of global geeks, the cryptocurrency industry is booming.

1.2 Mining

Mining is a process that increases the supply of bitcoin . Mining also protects the security of the bitcoin system, prevents fraudulent transactions, and avoids "double payment". "Dual payment" refers to spending the same bitcoin multiple times. Miners provide computing power to the Bitcoin network in exchange for the opportunity to receive Bitcoin rewards. In a simple understanding, the process of mining is actually the process of issuing coins by banks. In addition to issuing coins, miners also undertake the work of packing transaction accounting.

Miners verify each new transaction and record them in the general ledger. Every 10 minutes, a new block is "mined". Each block contains all transactions that have occurred from the previous block to the current period. These transactions are added to the blockchain in turn. We refer

to the transactions contained in the block and added to the blockchain as "confirmation" transactions. After the transaction is "confirmed", the new owner can spend the bitcoin he obtained in the transaction.
Miners receive two types of rewards during the mining process: new coin rewards for creating new blocks, and transaction fees for transactions contained in the blocks. In order to get these rewards, miners scramble to complete a mathematical puzzle based on a cryptographic hash algorithm. The answers to these puzzles are included in the new block. As a proof of the miner's computational workload, it is called a "proof of work". The algorithm's competition mechanism and the winner's right to record transactions on the blockchain are the cornerstones of Bitcoin security.

Simple understanding: Bitcoin is a bank in the blockchain world, and miners are the staff of Bitcoin Bank. During the mining process, the miner completed all the work of Bitcoin bank minting (issuing bitcoin) and bookkeeping (packaging transactions). . When someone works, someone needs to pay for it. Block rewards and transaction fees cover the entire cost of the miner's work. The mining model ensures the safe, decentralized, automatic operation of the Bitcoin system.

1.3 Evolution of mining computing power
At the beginning of mining, bitcoin can be mined with ordinary computers. As the price of bitcoin exceeded $ 1,000 at the end of 2013, more people joined the mining industry, and the difficulty became more and more high. Mining personnel and large mining equipment rooms are called mines. In this era of large-scale mining, it is far from the scale of hundreds of mining machines, but the machine room of thousands of mining machines, a 24-hour full-time maintenance staff, and a professional mine with air-cooled, water-cooled, constant temperature and humidity to ensure that the machine continues Operation, so currently Bitcoin mining has entered the era of large-scale mines.

1.4 Mining Market
Initially Bitcoin used CPU mining. In January 2009, Bitcoin's founder "Satoshi Nakamoto" used his computer CPU to mine the first founding block. As the price of Bitcoin rises and mining participants increase, GPU mining begins to prevail, and CPU mining exits the stage of history. In early 2013, the first FPGA mining machine appeared on the market, replacing the original GPU mining. In July of the same year, ASIC mining machines appeared, with chips ranging from 110nm to 55nm, from 55nm to 28nm, from 28nm to the current 16nm, and have been developed step by step until now. The emergence of professional Bitcoin mining machines has made Bitcoin mining a capital in the hands of a few competition.

2、Market pain points

Computing power monopoly: In order to resist the excessive concentration of computing power, people are constantly trying to change new algorithms. It is hoped that the algorithm can resist ASIC attacks and maintain a relatively low mining cost, which is often very effective in the early stage. However, once the market value of this new type of cryptocurrency reaches a certain level, driven by the benefits, ASIC developers will still find ways to crack these new algorithms, and the interests of ordinary miners will be greatly lost.

Miners have no right to speak: The essence of decentralization is that everyone can participate. Anyone has the right to participate in the ecological construction of cryptocurrencies, and each miner has certain rights to ecological construction. However, the emergence of computing power monopoly has caused more and more miners to lose their original rights. It is difficult for ordinary miners to obtain large computing power, higher mining costs, difficult to obtain profits, and difficult to participate in the ecological construction of digital currencies.

Unconsciously hitting the price of the market: A chain based on the POW consensus requires a large amount of power to maintain its security. When the market is in a downturn, power is the fundamental component of the cost of POW, far exceeding the resource consumption caused by the hardware itself. Miners have to sell coins to pay. Electricity fees, mining and selling have become a way many miners have to choose, which makes it difficult for cryptocurrencies to be held for a long time. As everyone knows, this kind of behavior is actually an unconscious smashing. Miners cannot establish interest consistency and identity, but instead form a malicious competition that ultimately harms the miners' own interests.

2.1 Mining threshold is too high

Individual investors involved in the mining industry do not have any bargaining power in all aspects of production factors (mining machines + electricity costs + maintenance costs + site), and retail investors are basically unable to participate in low-cost mining. Secondly, the speculative nature of the cryptocurrency trading market itself determines the sharp fluctuations in its own prices. Even when the overall market price rises, it is often impossible to obtain high and stable returns. With the skyrocketing currency prices, the output of mining machines cannot meet market demand, and mining machine orders cannot be delivered on time, which will cause certain economic losses to users.

2.2 The speculative nature of cryptopcurrencies

Due to the T + 0 withdrawal in the cryptocurrency market, there are no

restrictions on the increase or decrease, high liquidity, and large coverage, which are not only suitable for speculation, but also have large fluctuations . And retail transactions often follow the distribution rule of "one gain, two draws, and seven losses". Most people will quit midway due to fluctuations in the price of currency, and they will not be able to maximize their benefits. As well as the irreversible historical process of assets going online, long-term currency holding is the best choice.

2.3 Obstacles to mining exit

The mining industry's computing power and time mean all the revenue. Naturally, there is no delisting when the revenue is high, and the period of low revenue. When miners need to realize mining equipment such as mining machines, they are often unable to trade due to the confusion of the second-hand mining machine market. A suitable price often cannot be withdrawn in a timely manner, and the mining capital will also depreciate accordingly. The relatively heavy asset operation attribute of mining determines that it cannot be immediately circulated, resulting in the inability to guarantee the profit when selling the mining machine.

3、Opportunities and Challenges

The rapid development of the Internet has made the flow of information uncommon, which has promoted the development of human society, but from another perspective, the privacy problem has become more serious because of the rapid development of the Internet. Blockchain, as the next generation of value Internet, was once considered a good tool for protecting privacy, but they quickly discovered that in the current major blockchain network, digital wallet address and its owner Corresponding to personal information, all account information and transaction information of the owner of the wallet will be fully visible and cannot be eliminated in the entire network, which will cause a more serious problem than the privacy leakage of the Internet. Therefore, blockchain is both an opportunity and a challenge for users.

3.1 Opportunities of digital economy

The birth of blockchain technology, with BTC representing the first layer of "money value" with the introduction of mining mechanisms, and ETH changing the cryptocurrency production method as the introduction of the second layer of "application value" with smart contracts, represented by EOS Introduce the third layer of "community value" of node voting; ETP as the representative to introduce the fourth layer of "cross-chain value transfer" in parallel with double chains;ETX as the representative to introduce the fifth layer of "consensus value network" of the smart contract consensus network Are trying to build a brand new digital economy in different fields. When economic development encounters a growth

bottleneck, it is imperative to find new growth points. In the face of increasingly complex market changes and higher consumer demand, the way out is bound to be changes in new technologies. The current change is only to find new technological breakthroughs, starting from the real demands of consumers, and using new technologies and new models to rediscover the value of people and goods. ETX is enabled by blockchain technology, and it is possible to build a smart contract consensus network to solve the rediscovery of people and goods.

3.2 Opportunities after the disappearance of Internet traffic dividends
With the rapid development of e-commerce for more than a decade, the Internet traffic dividend has gradually disappeared, and online customer acquisition costs have become higher and higher, and e-commerce companies have begun to gradually shift from online to offline for retail O2O attempts. Under the retail O2O model, consumers can browse product information online and pay for purchases and experience products and services offline. In 2016, the integration of online and offline has gone further, and new retail models such as unmanned stores have begun a new round of reform.

The essence of Internet traffic is human traffic. Whoever has a larger traffic entrance has the opportunity to monopolize wealth. The development of the Internet has proved that wealth is converging to some giants, causing the gap between the rich and the poor to widen. A possibility is happening in the digital economy. From human traffic to data traffic, whoever masters the data stream is likely to seize new wealth, and the degree of monopoly of this wealth will be more than everyone imagines, the speed Faster, the gap between the rich and the poor is greater, and mankind is facing unprecedented huge threats and challenges. ETX is conducting this great experiment, which is to make data no longer monopolized by a small number of people or institutions, resulting in greater wealth exploitation and redistribution of wealth.

3.3 Solution to imperfect integrity mechanism
Due to the liquidity and fictitiousness of e-commerce transactions, both parties in the transaction cannot confirm the identity information of the other party during the entire process of searching for trading objects, consulting and negotiating, and then making online payments, and the buyer cannot understand the product's identity when purchasing the product. The real situation can only be judged based on the image information provided by the seller. It cannot make the two parties in the transaction trust each other in a short time, which seriously affects the security and reliability of the transaction.

The imperfect integrity mechanism has hindered the development of e-commerce, especially the development of cross-border e-commerce. ETX uses a complete user privacy protection and identity authentication mechanism, and is based on a low-cost, high-efficiency PoW + DPoS consensus algorithm, and customized smart contracts to quickly establish a decentralization, resource sharing, and self-development for authentication entities and applications of different identities. Smart contract consensus network. As long as all the contributions made by the user's authentication entity network will reward you with equivalent value, the data is on-chain, truthful, open, and transparent, so as to establish a new network of integrity mechanisms that will benefit everyone for life. Start with a smart contract consensus network.

3.4 Challenges to user data security risks

Nowadays, mobile payment is ubiquitous and has become the norm of daily life. However, in the era of big data, personal privacy is everywhere. Everyone is exposed to the supervision of big data systems almost transparently. As long as you search in a big data system, you will find all kinds of information, materials and data about a person. The information and data that can be found is extremely comprehensive, and it can be said to be more comprehensive than the personal data held by the government system. And some large databases will realize data sharing. Once these data are leaked, the harm is beyond your imagination. The problem of data security has become one of the most urgent problems.

4、Core technology and principle mechanism of blockchain

The core of blockchain technology is that all currently participating nodes jointly maintain transactions and databases. It makes transactions based on cryptographic principles rather than trust, enabling any two parties to reach an agreement to conduct payment transactions directly without the participation of a third party.

Technically speaking, a block is a data structure that records transactions and reflects the flow of funds for a transaction. The blocks of the transactions that have been concluded in the system are connected together to form a main chain, and all nodes participating in the calculation record the main chain or a part of the main chain. A block contains the following three parts: transaction information, a hash hash formed by the previous block, and a random number. Transaction information is the task data carried by the block, including the private keys of both parties to the transaction, the number of transactions, digital signatures of electronic money, etc.; the hash hash formed by the previous block is used to connect the blocks to achieve the past The order of the transactions; the random number is the core of the transaction. All miner

nodes compete to calculate the answer of the random number. The node that gets the fastest answer generates a new block and broadcasts it to all nodes for update, thus completing a transaction.

4.1 What is blockchain

Blockchain is an organic combination of a series of existing mature technologies. It uses a chain or directed acyclic graph data storage structure, supporting consensus algorithms, P2P distributed interconnection technology, game theory design ideas, and The combination of cryptography technology is called blockchain technology.

In a typical blockchain system, data is generated and stored in blocks (blocks), and connected in chronological order to form a chain data structure. All nodes jointly participate in the data verification, storage and maintenance of the blockchain system. The creation of a new block usually requires the confirmation of the majority of the entire network (the number depends on different consensus mechanisms), and broadcasts to each node to achieve synchronization across the network. It cannot be changed or deleted afterwards. Although the blockchain technology originates from Bitcoin, the underlying technology used in Bitcoin technology cannot be directly equated with blockchain technology.

4.2 Core technology of blockchain

Public ledger: The ledger recorded by the blockchain system should be in a state where all participants are allowed to access. In order to verify the validity of the information recorded by the blockchain, the ledger must be able to access the information content and ledger history. However, the public ledger refers to the publicity of accessibility, and does not represent the disclosure of the information itself. Therefore, the industry expects to apply many privacy protection technologies, such as zero-knowledge proof, homomorphic encryption, and threshold encryption, to the blockchain. Domain to solve the problem of verifying the validity of information through ciphertext operations.

Multi-party consensus: As a distributed ledger system where multiple parties participate in maintenance, participants need to agree on rules for data verification, writing, and conflict resolution. This is called a consensus algorithm. Bitcoin and Ethereum as public chains currently use Proof-of-Work (PoW), and consensus algorithms applied in the field of alliance chains should be more flexible and diverse, closer to the business needs themselves.

Weak centralization: The blockchain should be a system that does not rely on a single trust center. When processing data that involves only closed

systems within the chain, the blockchain itself can create trust among participants. However, in some cases, such as identity management, external data will inevitably be introduced, and these data require the trust endorsement of trusted third parties. At this time, for different types of data, the trust should come from different trust Third parties, rather than relying on a single trust center. In this case, the blockchain itself does not create trust, but acts as a carrier of trust.

Information cannot be tampered with: The important information recorded in the blockchain system is covered by the digest algorithm. The longer the chain is, the more times the information is confirmed, and all nodes participating in accounting will store a copy of the data. The tampering of data by a small number of nodes is not recognized and cannot affect the overall operation of the system.

Smart contracts: The internal information of the blockchain system cannot be tampered with and all participating nodes store copies of ledger data, which provides a platform for the implementation of smart contracts. Smart contracts are a powerful weapon for blockchain technology to reduce trust costs and subvert third-party intermediaries. They are also tools for enterprises to use blockchain, achieve value transfer and efficient collaboration, and they are also the ultimate value of blockchain technology for social governance.

Cryptography: Information security and cryptography technology are the cornerstones of the entire information technology. In the blockchain, the technical achievements of modern information security and cryptography are also widely used, mainly including: hash algorithms, symmetric encryption, asymmetric encryption, digital signatures, digital certificates, homomorphic encryption, zero-knowledge proof, etc.

4.3 Consensus mechanism

The consensus mechanism is a mechanism that maintains the operating order and fairness of the system. It determines that the blocks in the blockchain system are accurately added to the chain to ensure the entire network consistency of the entire block content. Because in the blockchain world, there is no centralized bookkeeping institution like a bank, which guarantees the consistency of each transaction on all bookkeeping nodes, that is, to allow the entire network to reach consensus, and the consensus mechanism solves this problem.

At present, the main consensus mechanisms are the proof-of-work mechanism PoW, the proof-of-stake mechanism PoS, and the Delegated-Proof-Of-Stake mechanism DPOS. According to the size of the rights of the nodes in the

digital asset system network, the consensus protocols can be divided into permissionless and permissioned protocols. In the non-authorized protocols, all nodes in Pow have the same rights. Different authorization levels, more typical are PoS and DPoS

4.3.1 PoW

PoW workload proof is a consensus mechanism used in the Bitcoin system. The legitimacy of Bitcoin transactions is verified by the entire network. Only when most participants agree on a transaction, the transaction is considered valid. However, under this mechanism, the problem of fake identity is prominent, that is, the adversary may launch an attack, the transaction initiator can forge multiple identities, and then confirm his own transaction. Since "most people" agree with the transaction, Even with double payments, the recipient will believe and accept the transaction.

Before confirming the transaction, participants need to do some work to prove their real physical identity. This work is to solve a cryptographic problem and artificially increase the computational cost of confirming the transaction. Therefore, the ability to verify transactions depends on the computing power, not the number of physical identities. New transactions are constantly generated in the Bitcoin system. Nodes need to put legal transactions into a block. The block header is hashed by the version number and the previous block. The value, Merkle root, timestamp, difficulty goal, and random number are composed of six parts. Participants need to find a random number to make the block header hash value less than or equal to the difficulty goal. The SHA-256 hash algorithm is used in the Bitcoin protocol. Unless the algorithm is breached, the most effective method is to try different random numbers until the goal is met.

Solving the proof-of-work problem requires computing power, which is actually spending money. In order to encourage nodes to participate together to maintain network security, the Bitcoin protocol provides an incentive mechanism to give the first node to solve a mathematical problem a reward, including mining Mine rewards and transaction fees. The first transaction in a Bitcoin block is called a coinbase transaction, in which the system sends a certain amount of bitcoin to a miner account that solves the proof-of-work problem.

The mining reward is initially set to 50 Bitcoins, and the reward is halved every 210,000 blocks (that is, nearly four years). It is expected that Bitcoin mining will be almost completed around 2140. The subsequent maintenance of network security depends on transaction fees. The mined Bitcoin circulates in the system. The incentive mechanism is both a means of currency issuance and the system's network security. The main chain

in the Bitcoin system is defined as the blockchain that has accumulated the most difficulty.

In general, it is also the chain that contains the most blocks. When two blocks are mined in a short interval, the main chain will fork. At this time, the system will keep the branch. At some point one of them is extended and exceeds the main chain in the difficulty value, then subsequent blocks will reference them.

The proof-of-work mechanism guarantees the safe operation of the Bitcoin system from four aspects: money supply, preventing from double payments, adopting incentive measures to ensure security, and reaching agreement on transactions within a limited time, and provides a solution to the Byzantine general problem.

4.3.2 PoS

The security of the Bitcoin network is ensured by physical scarce resources, including the physical hardware and power that perform hash operations. In order to increase mining rewards, miners have to participate in the competitive arms competition for mining, so from an energy perspective Judging from the proof of work, it is an ecologically unfriendly consensus mechanism, which has also led to a consensus mechanism with less energy consumption-the emergence of a proof of stake, which is the PoS. Currently, Peercoin and Nextcoin And some other cryptocurrencies use this consensus mechanism, and its starting point is to solve the energy waste problem of proof of work. Proof of equity is based on the concept of currency-age, which is defined as the product of the quantity of money and the time the currency is held.

The concept behind the proof of equity is that the blockchain should be protected by those who have economic rights in it. PoS mining was first implemented in the peer-to-peer currency released by the anonymous developer SunnyKing in 2012. There is a transaction called coinstake in the peer-to-peer block, named similar to the coinbase transaction in the Bitcoin block. In the coinstake transaction, The currency owners are required to send the currency they hold to themselves (to ensure that the currency-age will return to zero after the equity block is generated), which is used to generate a bitcoin block and get part of the interest, and the price of getting the interest coin is the consumption of the currency-age.

Similar to the bitcoin system, the peercoin block also requires participants to find random numbers to make the block header hash value meet the target difficulty. The difference is that each participant in

the peercoin system has a different target value for the difficulty. Different, the difficulty goal is inversely proportional to the coin age consumed in coinstake transactions. The more coin ages participants have accumulated, the greater the chance of generating blocks.

The concept of currency-age in PoS can be thought of as the computing power in PoW. If someone holds a large amount of money for a long time, he will have an opportunity to use a powerful ASIC miner in the next mining, but this opportunity does not depend on the purchase of hardware facilities and electricity The consumption depends on the user's deposit in the system and the saving time. Unlike the nature of the competition in PoW mining, PoS is more like a lottery. The more accumulated coins are, the more chance there is to win. After being consumed, the probability of winning again is reduced, which avoids the situation that "the rich get richer".

In PoS, the main chain is defined as the chain that consumes the highest coin age, and the transaction of each block will submit the coin age it consumes to the block to increase the block score. In this case, if the attacker wants to launch an attack on the main chain, he must have a large amount of money and accumulate enough coins to age. The cost of the attacker to obtain a large amount of money in the PoS system seems to be It is more expensive than mastering most of the computing power in the bitcoin system, and once an attack is performed, a large amount of currency owned by itself will be damaged while destroying the currency system. This may reduce the attacker ' s motivation from the beginning. The coin age is immediately cleared after the block is generated, which also guarantees that the attacker cannot carry out continuous attacks.

After the emergence of PoS, some new protocols born by modifying one of the shortcomings are called PoS derivatives, such as PoSV and PoA. PoSV improves on the problem that the currency-age in PoS is a linear function of time, and is committed to eliminating the phenomenon of currency holding by currency holders. PoSV stands for Proof of Rights and Frequency of Activities. It is the consensus mechanism currently used by Reddcoin. Reddcoin uses POW to distribute coins in the early stage and uses PoSV to maintain long-term network security.

PoSV modifies the linear function of currency-age and time in PoS to an exponential decay function, that is, the growth rate of currency-age gradually decreases with time and finally reaches zero, so the currency-age of new coins grows faster than old coins until it reaches Limit. This has alleviated the phenomenon of currency holders' currency.

PoA stands for Proof of Action and is an improved solution for POS. Its essence is to maintain system security by rewarding highly engaged currency holders rather than punishing passive participants. PoA combines PoW and PoS. The main idea is to distribute a portion of the coins generated by PoW mining to all active nodes in a lottery, and the equity owned by the node is directly proportional to the number of lottery tickets, which is the probability of drawing.

4.3.3 DPoS

In order to further speed up the transaction speed and solve the security problem that the nodes in PoS can also accumulate coin age, Daniel Larimer proposed DPoS in April 2014. DPoS is a derivative of PoS, which means a share authorization certification mechanism. Shareholders grant rights to a certain number of delegates, who are responsible for maintaining the operation of the currency system. This is similar to the representative system in a way, but Members of parliament in reality are different. Voters have the right to re-election based on the performance of the trustees after a period of time. If they are not satisfied with their performance, they can also ask to be removed from the trustees. DPoS is currently a consensus mechanism built into BitShares and Crypti platforms.

In DPoS, shareholders vote for a certain trustee, and the system calculates a certain number of trustees with the highest number of votes based on the shareholding of shareholders in the system. The trustees are responsible for generating blocks in turn in accordance with a predetermined sequence, and all shareholders vote Later, the trust in the system has been concentrated by all participants to a small number of participants. After the node initiates the transaction, there is no need to wait for the confirmation of a considerable number of untrusted nodes, and only the trustee is required to verify the transaction, which greatly shortens the transaction Confirmation time, for example, bitcoin can reach a block generation speed of 10 seconds per block, compared with the average bitcoin generation time of nearly 10 minutes per bitcoin, a significant improvement.

In some DPoS protocol versions, a node must first pay a certain price in order to obtain the qualification to compete as a trustee. For example, a node must pay a security deposit to a secure account. Block transaction fees will be shared with other trustees, and rewards will form a positive feedback on them to motivate trustees to work harder to maintain system security. As the trustees take turns to sign the block, if a trustee misses the signing block by offline, he will face the risk of being replaced by other candidate trustees. In order to make a profit, the trustee must ensure sufficient online time and need to pay a deposit This kind of DPoS

protocol is also called Deposit-based Proof of Stake.

5、 Ethereum X

ETX (Ethereum X) is a virtual cryptocurrency mining project established to verify the new economic model of Ethereum.

5.1 Ethereum X introduction

Ethereum X (ETX) is a blockchain smart contract consensus network graphics card mining public chain oriented to authenticate the identity of the entity; it adopts a new blockchain architecture and is positioned as an easy-to-use high-performance blockchain platform , Designed to achieve the performance expansion of distributed applications to meet real-world real business needs. With a complete user privacy protection and identity authentication mechanism, and based on low-cost and efficient PoW + DPoS consensus algorithms, and customized smart contracts, a decentralized, resource sharing, and self-development can be quickly established for authentication entities and applications of different identities Smart ecological network. Relying on graphics cards and digital assets as a means of circulation, a benign circular economy model that returns to the real world and promotes the development of the real economy through scene applications.

As long as all contributions made through your certified entity network will reward you with equivalent value, the data is on-chain, authentic, open, transparent, and searchable; this blockchain is a brand-new system in design . The realized high speed, stability, security and ease of use make distributed application development based on blockchain technology more innovative and more efficient. The system platform also provides a wealth of modular applications and free plug-ins, which can directly implement various functional requirements of enterprises and developers . Simple installation and easy operation enable enterprises to implement system development, operations, transactions, and customer acquisition at low cost.

The ETX ecological network has the following three important characteristics:

Instant confirmation:

If a transaction is executed in accordance with the agreement of the smart contract, the transaction will be confirmed immediately.

Operation confirm:

Before the user confirms the transaction, the transaction price and liquidity are clear, and the transaction risk is low.

Establishment of various TOKEN circulation pools:

ETX Eco welcomes TOKEN holders to contribute TOKEN to the TOKEN circulation pool. The design principle of the ETX ecological network is

to allow cooperative institutions and developers to integrate the ETX ecological network into their systems, and to facilitate the conversion of tokens by all enterprises and individuals in the ETX ecosystem through the ETX ecological public funds circulation pool.

The platform uses the underlying architecture of a hybrid blockchain, and a professional team is responsible for building, testing, and maintaining the source code of the underlying architecture. The ETX ecosystem cannot control the wallet account of any user at any time, and all operations and transactions can be queried on the block. Therefore, even if the platform is hacked, their funds will not be affected.

Third-party developers can implement transactions and information in their own systems by calling the ETX ecological network's smart contract interface through the open API interface of the ETX ecological network. Compared with the common off-chain protocol interfaces and hybrid interfaces currently on the market, the on-chain protocol interface will make the connection of data and information more efficient. At the same time, the entire docking link does not require the participation and endorsement of trust by third-party organizations, which improves the efficiency of the entire access process and simplifies the docking process.

5.2 Technology Architecture
Distributed network: ETX payment system uses a distributed network architecture. The network is built on the Akka concurrency framework based on the Actor model.

Actors interact by sending messages to each other. The thread that executes the task is not passed to the receiver through the message. An Actor entity can continue to run other tasks without being blocked after sending the message. The Actor model can do more work in the same time. Actors process messages in a sequential manner, one message at a time, and the sender and receiver of the message can operate independently without mutual interference. This way of running avoids multiple threads concurrently destroying object encapsulation in traditional multi-threaded programming.

Actor model features:
(1) Decoupling the execution program by signaling, thus maintaining the object's encapsulation.
(2) The internal state of the Actor can only be changed by passing messages, and only one message will be processed at a time, which eliminates the problems caused by thread contention in traditional programming.

(3) The sender of the message will not be blocked. Millions of Actors can be efficiently scheduled on multiple threads. This fully exploits the potential of modern CPUs. Task delegation via messages is a common mode of operation of the Actor model.

Network nodes: The ETX system uses a peer-to-peer (P2P) network structure. There are two types of nodes in the network, namely ordinary nodes and accounting nodes. Ordinary nodes can broadcast, receive and forward transactions, synchronize blocks, etc., while accounting nodes participate in distributed consensus and create blocks. The bookkeeping node is the core role of the blockchain, saving complete historical data and listening to broadcast transactions. The accounting nodes in the ETX system are distributed on many mining pool nodes with super computing power around the world.

5.3 Construction of ecological network

The ETX system is aimed at industrial pain points. Based on the blockchain public chain technology, it provides innovative solutions for enterprises and application developers. It can build and develop system applications to serve the real economy. Consistent with national policies in terms of combining industry, talent training, system open source, and industrial blockchain incubation accelerators, it enables relevant teams to use public chain systems more conveniently, at a lower cost, and to freely choose modular application software platforms. We will be committed to creating a public chain ecology and fully supporting the industry's on-chain demand through talents, funds, and communities.

ETX is committed to accelerating the implementation of blockchain applications and promoting the high-quality development of traditional industries. In the application field, the ETX public chain will combine high-tech science and technology such as artificial intelligence, big data, virtual reality, robots, the Internet of Things, cloud services, etc. in smart manufacturing, health care, transportation, intellectual property protection, new energy vehicles, organic Agriculture, distributed energy, food, commerce, finance and other industries promote landing applications, provide solid blockchain infrastructure for more application scenarios, support enterprises on-chain, achieve deep integration of blockchain technology and industry, and improve industry The synergy efficiency of the chain reduces the cost of industrial operations.

ETX adopts a new type of blockchain system architecture and is positioned as an easy-to-use high-performance blockchain platform. It aims to achieve the performance expansion of distributed applications to meet the

real needs of the real world.
The high cost of R & D and application of enterprises is one of the pain points that restricts the construction and industrial application of blockchains, especially public blockchains.

The ETX public chain provides stable and efficient infrastructure, standardized and modular application plug-ins, and full-process technology and model consulting, so that the team can develop applications and DApps based on the ETX ecological network, including: multi-currency decentralized wallets, decentralized Exchanges, decentralized peer-to-peer trading systems, etc.

Smart contracts: The smart contract concept was first proposed by Nick Szabo in 1994. A smart contract is a computer protocol designed to propagate, verify, or execute a contract in an informational manner. Smart contracts allow trusted transactions to be made without third parties, which are traceable and irreversible. ETX has an independent smart contract system: RRB. It is a micro-core smart contract execution environment and provides a set of instruction sets including stack operations, flow control, logical operations, arithmetic operations, cryptographic operations, string operations, and array operations. However, because it allows the implementers of the blockchain to create their own virtual hardware and open it to smart contracts in the form of interfaces, the contract can obtain platform-related data, persistent storage, and access to the Internet at runtime. Although this may also make the behavior of the contract uncertain, blockchain implementers can eliminate this uncertainty by properly writing virtual hardware.

5.4 Technical route

- Realize digital storage of commodity assets through blockchain technology, and construct a complete shopping and consumption scenario through blockchain technology, forming commodity digital asset authentication and physical user identity authentication;
- Use blockchain technology to confirm the truth, confidence, price, and power in the commodity process;
- The public chain supports lightning payment technology to achieve payment in seconds;
- Cross-chain payment technology to achieve free exchange and trading of multiple digital asset tokens;
- Slicing and layering technology perfectly solve the security and efficiency problems of large data volumes in the processing and computing process;
- Customized smart contract technology, which can be customized according to the individual needs of the consensus algorithm for the

consensus algorithm in different DAPP application scenarios;

- The ring signature algorithm solves the complete hidden dangers of the data, and realizes that user authentication related data can be queried and tracked, making each transaction open and transparent;
- Two-way anonymous stealth mirror identity authentication technology, implements two-way full anonymous bookkeeping on the blockchain for each entity's authenticated identity participating in data transactions, completely protecting the privacy of both parties to the transaction;
- The algorithm of community eco-economic model realizes a benign circular economy model algorithm that relies on equity assets and digital assets as a means of circulation, and finally returns to the real world and promotes the development of the real economy through scenario applications;
- Community node voting system, which allows the entire community to vote nodes to reach consensus, and unified use of decentralized universal tools to complete community autonomy and healthy development.

5.5 Technical advantages

- Unique hybrid anonymous technology to achieve anonymized Ethereum 2.0, unique;
- Both the main chain and the side chain support smart contracts to meet various application landings;
- The world's first POW + DPOS dual certification parallel mechanism, taking into account both security and efficiency;
- Api low threshold operation, rapid deployment on the chain;
- DPOS node ranking mechanism, competition creates value

5.6 PoW+DPoS consensus mechanism

In order to reduce the pressure on the main chain, ETX uses a hierarchical structure of main chain + side chain. The main chain is only responsible for the circulation of ETX. DAPP runs on the side chain and completes the secure transfer of value between the main chain and the side chain through the side chain transfer mechanism of ETX. The ETX public chain uses a joint arbitrator's signature mechanism to ensure the security of transfers with the side chain. The holders of the main chain jointly elect a certain number of "arbitrators". The arbitrator is responsible for the token transaction between the side chain and the main chain. By signing, most arbitrators can unlock transactions on the main chain that are transferred from the account representing the sidechain to the ordinary account.

ETX's side chain can use any consensus mechanism. At present, the ETX team has developed a PoW consensus-based side chain that can access the main

chain to complete DPoS-based recharge and withdrawal operations. This PoW-based side chain can rely on the computing power of the main chain to ensure its own security. The right to use the computing power of the main chain is handed over to the "arbitrators" elected based on the DPoS consensus, and each arbitrator takes turns to perform PoW-based sidechains. Packaging out of blocks.

PoW-based sidechain: ETX provides a PoW-based sidechain implementation, making it easy to build a sidechain to develop DAPP applications. This PoW-based side chain uses the joint mining method with the ETX main chain to obtain computing power. The current rotating arbiter of the main chain acts as a miner to package the side chain transactions to generate mining transactions on the main chain. According to the principle of joint mining, the hash power proof is transmitted to the side chain. Any full node of the side chain can verify the validity of the block according to this hash power proof.

All arbitrators of the main chain in an arbitrator election cycle will take turns to perform the corresponding duties as "side-chain block-turning arbitrators", which includes the responsibility of producing blocks for the side-chain. The rotation action is triggered by the side chain to produce blocks. Each arbitrator turns to one side chain to produce blocks. The order is determined by the results of the previous round of voting statistics. The block generation behavior is finally reflected in the mining transactions published on the main chain. Each main chain node will agree on whether the mining transaction is legal. One of the main verifications is to see if the signer who issued the mining transaction is currently The "side chain block arbitrator" who has the right to block out this side chain.

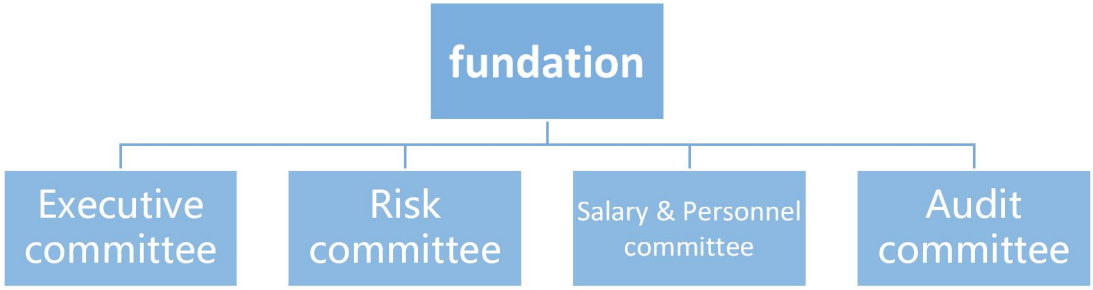
The blockchain revenue of the side chain is still allocated to the miners. The miners here are the arbiters currently initiating the "mining transaction" on the main chain. Of course, this mining transaction also has to pay the miner fee on the main chain. It is paid to the miners who really pay the computing power. In the sidechain joint mining model, the security of the sidechain depends on the election trust of the main chain and the computing power provided by the joint mining to complete the trust transfer from the main chain to the side chain.

The side chain uses PoW's consensus strategy, which is simple and reliable, and the transaction history will not be tampered with because some parties in the side chain are evil. The side chain can also mine independently, but it has to compete with the main chain for joint mining. Therefore, in the case of following the PoW rules, the main chain will provide

sufficient security for the side chain.

DPoS-based side chain: ETX also has a DPoS consensus-based side chain. The agent in the DPOS consensus on the side chain is the arbiter of the main chain, which is still equivalent to ensuring the security of the side chain through the main chain, but only reduces During the mining process, faster block production speed will be obtained. Each node of the side chain can obtain the voting information of the main chain to the arbitrator through the main chain connected, so as to reach a consensus on the legality of the arbitrator.

5.7 ETX Global Ecological Fund



The ETX Global Ecological Fund takes global ecological investment as the core and manages financial assets in the blockchain field. It is mainly engaged in the ecological construction and ecological investment of the ETX global system as the core in the blockchain field, and issues management fund financial products and community information. , Blockchain IPO, equity investment, and token economic research. The ETX Global Blockchain Ecological Fund looks at the development of global industries, focuses on high-return cash flow investment projects, and steadily promotes the application of ETX in the multi-dimensional strategic layout of exchanges, wallets, colleges, mines, and industrial technology parks. , Is the "mother fund" that lays out the entire industrial chain of the upstream, downstream, and downstream of the blockchain.

6、 Coin issuance

6.1 EThereumX Coin, referred to as ETX, is a native token on the ETX blockchain

6.2 Access:

(1) Obtaining ETX through other people's donation and exchange through

other people or international digital asset exchanges;
(2) The promotion reward is obtained through obtaining ETX when the team is promoting the project;
(3) Obtained by mining machine mining, and obtain ETX through environmentally friendly mining in mining machines;
(4) Obtained by building nodes, obtain ETX by building physical nodes and pledge a certain amount of ETX
6.3：ETX Coin Block rules
Max Supply: 99,999,999 ETX
Pre-mining: 0 ETX

Year	Day-blocks	Coins in 1 block	Day-coins	Year-coins
1	5760	10	57600	21024000
2	5760	5	28800	10512000
3	5760	5	28800	10512000
4	5760	2.5	14400	5256000
5	5760	2.5	14400	5256000
6	5760	1.25	7200	2628000
7	5760	1.25	7200	2628000
8	5760	0.75	4320	1576800
9	5760	0.75	4320	1576800

Anyone can build a node,Node requires a minimum pledge of 10000 ETX.The top 99 with the highest number of pledge enjoy the block reward. The block reward depends on the proportion of the node's pledge to the total number of 99 nodes' pledge. The first 9 nodes with the largest collateral are super nodes and have access management rights to other nodes.
Note: If the number of nodes does not reach 99, the existing nodes will be distributed equally.
6.4：ETX Coin Distribution rules
In order to promote the ecological operation of ETX, the total supply of ETX is 99,999,999, and it will never be issued again, and the number of blocks produced each year will decrease.
The specific allocation rules are as follows:
Miners-50%
Node-40%
Fundation-10%
For example, in the first year of the mainnet, 10 coins per block:
There are 5 to Miners,
There are 4 to Nodes, and the node's allocation authority enters the node's fund pool and is allocated once a day.
1 to Fundation, entered into the fundation account, and allocated by the

community governance committee for the construction of community use.

6.5 Node allocation

(1) The nodes are divided into mini nodes, large nodes, and super nodes.

(2) All nodes need to pass more than 50% of the votes of the Community Governance Committee to take effect.

(3) Mini nodes: Directly built using source code, mainly used for exchange communication.

(4)Mortgage 10,000 coins to create large nodes, and the top 99 holding nodes can enjoy DPoS revenue.

Node rights and obligations:

(1) Review and admit new nodes to enter

(2) Review distribution methods

(3) Adjust the block rules

(4) Fund allocation

6.6 Governance mechanism

In the blockchain ETX ecosystem, all contributions will receive ETX incentives, and at the same time,
all the use of resources requires consumption of ETX. ETX incentives are allocated by the consensus mechanism based on contribution weights, while consumption of ETX is measured by the specific use of resources.

ETX is a standard for measuring value transfer, and it is also the foundation asset of many assets built on the ETX ecosystem. ETX should incentivize ecological miners and contributors to better labor and innovation, so that those who have lost their labor and innovation ability can also be guaranteed to survive.

6.7 Locking mechanism

ETX does not have any locking mechanism. All token allocations are performed automatically by smart contracts without human intervention. Mining rewards are automatically distributed through the smart contract consensus network.

7、 Ecological construction

ETX is a technology infrastructure for smart economy, which provides strong technical support for the development of decentralized applications, and will eventually develop into an ETX ecosystem. The global ETX community and continuous talent training are important foundations for achieving the ETX ecosystem.

7.1 Chain delegation and chain settlement

The trust mechanism is an important part of the underlying technology of the blockchain. ETX uses this as the cornerstone in the process of

digitizing value assets to build the entire ETX ecosystem. Equity custody (chain custody), which uses qualified third-party institutions to custody equity assets and writes all data to the blockchain. Equity settlement (chain settlement), using qualified third-party institutions to settle equity assets and all data written into the blockchain.

7.2 Cross-chain payment and circulation
ETX (including pre-sale, consumer terminals, trading platforms, etc.) obtained by users from any channel can be freely traded in the ETX ecosystem, and seamlessly cross-chain with other digital assets to achieve free payment and circulation.

7.3 ETX pool
The ETX mining pool is a multi-currency mining pool based on the PoW + DPoS consensus mechanism. It supports the mining of ETX public chain computing power. The ETX ecosystem has mining of a multi-purpose main chain, and further unlocks the value of computing power through technology, bringing higher returns to customers. In other words, this computing power can be used to do other things. Second, the ETX mining pool provides a one-stop node mining service for the mining pool for the main chain of ETX relying on the PoW + DPoS consensus mechanism. The election of ETX mining pool seed nodes is the first step in mining ETX mining pool nodes. Next, the ETX mining pool will launch more node mining services under the PoW + DPoS consensus mechanism. At that time, miners can participate in mining and obtain mining rewards only by way of proxy voting.

7.4 Incentives
Traditional peer-to-peer communication networks focus on information transmission. Similar to applications in the Internet 1.0 era, cutting is public and shared, and it has not reached the vibration effect achieved by blockchain technology. An effective consensus mechanism will cooperatively participate in the operation of scattered nodes (limited to peer-to-peer consensus), and more importantly, because the behaviors of cutting and cutting are driven by the economic logic behind it, in the absence of effective economic norms Human behavior under the trend can only be constrained by social norms, which is not binding on individuals for some targets that need to be completed together.

The Bitcoin network uses the PoW (Proof-of-Work) consensus mechanism, and uses the contribution algorithm to obtain bookkeeping rights to obtain Bitcoin rewards to encourage nodes to participate in consensus. This is undoubtedly a remarkable design. We believe that the Token economic model is a district. The core of blockchain value is not too much.
Ethereum is based on the same underlying consensus mechanism, allowing

smart contract developers to issue their own tokens and use ETH as the GAS fee to pay for the consensus cost.This not only unified the unit of measurement of the consensus cost, but also allowed the same consensus cost. It can obtain different value output according to the ecology used by Token, and users are rarely able to calculate the optimal balance between investment and return. Many people now criticize that ERC20 tokens issued on Ethereum are too easy to cause. Mixed beads, but few people realize the importance of Ethereum in this design.

From the perspective of the ETX state, the value of all services has a source. Because the nature of the blockchain platform is
There is a fair market for value circulation, so the underlying cost of all economic assumptions lies in transaction costs. ETX is the carrier of transaction costs. At this level, ETX coins will be used for the following incentives:

- Accounting rewards;
- Contribute rewards;
- DPOS node sharing rewards
- Other roles include operation incentives of algorithm providers (through the release of smart contracts / Dapps);
- ETX developers will receive ETX rewards for the actual generated value of their development applications. This kind of reward is often used to actually subsidize their consensus accounting or calculate the cost of payment expenses;

Node mining revenue

The operation of the ETX ecosystem is inseparable from the support of each node for the network. In a completely decentralized ETX network, the ETX system hopes to create more nodes to maintain the stable operation of the ETX network.

ETX nodes are full nodes that provide continuous services for the entire network. 5000 ETX needs to be entered into the ETX address of the binding node as a deposit to participate in the construction of the mining node in order to participate in the node's 40% mining revenue. The deposit can be kept in a local offline wallet, thus completely ensuring the security of the funds.
Both ordinary addresses and multi-signature addresses can be used. When a node is activated, it can provide a variety of data services to the network, and in the process get a rich return.

The increase in the number of nodes will generate a huge deposit, effectively balancing the liquidity of ETX in the trading market, and giving ETX support for continuous appreciation.

8、 Application scenario

8.1 ETX in Digital Asset Bank

The application of digital asset bank will be divided into three main sections to expand the ecology

(1) Wallet

(2) Financial ecology

(3) Application scenarios

Wallet: The wallet embodies storage, convenient transfer, the first receipt, currency flash, and the wallet will also introduce wealth management and mortgage lending;

Financial ecology: The mature template in the traditional financial market has been moved to the blockchain world a little bit. In this digital asset bank, it will involve quantitative transactions, non-performing asset disposal, instalment, and public gathering (mergers and acquisitions or asset reorganization of listed companies). , Wealth management (short, medium and long-term currency value management), loans (ETX cryptocurrency lending, consumer loans), payments (convenient payment receipts, credit card repayments, digital bank cards), insurance. It is used to build financial data on-chain, risk control model on-chain, ecological internal credit reporting on-chain, and financial asset on-chain systems.

8.2 ETX in media

(1) In the media platform, through the sign-in, like, share articles, invite friends, purchase and other methods, you can get candy as a reward from various cooperation ecosystems such as trading platforms and digital asset banks;

(2) ETX global ecology has its own candy and candy system, all candy can be converted into ETX coins according to a certain market value;

(3) When the project party or individual publishes a promotion in the media, they need to pay ETX currency as the settlement fee;

(4) The media plan launches the shared area chain, and all partners pay the fee in ETX currency;

(5) The media sends free newsletters to trading platforms and digital asset bank partners every month;

(6) Red envelope mining mode can get more ETX coins or other benefits.

8.3 ETX in mining machines, mines and mining pools

(1) Mining financial products are settled using ETX;

(2) ETX settlement for cloud computing power rental;

(3) Mine leases are settled using ETX.

8.4 ETX in the digital economy

With the powerful SDK of ETX and its DPOS mechanism, anyone can develop

digital products on the ETX network, such as
(1) Online collaborative office carrier
(2) Online data collection statistics
(3) Online streaming

8.5 ETX in digital mall
(1) The data chain in the mall obtains funds through traceability and enhances the brand.
(2) Build a fissionable, customized, and personalized industrial mall cluster based on the core tools in public chain smart contracts. Promote online and offline integration, promote multi-domain collaboration, improve service experience, realize the integration of physical industry and blockchain technology, and form an interconnected, interoperable, and mutually-promoting ecosystem.

8.6 ETX in finance
(1) Funding for financing value mortgage assets
(2) DEX applications, we think that decentralized exchanges have great potential, and we expect to gradually establish DEX to achieve cross-chain atomic exchange after the mainnet is improved.
(3) DEF (Decentralized Futures). The financial world of the blockchain cannot be decoupled from traditional finance. After completing the DEX test, we will seek to cooperate with traditional financiers to develop ETF-based DEF
(4) Atomic swaps. Atomic swaps can be performed in two different ways: on-chain and off-chain. On-chain atomic swaps will be supported in EthereumX's blockchain online network. On the other hand, off-chain atomic exchange occurs off-chain. This type of atomic exchange is usually based on two-way payment channels, similar to the channel payment used in the Lightning Network.
(5) Technically speaking, most decentralized transaction systems are completed by smart contracts based on multi-signature and hash time lock contracts (HTLC).

8.7 ETX in Enterprise chain reform
Chain reform and issuance of alliances
(1) Retain high-end talent
(2) Relieve corporate pressure
(3) Improve production efficiency
(4) Redistribute benefits
Application scenarios include e-commerce, Internet celebrities, industry, industry finance, and games.
8.8 ETX in National Government Affairs
Blockchain technology provides the possibility of data exchange and

information sharing across regions, departments, and levels. Its technical characteristics are conducive to establishing trust and consensus among government departments, while ensuring data security and promoting cross-border sharing of government data. . This distributed data structure allows all departments to participate in "accounting" and the data is open and transparent. All data exchanges are traceable and the fault tolerance rate of data exchange is high. This is the key to establishing and maintaining government departments. Inter-trust and consensus provide the technical conditions. Even government departments with very small levels and scales can participate in data sharing through blockchain technology.

For example, if COVID-19 (New Crown Virus) broke out at the end of 2019, if the real-time node data sharing and efficient transmission of ETX are used, it may be possible to avoid the further expansion of the immune situation.

9、 Team

Steller: Graduated from Wuhan University with a master's degree, majoring in control theory and control engineering. He has worked in world-class software technology development companies such as Motorola and Alibaba. He has rich experience in system software development and Internet thinking. He is convinced that technology changes the world. Technology Create the future; have been paying attention to the development of cryptocurrency and blockchain for many years, and actively participate in it. At the same time, they have more than three years of experience in the development and architecture design of the underlying blockchain. We firmly believe that blockchain technology will further improve social collaboration. The efficiency will bring huge benefits to the general public.

Jessica: American Chinese, graduated from the Department of Computer Science, Boston Wesleyan College, early American Internet geek, architect of the bottom layer of business social networking sites, several "invention of underlying technology protocols", and sponsorship of blockchain geek organizations.

Patlne: One of the earliest Bitcoin practitioners in the UK, participated in and initiated the operation of more than ten mines, mainly in Iceland. In 2017, Ritlly began to deploy mines in China. There are already many mines in China. An expert in computing power automation and maintenance software development and an expert in the entire industry chain of the mining industry.

Gzzarison: Icelander, good at cloud computing, big data, software-defined

storage. He has worked for Morgan, the chief software architect of the Royal Bank of England financial industry, and executives of multiple cloud computing companies. He has been engaged in computer and blockchain work for a long time. R & D.

10、 Risk Warning and Disclaimer

10.1 Risk Warning

Systemic risk: refers to the possible changes in returns due to a global common factor, which affects the returns of all securities in the same way. For example, policy risk-digital assets have entered supervision in some countries in the world. If the policy of the judiciary is changed, there is a possibility that participants may lose due to policy reasons. In market risk, if the overall value of the digital asset market is overvalued , Then the investment risk will increase, and participants may expect the project to grow too high, but these high expectations may not be achieved. At the same time, systemic risks also include a series of force majeure factors, including but not limited to natural disasters, large-scale failures of computer networks worldwide, political turmoil, etc.

Risks between teams: There are many teams and projects in the current blockchain technology field, and the competition is fierce. There is strong market competition and project operation pressure. Whether the ETX project can break through in many excellent projects has been widely recognized, not only linked to its own team capabilities, vision planning, etc., but also affected by many competitors and even oligarchs in the market. There is the possibility of facing vicious competition.

Project coordination and marketing risks: The ETX team will spare no effort to achieve the development goals set out in the white paper and extend the project's growth space. At present, ETX has a more mature business model analysis. However, given the unforeseen factors in the overall development trend of the industry, the existing business models and overall planning ideas do not fit well with market demand, resulting in unattainable profits. At the same time, as this white paper may be adjusted as the project details are updated, if the updated details of the project have not been obtained by the participants in a timely manner, or the public is not aware of the latest progress of the project, the participants or the public may make changes to the project due to asymmetric information. Inadequate cognition, which affects the subsequent development of the project.

Technical risk of the project: First, the project is based on cryptographic algorithms. The rapid development of cryptography will

inevitably bring potential risks of being cracked. Second, technical support such as blockchain, distributed ledger, decentralization, and disapproval of tampering With the development of core business, the ETX team cannot fully guarantee the implementation of the technology; once again, during the project update and adjustment process, there may be loopholes that can be discovered through patch releases, but the degree of impact caused by the loopholes cannot be guaranteed.

Hacking and criminal risks: In terms of security, the amount of a single supporter is small, but the total number is large, which also places high requirements on the security of the project. Electronic tokens are anonymous and difficult to trace. They are easily used by criminals, or attacked by hackers, or may involve criminal acts such as illegal asset transfers.

Other unknown risks: With the continuous development of blockchain technology and the overall situation of the industry, ETX may face some unexpected risks. Participants are requested to fully understand the team background, understand the overall framework and ideas of the project, reasonably adjust their vision, and participate rationally before making participation decisions.

10.2 Disclaimer

This white paper's introduction and description of the ETX project is not and cannot be considered as an offer or commitment to invest or cooperate with any particular or unspecified entity, nor is it considered as a project team's commitment or guarantee to the project. The project team reserves all rights to modify, delete, add, abolish, explain, etc. this document.

Those who are interested in participating in, investing in, and cooperating with this project must clearly understand all the risks of this project. Participants should enter into a written cooperation agreement for participation in this project. The cooperation agreement should clearly, completely and clearly specify the cooperation, participation or investment matters. Participants should indicate in writing or verbally that they have fully understood and accepted all the risks that the project has or may have, and assume their corresponding responsibilities.

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elimination of the legal relationship between any project participant and the project team shall be based on the contract concluded in writing. As a digital asset not contained in the project team's server, the ETX referred to in this project has a complete and independent value from the project team. Its value depends entirely on the recognition of the use value and exchange value by market-related entities, and it should not be considered It is a bond, security, or any form of marketable securities, nor is it an equity, share, ownership, or control of the project team or company.

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